This Integrated Report 2020 summarizes Nippon Steel’s value creation process, current business situation, risks and opportunities, and strategy. In addition to updating changes since the 2019 version, we have prepared this report from the following two perspectives:

1. The entire Integrated Report (IR) is constituted along the lines of the value creation process model of the International IR Framework, developed by the International Integrated Reporting Council (IIRC). The overall composition of the report can be seen in “The value creation process and Nippon Steel’s strengths” on pages 13 and 14.

2. Concerning the Environmental and Social aspects of ESG (Environmental, Social, Governance), this Integrated Report takes up materiality and relevance to factors of the value creation process while details on initiatives are written in the Nippon Steel Sustainability Report 2020.

We sincerely hope that this Integrated Report helps stakeholders better understand Nippon Steel. Your comments and feedback are welcome as we intend to continue improving the Integrated Report.

Period covered: Fiscal 2019 (April 1, 2019 – March 31, 2020)

Organizations covered: Nippon Steel Corporation and Nippon Steel Group companies (526 companies as of March 31, 2020 comprised of 408 consolidated subsidiaries and 118 equity-method affiliates)

Publication date: October 2020

Reference for guidelines:
- The International Integrated Reporting Council (IIRC) International Integrated Reporting Framework
- The Guidance for Collaborative Value Creation (the Ministry of Economy, Trade and Industry)
- Environmental Reporting Guidelines 2018 (the Ministry of the Environment)

In preparing this report, we have referred to the following guidelines and materials in identifying materiality among ESG initiatives:
- Sustainability Reporting Standards (Global Reporting Initiative)
- ISO 26000
- Various ESG ratings and evaluations
Aiming to become the best steelmaker with world-leading capabilities

Aiming at the summit

Representing the unlimited future of steel

The Nippon Steel Group's Corporate Philosophy consists of "Our Values," which are our most precious values representing our raison d'être, and "Management Principles," which put down in writing the attitude and policy we emphasize in realizing Our Values.

Steel is one of the most familiar materials of which things are made and is indispensable for our daily life. Because of its diverse properties, such as strength and easiness to work with, steel has been chosen as the most superb material for creating social infrastructure. Steel is for here for all of us now and will be with us in the future. We have been leading the world as a steelmaker for many decades, and have supported growth and development of society, by providing this indispensable basic material for all industries and infrastructure building.

Along with global population growth and associated economic growth, the world's crude steel production is expected to continue increasing. At the same time, significant long-term structural changes in society and industries are certain to increase demand for steel to provide more advanced performance. This includes advanced functions as material as well as considerations to the environment and society.

We are pledged to maximize the potential of steel and enhance its competitiveness as a material. On this basis we intend to deploy our accumulated technology and integrated power, by means such as in combining steel with other materials in new ways, and develop and provide total solutions, which incorporate utilization and processing technology in addition to supply of materials. By doing so, we are determined to contribute to a sustainable development of society – a commitment of us, engaged in steelmaking.

Corporate Philosophy

Our Values

Nippon Steel Corporation Group will pursue world-leading technologies and manufacturing capabilities, and contribute to society by providing excellent products and services.

Management Principles

1. We continue to emphasize the importance of integrity and reliability in our actions.
2. We provide products and services that benefit society, and grow in partnership with our customers.
3. We pursue world-leading technologies and manufacturing capabilities.
4. We continually anticipate and address future changes, innovate from within, and pursue unending progress.
5. We develop and bring out the best in our people to make our Group rich with energy and enthusiasm.

The Nippon Steel Group's Corporate Philosophy consists of "Our Values," which are our most precious values representing our raison d'être, and "Management Principles," which put down in writing the attitude and policy we emphasize in realizing Our Values.

Steel is one of the most familiar materials of which things are made and is indispensable for our daily life. Because of its diverse properties, such as strength and easiness to work with, steel has been chosen as the most superb material for creating social infrastructure. Steel is for here for all of us now and will be with us in the future. We have been leading the world as a steelmaker for many decades, and have supported growth and development of society, by providing this indispensable basic material for all industries and infrastructure building. Along with global population growth and associated economic growth, the world's crude steel production is expected to continue increasing. At the same time, significant long-term structural changes in society and industries are certain to increase demand for steel to provide more advanced performance. This includes advanced functions as material as well as considerations to the environment and society. We are pledged to maximize the potential of steel and enhance its competitiveness as a material. On this basis we intend to deploy our accumulated technology and integrated power, by means such as in combining steel with other materials in new ways, and develop and provide total solutions, which incorporate utilization and processing technology in addition to supply of materials. By doing so, we are determined to contribute to a sustainable development of society – a commitment of us, engaged in steelmaking.

Our Thoughts Incorporated in the Corporate Logo

Nippon Steel Group's brand mark

As a global steemaker with origins in Japan, Nippon Steel is incorporating a diversity of DNAs of people and companies, and growing into the future. Keeping that determination in mind, we renamed ourselves as "Nippon Steel Corporation" on April 1, 2019. On that occasion, a common brand mark for Nippon Steel and the Nippon Steel Group companies was adopted in order to unify the branding of the entire group.

The triangle in the logo represents a blast furnace and the people who create steel. It reflects the fact that steel, indispensable for civilization, brightens the world. The center point can be viewed as a summit, representing the best steelmaker. It can be also viewed as the destination of a road, representing the unlimited future of steel as a material. The blue color represents leading technology and reliability.
Message from the President

On April 1, 2019, we renamed ourselves as “Nippon Steel Corporation” (from Nippon Steel and Sumitomo Metal Corporation), to keep in pace with our advance as a growing global steelmaker with origins in Japan, and as a company incorporating a diversity of DNAs of people and companies. With the aim of securing a position of the best steelmaker with the world-leading capabilities, using our three key drivers of “technology,” “cost,” and “being global,” we have worked hard: 1) to rebuild our profit base by restoring our “strength in manufacturing*1” and enhancing our “strength in sales and marketing*2”; 2) to expand profit of the overseas business; and 3) to promote business innovation, standardization, and stylework reform. These efforts are, as always, based on all possible measures related to safety, environment, disaster prevention, quality assurance, and compliance.

Our Group’s mainstay steelmaking business is expected to remain subject to an extremely harsh business environment partly due to the COVID-19 crisis, which has further aggravated the unprecedented environment of “higher raw material prices and lower steel product prices.” Despite being in such situation or because of this, we focus on early transition to an optimal production framework in Japan, enhancement of globally-competitive strategic products in terms of quality and quantity, and execution of initiatives to deepen our overseas business in response to the global trend of “local production and local consumption” and “favoring domestic production.” Our intended result is to enhance our profitability. In the post-COVID-19 world, we are determined to restore profitability in the parent steelmaking business whatever the ambient circumstances may be and aim at “becoming the best steelmaker with world-leading capabilities.” We are also tackling measures against climate change by development of innovative technology, thereby contributing to achieving Sustainable Development Goals (SDGs) adopted by the United Nations.

*1: Capability of stable production as claimed in line with demand, with a focus on cost control.
*2: Capability to realize appropriate pricing that matches our product issue and contribution.

The business environment and Nippon Steel’s operating results up to the first half of fiscal 2020

In fiscal 2019 (ended March 31, 2020), the sluggish trend of the world’s manufacturing industry, prompted by the U.S.-China friction since the latter half of fiscal 2018, worsened and we experienced a significant decline in demand from the manufacturing sector – our mainstay customers. At the same time, China boosted infrastructure investment and continued high-level production of blast furnaces, and hence high prices of iron ore and other main raw materials took hold. As a result, we were plunged into the unprecedented environment of “higher raw material prices and lower steel product prices.” Natural disasters and other factors also affected our results. Due to continued loss of the parent company’s steelmaking business and recording of impairment losses, Nippon Steel Group’s earnings deteriorated significantly in fiscal 2019, to record a business loss of ¥284.4 billion and loss attributable to owners of the parent of ¥315.1 billion. As a brighter spot, with regard to restoring of our “strength in manufacturing,” our efforts to enhance line management capability in both operation and maintenance finally achieved some progress, as evidenced by a significant drop in the number of unscheduled operational and equipment events that tended to lead to production cuts, and improvement in variable costs. Moving on to fiscal 2020 (ending March 31, 2021), there were initially good prospects of generating a profit in the parent company’s steelmaking business, driven by improvement in variable costs from stable production, enhanced measures for long-term contractual prices*3, and reduction in fixed costs (including repair costs and capital expenditures) by carrying out stringent selection. However, the COVID-19 outbreak sharply depressed demand for steel products, and output and shipments dropped significantly. As a result, operating results for the first half of fiscal 2020 are projected to be poor with the estimate of ¥50 billion as consolidated business loss.

We are taking appropriate steps concerning the impact of the spread of the COVID-19 infection. Responding to a significant drop in steel demand, we swiftly decided to temporarily stop production in six blast furnaces out of 15 in total and have adjusted manufacturing process operations according to the demand status of each product type with a focus on cost and in line with demand. Foreseeing potentially prolonged implementation of the COVID-19 measures, we are resolute in thoroughly taking infection prevention measures, based on the guidelines of the government, concerned organizations, and other factors, and are promoting on a company-wide basis a new workstyle that could further enhance business efficiency. We are taking appropriate steps concerning the impact of the spread of the COVID-19 infection. Responding to a significant drop in steel demand, we swiftly decided to temporarily stop production in six blast furnaces out of 15 in total and have adjusted manufacturing process operations according to the demand status of each product type with a focus on cost and in line with demand. Foreseeing potentially prolonged implementation of the COVID-19 measures, we are resolute in thoroughly taking infection prevention measures, based on the guidelines of the government, concerned organizations, and other factors, and are promoting on a company-wide basis a new workstyle that could further enhance business efficiency.

The changing environment of the steelmaking business and Nippon Steel’s business strategy

Our projected medium- to long-term environment of the steelmaking business is as follows.

First, we anticipate an accelerating structural change in the steel market. On the demand side, the base demand in Japan may be depressed further, along with declining aging population, while a decline in indirect exports has to be assumed due to reduction in trade flows, driven by the spread of the nation-to-nation confrontation. Overseas steel demand is expected to increase over the long term, thanks to economic growth, associated with population growth. However, demand cannot be expected near term if investment in the energy sector, caused by the current oil price declines, remains depressed and if emerging countries continue to be in difficulties due to spread of COVID-19 and weaker currencies. The COVID-19 outbreak is likely to accelerate the manufacturing industry’s “local production and local consumption” and “favoring domestic production” and to further disrupt the globally-connected market, leading to a harsher environment for exports.

Looking at the competitive landscape, China is the biggest threat in the steel market, as we all know. On the back of swift resumption of post-COVID-19 economic activities, Chinese major steelmakers are expected to expand their relative predominance. Moreover, a decline in domestic demand in China – the world’s largest steel consuming country – and an increase in integrated steel production capacity in China’s coastal regions and ASEAN will intensify competition in the export market.

In sum, the COVID-19 pandemic is accelerating the pre-existing structural changes in the steel market, which makes our steelmaking business exposed to a dire environment. Next I will address the social, industrial structural changes we anticipate. The rapid advance in IT, and automakers’ growing needs for lighter vehicles, emergence of electric vehicles and other vehicles with a new energy source, and autonomous driving and other developments, are likely to lead to advanced demand for performance of materials. In anticipation of competition with other materials, we have to maximize the potential of steel and respond to advanced needs. While initiatives for Sustainable Development Goals (SDGs) adopted by the United Nations are being undertaken, an important mission for the steel industry, in particular, is reduction in greenhouse gas and establishment of a circular economy, as measures against climate change. We need to appropriately address these megatrends of society and industry.
Our business strategy in light of medium- to long-term changes in the steelmaking business environment

How will Nippon Steel restore its profit base and continue sustainable growth in the changing environment of the steelmaking business? Let me explain our policies and strategies.

Concerning the restoring of our “strength in manufacturing” - a source of profit - we seek to make stability of our production completely embodied. Despite the sluggish demand environment, the improvement in long-term contractual prices has progressed, though somewhat less than expected, and we intend to make efforts for further improvement. We will also carry out the dual tactics of selection and concentration and reduce fixed costs (including repair costs and capital expenditures).

1. Early transition to an optimal production framework in Japan and enhancement of competitiveness

The role of the Nippon Steel Group is to accurately respond with superior technology, products, and services to diverse needs and challenges of customers and society, such as for advanced performance of materials in the automotive industry and measures against climate change. Requirements for R&D and production capability have risen compared to the past. For us to prevail in global competition in the future, jointly with our customers, we have to be more sophisticated and improve our strength in development and technology, and raise the ratio of the strategic products, such as high-tensile steel sheets and electrical steel sheets, as well as to be unrivaled by global competitors.

Our sources of strengths in development and technology lie in integrated blast furnace steelmaking. In order to maintain and advance these strengths, maintaining integrated steelworks at a certain level of production in Japan is a must. As mother mills, our domestic steelworks are the bedrock base that supports our global strategy, while securing cost competitiveness and generating profit. We will therefore invest in adopting new, powerful equipment in our major steelworks and increasing supply capacity of advanced strategic products. By concentrating production of high-value-added products, cost will be reduced. Along with execution of this measure, we cannot avoid stringent selection of products and facilities. Implementation of drastic measures, including the production facility structural measures announced in February 2020, is difficult and painstaking but we are determined to move forward certain measures, consider and implement additional ones, and enhance competitiveness of our domestic mother mills.

2. Enhancement of globally-competitive strategic products in terms of quality and quantity

We have expanded solutions concerning material development, utilization of processing technology, and other matters in response to customers’ needs, given that properties required for materials are now more diversified and advanced. We pride ourselves on making steel of superior high-grade steel products and enhancing it, contributing to customers and creation of value in society. These products include: high-tensile steel sheets, which enable energy saving due to their high strength and weight reduction; electrical steel sheets for Eco Cars and high-efficiency transformers; high-corrosion-resistance seamless steel tubes, used in drilling of natural gas and other energy resources; and steel products for the high-pressure hydrogen environment. In case of ultra-high-strength steel sheets and electrical steel sheets, we have decided to build a new manufacturing facility to respond to demand growth from the automotive and electric power sectors and needs for higher-grade products. We thus intend to further enhance manufacturing capacity and product quality. By making use of our world-class scale and world-class technological prowess, we will proactively enhance globally-competitive, unrivaled, strategic products in quality and quantity, maximize marginal profit, and contribute to the creation of a sustainable society.

3. Deepening of overseas business, addressing to local production and local consumption

The global trend of “local production and local consumption” and “favoring domestic production” is expected to get stronger due to travel restrictions and global supply chain disruption, caused by the COVID-19 pandemic. We were ahead of our peers in establishing overseas production and sales bases, as well as a global production and supply framework. Going forward, with a focus on “markets where we see assurance of demand growth potential” and “areas where our technology and product capacity can be used”, we are committed to contributing to development in key countries and regions and to creating corporate value.

4. Innovative technology development as a response to climate change issues

Among the Sustainable Development Goals (SDGs), measures against climate change, such as reduction in greenhouse gas emissions and creation of a circular economy, are also critical challenges for the steel industry. Nippon Steel has been working on CO2 emission reduction through the “Three Ecos” initiatives and “Innovative technology development.” We are also making efforts to recycle 100% of plastic containers and packaging and to help create a circular economy, such as by use of by-product gas generated in steelmaking and reuse of waste water. Toward tackling climate change issues, we are recognized as playing a leading role in 1) formulation of the Japan Iron and Steel Federation’s long-term vision for climate change mitigation, “A challenge towards zero-carbon steel” (including development of hydrogen steelmaking technology, which enables zero CO2 emission at the time of steelmaking); 2) use of the Life Cycle Assessment (LCA)- based environmental impact calculation method of the International Organization for Standardization (ISO) and the Japan Industrial Standards (JIS); and 3) a proposal to promote the “Creation of Sea Forests” and “Blue Carbon” (the carbon captured and sequestered by oceans and coastal ecosystems).

We also signed the statement of support for the Task Force on Climate-related Financial Disclosures (TCFD) and since 2019 we have disclosed the results of scenario analysis concerning the impact of climate changes in our business activities. In June 2020 we stated our agreement with the Challenge Zero declaration, announced by Keidanren, toward realizing a decarbonized society. Through this, we disclosed 10 specific challenges, including “development of hydrogen steelmaking process for zero emission.” Moreover, we have established a cross-divisional committee, which began discussion on subjects such as individual companies’ scenarios for Zero Carbon Steel and R&D and technology adoption related to low CO2 emission technologies. We plan to disclose individual companies’ specific scenarios within the current fiscal year.

Our innovative technology development aims to respond to a future increase in global steel demand and simultaneously resolve climate change issues.

Management reform measures: Revised corporate governance structure and revised organization and business management

For the purpose of appropriately responding to greater fluctuation in the business environment and an acceleration of the speed of change, and of solidly implementing business strategy and sustainably raising corporate value, we are reforming our corporate governance, organization, and business management. Concerning the corporate governance structure required from the viewpoint of corporate governance, we made a transition from a “Company with an Audit & Supervisory Board” to a “Company with an Audit & Supervisor Committee” in June 2020. The objective is to enhance the supervisory function of the Board of Directors over management, and at the same time expedite and increase efficiency in management decision making by delegating part of the decisions regarding execution of important operations to the Representative Director and Chairman, and Representative Director and President.

In line with the revision in corporate governance structure and given the absorption of Nippon Steel Nishin on April 1, 2020, we are in process of enhancing efficiency of the entire corporate organization and businesses, including the integration and reorganization of steelworks into six steelworks and streamlining of divisions and departments. In addition, with the aim at proactively using data and digital technology to strengthen our business competitiveness, a Digital Innovation Division (division to promote Digital Transformation, or DI) has been established. Development of management data is another way to speed up decision making, promote business and production process innovation.

In closing

We declare in our Management Principles that we are dedicated to pursuing world-leading technology and manufacturing capabilities, and to provide products and services that benefit society. This precisely echoes the concept of the Environment, Social, and Governance (ESG). I recognize that ESG initiatives are one of the priority issues and form part of the base that supports the very existence and growth of our company. We intend to steadily promote its execution and follow-up of our materiality in ESG issues, by checking the Key Performance Indicators (KPI) and strive to contribute to sustainable social development, as well as improvement of our corporate value.

I would like to thank all our stakeholders for their continued understanding and support of Nippon Steel Corporation.
Steel is one of the most familiar materials of which things are made and is indispensable for our daily lives. With its diverse properties and infinite potential, steel can be recycled endlessly, contributing to a sustainable society.

### Attractiveness of steel

#### Steel is an abundant, sustainable material that can be reborn endlessly

- **Iron** is believed to constitute one-third of the Earth's weight.
- **Steel** is an affordable material and is cheaper than water in a plastic bottle (in comparing price per unit weight).
- Steel represents 90% or more of metal products, as steel being abundant, cheap, and having good workability, and has a wide range of applications.

#### Diverse properties and a wide range of applications

Due to diverse advantages such as strength and easiness to work, steel has been used in a wide range of applications and deserves recognition as the most outstanding material for the infrastructure of society, a material that supports people’s lives and overall economic development. Steel is close to us and we cannot live without steel products after the end of its product life.

Steel is easily sorted from a mixture with other materials and can be endlessly recycled without causing deterioration in quality - quite a unique characteristic. Steel is a perfect material for recycling as it can be recycled endlessly into all kinds of steel products after the end of its product life.

#### Infinite potential

Steel is a material with great potential due, in part, to its having a much higher theoretical strength than other materials. In addition to adjusting carbon and other content to give a certain steel product specific desired characteristics, steel's properties can be finely controlled to meet function and performance requirements, including requirements that did not exist in the past. We do this by controlling the combination of its temperature and rolling at the manufacturing stage or by adding alloys. Further development in steel and its usage will push the potential horizon further outward.

#### Potential capacity and present application level of material strength

<table>
<thead>
<tr>
<th>Material</th>
<th>Strength (GPa)</th>
<th>Consumptions (% of steel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron and steel</td>
<td>500</td>
<td>45.4</td>
</tr>
<tr>
<td>Aluminum and alloy</td>
<td>100</td>
<td>54.6</td>
</tr>
<tr>
<td>Composite</td>
<td>225</td>
<td>75.0</td>
</tr>
</tbody>
</table>

*Gigapascal (GPa) is a unit to measure tensile strength. Giga denotes a factor of one billion (10^9).*

Steel is an ideal material for the infrastructure of society, a material that supports people's lives and overall economic development. Steel is a sustainable material recycled endlessly into all kinds of steel products.

### Steel – an excellent material from the Life Cycle Assessment (LCA) perspective

#### Environmental impact of a certain material can be high in its entire life cycle, even if its environmental impact is low when used.

**Why the Life Cycle Assessment is important**

The Life Cycle Assessment method (LCA) is a way to evaluate environmental impact of a product over its entire life cycle. While many aspects of environmental impact cannot be seen, the LCA is an attempt to visualize the impact over the life cycle of a product. From the LCA perspective, steel can be regarded as a sustainable material with very low environmental impact relative to other materials.

#### Environmental impact of BF and EAF routes using LCA approach

Focusing on the steelmaking process itself, the blast furnace (BF) route to reduce iron ore to make steel may appear to generate a higher environmental impact than the method that melts steel scrap in an electric arc furnace (EAF) to make steel. However, the BF route creates steel products that generate scrap that, through recycling, has an environmental impact relative to other materials. Recycling effect offsets the CO₂ emissions in the BF process, environmental impacts of the BF and EAF routes in total terms are the same over the life cycle of steel.

This approach is recognized in the ISO 20915 and the JIS Q 20915 and is becoming a global standard.
Nippon Steel’s history of development

Nippon Steel has been growing as a global leading steelmaker for many decades, overcoming changes in the business environment and crises many times through industry consolidation, rationalization efforts, product development, global expansion, and other ways. “We continually anticipate and address future changes, innovate from within, and pursue unending progress,” as defined in our Management Principles. Our aim is to advance toward “the best steelmaker with world-leading capabilities” by incorporating a diversity of DNAs of people and companies and taking up the challenges of making major reforms, which can be described as the second foundation of the company, to achieve further global growth. While providing products and solutions that contribute to world sustainable growth, we strive to enhance corporate value and also contribute to realization of the United Nations’ Sustainable Development Goals (SDGs).

### Japanese and global economy

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>Establishment of Nippon Steel Corporation</td>
</tr>
<tr>
<td>1960</td>
<td>Start of operation in major steelworks</td>
</tr>
<tr>
<td>1970</td>
<td>First and second oil crises</td>
</tr>
<tr>
<td>1980</td>
<td>Plaza Accord</td>
</tr>
<tr>
<td>1990</td>
<td>China’s rapid growth</td>
</tr>
<tr>
<td>2000</td>
<td>Global financial crisis</td>
</tr>
<tr>
<td>2010</td>
<td>COVID-19</td>
</tr>
<tr>
<td>2020</td>
<td>[year]</td>
</tr>
</tbody>
</table>

### Nippon Steel’s responses

- **Management issues**
  - Expansion of integrated seaseal steelworks
  - Promotion of energy efficiency and higher-grade products
  - Business diversification
  - Restructuring and cost reduction
  - Selection and concentration of diversified businesses
  - Pursuit of lean & optimal production framework

### Domestic reorganization

- **Domestic organization**
  - 1961: Niyagawa Works
  - 1965: Kimitu Works
  - 1969: Kashima Works

### Domestic production framework

- **Domestic steel production**
  - 1970: Nippon Steel Corporation was formed.

### Global production framework

- **Global steel production**
  - 1958: Unahouda (Brazil) (Received technical assistance in 2006 became a group company)

### Product technology

- **High-tensile steel sheet for vehicles**
  - Soft steel
  - General high-tensile steel (below 440MPa)
  - High-tensile steel (440-980MPa)
  - Ultra-high-tensile steel (1,370MPa and above, hot stamping)

### Process technology

- **Leading the world in process innovation, energy efficiency, and high-grade steel technology**
  - Switch from open-hearth furnaces to converters
  - Development of larger blast furnaces
  - Progress in using the continuous casting technology
  - Technical assistance to Posco in South Korea
  - Development of the world’s first continuous annealing furnace
  - Development of the next-generation CVC-µ Process for cooling steel plates

### Technology development that supports the “global environmental” era

- **Oil-less operation of all blast furnaces**
- **Developed a Continuous on-Line Control (CLC) Process for cooling steel plates**
- **Developed a waste plastics recycling process using coke ovens**
- **Started use of biomass resources in power stations**
- **Completed construction of the first commercial model of an energy-efficient CO2 separation and recovery facility**
- **Started a blast furnace test of the CO2RED project**
- **Developed the next-generation CVC-µ Process for cooling steel plates**
The Nippon Steel Group creates value by long-term stable provision of diverse products and solutions through its business activities that harmonize with stakeholders and the natural environment in its mother mills in Japan, which are a source of its development and technological prowess, and its overseas manufacturing bases, which support Japanese customers’ overseas expansion and respond to local customer demand. The Group thereby contributes to industrial and social development.

The value creation process and Nippon Steel’s strengths

Corporate Philosophy

Nippon Steel Corporation Group will pursue world-leading technologies and manufacturing capabilities, and contribute to society by providing excellent products and services.

Corporate Governance

In response to the delegation of responsibilities by and trust of all stakeholders, Nippon Steel has established a corporate governance structure appropriate for the Group’s business, for its sound and sustainable growth, and improvement of its corporate value in the mid-to-long term.

Nippon Steel has made a transition to a “Company with an Audit & Supervisory Committee” to enhance the supervisory function and to accelerate decision in making, responding well to greater, more speedy changes in the business environment.

ESG Materiality

<table>
<thead>
<tr>
<th>ESG Materiality</th>
<th>p.15-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Safety, environment, disaster prevention</td>
<td>2 Quality</td>
</tr>
<tr>
<td>4 Securing and fostering personnel</td>
<td>5 Harmony with local communities and society</td>
</tr>
</tbody>
</table>

Global production capacity

- approx. 90 mtns/yr
- approx. ¥2.8 t in book value

Tangible fixed assets

- approx. 57.77 mtns/yr
- approx. 26.24 mtns/yr

Industrial water

- 700 mtn m³/yr

R&D expenses

- approx. ¥77.6 bn/yr

Patents (non-consol.)

- Japan: approx. 800
- Overseas: approx. 21,000

Number of employees (consol.)

- Overseas: 106,599
- (non-consol.): 27,096

Interest-bearing debt

- approx. ¥2.5 tn

Equity attributable to owners of the parent

- approx. ¥2.5 tn
- approx. 0.74 times

Steelmaking Segment

Synergies between the steelmaking and three other segments

Creation of sustainable corporate value

Creation of social value

- Jobs for employees and growth in community
- Safe, reliable living
- Energy conservation, climate action, recycle-oriented society
- Disaster prevention and reduction, National Resilience
- Infrastructure to build in emerging countries and to rework in developed countries
- Products and technological solutions in growth areas
- Education for employees and communities

Integrated Report 2020

NIPPON STEEL CORPORATION
Materiality of ESG Issues

Nippon Steel recognizes that ESG initiatives are one of the priority issues and form the base that supports the very existence and growth of the company.

Among these initiatives we have identified our materiality in due consideration of requests from stakeholders, the corporate philosophy and values, as well as growth strategy.

Corporate Philosophy

1. We continue to emphasize the importance of integrity and reliability in our actions.
2. We provide products and services that benefit society, and grow in partnership with our customers.
3. We pursue world-leading technologies and manufacturing capabilities.
4. We continually anticipate and address future changes, innovate from within, and pursue unending progress.
5. We develop and bring out the best in our people to make our Group rich with energy and enthusiasm.

Nippon Steel's Values

1. We continue to emphasize the importance of integrity and reliability in our actions.
2. We provide products and services that benefit society, and grow in partnership with our customers.
3. We pursue world-leading technologies and manufacturing capabilities.
4. We continually anticipate and address future changes, innovate from within, and pursue unending progress.
5. We develop and bring out the best in our people to make our Group rich with energy and enthusiasm.

The development of excellent personnel is a prerequisite for our production of excellent products.

Materiality with due consideration of the corporate philosophy and priorities in manufacturing

Our Corporate Philosophy (Our Values) states: “The Nippon Steel Corporation Group will pursue world-leading technologies and manufacturing capabilities, and contribute to society by providing excellent products and services.

Concerning “provision of excellent products and services,” our critical mission as a responsible manufacturing company is to reliably produce and deliver quality products that satisfy customers. Needless to say, the prerequisites to enable this mission include “safety, environment, disaster prevention” as well as thorough compliance to rules and regulations.

The “world-leading technologies and manufacturing capabilities” are realized by our human capital. Securing and fostering of outstanding personnel is an important challenge to be overcome in order to strengthen overall manufacturing capabilities. We firmly believe that respect for human rights and diversity & inclusion, as well as promotion of physical and mental wellness strength are the basics for our employees to work vigorously. With regard to the relationship with society, we must maintain good relationship with the community where our steelworks or other facilities are located. This is indispensable for us to continue operating business in the future. We are pledged to operate in an environmentally-friendly manner and maintain good communication with local communities, as a corporate citizen.

Materiality with due consideration of the company’s value creating process and potential changes in business environment

A base of our value creation process is to use a diverse range of financial/non-financial assets and competitive advantages, and to provide products and solutions to customers. In order to reproduce such processes, stable production and continual profit generation are indispensable.

We have also been engaged in building of a circular economy through reduction of CO2 emissions by the three “Eco” initiatives and innovative technology development, and recycling of industrial waste (such as plastics).

As our recent initiatives, we have played a leading role in solving various global environment-related challenges, including formulation of the Japan Iron and Steel Federation’s long-term vision for climate change mitigation. “A challenge towards zero-carbon steel”: calculation of environment impact based on the Life Cycle Assessment (LCA) to be adopted by the International Organization for Standardization (ISO) and the Japan Industrial Standards (JIS); and a proposal to promote the "Creation of Sea Forests" and "Blue Carbon" (the carbon captured and sequestered by oceans and coastal ecosystems). We are confident that such initiatives for raising long-term corporate value will contribute to sustainable social development.

Corporate value enhancement and profit distribution

We are committed to continuing operations as a sustainably growing company by generating profit and raising corporate value from business activities, including ESG initiatives. We will also contribute to society by providing excellent products and services, and distributing profit to employees, government, shareholders, and other stakeholders.

Thorough compliance

As a responsible leading company, we thoroughly adhere to laws and regulations, which is fundamental to all of our activities. It should be achieved by our independent efforts, based on our corporate philosophy, value, code of conduct and alike.
Nippon Steel’s ESG Materiality and KPI

Materiality KPIs and status of major initiatives

1. Safety, environment, and disaster prevention

• Accident prevention rate of 10% or lower

2. Quality

• Ongoing promotion of corporate philanthropy

3. Production

• Start of operation of a new-edge continuous casting facility in the Kobe Works; sale of the facilities in the East Japan Works, the Kitakyushu Works and the Muroran Works

4. Security and fostering of personnel

• Start of operation of a new-edge continuous casting facility in the Kobe Works; sale of the facilities in the East Japan Works, the Kitakyushu Works and the Muroran Works

5. Harmony with local communities and society

• Green space development to contribute to local communities

6. Corporate value enhancement and profit distribution

• Ongoing promotion of corporate philanthropy

7. Through implementation of compliance

• Adhering to laws and regulations as a basis of all activities

8. Major initiatives and achievements in FY2019

• ROE of 10% (2020 Mid-Term Management Plan)

9. Materiality KPIs

• Accident prevention rate of 10% or lower
Manufacturing bases in Japan

In Japan, six steelworks of Nippon Steel Corporation has 14 manufacturing bases, which we call areas, in aggregate. We also have group companies’ factories or mills using electric arc furnaces and for secondary processing of steel products. Domestic crude steel production capacity totals about 54 million tons per year.

In addition to three large-scale research centers, R&D laboratories at each manufacturing sites and developing products closely with customers. In addition to three large-scale research centers, R&D laboratories at each manufacturing sites and developing products closely with customers.

The manufacturing bases in Japan have a close relationship with customers nationwide and play a forefront role in product development and operational and technology, jointly with R&D bases. They are our mother mills – a source of value indispensable in our creation of value on a global basis.

Manufacturing bases outside Japan

At present, the Group's overseas crude steel production capacity is approximately 17 million tons per year and its steel product capacity, approximately 37 million tons.

Leveraging our strengths accumulated in the mother mills in Japan, we have developed overseas bases in production and sales, ahead of our peers, in order to support our Japanese customers' overseas expansion and to meet overseas growing demand.

**Inputs**

- **As of Oct. 2020**
- **Approx. 90 mn tons/year**
- **Approx. ¥2.8 trn**

**Outputs and outcomes**

- **Approx. 2.8 trn**
- **Approx. 90 mn tons/year**

**Results and outlook**

- **Inputs**
- **Outputs and outcomes**
- **Risks, opportunities, and strategies**
- **Overview**
- **Sustainability**
- **Business activities**
- **External information**
Integrated steel mill
Automotive
Energy & Resources
Infrastructure
Home appliances, containers, etc.

As of Oct. 2020

Companies to which Nippon Steel plays an important role in supply of semi-finished products, is added in the Group's worldsteel-based steel product production capacity. However, the capacity is excluded from the regional total due to semi-finished products being supplied by other mills.

*1: Stock ownership with voting right
*2: Excluding UNIGAL's capacity from the regional total due to semi-finished products being supplied by other mills.
*3: Production capacity of UNIGAL

Steel product demand

# Steel product capacity

- ASEAN
- South America
- North/Central America
- Europe

The NS Group’s steel product production capacity 7.8 mn tons/year

The NS Group’s steel product production capacity 4.7 mn tons/year

The NS Group’s steel product production capacity 1.15 mn tons/year

The NS Group’s steel product production capacity 0.9 mn tons/year

The NS Group’s steel product production capacity 10.5 mn tons/year

The NS Group’s steel product production capacity 49 tons/year

The NS Group’s steel product production capacity 78 mn tons/year

The NS Group’s steel product production capacity 159 mn tons/year

The NS Group’s integrated steel mill production capacity 3.6 mn tons/year

The NS Group’s integrated steel mill production capacity 908 mn tons/year

The NS Group’s integrated steel mill production capacity 7.9 mn tons/year

The NS Group’s integrated steel mill production capacity 135 mn tons/year

Steel product demand

- ASEAN
- South America
- North/Central America
- Europe

Integrated report 2020
Nippon Steel uses raw materials iron ore mined overseas, coal as material of coke for reduction of iron ore, and steel scrap generated by society, and produces steel products by using industrial water and energy, such as electricity and fuel. Nippon Steel’s manufacturing bases make utmost efforts at achieving efficient use of resources and energy in every manufacturing process, and utilize limited resources and energy so as there can be no waste. Specific efforts include improvement in product yield, efficient use of equipment, enhancement of efficiency in combustion, and reduced electricity use.

Eco process
Numbers represent FY2019 performance

1. **Water resources**
   Of water used in cooling and cleaning of products and manufacturing facilities, 90% is reprocessed and repeatedly used, while the remaining 10%, which disappears mainly due to evaporation, is replaced.

2. **Recovery of by-product gas**
   By-product gases, such as coke oven gas generated when coal is thermally cracked in an oxygen-free environment in the coke manufacturing process and blast furnace gas generated from blast furnaces, are fully utilized as fuel gas for steel heating furnaces or energy sources for power generation plants on the premises of steelworks.

3. **Use of exhaust heat**
   Exhaust heat, generated in the blast furnaces, incineration facilities, coke ovens, converters, and other facilities, is recovered and used in steam generation and power generation.

4. **Electricity**
   Nippon Steel itself generates 89% of the electricity it uses at steelworks, 81% of which is from internally generated energy sources such as exhaust heat and by-product gases.

5. **Recycling of by-products**
   Nippon Steel recycles 100% of waste plastic containers and packaging that are collected from households, via a chemical recycling method using a coke oven. In recycling, 40% is recycled into hydrocarbon oil and transformed into plastic products by some group companies; another 40% is recycled into coke oven gas and used as fuel at a power plant within a steelworks; and the remaining 20% is used in the ironmaking process as a part of coke.

6. **Recycling of waste plastics**
   Nippon Steel recycles 100% of waste plastic containers and packaging that are collected from households, via a chemical recycling method using a coke oven. In recycling, 40% is recycled into hydrocarbon oil and transformed into plastic products by some group companies; another 40% is recycled into coke oven gas and used as fuel at a power plant within a steelworks; and the remaining 20% is used in the ironmaking process as a part of coke.

Nippon Steel strives to efficiently utilize limited resources and energy at every stage of operations. Through this Eco Process approach we have achieved the world’s top-class energy efficiency and reduction in environmental impact and cost for a steelmaker.
Research & development

Nippon Steel has approximately 800 researchers (non-consolidated basis) working on steel-related projects. No other steel company in the world has such a large research staff. R&D expenses of the 2020 Mid-Term Management Plan have been raised from ¥70 billion to about ¥200 billion, up ¥130 billion. This financial resource is allocated according to priority and each project is carried out according to a road map which sets milestones, goals and delivered returns. Four major areas of development that our research emphasizes and that foresees potential change in customer needs are: 1) development of high-function products, and related design and processing technology; 2) development of innovative processes; 3) response to challenges of sustainability issues, such as CO2 emission reduction and recycling; and 4) use of advanced ICT and artificial intelligence (AI). We are resolved in our determination to develop technology which can become a key driver for innovation, and continue to lead the world in steel technology in the future.

R&D activities and use of ICT—sources of value creation and competitiveness

Nippon Steel has identified “strategic R&D, aimed at sustainable growth” and “protection and use of intellectual property” as part of materiality. Use of advanced IT in business has also been identified as an important element to enhance competitiveness.

Materiality 2 (2)
R&D and intellectual property management

Nippon Steel secures the most advanced newly created technologies and other proprietary technologies related to steel as intellectual property (IP) and utilizes them according to its medium- and long-term IP strategy. The Intellectual Property Division collaborates with the business divisions and the R&D organization to increase the value of the IP with solutions based on steelmaking process technology; (3) collaboration between industry and academic institutions, overseas alliances, and joint research with customers; and (4) an extensive portfolio of fundamental and platform technologies.

R&D organization

Nippon Steel's approximately 800 R&D employees work in three core research centers—Futtsu in Chiba Prefecture, Amagasaki in Hyogo Prefecture, and Hasaki in Ibaraki Prefecture—as well as in the Plant Engineering and Facility Management Center (Head Office) and R&D laboratories at steelworks across Japan. They collaborate to ensure integrated R&D activities that encompass basic and fundamental research, application development and engineering. In April 2018, a new R&D unit was established which is central to development of materials and products that respond to steel-user needs for flat product (among other products), and their corresponding advanced application technology development and solutions. We also established the Intelligent Algorithm Research Center which is engaged in enhancing our research on use of advanced IT. The Nippon Steel Group's top-class researchers in this field have been assigned to this new facility. Our R&D capabilities feature six strengths: (1) comprehensiveness and speed of development, facilitated by the integration of R&D and engineering; (2) R&D network having locations near customer locations; (3) integrated solutions enhanced by Group company R&D organization products and technologies; (4) ability to address environmental and energy-related concerns with solutions based on steelmaking process technology; (5) collaboration between industry and academic institutions, overseas alliances, and joint research with customers; and (6) an extensive portfolio of fundamental and platform technologies.
Use of ICT

Information and Communication Technology (ICT) and Digital Technology are rapidly becoming indispensable in people’s lives. Nippon Steel believes that they also have become a critical element that encourages business innovation and affects corporate competitiveness. We are therefore focusing on how to make best use of ICT.

Expanding human resources in ICT sections

Nippon Steel’s information system is managed by the System Section in each steelworks and the head office Information & Communication Technology Division. The latter division is engaged in management of corporate-wide information systems as well as planning and promotion of efficient adoption of the latest ICT devices and systems for the entire company. Nippon Steel alone has over 100 persons involved in systems work but NS Solutions (NSSOL) – a Group company and one of Japan’s top-level IT services companies – has over 10 times more staff than in Nippon Steel steel-related divisions who are engaged in actual system development, maintenance, and management.

The Intelligent Algorithm Research Center (established in April 2018), one of research divisions of Nippon Steel, and NSSOL’s Systems Research & Development Center are in charge of new information system-related technology development, in cooperation with the Information & Communication Technology Division. In order to accelerate adoption of the leading-edge technology and advance of digital innovation, these organizations cooperate with the Digital Innovation Division (established in April 2020, details in p. 84) – a planning division that on a one-stop basis works on corporate-wide issues related to use of ICT. They prepare the roadmap for overall ICT promotion, while making specific technological trend studies, and ensuring prompt actual adoption with the support from many divisions of NSSOL.

ICT realizes a new workstyle

We plan to use ICT to reduce to a bare minimum our employees’ primary and incidental tasks at their work stations and to support their intelligent work, not just physical work, with the aim of 1) making possible communication at any time, anywhere, with anyone, 2) enabling work to be done regardless of the environment, wherever the employee is, and 3) enabling people to focus more on intelligent work. We call this a Smart Plarform.

Cybersecurity

Cybersecurity is becoming ever more important in the new workstyle using ICT. Information is exchanged in all different forms, in all kinds of situations and fields. Mobile devices make data literally fly out of mobile objects and that data is stored and analyzed by using the cloud. In such an environment, it is important to provide the reliable environment for employees to be comfortably engaged in the new workstyle. For that purpose, the latest security measures that incorporate the Zero Trust concept are to be implemented in addition to promoting employees’ enhanced IT literacy and resultant sensitivity to cybersecurity, not to neglect the conventional centralized cybersecurity measures. Zero Trust means to never trust and always verify security before being connected.

Cybersecurity of the entire Nippon Steel Group must also be ensured. The Nippon Steel Group - Computer Security Incident Response Team (NS-CERT) is steadily increasing the number of member companies, which is 14 as of June 2020.

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Outputs</th>
<th>Financial information and investor information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business activities</td>
<td>Results and outlook</td>
<td>The value creation process</td>
</tr>
<tr>
<td>Overview</td>
<td>Materiality</td>
<td>Outputs and outcomes</td>
</tr>
<tr>
<td>Corporate governance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Utilization and development of human resources

Nippon Steel’s basic approach to personnel development is on-the-job training and the Personnel Development Basic Policy has been adopted in order to clearly express and share the policy with all employees. For employees in office positions, diverse types of off-the-job training sessions, which include training that matches job levels, to acquire certain skills, and to learn international aspects of work, are conducted to complement OJT. In the recent years, we have been making efforts at training supervisors, such as the middle-management seminars to develop personnel capable of assuming responsibility in the future for work in domestic and overseas business, and to train line manager candidates. With regard to employees in manufacturing and maintenance, upon clarifying the skill to be acquired, their status of development and skill transfer is evaluated by using a skill map and, based on this evaluation, their specific development plan is ascertained and implemented.

Diversity & Inclusion

In an aging society that has a declining birthrate, Nippon Steel has promoted diverse measures aimed at establishing such a work environment, whether at clerical, manufacturing, or maintenance work sites, that empowers diverse people, including elderly persons and women.

We have introduced programs such as a childcare leave system which is more generous than legally required, a leave program to assist overseas relocation of the spouse, and a temporary exempting program for employees who have difficulty in relocation for child or elderly care and other reasons. Moreover, we have opened 24-hour childcare centers for use by shift work employees in steelworks. We are thus enhancing programs to support employees’ work-life balance.

At present, the ratio of women in overall hiring is about 20%. We are committed to steadily implementing various measures toward our target to double the number of women in managerial positions from the level in 2014 by 2020 and triple it by 2025. Concerning promoting the empowerment of elderly, we have decided to raise the retirement age from 60 to 65 in fiscal 2021. This change reflects the decline in the working population and the raising of pension eligibility age, and was made also from the perspective of maintaining and enhancing our on-site manufacturing capacity.

Personnel development policy

1. Personnel development is nothing but one aspect of business.
2. OJT training is a basic of personnel development and is complemented with off-the-job training.
3. A supervisor shares clear objectives and outcomes of personnel development with his/her subordinates.
4. Every employee consciously strives to develop skills and knowledge.

Number of employees hired (FY2019)

106,599

Number of employees hired (FY2020)

27,096

Based on the belief that the development of excellent personnel is a prerequisite for the production of excellent products, Nippon Steel is rolling out robust programs to strengthen the overall capabilities of the Company’s human assets.

Promotion of balanced work-life

Nippon Steel complies with labor laws and regulations of each country where it operates, and strives to create a work environment that allows each and every employee to do their best. We promote balanced work-life by encouraging employees to fully use their paid holidays and to control the number of hours worked, and to keep the worked time at a suitable level. This is done with cooperation by labor unions. As a part of initiatives on Workstyle Innovation, we are expanding the working system from the viewpoint of fully utilizing the optimised work time and to help enable all employees to realize their full capacity. In fiscal 2019 we began a telework program. In addition to being concerned with workstyle and operation management that leads to more efficient, higher-value-added output, the program is proactively utilized to cope with the COVID-19 infection problem.

Nippon Steel also has diverse welfare programs to support employees’ personal life provision of housing, including dormitories and company housing, and a cafeteria plan (work-life support program).

Promotion of the health of employees

To help ensure we are an energetic company where all employees work at their best and stay healthy from joining the company until retiring, it implement health promotion measures with a focus on disease prevention. The company is committed to providing a full health checkup menu and enhanced aftercare to benefit the mental and physical wellness of employees, while employees are expected to also be committed to implementing measures for their own health maintenance.

Specifically we use the corporate-wide medical checkup system, thoroughly manages health guidance on the basis of managing risks, and run a recurring event to promote specific health guidance.

ESG Materiality A(2) - Utilization and fostering of personnel

For employees in office positions, diverse types of programs to support their employment, using special-purpose companies, and by providing a friendly working environment.

Achievement related to diversity & inclusion

Number of employees hired (FY2019) 106,599
Number of employees hired (FY2020) 27,096

Status of employees (non-consol.)

- Number of women (in parentheses) 27.06% (27,065) (March 31, 2020)
- Number of new hires (number of women in parenthesis) 1,438 (228) (FY2020)
- Average years of service 15.1 years (March 31, 2020)
- Rate of voluntary termination 1.04% (FY2019)

Achievement related to childcare support system (result in FY2019)

Year of implementation 2019
Number of users of the short-work hour system for childcare 3
Number of hours of the short-work hour system for childcare 57 hours/year per employee

The ratio of women in overall hiring

Average years of service 15.1 years (March 31, 2020)
Number of users of internal childcare centers 100

In FY2019, we have introduced programs such as a childcare leave system which is more generous than legally required, a leave program to assist overseas relocation of the spouse, and a temporary exempting program for employees who have difficulty in relocation for child or elderly care and other reasons. Moreover, we have opened 24-hour childcare centers for use by shift work employees in steelworks. We are thus enhancing programs to support employees’ work-life balance.

At present, the ratio of women in overall hiring is about 20%. We are committed to steadily implementing various measures toward our target to double the number of women in managerial positions from the level in 2014 by 2020 and triple it by 2025. Concerning promoting the empowerment of elderly, we have decided to raise the retirement age from 60 to 65 in fiscal 2021. This change reflects the decline in the working population and the raising of pension eligibility age, and was made also from the perspective of maintaining and enhancing our on-site manufacturing capacity.

Promotion of balanced work-life

Nippon Steel complies with labor laws and regulations of each country where it operates, and strives to create a work environment that allows each and every employee to do their best. We promote balanced work-life by encouraging employees to fully use their paid holidays and to control the number of hours worked, and to keep the worked time at a suitable level. This is done with cooperation by labor unions. As a part of initiatives on Workstyle Innovation, we are expanding the working system from the viewpoint of fully utilizing the optimised work time and to help enable all employees to realize their full capacity. In fiscal 2019 we began a telework program. In addition to being concerned with workstyle and operation management that leads to more efficient, higher-value-added output, the program is proactively utilized to cope with the COVID-19 infection problem. Nippon Steel also has diverse welfare programs to support employees’ personal life provision of housing, including dormitories and company housing, and a cafeteria plan (work-life support program).

Promotion of the health of employees

To help ensure we are an energetic company where all employees work at their best and stay healthy from joining the company until retiring, we implement health promotion measures with a focus on disease prevention. The company is committed to providing a full health checkup menu and enhanced aftercare to benefit the mental and physical wellness of employees, while employees are expected to also be committed to implementing measures for their own health maintenance. Specifically we use the corporate-wide medical checkup system, thoroughly manages health guidance on the basis of managing risks, and run a recurring event to promote specific health guidance.

Respect for human rights

In compliance with the Universal Declaration of Human Rights and other international norms on human rights, the Nippon Steel Group is in the business of creating and delivering valuable and attractive products and ideas, by respecting our employees’ diverse views and individualities and utilizing them for the good of all. Based on the United Nations Guiding Principles on Business and Human Rights, the Nippon Steel Group Conduct Code has been set. By adhering to its nine principles, Nippon Steel conducts business ethically, while paying full heed to human rights issues arising with the increasing globalization of the economy. Nippon Steel gives due attention to the rights of workers, and staunchly opposes the use of forced or child labor. These are prerequisites of our corporate activities. We have also prohibited as unjust the abuse of human rights from the Group’s employees and family members, and from business partners. Notification and consultation from other stakeholders are accepted in the form of responses to an inquiry menu on Nippon Steel’s website. Each of these whistleblowing and consultation matters is given appropriate attention, including our providing guidance or training to the related parties, consistent with advice from lawyers and other professionals when needed.

Prevention of forced or child labor

Adhering to international norms concerning forced or child labor, Nippon Steel has the policy of prevention and eradication of both types of labor. We conduct regular monitoring surveys of our group companies to prevent such violations in our business activities.

Respect the rights to organize and to bargain

Adhering to laws and the group-company labor agreements, and respecting the rights to organize and to bargain, Nippon Steel strives to establish sound labor relations by sincere talks with organized labor. We hold regular meetings to discuss diverse issues including management issues (i.e., safety and health, production), labor conditions (i.e., wages and bonuses), and balance in work-life. Through exchange of opinions with union representatives, we seek close labor-management communication.

Labor union membership and ratio

14% (March 31, 2020)

25,765

(Number of workers 171,784)
Financial discipline for achieving both financial soundness and corporate growth

The debt-to-equity (D/E) ratio is identified as an important benchmark in financial management. While we aim to achieve the D/E ratio of around 0.5, a level that allows us to maintain a long-term A rating by international credit rating agencies over the long term, our immediate target is to maintain the D/E ratio of around 0.7. This will be achieved by offsetting an increase in interest-bearing debt with an increase in shareholders’ equity during the 2018–2020 Management Plan when investing cash flow will be at a high level because we need large-scale refurbishment for domestic facilities and intend not to miss opportunities for overseas growth investment.

As of March 31, 2020, due to a decrease in shareholders’ equity, caused by posting of impairment loss, the D/E ratio rose from a year ago 0.94 times or 0.74 times after recognizing equity credit attributes of the subordinated loan and the hybrid bonds. The steel industry is a gigantic equipment-based industry, which uses a massive amount of fixed assets, including machinery equipment and other tangible fixed assets, in its business. Procurement for fixed assets is financed by shareholders’ equity and long-term borrowings, ensuring financial stability.

Asset compression

Following the integration of Nippon Steel and Sumitomo Metals in 2012, we generated ¥7 trillion on a cumulative basis in asset compression over six years to 2017. In the 2018–2020 Mid-Term Management Plan, we planned to achieve ¥100 billion in asset compression but gave deteriorating performance and the status of operating cash flow, we already accomplished ¥810 billion asset compression in fiscal 2019 and 2020 combined. In fiscal 2020 we are considering and implementing an additional ¥300 billion or more asset compression, which is expected to bring the three-year cumulative asset compression to over ¥200 billion (additional ¥400 billion or more to the initial planned amount) during the current Mid-Term Management Plan period.

Asset compression by disposing of strategic shareholdings

Most of the asset compression comes from sale of strategic shareholdings. Strategic shareholdings are judged to contribute to maintaining and strengthening its business foundation such as the business relationships and alliance relationships between Nippon Steel and the investees, enhancing profitability of both parties, and thereby contributing to sustainable growth and improving mid-term corporate value of Nippon Steel and the Group. However, we dispose of holdings of companies, with whom we confirmed, based on sufficient dialogues with them, that the above objectives could be achieved without holding their shares.

How we think about cash flow management

During the 2018–2020 Mid-Term Management Plan, we are making a high level of investment, such as for large-scale refurbishment of domestic facilities and overseas growth investment. These investments will be financed within the aggregate amount of operating cash flow and asset compression and while maintaining the financial position in terms of the D/E ratio of around 0.7 times, thereby exercising financially-disciplined cash flow management.

As a significant change in the business environment for the plan period, operating cash flow is significantly expected to undershoot the initial forecast. We therefore intend to make an additional asset compression of ¥400 billion or more and increase own funds, while reducing capital expenditures by over ¥500 billion so as to maintain financial soundness.
Capital injection in investment

In injecting capital as investment, we focus on investment profitability that exceeds the cost of capital. For capital expenditures, we set a hurdle rate of the number of years to recover capital in the case of investment aimed at profit improvement. Even for the overall capital expenditures, including refurbishment of aging facilities, we manage to secure an internal rate of return (IRR) that exceeds the cost of capital. As for business investment, we set a hurdle rate for the IRR that exceeds the cost of capital, even with consideration of diverse risks and with running a PDCA system, which enables us to track the execution status and make judgment on restructuring, withdrawal, and other options if needed.

Capital expenditures

Many of our steelworks were built during Japan’s high-growth era and are passing a 50-year milestone. Since construction, the facilities have been appropriately maintained and refurbished and are in good condition but some facilities are in an extremely long refurbishment cycle, as is the case for coke ovens and infrastructure equipment, which are approaching refurbishment time due to the concentration of refurbishment investment for these equipment and facilities, capital expenditures will be at a high level for the near term. Given the assumptions for the future steel market in and out of Japan, we have decided to suspend less-competitive facilities and consolidate production to competitive ones out of Japan, we have decided to suspend less-competitive facilities and consolidate production to competitive ones. Given the assumptions for the future steel market in and out of Japan, we have decided to suspend less-competitive facilities and consolidate production to competitive ones.

For about three years since start-up, KPIs for operation, production, shipment, financials, and other items are set up for each project, and the corporate division follows its performance relative to the plan once every three months, and reports to the Investment and Loan Committee and the Corporate Policy Committee. The status of particularly important projects is reported to the Board of Directors once a year. About three years from the start-up, the entire processes from decision making to full-scale operation are reviewed and the business investment projects are submitted to the Corporate Policy Committee after being discussed at the Investment and Loan Committee.

The amounts of capital expenditures are construction based (about a 2-year time lag from decision-making basis). The scope of investments and depreciation has expanded since fiscal 2018 due to a change in the financial accounting system.

![Capital expenditures and depreciation expense](chart.png)

### Business investment

Business investment, such as for M&A and establishment of new overseas manufacturing bases, is set at around ¥600 billion over the three-year term (fiscal 2018 – 2020). In fiscal 2018, we invested around ¥60 billion in restructuring the special steel business by acquiring Ovakol AB in Sweden and making Sanyo Special Steel Co., Ltd. a subsidiary. In fiscal 2019, together with ArcelorMittal, we invested about ¥310 billion (including approximately ¥100 billion in equity investment) in acquisition of Essar Steel India Limited, the fourth largest steelmaker in India.

We also intend to look at capturing growth investment opportunities – by product, customer sector, and region in Japan and abroad; and acquisition of interests in raw materials. In terms of increasing overseas businesses’ profit and reallocation of management resources, we thoroughly examine past investments and decide what to do, including sale of assets and withdrawal, in the case of businesses that cannot move into the black, businesses that have completed their roles, or businesses that are losing synergies. We will thus intend to improve our asset portfolio.

### Business investment management system

Nippon Steel has embedded in its business investment procedures a management system with a clearly-defined PDCA cycle, in order to (1) make appropriate decisions on business investments, such as for founding and equity-investing in companies in Japan and overseas, as well as for M&A deals, (2) identify early and solve promptly issues during the stage of execution of those deals, and (3) share and preserve such know-how within the organization.

#### Discussion and decision making

Proposed projects are considered in terms of significance to business strategy, market growth, competitive landscape, and individual risks (country, partner, foreign exchange, and other risks). In the case of M&A deals, based on due diligence, their risks are to be understood and appropriately hedged. After such a procedure and given consideration to risk scenarios, the certainty of generating return that matches investment is confirmed.

The Investment and Loan Committee discusses projects from a professional perspective of each corporate unit and division.

The business investment projects are submitted to the Corporate Policy Committee after being discussed at the Investment and Loan Committee. Very important projects are then submitted to the Board of Directors.

#### Execution evaluation

For about three years since start-up, KPIs for operation, production, agreement, financials, and other items are set up for each project, and the corporate division follows its performance relative to the plan once every three months, and reports to the Investment and Loan Committee and the Corporate Policy Committee.

The status of particularly important projects is reported to the Board of Directors once a year.

Every half year, all Group companies in which Nippon Steel has made direct or indirect investment are evaluated in terms of financial soundness, based on their financial data, and the results are reported at the Corporate Policy Committee. They are also reported to the Board of Directors once a year.

Concerning Group companies that are determined not contributing to raise the company’s corporate value in terms of financial soundness based on quantitative standards (business cash flow, financial position) and qualitative standards (sustainability, compliance, etc.), the Investment and Loan Committee discusses whether to continue business and the status of particularly important project are to be approved by, or reported to, the Corporate Policy Committee to determine whether to exit (or be reorganized) or restructuring.

#### Investment and Loan Committee

The Investment and Loan Committee discusses projects from a professional perspective of each corporate unit and division.

The business investment projects are submitted to the Corporate Policy Committee after being discussed at the Investment and Loan Committee. Very important projects are then submitted to the Board of Directors.

#### Evaluation of soundness

Every half year, all Group companies in which Nippon Steel has made direct or indirect investment are evaluated in terms of financial soundness, based on their financial data, and the results are reported at the Corporate Policy Committee. They are also reported to the Board of Directors once a year.
Initiatives on Conservation of Biodiversity

As a member of Nippon Keidanren (Japan Business Federation), Nippon Steel has affirmed the Declaration of Biodiversity by Keidanren and Action Policy (revised in October 2018) and has accordingly taken initiatives on biodiversity preservation under the following policy:

Among the initiatives, interesting programs thus far are “Creation of Hometown Forests” and “Creation of Sea Forests,” the world-leading pioneer projects. The “Creation of Hometown Forests” began in the Kyushu Works in 1970 and our forests in aggregate have grown to total around 830 ha (about the size of 180 Yankee Stadiums). “Creation of Sea Forests” is to use the iron content of steel slag to stop loss of sea weeds caused by sea desertification in the coast in various parts of Japan. The project has been launched in 38 spots in Japan and shown some positive effects. (Details on the Sustainability Report 2020, p.42)

We are also a regular corporate member of the NPO, Mori wa Umi no Koibito (the forest is longing for the sea, the sea is longing for the forest), represented by Mr. Shigeatsu Hatakeyama, a fisherman raising oysters and scallops in Kesennuma City, Miyagi Prefecture, who received the Forest Heroes award from the United Nations in 2012. Since 2012 we participated in the NPO’s tree planting activity at Murone Mountain in Iwate Prefecture, which began in 1989, based on the theory that the chain of forests, villages, and the sea nurtures the blessings of the sea. Moreover, Nippon Steel is a co-sponsor of an NPO, “green bird”, and participates in its garbage pickup events. Many steelworks also voluntarily carry out diverse cleaning activities of their surrounding areas.

Monodzukuri and environmental education

With the aim of showing children the joy of product-manufacturing, Nippon Steel held demonstrations on “tatara ironmaking” — Japan’s indigenous ironmaking technique, organized a scientific stand for school children, gave a “travelling scientific lecture” at local primary and secondary schools and introduced the fascinating properties of iron and the mechanism of electricity generation to children, and took part in an Energy and Environmental Workshop held by a junior high school. We also donate to and support a project which aims at teaching children in the stricken areas of the East Japan Earthquake and Tsunami of 2011 to make appropriate judgment against risks of natural disasters. For a better understanding of the steel industry, Nippon Steel's steelworks also host plant visits and approximately 130,000 people participated in our plant visits in fiscal 2019. We have been offering internship opportunities to students to help them learn our business and gain some work experience. We also endow a university course, which also contributes to one of our business strategies, “enhancement of our technological superiority.” We also invite teachers for the “Training Programs for Educators at Private Companies”, so that teachers can better understand how the steel industry is contributing to society and can better appreciate the fascination of “Monodzukuri” (product-manufacturing). In 2019, we hosted 128 teachers for the tours of our facilities and our human development activities.

Social contribution through art, music, and sports

We are active in corporate philanthropy activities in the support of music, particularly through the work of the Nippon Steel Arts Foundation. The Foundation manages Kioi Hall in Tokyo, organizing performances of its resident chamber orchestra and promoting Japanese traditional music. We also give the annual Nippon Steel Music Awards, established in 1990, to young classical music performers and to those who have contributed to the development of classical music. Nippon Steel manages or supports sports teams in local communities of its steelworks. All of these teams contribute to their local community through various activities as sports classes for children and making our athletic facilities available to local residents. Together with local residents who support our teams, we strive to provide renewed vigor to our local communities, and at the same time to support their healthy lifestyle.
Elkview 2.5%

Risks, opportunities, and strategies

Steelmaking value chain and the Nippon Steel Group’s business domains

The Nippon Steel Group’s business domains span from upstream to downstream of the steel industry’s value chain. Nippon Steel, engaged in integrated steelmaking business, and its group companies, are responsible for each process of the value chain, share important strategies, and aim at maximizing the Group’s corporate value.

Upstream process

The upstream process includes the ironmaking process to produce pig iron which is made mainly in a blast furnace; and the steelmaking process that uses pig iron, scrap, alloys, and other materials to manufacture steel products of diverse features. A large area of level land and a massive amount of initial investment are required for the upstream process, which needs massive upstream facilities for diverse processes including reception of raw materials, distributing a high level of supply of energy, and treatment of byproducts. Moreover, a blast furnace once blown in will be kept operating ceaselessly for around 15-20 years, with shutdowns for only a few times of few-day intervals a year. This also means a 24-hour-a-day operation of most other steelmaking facilities as well, which is realized by four teams of workers engaged in three shifts.

Downstream process

The downstream process is divided into processes for rolling, coating, refining, and inspection, to name the most important ones, enabling manufacturing of products with features required by customers.

Steel product manufacturing process

The steelmaking process is divided into the upstream process, to melt and reduce iron ore at high temperature, and to solidify the metal, and the downstream process, to make it into products of shapes and properties that meet needs of customers.

Procurement

Raw material concessions

Nippon Steel has invested in raw material mines in order to ensure stable procurement of raw materials. Roughly 20% of iron ore and coking coal used in the steelmaking business is procured from the invested mines.

Material vendors

Krosaki Harima

Equipment vendors

NS Engineering, NS Housing

IT vendors

NS Solutions

Procurement of raw materials

NS Engineering, NS Housing

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal

Procurement of raw materials in terms of production capacity

Iron ore

Coal

Coking coal
Nippon Steel's strength  

In our corporate journey of many years in the past and for years in the future, jointly with our customers, our manufacturing bases and R&D bases in Japan are a source of value to continuously create operational, equipment, and product technology, which is a core source of our strengths. We call them mother mills, a base of value creation in the global expansion.

Efficient, high-grade steel production in large blast furnace, seaside integrated steelworks  

All of Nippon Steel’s large blast furnace integrated steelworks in Japan are located in seaside areas, appropriate locations for import of raw materials and export of product shipments. From raw material landing places to upstream and downstream processing facilities, product warehouses, and shipping docks, all the sites are efficiently laid out to comprise a modern steelworks. Most of our 15 blast furnaces, a main facility in upstream process, are big ones with an average furnace capacity of approximately 4,300 m³ (to be raised to 4,900 m³ after planned shutdown of some), led by No. 1 and No. 2 blast furnaces (5,715 m³).

The top-runner approach for continuous improvement in technology level  

Our top-runner approach is that all steelworks share their operational and technical know-how and experience as well as daily and monthly KPI data and arrangements work to have newly set next precedents and methods, and groundbreaking advances transferred to and shared by all manufacturing bases. The PDCA system is in place, enabling the enhancement of technical levels.

Secondary processing companies of the Nippon Steel Group is engaged in manufacturing and sales of high-value-added secondary processed products, that respond to end customers’ needs, mainly using steel products of Nippon Steel’s parent company and the group’s advanced technologies.

How we think about global development

We have not globalized operation by merger of steelmakers in different countries. Rather, we have established our overseas group companies, constructed new manufacturing bases, and extended our capacity in technology, sales and marketing, and managerial methods, nurtured in Japan, to other countries, in order to support our Japanese customers’ overseas expansion and meet overseas demand.

Anywhere in the world, steel demand increases in line with economic development and is initially satisfied by imports. With further economic progress, fostering of the nation’s own steel industry becomes a national policy as steel is a basic material of all industries. Steel demand then is filled by domestic production. As a result of this process, steelmakers tend to develop on a country-by-country basis, making global shares of top-tier makers less concentrated compared to other industries. The steel industry therefore can be described as a “gigantic compound local industry.”

In the ASEAN region which is geographically close to Japan and where many of our Japanese customers have production bases, we have built a framework to locally provide similar high-grade steel products to customers as we do in Japan. We have invested substantial capital to establish local bases for downstream production processes which directly link to quality assurance and reliable delivery to customers, while providing semi-finished products from our steel mills in Japan to those local production bases where they are processed to finished products.

In areas such as North America and China, we have made alliances with major local partners, such as ArcelorMittal and Baosteel, to develop local bases for downstream production processes by joint ventures. Those joint ventures supply high-grade steel products by Nippon Steel’s technical assistance, using semi-products provided by the partner.

In India, we are anticipating steel demand growth but tends to have a protectionism trend. The steel market is difficult to enter via exports or by building a new steel mill. This is especially the case when foreign capital in the market. In December 2019, Nippon Steel and ArcelorMittal jointly acquired Essar Steel India Limited, one of India’s four major steelmakers, and entered the Indian market as an integrated steelmaker, to be engaged in the full range of activities, from raw materials procurement to upstream and downstream processes, under a new company name, AM/NS India.

We intend to continue expanding overseas markets with a focus on “markets where we see assurance of demand growth potential” and “areas where our technology and product capacity can be used.”
Premise in manufacturing: Safety, the environment, and protection against disasters are the most valuable factors that take precedence over all other things

Gigantic movable equipment, high-speed rotating equipment, high-temperature molten materials, and flammable gas are among what are employed in making iron and steel, which therefore is a process of high risk in terms of safety and disaster prevention, and contaminating the air, water, and soil. It is therefore essential that we assign the highest and most crucial priority to safety, the environment, and protection against disasters, minimizing the risks. We make sure to operate our steelworks while adhering to these manufacturing priorities.

Safety and health initiatives

In keeping with the corporate philosophy that “safety and health are the most valuable factors that take precedence over all other things and they are the basis that supports business development,” we have firmly kept our manufacturing priorities in all of our activities. We have been improving our Occupational Safety and Health Management System (OSHMS) and strive at making safe and secure workplaces. The Basic Policy on Safety and Health is applied to Nippon Steel as well as to related or subcontracting companies.

Reducing labor disaster risks to zero, and group-wide sharing of effective measures

When planning a new facility investment, we make a safety risk assessment and for existing facilities, we also make regular scheduled assessments, to prevent accidents and reduce risks. We also put in place safeguards and follow safety tips, aimed for even-greater safety of equipment, and take countermeasures against human error. We also actively promote use of IT in safety measures, such as checking worker location data via GPS, safety surveillance cameras, and helmet-mounted cameras. We compile and make known effective examples of accident-preventive measures and measures based on analysis of actual accidents.

Safety training

We make efforts to improve training for accident prevention. The safety training programs are attended by all newly-appointed managers of manufacturing worksites. Our Taikan Program (an experience-based safety education program) allows employees to experience worksite risk through simulation, with installing new devices such as VR systems, so as to better prepare them in anticipating and managing risk.

Accident frequency rate

![Graph showing accident frequency rate]

Promotion of environmental risk management

Nippon Steel is promoting management of environmental risk with the aim of continually enhancing preservation of the environment in various regions, with due consideration of environmental risks, which differ by each steelworks and factory, and with due consideration to compliance with Japan’s Air Pollution Control Act and other regulations.

Atmospheric risk management

In order to reduce emissions of sulfur oxides (SOx) and nitrogen oxides (NOx), we are taking measures such as using low-sulfur fuel, adopting low NOx generating burners and installing effective equipment, including equipment that eliminates SOx and NOx emissions. To curb emissions of soot and dust, we install dust collectors, windbreak net, and sprinklers and prevent scattering of particles, based on air pollution risk analysis through scientific simulation. We also conduct constant monitoring and regular patrols.

Soil risk management

We are taking appropriate measures in compliance with the Soil Contamination Countermeasures Act, guidelines issued by the Ministry of the Environment, local government ordinances, and so on. We report to the local government when performing landform modification work such as excavation which is required to be reported. We conduct pollution surveys when needed.

Disaster prevention

In order to reduce risk of and minimize impact from natural disasters (i.e., earthquakes, tsunamis, typhoons) and accidents and disasters (i.e., fires, explosions), we promote essential disaster prevention improvement measures in manufacturing sites.

It is critically important to implement disaster preventive measures in manufacturing sites, with a goal set at zero serious disaster-related accidents.

Initiatives on reduction in disaster risks

Our initiatives to reduce disaster risks include three key initiatives as shown on the right. We promote essential disaster prevention improvement measures in manufacturing sites, and emergency response measures and to protect people, facilities, and local communities. We have established autonomous, continual scheme for disaster preventive initiatives, aimed at enhancing the management function, while reducing risks and preventing occurrence of accidents and disasters.

Specific initiatives

- Promotion of disaster prevention improvement measures by all employees
- Corporate-wide implementation of measures against risks exposed by disaster to prevent recurrence
- Soil risk management
- Disaster prevention
Quality management is one of the most important aspects in obtaining the trust and satisfaction of customers in the provision of products and services. All of our relevant employees are responsible for thorough quality management. In coordination with product units and individual steelworks, the Company’s Quality Assurance Department promotes measures to cope with Groupwide quality control and assurance issues.

Concrete measures to enhance the quality management system

Nippon Steel’s quality management system is based on autonomous quality management activities of each product type business division of a Group company, including overseas ones and each steelworks. The status of each is checked through auditing of the Quality Management Division in the Head Office.

The key points of this inspection include compliance with the guidelines of the Japan Iron and Steel Federation; compliance with standards and specifications; and confirmation of continual improvement activities for quality internal control. The auditing plan is written once a year for each steelworks and once every three years for each office of group companies, in order to reduce quality risks. We also receive external audits, such as ISO9001 and JIS certifications to raise the credibility of the quality management system. Information on quality-related examples is promptly shared across the group and at appropriate times measures are launched to resolve issues through standardization, systemization, automation, and other action, to raise the credibility of identification as well as testing and inspection of actual products.

In addition, diverse opportunities to acquire basic knowledge on quality compliance and quality management are provided internally and for group companies, and an e-learning program is offered to those in charge of quality compliance and quality management every year, to assist them to expand knowledge.

For overseas group companies, the e-learning program is developed and delivered in each local language. We thus strive to raise quality awareness of all employees. Using leverage of our quality management organization, we will continue our daily efforts to improve customer satisfaction and further raise our branding power of trust.

Sales

Broad-based customer base

In terms of Nippon Steel’s sales by industry, the manufacturing sector represents 60–70%, of which roughly 30% is the automotive sector, and the civil engineering and construction sector occupies the remaining 30–40%.

The sales contracts to the manufacturing sector tend to have a higher portion of tied (long-term contract) sales contracts, based on our long-term business relationships with customers. We carry out R&D activities jointly with these customers, and develop and manufacture steel products with high functionality, and make proposals for solutions and improvements, such as relating to component design and manufacturing method, in addition to supply of materials, responding to their needs. Moreover, we have established an overseas supply network of steel products, to satisfy needs arising from the customers’ global expansion. We have thus strived hard to be a partner contributing to these customers’ value creation.

The high-grade steel product technology and solution proposal capacity of Nippon Steel have been developed by responding to needs of internationally-competitive manufacturers in Japan. Together with our global production framework, which supports the customers’ global development, they have become a part of Nippon Steel’s strength.

Sales

Tied (long-term contract) sales contract

Contract that a steelmaker produces steel products according to a customer’s specified order (price, volume, specifications, etc.) and sells them to the customer via an intermediary trading firm.

Retail sale

Contract that a steelmaker sells steel products to retailers and trading firms without end users being specified. The retailers and trading firms stockpile the steel products which are purchased at their responsibility and risk, and sell them by their own sales efforts, taking into account the market and other conditions.

Out of Nippon Steel’s steel products produced in Japan, roughly 50-60% are consumed in Japan and the remaining 40–50% are exported. ASEAN countries, South Korea, China, Taiwan, and elsewhere in Asia represent about 70% of the exports. Being closely located to the Asian market with its high growth potential in steel demand is one of advantages of Nippon Steel.

Nippon Steel is Japan’s top steelmaker, dominating roughly half of the market.

In global terms, former Nippon Steel had had the No.1 share from 1970 to 2000 (except 1998 and 1999). Subsequently, there were consolidations and reorganisations of global steelmakers, and emergence, consolidation, and reorganisations of Chinese steelmakers, along with China’s rapid growth in steel demand and production-volume. At present, Nippon Steel is No. 3 in the world.

We now aim at “becoming the best steelmaker with world-leading capabilities,” not the largest in scale, by using our three key driving forces, “technology,” “cost,” and “being global.”
## Business summary by segment

### Three non-steel segments support the steelmaking business and provide excellent products and services to society

The Nippon Steel Group generates close to 90% of revenue from the steelmaking business. Nippon Steel’s three business segments, which are derived from the steelmaking business, support and generate synergy with the steelmaking business, and are also engaged in business with companies outside the Nippon Steel Group, by using technology, products and services developed in the Group. Each of the three segments has grown to have revenue of ¥200–400 billion, achieving top-class profit levels in their respective business fields.

### Customers

- **Steelmaking and steel fabrication**
  - Design and installation of steelmaking facilities
  - Steelmaking by-product recycling
  - Use of development seeds and basic technology
  - Response to multi-material needs
- **Engineering and Construction**
  - Environment and energy
  - Urban infrastructure
  - Steelmaking plant
- **Chemicals and Materials**
  - Coal chemicals
  - Functional materials
  - Composite materials
- **System Solutions**
  - IT consulting
  - DX promotion
  - IT outsourcing
  - Modernization

### FY2019 results

<table>
<thead>
<tr>
<th>Region</th>
<th>Revenue (billion yen)</th>
<th>Region</th>
<th>Revenue (billion yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>206.0</td>
<td>Europe</td>
<td>194.2</td>
</tr>
<tr>
<td>Europe</td>
<td>214.9</td>
<td>Asia</td>
<td>232.5</td>
</tr>
<tr>
<td>Asia</td>
<td>218.9</td>
<td>North America</td>
<td>218.0</td>
</tr>
<tr>
<td>North America</td>
<td>218.9</td>
<td>Asia</td>
<td>222.1</td>
</tr>
<tr>
<td>Japan</td>
<td>273.2</td>
<td>Japan</td>
<td>275.7</td>
</tr>
<tr>
<td>Asia</td>
<td>273.2</td>
<td>Asia</td>
<td>275.7</td>
</tr>
<tr>
<td>Europe</td>
<td>201.7</td>
<td>Europe</td>
<td>201.7</td>
</tr>
<tr>
<td>North America</td>
<td>206.0</td>
<td>North America</td>
<td>206.0</td>
</tr>
<tr>
<td>Asia</td>
<td>201.7</td>
<td>Asia</td>
<td>201.7</td>
</tr>
<tr>
<td>North America</td>
<td>206.0</td>
<td>North America</td>
<td>206.0</td>
</tr>
<tr>
<td>Japan</td>
<td>273.2</td>
<td>Japan</td>
<td>273.2</td>
</tr>
<tr>
<td>Asia</td>
<td>273.2</td>
<td>Asia</td>
<td>273.2</td>
</tr>
<tr>
<td>North America</td>
<td>206.0</td>
<td>North America</td>
<td>206.0</td>
</tr>
<tr>
<td>Japan</td>
<td>273.2</td>
<td>Japan</td>
<td>273.2</td>
</tr>
<tr>
<td>Asia</td>
<td>273.2</td>
<td>Asia</td>
<td>273.2</td>
</tr>
<tr>
<td>North America</td>
<td>206.0</td>
<td>North America</td>
<td>206.0</td>
</tr>
<tr>
<td>Japan</td>
<td>273.2</td>
<td>Japan</td>
<td>273.2</td>
</tr>
<tr>
<td>Asia</td>
<td>273.2</td>
<td>Asia</td>
<td>273.2</td>
</tr>
</tbody>
</table>

### Steelmaking and steel fabrication

- Nippon Steel Engineering Co., Ltd.
- Nippon Steel Chemical & Material Co., Ltd.
- NS Solutions Corporation

### FY2018 results

<table>
<thead>
<tr>
<th>Region</th>
<th>Revenue (billion yen)</th>
<th>Region</th>
<th>Revenue (billion yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>201.7</td>
<td>Europe</td>
<td>194.2</td>
</tr>
<tr>
<td>Europe</td>
<td>214.9</td>
<td>Asia</td>
<td>232.5</td>
</tr>
<tr>
<td>Asia</td>
<td>218.9</td>
<td>North America</td>
<td>218.0</td>
</tr>
<tr>
<td>North America</td>
<td>218.9</td>
<td>Asia</td>
<td>222.1</td>
</tr>
<tr>
<td>Japan</td>
<td>273.2</td>
<td>Asia</td>
<td>275.7</td>
</tr>
<tr>
<td>Asia</td>
<td>273.2</td>
<td>Asia</td>
<td>275.7</td>
</tr>
<tr>
<td>North America</td>
<td>201.7</td>
<td>North America</td>
<td>201.7</td>
</tr>
<tr>
<td>Japan</td>
<td>273.2</td>
<td>Japan</td>
<td>273.2</td>
</tr>
<tr>
<td>Asia</td>
<td>273.2</td>
<td>Asia</td>
<td>273.2</td>
</tr>
<tr>
<td>North America</td>
<td>201.7</td>
<td>North America</td>
<td>201.7</td>
</tr>
<tr>
<td>Japan</td>
<td>273.2</td>
<td>Japan</td>
<td>273.2</td>
</tr>
<tr>
<td>Asia</td>
<td>273.2</td>
<td>Asia</td>
<td>273.2</td>
</tr>
<tr>
<td>North America</td>
<td>201.7</td>
<td>North America</td>
<td>201.7</td>
</tr>
<tr>
<td>Japan</td>
<td>273.2</td>
<td>Japan</td>
<td>273.2</td>
</tr>
<tr>
<td>Asia</td>
<td>273.2</td>
<td>Asia</td>
<td>273.2</td>
</tr>
</tbody>
</table>

### Results and outlook

- **Regional Revenue**: Revenue from FY2013 to FY2018 (billion yen)
- **Business profit** (billion yen)

### Outputs and outcomes

- **Revenue** (consol.): FY2013 to FY2018 (billion yen)
- **Business profit** (consol.): FY2013 to FY2018 (billion yen)
Products and applications

The Nippon Steel Group manufactures almost all types of steel products manufactured in the world and has a comprehensive supply system, which includes secondary processed products. Applications also extend to the manufacturing, resources and energy, civil engineering and construction and all other industry sectors.

Technological prowess that brings out diverse properties and infinite potential of steel

<table>
<thead>
<tr>
<th>Strength</th>
<th>Workability</th>
<th>Heat resistance</th>
<th>Weather resistance</th>
<th>Abundant resources</th>
<th>Mass production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toughness</td>
<td>Paintability</td>
<td>Corrosion resistance</td>
<td>Magnetism</td>
<td>Robustness</td>
<td>Corrosion resistance</td>
</tr>
</tbody>
</table>

Value realized by Nippon Steel

Supply of steel products
- Light weight
- Improved strength
- Long product life
- No hazardous substance

Contribution to customers
- Energy saving
- Reduction in environmental impact
- Safety
- Appearance design

Nippon Steel's strength

Wealth of product groups

Product types

Steel sheets
- Steel sheets
- Galvanized steel sheets
- Electrical steel sheets
- Stainless steel sheets
- Tinplate

Flat products
- High strength
- Crankshafts
- Railways, automotive and

Bar & wire rod
- Automotive
- Shipbuilding
- Industrial machinery
- Energy

Construction products
- Civil engineering and construction
- Civil engineering and construction
- Military segment
- Military segment

Pipes and tubes
- Railway, automotive and machinery parts
- Titanium

Titanium alloys for aircraft
- Automotive
- Aerospace design
- Workability

Steel for high-function buildings
- Industrial machinery

Stainless steel for high-function buildings
- Steel for high-function buildings

Steel pipe piles
- Steel pipe piles

Stainless steel for high-function buildings
- Stainless steel for high-function buildings

Sustainable development

Integrated Report 2020 NIPPON STEEL CORPORATION

Risks, opportunities, and strategies

Financial information and investor information

Outputs and outcomes

Nippon Steel's strength

Integrated Report 2020
Automobiles are changing with the changing times: no more need to drive, emergence of alternative energy sources, and vehicle-to-vehicle communication. New concept cars are going to be on the road in various parts of the world. In such an environment, what can Nippon Steel do? We pursue infinite potential of steel and strive to develop steel-based multi-materials. We keep trying to advance materials as well as their structural design and method of production. We propose comprehensive solutions desired for new kinds of automobiles. We imagine not only the future of automobiles but also matters of the surrounding future of the automobiles, including the lives of drivers and passengers, the streets, roads, and highways used, and the global environment. We take it as our mission to be a partner in designing such a future.

**Nippon Steel’s role in designing the future of automobiles**

- Realize energy saving
- Seek ultimate performance
- Raise safety
- Pursue comfort
- Harmonize with the NextGen Environment
- Support safety

**Products and solutions that design the future of automobiles**

**Mission:** to design the future of automobiles

- **Realize energy saving**
- **Seek ultimate performance**
- **Raise safety**
- **Pursue comfort**
- **Harmonize with the NextGen Environment**
- **Support safety**

**Unique products that assist drilling for energy (natural gas) resources**

Nippon Steel provides products and technology, aimed at assuring stable supply of energy to people day after day. Emerging countries’ economic growth is projected to expand the global energy demand. Need to develop gas fields has been increasing in particular, as natural gas has lower CO2 emission at the time of combustion, relative to coal and oil, and is hence regarded as preferable energy in terms of environmental preservation and economic development.

**Nippon Steel’s seamless pipes**

We help enhance efficiency in natural gas production and reduce development cost in gas fields, contributing to energy infrastructure building in various countries.

We provide high-strength high alloy seamless pipes with excellent corrosion resistance, to be used in the harsh corrosion environment of natural gas drilling.

**Nippon Steel’s material line-up and the drilling environment**

We have developed high alloy steel products, which can be used in the environment, for containment of high-pressure carbon dioxide gas and hydrogen sulfide. Our line-up includes martensitic stainless steel, duplex stainless steel, and nickel alloy, select of which is made according to the usage environment. We were the first in the world to establish mass production technology of large-diameter high-alloy OCTG, using the piercing and mandrel mill rolling method. We are thus providing solutions to help reduce gas field development cost.

![Graph showing carbon and hydrogen sulfide partial pressures](Image)

**Nippon Steel** is committed to supporting natural gas development by providing the world’s top-class energy-related products and solutions.
Solutions for National Resilience

In recent years in Japan, natural disasters such as earthquakes, tsunamis, powerful storms, and typhoons have occurred more frequently and with greater severity geologically and geographically due to crust fragility associated with being located in plate boundaries, and due to impacts of global-scale climate changes. The national land and diverse infrastructure have to support and protect people’s everyday life and safety from these disasters. Construction of new and added facilities and measures against the aging or declining performance of existing facilities are in urgent need. Other important challenges are to eliminate missing links for rapid post-disaster restoration and subsequent speedy reaction for supporting functions. Policy also assigns importance of measures aimed at becoming a tourism-oriented country. Among 169 Sustainable Development Goals adopted by the United Nations is included a goal to “develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure.”

The Japanese Government is also taking up “Sustainable and Resilient Land Use, Promoting Quality Infrastructure” as one of issues. The Government has promoted a “three-year emergency response plan for disaster prevention, disaster mitigation, and building national resilience” budgeted at around ¥7 trillion since fiscal 2018. The next plan named the “Basic Policies on Economic and Fiscal Management and Reform 2020, overcoming crisis towards a new future,” was approved by the Cabinet and measures to build national resilience are anticipated to be seamlessly enhanced and implemented. The Nippon Steel Group is committed to providing various solutions for national resilience, making use of its diverse manufacturing methods, product development capacity, abundant achievements in technology proposals, and nationwide product supply capacity.

Eco products™ (What we produce is “Eco-friendly”)

Nippon Steel’s eco-friendly products help reduce environmental burden.

Our products have advanced or highly specialized functions and reliability, that are based on our technological capabilities, and are widely used in diverse areas of society. They contribute to promote (1) measures against climate change by energy saving and CO2 emission reduction; (2) creation of a circular economy by prolonging product life and improving recyclability; and (3) environmental risk management by preservation of the environment and control of chemical substances.
Minimizing waste

Measures to prevent climate change (CO₂ emission reduction)

Nippon Steel has been working on CO₂ emission reduction from diverse starting points: improving efficient use of energy generated in steelmaking processes (i.e., power generation from recovered by-product gas and waste heat); making operational improvements in each process; and use of waste plastics. As a result of these continual efforts, Nippon Steel’s CO₂ emissions were 2.70 Gt in fiscal 2019, which represented a reduction of about 12% compared to fiscal 1990.

Promotion of in-house zero emissions

Contributing to construction of Circular Economy

In the iron and steel-making process, over 600kg of by-products, such as steel slag, dust, sludge, and used refractory bricks, are generated for each ton of crude steel produced. In fiscal 2019, Nippon Steel produced 39.54 million tons of crude steel and generated 24.93 million tons of by-products.

The majority of these by-products are recycled inside and outside the company. In fiscal 2019, their final disposal accounted for approximately 290,000 tons, partly due to one-off factors, but the recycling rate was maintained at a high level of 99%.

Promotion of environmental risk management

Nippon Steel is promoting atmospheric, water, and soil risk management. Specific measures include installation of effective equipment to reduce emissions of sulfur oxide (SOx) and nitrogen oxide (NOx) and to curb emissions of soot and dust; enhancement of constant monitoring and regular patrols; installation of devices such as automatic waste water detectors, waste water shut-off gates, and emergency water storage pits.

Emission of SOx and NOx

In accordance with the laws concerning the management of volatile organic compounds (VOC) and other chemical substances and the voluntary control manual developed by the Japan Iron and Steel Federation (JISF) and Nippon Steel, we appropriately manage and try to improve the control of production, handling, and discharge or disposal of chemical substances.
FY2019 Results

2020 Mid-Term Management Plan targets

Nippon Steel set ROS (Return-on-Sales) of 10% and ROE (Return-on-Equity) of 10% as its targets for fiscal 2020 in due consideration of the cost of capital, expected return for shareholders, desirable profit level for becoming the “best steelmaker with world-leading capabilities,” maintenance and improvement of credit ratings, and other factors.

We have made a specific plan to achieve 10% in both ROS and ROE in the 2020 Mid-Term Management Plan (FY2018-FY2020) by profit improvement, which should more than offset an increase in depreciation expenses for investment to refurbish production facilities. The tactics for profit improvement include the following measures: 1) restoration of production and shipment volume to the crude steel production level of 45 million tons/year; 2) margin improvement; 3) ¥150 billion annual cost reduction over the three years; and 4) profit improvement of group companies, including generation of synergy with Nippon Steel Nisshin, Sanyo Special Steel, and Ovako, which recently joined the Nippon Steel Group.

Fiscal 2019 business environment

The business environment surrounding Nippon Steel has significantly changed from what we initially assumed in devising the Mid-Term Management Plan to the unprecedented harsh environment.

1. Higher raw material prices and lower steel product prices

Demand for steel products had been relatively favorable up to 2018 but has slowed down and has been depressed since 2019. On the back of the prolonged U.S.-China trade friction, the global economic slowdown has depressed the global steel market, mainly through a drop in demand from the manufacturing industry.

In the meantime, China – the world’s largest steel producing and consuming country – has been actively investing in infrastructure, as a part of stimulative measures by its government, and its crude steel production has been at all-time high, mainly driven by long products used in civil engineering and construction, resulting in boosting prices of iron ore and other material prices. That is why “depressed demand and market for steel products” and “high-level prices of raw materials and fuel” occurred simultaneously, resulting in an unprecedented combination of “higher raw material prices and lower steel product prices.” In the export commodity market, in particular, the sales margin of steel products has become slimmer.

2. Decline in steel demand in Japan

In Japan, demand for indirect exports, mainly for automotive parts and industrial machinery, had been depressed, breaking past the 60 million ton level in fiscal 2019, for the first time in 10 years since the global financial crisis.

Nippon Steel’s crude steel production (non-consolidated) was also below 40 million tons at 39.54 million tons for the first time in a decade.

3. Increase in purchasing cost, other than that of main raw materials

Further aggravating the situation is an increase in purchasing cost, other than that of main materials of iron ore and coal. In the last several years, prices of alloy metals (i.e., manganese, molybdenum, vanadium, etc.), freight rates for imported raw materials, oil prices used for shipping fuel and fuel in steelworks, cost of refractory and other materials, and prices of coke purchased from outside have all been rising. As a result, the cost per ton of steel product has cumulatively risen by about ¥5,000 since 2016. This cost increase has not been fully reflected in sales prices, hence, resulting in a slimmer sales margin for us.

Fiscal 2019 result summary

Under that harsh business environment, we recorded a consolidated business loss of ¥284.4 billion and loss attributable to owners of the parent of ¥431.5 billion – the worst loss ever in both.

The recording of ¥482.6 billion impairment losses mainly on tangible fixed assets of domestic steelworks has significantly affected the results. However, even excluding the impairment losses, the fact remains that consolidated business profit substantially deteriorated.

Consolidated business profit

<table>
<thead>
<tr>
<th>Year</th>
<th>Consolidated business profit (consolidated ordinary profit, up to FY2016) (¥)</th>
<th>ROS (¥)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>87.1</td>
<td>11%</td>
</tr>
<tr>
<td>2013</td>
<td>4.1</td>
<td>-3%</td>
</tr>
<tr>
<td>2014</td>
<td>5.2</td>
<td>11%</td>
</tr>
<tr>
<td>2015</td>
<td>76.5</td>
<td>11%</td>
</tr>
<tr>
<td>2016</td>
<td>13.6</td>
<td>-5%</td>
</tr>
<tr>
<td>2017</td>
<td>1.3</td>
<td>-4%</td>
</tr>
<tr>
<td>2018</td>
<td>-4.8</td>
<td>-4%</td>
</tr>
<tr>
<td>2019</td>
<td>-26.4</td>
<td>-6%</td>
</tr>
</tbody>
</table>

Before posting of impairment losses | After posting of impairment losses

<table>
<thead>
<tr>
<th>Year</th>
<th>Before posting of impairment losses (¥)</th>
<th>After posting of impairment losses (¥)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>87.1</td>
<td>87.1</td>
</tr>
<tr>
<td>2013</td>
<td>4.1</td>
<td>4.1</td>
</tr>
<tr>
<td>2014</td>
<td>5.2</td>
<td>5.2</td>
</tr>
<tr>
<td>2015</td>
<td>76.5</td>
<td>76.5</td>
</tr>
<tr>
<td>2016</td>
<td>13.6</td>
<td>13.6</td>
</tr>
<tr>
<td>2017</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>2018</td>
<td>-4.8</td>
<td>-4.8</td>
</tr>
<tr>
<td>2019</td>
<td>-26.4</td>
<td>-26.4</td>
</tr>
</tbody>
</table>
Factors for current operating profit on a non-consolidated basis deterioration and measures for each

1. Deteriorating business environment
Due to “higher raw material prices and lower steel product prices” and “a decline in domestic demand,” our production and shipments has been cut back and margin has deteriorated, mainly for exports to spot market. We are controlling the level of production to the economically justifiable level of filling the orders.

2. Natural disasters, etc.
Unprecedented levels and frequency of lightning, heavy winds and rains, etc. caused disaster-related loss of ¥35 billion in fiscal 2018 and ¥42 billion in fiscal 2019. We are working on disaster preventive measures both on their hard aspect, such as equipment, as well as on their soft aspect, such as training.

3. Increase in the scale of fixed cost
Nippon Steel's main steelworks have been in use for more than 50 years since construction and are in need of large-scale facility refurbishment. Capital expenditures, primarily in the upstream steelmaking process and energy sectors, boosted depreciation expenses and maintenance cost, thereby raising overall fixed cost.

We have decided to shut down some facilities as part of the production facility structural measures, as stated on pages 65-67. In FY2020, we plan to reduce fixed cost by approximately ¥200 billion. This includes reduction in maintenance cost due to less maintenance needs resulting from facilities to be shut down, and a decline in depreciation expenses, associated with recording of impairment loss and a change in the depreciation method.

4. Operational and maintenance-related troubles
Since around 2017, operational and maintenance-related troubles occurred one after another, which has deteriorated per-ton fixed cost and variable cost. Our group-wide efforts to restore our strength in manufacturing have finally led to stabilizing production in many facilities in FY2019. We will continue efforts to raise our ability to produce as planned.

5. Insufficient adjustment in long-term contract price
We have been striving to correct sales prices of our products on long-term contracts, which are mainly for customers in the manufacturing industry in and out of Japan. Concerning a cost increase of as much as ¥5,000 per ton of steel product, this being caused by price increases of alloy and other raw materials, and distribution, we have been asking the entire supply chain, including customers, to fairly share the burden.

Nippon Steel's compensation for Directors is all based upon performance of the Company and the compensation from July to June of the next year is determined by the previous fiscal year's results. Due to deteriorated earnings in fiscal 2019, the compensation for Directors from July 2020 has been cut back (down less than 30% to 40+%, depending on the position rank) but prior to this, from February 2020, Directors immediately returned their compensation by 10-20%.

Towards making efforts for the early return to operating profit on a non-consolidated basis and for securing of a sufficient level of consolidated business profit.

Moreover, we are carrying out structural measures, growth investment, and other strategies, addressing medium- to long-term risks and opportunities. (More on medium- to long-term measures on pages 61-64, “Risks and opportunities, and Nippon Steel’s strategy.”)
FY2020 outlook and toward returning to generate operating profit (non-consol.) post-COVID-19

Impact of the COVID-19 outbreak

Steel demand
Domestic steel demand has dropped sharply since April 2020 and demand in the first half of fiscal 2020 is expected to be 24 million tons, down 20% y-o-y. In particular demand from the manufacturing sector is likely to be 15 million tons, down 24% y-o-y. Demand, however, is expected to bottom out in the first half and slightly recover to around 26 million tons in the second half, mainly driven by the manufacturing sector.

Production
In response to a sharp drop in demand, we promptly put 6 out of 15 blast furnaces in (a method to temporarily stop blast furnace production in a condition that enables production to (restart) and, together with reduced blast furnace productivity and extension of blowing-stop times, cut back production by a method that minimizes the associated cost increase. Our crude steel production (non-consol.) was 7.2 million tons in the first quarter and is expected to be 14.9 million tons in the first half and around 16.9 million tons in the second half.

Temporary closure
As a part of measures to maintain employment, all domestic workplaces have implemented temporary closure since April and applicable workplaces have received the employment adjustment subsidy from the government.

Procurement and supply chain
In procurement of iron ore, coal, and other raw materials, a decline in the operating rate of material suppliers in countries which imposed lockdown had a little impact but the overall shipment to us was little affected, with no problem in procurement, partly thanks to alternative procurement. Also, procurement of other materials and equipment has been affected little, as we closely coordinated with the suppliers and adjusted delivery timing if needed.

Measures to prevent COVID-19 infections
Based on the policies and action plans of the Japanese government and municipalities, we place safety of customers and employees first, thoroughly take measures to prevent COVID-19 infections, and strive for efficient, appropriate continuity of business. Foreseeing potential prolonged needs against COVID-19, we are promoting new work styles, which could further raise operating efficiency.

New workstyle

1. Active use of telework (work-at-home)
2. In case of work in the office
   - Flexible work time and staggered commuting hours are encouraged. Thorough adoption of infection prevention measures: wear masks, wash hands and fingers, and avoid the "Three Cs"—CLOSED spaces, CROWDED places, and CLOSE-contact settings.
3. Meetings
   - Active use of IT tools, such as video or web conferencing, for internal meetings
   - Active use of video or web conferences for meetings with outside parties
   - In case of face-to-face meetings, thorough adoption of infection prevention measures: wear masks, wash hands and fingers, and avoid the "Three Cs."
4. Business travel
   - Only essential business travel shall be allowed but thoroughly comply with infection prevention measures; even during movement.
   - Overseas travel shall be prohibited, in principle.

Change in the depreciation method
Nippon Steel has changed its depreciation method from the declining-balance method to the straight-line method since the first quarter of fiscal 2020 due to the following reasons:
1. To increase the ratio of capital expenditures for facility refurbishment in total investment;
2. To promote preventive, planned maintenance and normalized maintenance expenses over the equipment service life, and
3. To improve comparability to other global steel companies and IRSF-adopted companies.

Fiscal 2020 initiatives toward returning to generate operating profit (non-consol.)
Prior to emergence of the COVID-19 outbreak, we had a good prospect of returning to operating profit (non-consol.) and recovering some business profit (consol.) in fiscal 2020 by implementing the following measures.

- Fixed cost in cash, down approx. ¥10 billion/year. Selective input (suppressing input to facilities scheduled to be shut down) enhancement of maintenance efficiency in reorganized steelworks; thorough facility inspection management by use of advanced IT, etc.
- Depreciation expenses, down approx. ¥10 billion/year. Improvement losses-related (¥6 billion); change in depreciation method (¥4 billion)
- Operational improvement and cost improvement through capital investment planned in the medium-term management plan, additional improvement measures; operation optimization accompanying facility structural measures, etc.
- Ongoing efforts for improvement in long-term contractual steel prices
- Aim to realize "fair sharing of burden across the supply chain for cost increase of raw materials and others," and "appropriate sales prices that reflect Nippon Steel's product value and contribution to customers".

Fiscal 2020 earnings outlook
The COVID-19 outbreak severely depressed demand for steel products, which forces us to record a substantial loss in the first half of fiscal 2020, but we forecast a return to profit in the second half. Sharp production cuts are causing an increase in variable cost but we are making utmost efforts to improve profitability by improved variable cost control, reduction in cost increase caused by production cut.

Further profit-oriented production
Substantial increase in variable cost (i.e., low production rate to depress per-unit cost; decrease in by-product gas generation to change the energy structure) caused by production cuts will be offset by efforts to minimize demerits;
- Tighter cost control under conditions of low-level production (i.e., greater use of low-cost raw materials); and
- Additional reduction in fixed cost, driven by low-level production

We seek downward production tolerance and profit-oriented order receipt and production.

Fiscal 2020 initiatives toward returning to generate operating profit (non-consol.)

<table>
<thead>
<tr>
<th>Reduction in fixed cost</th>
<th>¥200 billion/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction in variable cost</td>
<td>More than ¥50 billion/year</td>
</tr>
<tr>
<td>Ongoing efforts for improvement in long-term contractual steel prices</td>
<td></td>
</tr>
</tbody>
</table>

Fiscal 2020 earnings outlook

| Consolidated business profit (¥ billion) |
| FY2019 (E) | FY2020 (E) |
| 251.4 | 197.0 |

<table>
<thead>
<tr>
<th>FY2019 (before impairment loss)</th>
<th>FY2020 estimated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated business profit decrease of ¥¥197.0 billion (Profit of ¥¥16.5 bn to loss of ¥¥20.0 bn)</td>
<td></td>
</tr>
</tbody>
</table>

| Improvement in variable cost | ¥50 billion |
| Reduction in fixed cost in cash | ¥90 billion |
| Decrease in depreciation expenses | ¥110 billion |
| Reduction in fixed cost | ¥200 billion |
| Cost increase caused by production cut improvement in additional variable cost, caused by low-level production |
| Reduction in additional fixed cost, caused by low-level production |

Almost offsetting
Risks, opportunities, and strategies

A decline in steel demand in Japan, associated with a declining and aging population, gives cause for concern, but global steel demand is expected to continue growing, mainly driven by emerging countries. Demand for high-grade steel products is expected to increase in terms of quality and volume, because improvement in functions and quality of steel, a basic material that supports society and industry, is critically important for changing social/industrial structure, realization of a sustainable society, and improvement in labor saving efficiency and labor productivity needed in society with a declining and aging population.

Changes in the environment
- Declining and aging population in Japan
- Economic growth in emerging countries
- Trend of “local production and local consumption” and “favoring domestic production” in various regions
- Intensifying competition with Chinese steelmakers

Changes in the social and industrial structure
- Peaking out of steel demand for internal combustion engines
- Shift from steel to new materials
- Rapid progress in advanced IT

Realization of a sustainable society
- Greenhouse gas reduction: Energy efficiency
- Creation of a recycle-oriented society: Circular economy
- National Resilience

Internal factors
- Aging facilities
- Generational shift

Expecting accelerated changes in the post-COVID-19 world

Nippon Steel’s strategy

Dual tactics of selection and concentration in facilities, products, and businesses

Early shift to an optimal production framework in Japan and enhancement of competitiveness

Growth strategy
- Selective investment in competitive facilities to raise productivity and enhance capability
- Shutdown of less competitive facilities

Quality/volume enhancement of globally-competitive strategic products

Growth strategy
- Capacity expansion, stable supply, and further enhancement of functions of high-grade products, i.e., ultra-high-tensile steel sheets, high-efficiency electric steel sheets, high-corrosion-resistant seamless steel pipes, materials for high-pressure hydrogen, and high-strength rails

Deepening of the overseas business to cope with the trend of favoring local production and local consumption

Growth strategy
- Focus on “areas where our technology and product capacity can be used” and “regions where we see assurance of market growth potential”
- Withdrawal from or restructuring of businesses that have completed their roles or those that are losing synergies

Innovative technology development to cope with climate change issues

Sustainability strategy
- “Three Ecos” that comprise of Eco Process, Eco Products, and Eco Solutions
- Promote innovative technology development in four aspects:
  1) CO2 emission reduction; 2) CO2 separation and collection; 3) CO2 recycling; and 4) CO2 fixation

Promotion of digital transformation

Growth strategy
- Collaboration of digital technology with people and empowerment of the workforce by digital technology in promoting the business process innovation and production process reinvintion to become more competitive.
The steel market’s potential risks and opportunities

The world’s steel demand keeps increasing, mainly in emerging countries

Steel production is indispensable in "leaving no one behind" and realizing an affluent world

Steel products that have been manufactured have been stocked in society in the form of end products, such as in infrastructure (i.e., buildings and bridges), industrial equipment in plants or vessels, and consumer durables (i.e., vehicles and consumer electronics). The aggregate present steel stock per capita is about 4 tons for the world, and about 8 – 12 tons in developed countries. The level of per-capita steel stock can be said as a barometer of an affluent, safe, reliable life. The amount per capita is expected to reach 10 tons in China within the first half of the 21st century and in India by the end of the century.

Let's make an estimate. Assuming a global population expected to reach 10 tons in China within the first half of the 21st century and in India by the end of the century.

The amount per capita is estimated to be made from iron ore using the blast furnace and other methods even in 2050.

Demand growth in emerging countries

Steel demand for each country or region changes along with economic growth. At the initial stage of economic development, construction demand for infrastructure facilities is robust and industrialization boosts steel demand from the manufacturing industry. In export-oriented countries that ship large quantities of manufactured goods, demand for indirect exports increases and steel demand per capita remains at a high level. In the case of Japan, the annual steel demand per capita increased to approx. 800kg during the high-growth period when infrastructure was being actively built, and since then has been around 500kg. In South Korea, where the manufacturing industry's export ratio is high, the same steel demand is as high as 1,000kg. China has already reached 500kg, while the U.S. and European countries have declined to about 300kg, along with a decline in the ratio of the manufacturing industry in the overall economy.

In ASEAN countries, India, and other emerging countries, the annual steel demand per capita is about 100-300kg and is expected to increase. Along with population growth, a significant growth in steel demand can be anticipated. In 2020, steel demand has decreased in various countries due to the impact of the COVID-19 outbreak. Particularly in emerging countries, it may take time before a recovery as their currency depreciation depressed their purchasing power and lower oil prices deteriorated the economy of resource-rich countries. Nevertheless, even with a delay, steel demand in emerging countries is expected to return to a growth path over the long term.

Global crude steel production

Crude steel production in the world is a measure of economic activity in industrialized countries. The world’s steel production capacity is about 1.5 billion tons per year, and approx. 1.4 billion tons of steel per year is estimated to be produced.

Steel stock per capita

Steel products that have been manufactured have been stocked in society in the form of end products, such as in infrastructure (i.e., buildings and bridges), industrial equipment in plants or vessels, and consumer durables (i.e., vehicles and consumer electronics). The aggregate present steel stock per capita is about 4 tons for the world, and about 8 – 12 tons in developed countries. The level of per-capita steel stock can be said as a barometer of an affluent, safe, reliable life. The amount per capita is expected to reach 10 tons in China within the first half of the 21st century and in India by the end of the century.

Let's make an estimate. Assuming a global population expected to reach 10 tons in China within the first half of the 21st century and in India by the end of the century.

The amount per capita is estimated to be made from iron ore using the blast furnace and other methods even in 2050.

Increasing difficulty to export

Direct exports of steel products are expected to be difficult in the future, due to intensifying competition with overseas emerging steelmakers and the ongoing trend of “local production and local consumption” and “favoring domestic production.” The trend may accelerate, driven by the economic impact of the COVID-19 crisis. On the back of swift recovery (as of this writing) from the COVID-19 impact, Chinese major steelmakers are expected to expand their predominance and make the market more competitive. The supply chain disruption, caused by the COVID-19, may also speed up the above trend.

The high-grade steel market is promising with potential growth in quality and quantity

High-grade steel products are products which make use of various properties and limitless potential of steel, are designed to meet various specifications for steel quality, depending on the needs of customers, demonstrate superb functionality in use, and contribute to value creation of end products. Prime examples are Eco Products™, which contribute to preservation of resources and energy and reduction in environmental impact, and products that provide solutions for national resilience, contributing to the creation of safe, reliable infrastructure, resilient in disasters.

In the changing social, industrial structure and progress in SDG initiatives in the world, properties required for materials are more diversified and advanced, and demand for those high-grade steel products is anticipated to increase both in quality and quantity.
Pursuit of lean & optimal production framework

Basic concept of the production facility structural measures

In Japan’s steel market, demand is expected to decline mainly due to shrinking construction demand, driven by the aging and declining population, and customers’ expansion of overseas production. The overseas steel market is likely to grow in the long term but the export market is expected to become more competitive as the trend of ‘favoring domestic production’ will progress in the midst of rising protectionism in many countries and as Chinese steelmakers are increasing integrated steel production capacity in China’s coastal regions and ASEAN.

In the meantime, more than 50 years have passed since the construction of Nippon Steel’s main steelworks and large-scale capital expenditures for facility refurbishment have to be made as we enter into a so-called “second foundation stage.”

Based on these assumptions, our plan for domestic production will progress in the midst of rising protectionism overseas production. The overseas steel market is likely to grow in the long term but the export market is expected to become more competitive as the trend of ‘favoring domestic production’ will progress in the midst of rising protectionism in many countries and as Chinese steelmakers are increasing integrated steel production capacity in China’s coastal regions and ASEAN.

In the meantime, more than 50 years have passed since the construction of Nippon Steel’s main steelworks and large-scale capital expenditures for facility refurbishment have to be made as we enter into a so-called “second foundation stage.”

Shrinking construction demand, due to aging and declining population
Decline in indirect exports, driven by Japanese customers’ expansion of production outside Japan
Risk of decline in domestic demand

Decline in domestic steel demand in China
Progress of "favoring domestic production," along with Chinese steelmakers’ integrated capacity increase in China’s coastal regions and ASEAN
Risk of intensifying competition in the export market

Passing of 50+ years since construction of Nippon Steel’s main steelworks
Need for large-scale capital expenditures for facility refurbishment even when smartly controlled by selection and concentration of resources

Competitiveness in upstream integrated production

To build an efficient optimal production framework centered on competitive integrated steelworks

Specific plans

1. Comprehensively review competitiveness of integrated steelworks, from the perspective of system and capability of integrated manufacturing of high-value-added products
2. Shut down less-competitive facilities and concentrate production in competitive facilities
3. Strategic selective investment to improve productivity and strengthen the business structure

Pursuit of lean & optimal production framework
Increase in the ratio of high-value-added products
Maximization of marginal profit under adequate fixed cost level

Enhancing competitiveness of upstream integrated production

In consideration of comprehensive competitiveness of each steelworks, the Kyushu WorksYawata AreaKakura blast furnace was shut down and the Setouchi WorksKure Area and the Kansai WorksWakayama Area No. 1 blast furnace will also be shut down. We will focus on strengthening other steelworks and improving their competitiveness in upstream integrated production.

Enhancing efficiency of the steel sheet production system

With a focus on production near a high demand area, shut down a part of production lines of the Setouchi WorksHanshin Area (Saka) and consolidate production into competitive lines, such as in Kimitsu and Nagoya.

Enhancing efficiency of the steel sheet production system

Pursuit of lean & optimal production framework

Structural measures to realize a lean & optimal production framework

<table>
<thead>
<tr>
<th>Target steelworks</th>
<th>Target facility for shutdown</th>
<th>Approximate time of shutdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setouchi WorksKure Area</td>
<td>BF, Upstream facilities, and downstream</td>
<td>Sep. 2021</td>
</tr>
<tr>
<td>Kansai WorksWakayama Area</td>
<td>BF, #5, #7 sintering furnace, #4 coke oven, and part of #3 continuous caster</td>
<td>First half of FY2022</td>
</tr>
<tr>
<td>Kysu WorksYawata Area (Tochura)</td>
<td>Upstream facilities</td>
<td>First half of FY2020</td>
</tr>
<tr>
<td>Setouchi WorksHirohata Area</td>
<td>A melting furnace (installation of GAF)</td>
<td>Sep. 2023</td>
</tr>
<tr>
<td>Setouchi WorksHanshin Area (Saka)</td>
<td>Continuous annealing and processing line, electro-galvanizing line, and #4 continuous aluminizing line</td>
<td>March 2021</td>
</tr>
<tr>
<td>Nippon Works</td>
<td>Tinplate mill</td>
<td>Second half of FY2022</td>
</tr>
<tr>
<td>Kansai WorksOsaka Area</td>
<td>Titanium round bar line</td>
<td>March 2023</td>
</tr>
<tr>
<td>Kysu WorksUeda Area</td>
<td>Titanium ERW line</td>
<td>Sep. 2021</td>
</tr>
<tr>
<td>Nippon SteelStainless Steel Works</td>
<td>Hot strip mill, Precision product lines</td>
<td>Dec. 2020, Sep. 2020</td>
</tr>
<tr>
<td>East Nippon WorksKashima Area</td>
<td>UO pipe mill</td>
<td>Done by Oct. 2019</td>
</tr>
<tr>
<td>East Nippon WorksKimitsu Area (Tokyo)</td>
<td>Small-diameter seamless pipe mill</td>
<td>Done by May 2020</td>
</tr>
</tbody>
</table>

Market outlook

Nippon Steel's structure of fixed cost

Overview

Inputs
Business activities
Outputs and outcomes

Results and outlook

Corporate governance

Financial information and investor information

A small-diameter seamless pipe mill in the East Nippon Works Kimitsu Area was shut down and its production was consolidated into the company’s Yamaguchi Works.
Expected effects of the production facility structural measures

By implementing the production facility structural measures decided so far, the number of blast furnaces will be decreased by 4 from 15 (as of April 2020) to 11, and annual crude steel production capacity will decline by approx. 5 million tons. The effects are expected to save approx. ¥100 billion per year mainly in reduction in fixed cost, and improvement in variable cost. We will make efforts to realize the effect early and at maximum and at the same time to raise labor productivity and improve variable cost so as to reinforce our profit base.

Facility refurbishment

We will selectively make strategic investment in facilities that are competitive in terms of integrated production and output capacity, cost, product, etc. and will be indispensable in our future optimal framework. We thus aim at improving productivity and profitability.

Our plans for relining and other investments in blast furnaces, coke ovens, and other facilities are summarized below.

The Nagoya Works has decided to reline its No. 3 blast furnace, where it has been about 20 years since the previous relining, as a part of strengthening competitiveness of upstream integrated production, so as to appropriately respond to customers’ needs and jointly succeed in global competition. The Nagoya Works is a main base for high-grade steel sheet integrated production, and is leading the world in optimal integrated production technology for steel sheets for automobiles. After relining, the blast furnace will adopt advanced IT and other new technologies in order to realize stable production and higher productivity.

The Setouchi Works Hirohata Area – a base for high-grade steel sheet, such as electric steel sheets and sheets for automobiles – will renovate its scrap melting process, making it an electric arc furnace (EAF), which enables more flexible production with excellent energy efficiency. The state-of-the-art EAF will make use of our strong smelting technology and high-quality raw materials, originating from the blast furnace process, and manufacture electric steel sheets and other high-purity, high-grade steel sheets. In the Kyushu Works Yawata Area, where its Kokura plant was shut down, the most advanced bloom continuous caster with the world largest class radius was newly installed in its Tobata plant, with the aim of improving quality, merchandisability, and productivity of wires, rods, and rails.

Pursuit for more optimal production framework

In addition to the measures being implemented, we will continue considering other measures for establishing more competitive framework and implement additional ones in response to the changing environment, while adapting to the supply-demand balance in Japan and overseas and our potential profit trend.
Enhancement of globally-competitive strategic products in quality and quantity

Global change in the social and industrial structure and progress of SDGs initiatives, are making properties required for materials to be more diversified and advanced.

By making use of our strength in technology to provide solutions concerning material development, utilization and processing technology, and other matters in response to changing needs of customers and society, we are investing in the high-grade steel area, which contributes to customers’ value creation and a sustainable growth of society.

As shown below, electrical steel sheet is an example of high value added products, in which we have competitive advantage and in which we are currently investing.

Electrical Steel Sheets: investments for greater capacity and quality improvement, with the aim of meeting demand growth in electricity and eco cars and of enhancing the energy-saving function

What are electrical steel sheets?

Electrical steel sheets are materials used power generators used in power plants, transformers (on transmission lines to factories and residences), and in the iron core of motors of various electric appliances. By controlling the orientation of iron crystals, the favorable magnetic properties of steel can be used and energy loss generated in iron cores (iron loss) can be reduced. Electrical steel sheet is one of highly functional steel materials.

There are two types of electrical steel sheets: Grain-oriented (GO) and Non-oriented (NO). The GO type is processed in such a way that the optimal properties are developed in the rolling direction for efficient magnetism and electricity conversion, and is mainly used for transformers. The NO type is processed so that crystal orientation is evenly randomly arranged, and is mainly used for motors.

1 Grain oriented (GO) electrical steel sheets

Global demand for electricity is estimated to double by 2050. In the meantime, from the perspective of energy saving and environmental protection, regulations on energy efficiency of transformers have been tightened in various countries. In order to raise energy efficiency of transformers, GO electrical steel sheets are indispensable.

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Regulation</th>
<th>Current</th>
<th>Outlook (Nippon Steel’s estimation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>Top Runner</td>
<td>Tier 2</td>
<td>Tier 3 10% improvement vs. Tier 1</td>
</tr>
<tr>
<td>EU</td>
<td>Ecodesign</td>
<td>Tier 1</td>
<td>Tier 2 10% improvement vs. Tier 1</td>
</tr>
</tbody>
</table>

Promoting investments for greater capacity of electrical steel sheets and their quality improvement

We are investing in capacity increase and quality improvement of electrical steel sheets, in response to the demand growth and greater needs for quality improvement of electrical steel sheets, and in order to contribute to energy saving and climate control measures.

We will continue capital expenditures for these objectives and announce when specific plans are decided.

As shown below, Nippon Steel’s estimates are to continue to be carried out for high-tensile steel sheets – another area in the high-grade steel with high demand growth, where further investments are also under consideration.

<table>
<thead>
<tr>
<th>Area</th>
<th>Approximate investment amount</th>
<th>Announcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kyushu Works, Yawata Area</td>
<td>¥45 billion</td>
<td>Aug, 1, 2019</td>
</tr>
<tr>
<td>Setouchi Works, Hirokata Area</td>
<td>¥54 billion</td>
<td>Nov, 1, 2019</td>
</tr>
</tbody>
</table>
Deepening of overseas business, addressing to local production and local consumption

Acquisition of an integrated steelmaking base in India

The Nippon Steel Group is expanding overseas with a focus on “markets where we see assurance of demand potential” and “areas where our technology and product capacity can be used.” In December 2019, Nippon Steel and ArcelorMittal jointly acquired Essar Steel India Limited, one of India’s four major steelmakers, and started its joint operation as equal partners, under a new company name AM/NS India. The steel market in India is one of the promising steel markets in the world over the medium- to long-term but an extremely difficult market to enter via exports or local investment due to there being a preference for domestically produced steel products. In 2016, the Insolvency and Bankruptcy Code entered into force and “areas where our technology and product capacity can be used.” In December 2019, Nippon Steel and ArcelorMittal jointly acquired Essar Steel India Limited, one of India’s four major steelmakers, and started its joint operation as equal partners, under a new company name AM/NS India. The steel market in India is one of the promising steel markets in the world over the medium- to long-term but an extremely difficult market to enter via exports or local investment due to there being a preference for domestically produced steel products. In 2016, the Insolvency and Bankruptcy Code entered into force and AM/NS India entered into the market in India. The total acquisition amount of INR500bn can be economically justified as investment in an integrated steelworks. Our plan is to make use of existing manufacturing facilities, workforce, sales force, and sales channels of the former Essar Steel, use management know-how and technology of Nippon Steel and ArcelorMittal, and invest in production capacity expansion and environmental measures, with the aim of responding to demand growth in India’s steel market and contributing to the country’s economic growth.

AM/NS India

- An integrated steel mill in Western India – an area of high consumption of steel materials
- A pelletization plant in Eastern India to supply raw materials
- Service centers in major areas of demand in India

Locations

1976 (former Essar Steel)
Nominal capacity steel
approx 8.6 MMT/Y (crude steel)
Investment amount INR 260.3 bn. (Fiscal 2017 ended March 31, 2018)
3,806 (as of March 31, 2018)
3.6 MMT/Y
1.5 MMT/Y
5 MMT/Y

Sales mix

<table>
<thead>
<tr>
<th>Products</th>
<th>Sales mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot-rolled sheets</td>
<td>44%</td>
</tr>
<tr>
<td>Cold-rolled sheets</td>
<td>14%</td>
</tr>
<tr>
<td>Others</td>
<td>5%</td>
</tr>
<tr>
<td>Plates</td>
<td>6%</td>
</tr>
<tr>
<td>Color coated</td>
<td>6%</td>
</tr>
<tr>
<td>Hot-dip galvanized</td>
<td>6%</td>
</tr>
</tbody>
</table>

Integrated Report 2020
India’s steel market, a secular, steady growth market

High growth potential

India’s steel demand is expected to steadily increase from the current approx. 100 million tons level to approx. 230 million tons by 2030, according to India’s National Steel Policy (NSP). India’s current population is about 1.3 billion and its demographic composition is now shifting from a bottom-heavy type to a middle-heavy type. The population is expected to keep growing and exceed that of China in 10 years to become the world’s most populated country.

India’s annual steel demand per capita is 71 kg, which is lower than ASEAN countries (132 kg) or Brazil (approx. 100 kg). Per-capita steel demand increases in line with GDP growth. In case of Japan, the annual steel demand per capita increased to 800 kg during the high-growth period when there was a surge in infrastructure building, and has since been at around 500 kg. India’s GDP per capita is at a low level of about $2,000 but industrialization and urbanization will boost GDP and steel demand per capita, mainly for infrastructure, will surely increase to approx. 708 kg by 2030, according to the NSP. Anticipating synergies of population growth and economic growth, India therefore is the most certain promising growth market in steel demand in the world.

Anticipating India’s supply-demand balance in steel will be tightened

While steel demand is expected to increase significantly, new integrated steelworks are unlikely to be constructed in the near future. This is because of restrictions in acquisition and utilization of property sites and some past cases which took a long time to get started or which were canceled. The supply-demand balance therefore may get tightened as a growth in supply capacity cannot catch up with growth in demand. (According to the Indian National Steel Policy, a certain level of supply and demand tightening is projected.)

High domestic production rate

India’s steel market has had a high domestic production rate and demand growth so far has been covered by supply growth by India’s steelmakers. India’s government, under its “Make in India” policy, is resolutely protecting India’s steel industry as a key industry. Major steel materials, such as hot-rolled sheets, plates, and cold-rolled sheets, are currently protected by trade measures and 90% of their demand were satisfied by domestic steelmakers (domestically-produced products) in 2018. This structure of domestic steelmakers filling demand growth is expected to remain unchanged even if demand continues growing in the future.

Rapid progress in industry consolidation

India’s steel market is fragmented with low concentration in top-tier companies and little progress in industry consolidation. In 2016 the Insolvency and Bankruptcy Code entered into force and heavily-indebted steelmakers became targeted for acquisition and reorganization. Large-scale industry consolidation is rapidly progressing and further concentration into top-tier makers is expected with a possibility for a more stable market.
Coping with Climate Change

Nippon Steel recognizes climate change as a priority problem that threatens survival of the human race. Adverse climate change would also severely affect our business environment and earnings. In order to make our operation sustainable, we strive to curb impacts of climate change by promoting energy conservation, CO2 emission reduction, and improvement in energy efficiency throughout the entire supply chain, from manufacturing to transportation, and at the stage of final use of products.

Nippon Steel’s current energy-conservation initiatives (Eco Process)

Nippon Steel has been working an energy conservation from diverse starting points: improving efficient use of energy generated in steelmaking process (i.e., power generation from recovered by-product gas and waste heat); making operational improvements in each process; renovation of older coke ovens and other equipment; introduction of high-efficiency power generation facilities and oxygen plants; conversion to regenerative burners in reheating furnace. As a result of these continual efforts, the Nippon Steel Group consumed 1,089 petajoules (PJ) of energy in fiscal 2019, down about 13% vs. the volume in fiscal 1990. CO2 emissions intensity increased from the previous year to 206 t-CO2/tm in fiscal 2019 as production output declined partly due to COVID-19; however, CO2 emission dropped by about 12% relative to fiscal 1990 to 94 million tons (preliminary).

As a core member of the Japan Iron and Steel Federation (JISF), we are actively involved in the JISF’s Action Plans for a Low-Carbon Society by promoting our “three ecos” and further CO2 emission reduction. Japan Iron and Steel Federation’s Action Plans for a Low-Carbon Society (“three ecos and innovative technology development”)”

Contribute to worldwide emission reduction by technology transfer and R&D

<table>
<thead>
<tr>
<th>Phase</th>
<th>FY2019</th>
<th>FY2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase I</td>
<td>2.31 t-CO2</td>
<td>2.21 t-CO2</td>
</tr>
<tr>
<td>Phase II</td>
<td>3 t-CO2</td>
<td>2.92 t-CO2</td>
</tr>
<tr>
<td>Phase III</td>
<td>9 t-CO2</td>
<td>2.89 t-CO2</td>
</tr>
</tbody>
</table>

*1) The target reductions in CO2 emission relate to net FY2019 as of the base year and are calculated by subtracting the target volume of net FY2019. An increase in the volume of stored carbon by reforestation or other initiatives for efficient use of energy and other ways. Concerning collection of waste plasticis and other wastes, only an increase in the volume of waste compared to FY2019 is counted as the amount of reduction in emissions.

Nippon Steel’s R&D divisions are engaged in R&D aimed at CO2 emission reduction and recycling and fixation of CO2 as top-down projects. As a core member of the JISF, we also participate in the COURSE Project — “Environmentally Harmonized Steelmaking Process Technology Development” — which aims at reducing CO2 emissions from a blast furnace by converting a part of reduction by carbon in the furnace to reduction by hydrogen. Moreover, we are taking up the challenge of developing hydrogen reduction steelmaking technology, which enables zero CO2 emission during steelmaking; we are doing so by participating in the public-private cooperation project for technology development to realize zero-carbon steel.

We are also actively engaged in development of technology to fixate and utilize CO2 such as by converting recycled CO2 to use as raw materials of plastics or fuels, and to extend sea forest development that uses slag and further develop Blue Carbon technology that is effective in absorbing CO2. Many of these diverse innovations toward a decarbonized society are registered in “Challenge Zero,” an initiative of the Nippon Keidanren (Japan Business Federation).

Setting of individual companies’ goals on CO2 emission reduction

Amid the intensifying awareness on the climate change issues worldwide, Nippon Steel has established a “Zero Carbon Steel Committee,” attended by all five Executive Vice Presidents. The committee began discussing on subjects, such as individual companies’ scenarios (targets for 2030 and 2050 vision) toward a decarbonized society and R&D related to low CO2 emission technologies. We plan to disclose individual companies’ specific scenarios within the current fiscal year.

Adaptation to climate change

In addition to taking mitigation actions against climate change, Nippon Steel is making initiatives to prepare and adapt to potential impacts of such change. We have many products that are used for a long time as construction material for embankments and other public infrastructure. They contribute to providing solutions for "National Resilience," such as protecting towns from flooding or high tides caused by heavy rains or typhoons. Adaptation to climate changes also leads to business opportunities for Nippon Steel. In various steelworks in Japan and overseas, water storage tanks have been installed and an administration office is built on a pilot structure, which allows to create an open space with no walls on the lowest floor and makes the building less vulnerable to tsunamis. This is a part of efforts of Nippon Steel to be well prepared for emergencies such as flooding and high waves.

Work to achieve CO2 emission reduction by raising efficiency in logistics

Nippon Steel maintains a high modal shift rate* of 96.6%, improves transportation efficiency by using large vessels (changing from 700-ton vessels to 1,500-ton vessels) in domestic coastal transport and taking other measures, and improve fuel economy by introducing energy-saving tires, lightweight vehicles, etc. As a new measure, we introduced “Utashima” – a hybrid-type cargo vessel, equipped with lithium-ion batteries.

The Utashima was awarded the Small Cargo Vessel Award of the Ship of the Year 2019* for realizing energy saving, low vibration, low noise, reduction in labor burden, and improved living quarter for crew members.

* Modal shift rate: Modal shift means replacing a means of transport from trucks to trains and ships. The modal shift rate, according to the definition by the Ministry of Land, Infrastructure, Transport and Tourism, is a sectorial volume transported by trains and marine transportation (including ferries) as a percentage of total transport of over 500km.
CO₂ emissions in the value chain

In addition to CO₂ emissions originated from energy source and generated in Nippon Steel’s manufacturing process (Scope 1* and Scope 2*), CO₂ emissions in the value chain (Scope 3*) are also calculated by using the Green Value Chain Platform of the Ministry of the Environment and other methods.

<table>
<thead>
<tr>
<th>Category</th>
<th>CO₂ emissions (thousand tons-CO₂)</th>
<th>Calculation method*4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Purchased goods and services</td>
<td>[Amount of purchased materials x CO2 emission factor]</td>
</tr>
<tr>
<td>2</td>
<td>Capital goods</td>
<td>[Amount of capital expenditure x CO2 emission factor]</td>
</tr>
<tr>
<td>3</td>
<td>Fuel and energy-related activities</td>
<td>[Amount of electricity and fuel used x CO2 emission factor]</td>
</tr>
<tr>
<td>4</td>
<td>Transportation and delivery (as tran)</td>
<td>[Transportation distance reported in the Energy Saving Law document x CO2 emission factor]</td>
</tr>
<tr>
<td>5</td>
<td>Waste generated in operations</td>
<td>[Amount of waste x CO2 emission factor]</td>
</tr>
<tr>
<td>6</td>
<td>Business travel</td>
<td>[Number of employees x CO2 emission factor]</td>
</tr>
<tr>
<td>7</td>
<td>Employee commuting</td>
<td>[Number of employees x CO2 emission factor]</td>
</tr>
<tr>
<td>15</td>
<td>Investments</td>
<td>[Investment x CO2 emission factor]</td>
</tr>
</tbody>
</table>

*1 Scope 1: Emissions from fuel combustion (stationary sources) excluding electricity/heat generated on-site. Exclusions: Emissions attributable to purchased power and heat.
*2 Scope 2: Indirect emissions associated with purchased electricity and heat.
*3 Scope 3: Indirect emissions associated with the extraction and delivery of raw materials, transportation of goods, and consumption of goods and services (e.g., use of steel products by customers). Exclusions: Emissions attributable to residual waste.
*4 CO₂ emission factor is calculated by using the Green Value Chain Platform of the Ministry of the Environment.

Other initiatives (use of by-products and waste in CO₂ reduction)

Waste plastics

Using coke ovens at seven areas of Nippon Steel’s five steelworks, about 200,000 tons of used plastic containers and packaging collected from several households nationwide are recycled 100%, in compliance with the Act for Promotion of Use of Recycled Resources. This contributes to reduction of about 600,000 tons of CO₂ a year.

Blast furnace cement

Use of blast furnace slag in production of cement enables us to reduce use of limestone and fuel, contributing to reduction of 320kg in CO₂ emission per one ton of cement (over 40% reduction compared to ordinary cement production).

Blue carbon

A basic research project was launched on the impact of the carbon capture and storage by using steel slag in Nippon Steel’s initiatives to create sea forests. Our unique marine simulator (sea laboratory) is used for this.

Blue Carbon Initiatives

Nippon Steel has promoted scientific analysis on usefulness and safety of use of steel slag—a by-product from the steelmaking process. To improve this technology, we began a basic study on blue carbon (CO₂ absorption and fixation in the marine ecosystem), which is gaining more attention as a global warming measure. To seek ways to reduce CO₂, we started to collect basic data on how much CO₂ can be fixed by using steel slag and creating shallow bottoms, tideland, and seaweed beds. A massive amount of data collection is required as there are many research challenges concerning the evaluation method of carbon fixation capacity in the blue carbon ecosystem, including understanding of the biomass amount, the ratio of the amount to be fixed for a long time without being dissolved, and the dynamic of carbon in the complicated coastal ecosystem. Those challenges stem from the fact that types of species and geographical differences substantially vary in the marine ecosystem.

Nippon Steel’s approach is to use our own large water tank (sea laboratory), collect potential data of carbon fixation by type of species (i.e., kelp seaweed bed, sargassum bed, and eelgrass bed) and by area and, finally, establish an evaluation method. By doing so, we can launch a large-scale experimental project aimed at social implementation of blue carbon. Such is how we intend to contribute to creation of a blue carbon system with the sea area utilization technology that uses steel slag. Our initiatives to improve the marine environment by use of steel slag is expected to be effective as a climate change measure that fixes CO₂ in addition to contribute to the preservation of biodiversity and the protection of the beauty of the sea.

Information disclosure according to recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

Status of climate changes and actions of the steel industry

• Since 2015 when the Paris Agreement that pledged to advance greenhouse gas emission reduction across the world was adopted, institutions in the international community have been required to seek ways to enable sustainable economic and social growth, while restraining impact on the environment.
• Steel is broadly used in society as an indispensable material element for social infrastructure and durable consumer goods, such as road, railway, buildings, automobiles, and home electric appliances. This is because steel has outstanding features required in many aspects as a basic material, such as abundance as a resource, cost advantages, diverse features, low environmental impact in the manufacturing stage, and endless capability for recycling into all kinds of durable products, in addition to having ideal features for building of infrastructure.
• Medium- to long-term growth in global steel demand is projected from 1.62 billion tons in 2015 to 2.68 billion tons in 2050, largely influenced by population growth and economic growth in emerging countries, according to the Long-Term Vision for Climate Change Mitigation published by the Japan Iron and Steel Federation in 2018. In contrast, as a result of the d'life-of-life scrap increases in proportion to an increase in steel stock, use of scrap will increase in steelmaking (from 0.56 billion tons in 2015 to 1.55 billion tons in 2050). This increase is not enough to satisfy the entire steel demand. It is therefore indispensable to make steel from natural resources. Pig iron production in the blast furnace route is also expected to increase from (122 billion tons in 2015 to 140 billion tons in 2050).
• In order to achieve the goal of the Paris Agreement, the steel industry is required to significantly reduce CO₂ emissions in steelmaking, with an increasing focus on the shift to production by electric furnaces, which have a lower CO₂ emission coefficient than blast furnaces. However, as recognized by international and Japanese industrial standards, namely the ISO and the JSI, the environmental impact is essentially the same for steel products made by the blast furnace (BF) route and by the electric arc furnace (EAF) route. This judgment is based on Life Cycle Assessment that incorporates recycling impact. The EBF route remains to be indispensable as discussed above and we thus need to establish technology that realizes lower carbon in its use. Moreover, development of ultra-innovative technology that may break through these routes is also desired for realizing the Paris Agreement’s long-term goals.
• In addition to containing CO₂ emission in steelmaking, we are also required to respond to customers’ requirements for lightweight, high-strength materials in the automotive area due to tighter environmental regulations and increase in electric vehicles.

Support for TCFD recommendations and Nippon Steel’s strategies

• Climate-related risks and opportunities could be significant for many companies’ financial positions and the related disclosure could reduce risks of financial destabilization. Because of this, in response to the request from the G20, the Financial Stability Board (FSB) established the industry-led Task Force on Climate-related Financial Disclosures (TCFD) to develop climate-related disclosures in December 2015 and the TCFD released its recommendations in June 2017.
• As companies are increasingly required to respond to climate changes and to disclose related information, investors and other stakeholders are increasingly interested in the steel industry’s response to risks, such as: (1) potential significant reduction in CO₂ emissions; (2) changing trends of steel users, including carbon-intensive steel applications, such as road and railway, buildings, automobiles, and home electric appliances; (3) changing trends of steel users, including the automobile sector (i.e., increase in electric vehicles, shift to non-stellightweight materials prompted by tightened environmental regulations); and (3) adoption of carbon pricing that leads to an increase in operating cost.
• Given the international community’s commitment to achieving long-term goals of the Paris Agreement, Nippon Steel signed the statement of support for the Task Force on Climate-related Financial Disclosures (TCFD) in May 2019, considering the climate change as one of priorities that the planet is facing today.
• In order to expand information disclosed as recommended by the TCFD, we analyzed selected two climate change scenarios (2°C scenario and 4°C scenario) for a long-term span to 2050 and after. Specifically, we identified our potential risks and opportunities driven by climate change, considered their significance, and organized their impacts and our initiative options related to them. Please see the following page for details on the TCFD scenario analysis.

* The 2°C scenario is a case that much-needed measures will be implemented to keep global average temperature increase below 2°C compared to pre-industrial Revolution era. The 4°C scenario is a case that global average temperature will increase by 4 degrees, without taking any economic or additional measures against climate change.

NIPPON STEEL CORPORATION
### Innovative technology development for “Challenge Zero”

We recognize the urgent need to tackle climate change issues, the impotence of boldly taking up the challenge for innovative technology toward realizing a carbon-neutral society, and the importance of appropriately responding to this challenge. We therefore stated our agreement with the Challenge Zero declaration, announced by Keidanren in June 2020. Through this, we disclosed the following 10 specific challenges.

**Nippon Steel’s ten challenges**

<table>
<thead>
<tr>
<th>Name of challenge</th>
<th>Type of innovation</th>
<th>Note zero emission technology</th>
<th>Transition</th>
<th>Adjustment and resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieving zero emission in the hydrogen reduction steelmaking process</td>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
<tr>
<td>Development of CO2 reduction technologies that use hydrogen in blast furnace reduction steelsmaking</td>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
<td><img src="image7.png" alt="Image" /></td>
<td><img src="image8.png" alt="Image" /></td>
</tr>
<tr>
<td>Development of thermal absorption method technology that enables separation and collection of CO2 at low cost</td>
<td><img src="image9.png" alt="Image" /></td>
<td><img src="image10.png" alt="Image" /></td>
<td><img src="image11.png" alt="Image" /></td>
<td><img src="image12.png" alt="Image" /></td>
</tr>
<tr>
<td>Contributing to hydrogen infrastructure establishment via diffusion of H2 for hydrogen stations</td>
<td><img src="image13.png" alt="Image" /></td>
<td><img src="image14.png" alt="Image" /></td>
<td><img src="image15.png" alt="Image" /></td>
<td><img src="image16.png" alt="Image" /></td>
</tr>
<tr>
<td>Development and diffusion of Iron Products that help reduce CO2 emission when final analysis is achieved (the “Zero Steel” concept)</td>
<td><img src="image17.png" alt="Image" /></td>
<td><img src="image18.png" alt="Image" /></td>
<td><img src="image19.png" alt="Image" /></td>
<td><img src="image20.png" alt="Image" /></td>
</tr>
<tr>
<td>Improvement in recycling of waste plastic</td>
<td><img src="image21.png" alt="Image" /></td>
<td><img src="image22.png" alt="Image" /></td>
<td><img src="image23.png" alt="Image" /></td>
<td><img src="image24.png" alt="Image" /></td>
</tr>
<tr>
<td>Establishing a manufacturing method of derivatized carbon (DHC) from CO2</td>
<td><img src="image25.png" alt="Image" /></td>
<td><img src="image26.png" alt="Image" /></td>
<td><img src="image27.png" alt="Image" /></td>
<td><img src="image28.png" alt="Image" /></td>
</tr>
<tr>
<td>Zero-emission hydrogen manufacturing technology via artificial photosynthesis</td>
<td><img src="image29.png" alt="Image" /></td>
<td><img src="image30.png" alt="Image" /></td>
<td><img src="image31.png" alt="Image" /></td>
<td><img src="image32.png" alt="Image" /></td>
</tr>
<tr>
<td>CO2 Recycling by Blue Carbon, which uses steel slag</td>
<td><img src="image33.png" alt="Image" /></td>
<td><img src="image34.png" alt="Image" /></td>
<td><img src="image35.png" alt="Image" /></td>
<td><img src="image36.png" alt="Image" /></td>
</tr>
<tr>
<td>Promotion of “National Resilience” solutions toward adapting to climate change</td>
<td><img src="image37.png" alt="Image" /></td>
<td><img src="image38.png" alt="Image" /></td>
<td><img src="image39.png" alt="Image" /></td>
<td><img src="image40.png" alt="Image" /></td>
</tr>
</tbody>
</table>

**Examples of Nippon Steel’s taken-up challenges**

- **Achieving zero emission in the hydrogen reduction steelmaking process**
  - Roughly 70% of CO2 emission in the steelmaking industry is generated in the Blast Furnace pig iron making process (reduction reaction to remove oxygen from iron oxides to make steel). As the thermodynamic efficiency of Japan’s blast furnace technology has improved close to a theoretical value, further reduction in CO2 emission is extremely difficult. That is why we are taking up the challenge in hydrogen reduction steelsmaking process, in which hydrogen is used for reduction of iron ore, replacing coal as a reducing agent. Strengths in insight into frontier technology for hydrogen reduction steelsmaking, which have been accumulated in the CURIESO project since 2006, are our strength in this challenge.
  - As hydrogen reduction reaction of iron ore is endothermic reaction, what we need at this stage is to establish technologies to supply heat to a reaction furnace from outside and to stably supply a massive amount of hydrogen gas to a reaction furnace with due consideration to hydrogen’s combustion characteristics. Moreover, hydrogen is carbon-free but its stable supply at low cost in massive volume is an important requirement. We must therefore cooperate with the government and other companies.

- **Nippon Steel’s vision**
  - Nippon Steel, JFE Steel, Kobe Steel and the Japan Research and Development Center for Metals (RDMC), all being members of JFE Steel and Nippon Steel, applied for participation in a public offering project on “technology development toward realizing zero carbon steel,” sponsored by the New Energy and Industrial Technology Development Organization (NEDO) and was accepted in June 2013 as this was an R&D project in the frontier field efforts toward zero carbon steel, our objective is to identify multiple promising innovative technologies focused on decarbonization in the steelmaking process. We further aim at drawing a road map for technology development that could be used by jis industry.

---

**TCFD scenario analysis**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Factor</th>
<th>Events</th>
<th>Impact to Nippon Steel</th>
<th>Nippon Steel’s strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>2°C</td>
<td>Transition factor</td>
<td>Opacity in demand growth due to hydrogen-related steelmaking</td>
<td>Increase in demand for hydrogen-related steelmaking</td>
<td>Capturing growing demand by promoting our hydrogen-related steel products (lighter steel, electric steel, etc.); enhancing the competitiveness of our hydrogen-related steelmaking technologies (ex. CO2 reduction steelmaking, hydrogenation furnace technology, etc.)</td>
</tr>
</tbody>
</table>

**2°C**

- Improvement in demand growth due to hydrogen-related steelmaking
- Increase in demand for hydrogen-related steelmaking
-capturing growing demand by promoting our hydrogen-related steel products (lighter steel, electric steel, etc.); enhancing the competitiveness of our hydrogen-related steelmaking technologies (ex. CO2 reduction steelmaking, hydrogenation furnace technology, etc.)

---

**4°C**

- Improvement in demand growth due to hydrogen-related steelmaking
- Increase in demand for hydrogen-related steelmaking
- Capturing growing demand by promoting our hydrogen-related steel products (lighter steel, electric steel, etc.); enhancing the competitiveness of our hydrogen-related steelmaking technologies (ex. CO2 reduction steelmaking, hydrogenation furnace technology, etc.)
Integrated Report 2020 NIPPON STEEL CORPORATION

Risks, opportunities, and strategies

Introduction

Overview

Materiality

Inputs

Business activities

Outputs and outcomes

Results and outlook

Corporate governance

Financial information and investor information

Innovative Technology Development

Since the 1970s, Nippon Steel has been striving for energy saving and reduction of CO2 emission. At present, we are developing innovative technology that will enable us to make zero-carbon steel by 2100. This effort has the four aspects of reducing CO2 emission, separating and recovering CO2, recycling CO2, and storing CO2.

1. CO2 emission reduction

Development of blast furnace mathematical modeling

We properly adjust gas flow, solid flow, and liquid flow, burden distribution, and other basic factors in blast furnace route with the result that we have reduced the ratio of coke and other reducing agents, and this has reduced CO2 emissions.

Next generation coke oven Scope21

We developed the next-generation coke oven that uses an advanced coke-making technology, including rapid heat treatment of coal, and enabled significant energy saving. The first commercial models started operation in the Kyushu Works Oita Area in 2008 and the Nagoya Works in 2013.

Burden distribution three-dimensional DEM model

Distribution of charged materials from the top of a blast furnace is precisely shown by using a three-dimensional discrete element method (DEM) model, with the aim of arranging the burden distribution that enhances reaction efficiency, which leads to reduction in CO2 emission.

2. CO2 separation and recovery

Commercializing ESCAP™ (Energy Saving CO2 Absorption Process)

This technology for recovering CO2 by using a particular liquid is used as the first step in CO2 recycling, with the world’s top-class performance. Two units are currently in commercial operation in Muraosan City and Niihama City.

3. CO2 recycling

Research on producing raw materials for plastics from CO2

Technology to synthesize a carbonate ester (shown as DMC, or dimethyl carbonate in the figure below) from CO2 and alcohol. Polycarbonate and other compounds are made from carbonate ester.

Research on producing basic chemical compounds and fuel from CO2

Technology to make basic chemical compound and fuel from CO2 by using a new catalytic technology. This is to realize a process that does not use fossil fuel as raw material.

4. Carbon fixation

From “Creation of Sea Forests” to “Blue Carbon”

Technology to remediate the sea by increasing the growth of seaweed, which absorbs CO2. Steel slag is used to create a rich ecosystem, which contributes to development of fisheries.

Contribution to expanded absorption of CO2 in farmland

Fertilizers made with inclusion of steel slag promote growth of agricultural products and help sequestrate CO2 in farmland.

The COURSES Project (Technological Development and Innovative Steelmaking Process)

Since 2008, the COURSES Project has been developing technologies to lower CO2 emissions by 30% to 10% cut in CO2 emissions from a blast furnace by adopting technologies to reduce iron ore by use of hydrogen and a 20% cut in CO2 emissions by adopting technologies to capture — separate and recover — CO2 contained in blast furnace gas. Concerning the former case, a 10% cut has been verified at a 12m diameter experimental blast furnace at the Kitakyushu Area of the East Nippon Works and we also undertook simulation for the size of an actual blast furnace, moving the project closer to adoption of this innovative reduction technologies in commercial-use blast furnaces.

Toward development of a hydrogen reduction steelmaking process that takes blast furnace production into a new phase

Project for the “Development of Zero-Carbon Steel Technologies” — hydrogen reduction steelmaking technologies

With the aim of achieving net zero emission in steelmaking process, we are taking up a challenge of developing hydrogen reduction steelmaking technologies that replace coal with hydrogen as reducing agent. This was adopted as a national project and we are getting engaged in this public-private cooperative project.

A new hydrogen production process, which contributes to reduction in CO2 emissions

By developing a proprietary high-performance photocatalyst material, we aim at hydrogen production with zero emission through use of solar energy.

1970

1980

2010

2020

Development completed

Currently in commercial operation

Under development

2030

2050

(year)

*1 Commissioned project by the New Energy and Industrial Technology Development Organization (NEDO)

*2 Private cooperative project

NIPPON STEEL CORPORATION
Promoting digital transformation

Operational innovation via digital power

Digital transformation (DX) is a concept that means penetration of IT improves people’s welfare on all fronts. For companies, this means use of digital technology in business innovation, which becomes an increasingly important decisive factor determining corporate competitiveness. Nippon Steel has long worked on achieving higher quality and stable production in safe, competitive manufacturing sites and advanced general operations. We aim at augmenting these achievements at a more advanced level by use of AI, IoT, and big data. In promoting DX, we seek to transform our corporate culture to use digital technology and continually propose and implement innovation while encouraging human-digital collaboration. In other words, we aim at acquiring a continual operation innovation cycle: people’s operational decision-making is to be speeded up and made more advanced, gradually standardized and automated, and we are to make new proposals and innovations based on the resultant insights and resources.

The double foundation of DX: business process innovation and production process innovation

We have so far worked on cost reduction and quality enhancement by thoroughly collecting and analyzing a huge amount of data from various manufacturing sites and business workplaces. In production, sales, distribution, maintenance, procurement, profit management, and other various operations, we have established many internal business systems and have accumulated an enormous volume of data. We believe this data resource can give us strength, maximum use of which, however, requires the “strength in connecting” of disparate data. Our DX for business process information means we are to use advanced IT and processing function and organically connect enormous data volumes, some of which had been lost in the past due to lack of capability for aggregation. Our aim is to create a system of advanced, comprehensive decision-making, enabling total optimization. By facilitating seamless access to business process information means we are to use “strength in connecting,” and production process innovation, we believe we can raise the value of the information via our “strength in connecting,” advance our “strength in maneuvering,” and enhance our “strength in manufacturing” and “strength in sales and marketing.” This will therefore become a source of our continual value creation.

Positioning of the Digital Innovation Division

The Digital Innovation Division, established in April 2020, works comprehensively as one-stop solution provider on cross-sectional issues related to use of digital technology. First, in order to connect inconsistent data from different divisions, the division focuses on the enhancement of data management (data governance), such as standardization of data items and creation of usage rules. The division also centrally controls planning and verification of adopting the latest technology (AI technology, local 5G, etc.) and provides it in an easy-to-use structure to be adopted in actual machines.

Improving ICT literacy

We make efforts to improve ICT literacy of employees as all of them should be capable of using ICT and engaged in innovation by themselves in the forthcoming DX era. Since 2014, we have formed a company-wide organization to disseminate experience and examples of present usage of advanced IT. We also hold consortium meetings where developers discuss technology development. In FY2018 we aimed at increasing Citizen Data Scientists, who can use NS-DIC, even without any advanced expert knowledge, and come up with advanced solutions, using data.
Corporate governance

The Nippon Steel Group is engaged in business activities based on its Corporate Philosophy – that we will pursue world-leading technologies and manufacturing capabilities, and contribute to society by providing excellent products and services. Heeding that Philosophy, the Nippon Steel Group has established a corporate governance system suited to the businesses of the Nippon Steel Group in order to achieve the sound and sustainable growth of the Nippon Steel Group and increase its corporate value over the medium-to-long term, in response to the delegation of responsibilities by and trust of all stakeholders, including its shareholders and business partners.

Review of corporate design concerning corporate governance, streamlining of the management structure, and increasing efficiency of the corporate organization and operations efficiency

For the purpose of appropriately responding to greater fluctuation of changes in the surrounding business environment and accelerated speed of change, Nippon Steel made a transition from a company with an Audit & Supervisory Board to a company with an Audit & Supervisory Committee.

Through this change, Nippon Steel 1) aims to enhance discussions by the Board of Directors relating to matters such as the formulation of management policies and strategies and strengthen the supervisory function of the Board of Directors over management; and 2) delegates part of the decisions regarding execution of important operations according to the policy and strategy to the Representative Director and Chairman and Representative Director and President, thereby expediting management decision-making.

1 Corporate Governance System

Currently, the Board of Directors of Nippon Steel is comprised of eighteen (18) members, of whom eleven (11) are Directors (excluding Directors who are Audit & Supervisory Committee Members) and seven (7) are Directors who are Audit & Supervisory Committee Members, and is chaired by the Representative Director and President. Outside Directors account for more than one-third (7 out of 18) of all members of the Company’s Board of Directors.

Of the above, the Directors (excluding Directors who are Audit & Supervisory Committee Members) are comprised of eight (8) Executive Directors who were employees of Nippon Steel with intimate knowledge of Nippon Steel’s businesses, and three (3) Outside Directors who have vast experience in, and deep insights into, such areas as employment, labor, corporate management, international affairs, economies and cultures. The Directors who are Audit & Supervisory Committee Members are comprised of three (3) Directors who were employees of Nippon Steel with intimate knowledge of Nippon Steel’s businesses, and four (4) Outside Directors who have vast experience in, and deep insights into, such areas as laws, public administration, public finances, corporate accounting and economies.

The execution of important matters concerning the management of Nippon Steel and the Nippon Steel Group is determined at the Board of Directors’ meeting (held about once per month) after deliberations in the Corporate Policy Committee (once a week, in principle) comprised of the Representative Director and Chairman, Representative Director and President, Representative Directors and Executive Vice Presidents, and other members, pursuant to Nippon Steel’s rules. As corporate organizations engaging in deliberations before the Corporate Policy Committee and the Board of Directors, there are 23 company-wide committees in total, including the Ordinary Budget Committee, the Plant and Equipment Investment Budget Committee, the Investment and Financing Committee, the Fund Management Committee, the Technology Development Committee, the Environment Management Committee, and the Risk Management Committee, depending on each purpose and each area.

In fiscal 2019 the Board of Directors’ meeting was held 15 times.

The Nomination and Compensation Advisory Committee has been established to conduct discussions and deliberations on a wide range of topics relating to the nomination and compensation of the Directors in general, including the compositions of the entire Board of Directors and the Audit & Supervisory Committee, the system and levels of the Directors’ compensation, and other topics.

The Nomination and Compensation Advisory Committee comprises six members: the Representative Director and Chairman, Kosei Shindo, the Representative Director and President, Eiji Hashimoto, and Outside Directors Noriko Iki, Tetsuro Tomita, Masato Kitera and Hiroshi Obayashi. The Representative Director and President serves as the chairman of the Committee. The Nomination and Compensation Advisory Committee, as a general rule, is held twice a year. In fiscal 2019 the Nomination and Compensation Advisory Committee meeting was held in June and December.

2 Enhancing the supervisory function over management and expediting management decision-making

At Nippon Steel, by all Directors appropriately fulfilling their roles and responsibilities, prompt decision-makings are achieved corresponding to changes in the management environment, and multifaceted deliberations and objective and transparent decision-making by the Board of Directors are secured.

Due to a transition to a Company with an Audit & Supervisory Committee, Directors who are Audit & Supervisory Committee Members have voting rights on the Board of Directors regarding decisions on proposals for the election and dismissal of Directors as well as on election and dismissal of Representative Directors, and other decisions in general regarding business execution (excluding decisions that have been delegated to

Measures implemented to enhance corporate governance

- Reduction of the number of directors in the Articles of incorporation from 48 to 19
- Adoption of the Executive Management System
- Adoption of a limited liability contract with External Auditors
- Adoption of a limited liability contract with Outside Directors

June 2006

- Adoption of a limited liability contract with full-time Audit & Supervisory Board Members

June 2015

- Establishment of the Nomination and Compensation Advisory Committee

October 2015

- Increase the number of Outside Directors to three

June 2018

- Appointment of Outside Directors (two)

June 2014

- Transition to a Company with an Audit & Supervisory Committee

June 2020
Internal control system and risk management

1 Internal control system based on autonomous internal controls
To comply with applicable laws and regulations, and ensure integrity of financial reporting and effectiveness and efficiency of business, Nippon Steel has established internal control and risk management systems, based on autonomous activities by internal divisions and group companies, according to the Basic Policy on Internal Control System, which was resolved by the Board of Directors, and the Internal Control Basic Rules. The Internal Control & Audit Division cooperates closely with each area’s functional division in charge of risk management, develops annual plans concerning internal control and risk management, prepares a scheme for check and review, regularly ascertains the status of internal control across the entire Group, and works at continual improvement.

2 Risk management supervisory system
The Risk Management Committee, chaired by the Executive Vice-President in charge of the Internal Control & Audit Division, receives regular reports from the Division on the development and execution status of the internal control annual plan, the compliance status of laws and regulations, and the matters related to risk management, which include adherence to the Code of Conduct of Nippon Steel Group Company and other company rules as well as ESC risks, such as labor safety, workplace sexual or power harassment and other abuse of human rights, environmental issues, disaster prevention, quality assurance, financial reporting, and information security. The Committee then deliberates and checks the status of measures taken. What was deliberated and ascertained by the Risk Management Committee, including important risks, is reported and deliberated by the Corporate Policy Committee, attended by the Representative Director and Chairman and Representative Director and President among other members.

The Board of Directors evaluates effectiveness of supervision of risk management and internal control by receiving regular reports on managerial important risks, including those originated by the Risk Management Committee and the Corporate Policy Committee.

Whistleblower system
As a whistleblower system, the Compliance Consulting Room (internal contact: the Internal Control & Audit Division; external contact: an external professional organization) was established to receive information not only from employees of Nippon Steel and the Group companies, but also from their families, suppliers, and others. The Room receives reports and consultation (that may be made anonymously) on a wide range of subjects – from violation of laws, regulations, or company rules to ascertaining of rules thought to be needed for operations. It is also positioned as one of the bodies that monitors the status of internal control activities, in addition to its functions on compliance and optimization of operations, such as to prevent accidents and violation of laws, and to improve operations. In fiscal 2019, there were 425 cases of such reports, which were classified as labor safety, workplace sexual or power harassment and other abuse of human rights, environmental issues, disaster prevention, quality assurance, financial reporting, and information security. For operations, there were 187 cases of complaints. The number of complaints from companies working with Nippon Steel reached 107 for Nippon Steel and 77 for the Group companies.

Business risks, etc. are stated in the Securities Report, p.26-30.
Supervision

1. Supervision by the Audit & Supervisory Committee
The Audit & Supervisory Committee acts with the obligation of contributing to the establishment of a high-quality corporate governance system that enables sound and sustainable growth of Nippon Steel and its Group companies, by supervising the performance of responsibilities by Directors and acting as part of the Company’s oversight function, as an independent organ fulfilling its roles and responsibilities that are currently expected, in response to the delegation of responsibilities by the shareholders, and social trust.

Specifically, Audit & Supervisory Committee Members who are mutually elected by the Committee cooperate closely with Internal Audit Departments, and proceed with daily supervisory activities in a planned way, with a main focus on the development and operation of the internal control system, the development of business infrastructure, and the progress of various measures for management plans, in accordance with, among others, the audit and supervisory standards, and the policies and plans of audit and supervision as set by the Audit & Supervisory Committee. In addition, the Audit & Supervisory Committee Members attend important meetings, such as meetings of the Board of Directors, and conduct onsite audits of steelworks and other facilities.

Further, the Audit & Supervisory Committee Members ask Executive Directors and employees, among others, to explain the performance of their responsibilities, and other matters, and actively express opinions.

For the Group companies, the Audit & Supervisory Committee Members of Nippon Steel exchange opinions and information with the Directors of the Group companies and the Directors, etc. of the responsible divisions of Nippon Steel, and as necessary, receive business reports from them and ask them for explanations. Further, the Audit & Supervisory Committee Members of Nippon Steel seek to improve the quality of the Supervisory Committee across the whole Group, by establishing close cooperation with the Group companies’ audit & supervisory board members, through liaison conferences and other opportunities.

The full-time Directors who are Audit & Supervisory Committee Members strive to exchange opinions with the Executive Directors and staff in Internal Audit Departments and other departments, collect information, and prepare the audit environment, pursuant to the audit policy and plan stipulated by the Audit & Supervisory Committee. They also attend the Board of Directors, the Corporate Policy Committee, and other meetings, interview relevant people on the agenda or matters to be reported and discussed and on other important matters, receive reports from the Accounting Auditor, and conduct surveys on the status of business and assets in the headquarters, steelworks, and other places.

The Outside Directors who are Audit & Supervisory Committee Members contribute to Nippon Steel’s sound and fair management by, among other tasks, expressing their respective opinions independently at the Board of Directors, the Audit & Supervisory Committee, and other opportunities, and performing supervisory activities, including audits on the business and affairs and the status of assets at major steelworks, etc. and hearing of reports from the Accounting Auditor, based on their vast experience in, and deep insights into, such areas as laws, public administration, public finances, corporate accounting and economies. In addition, Outside Directors who are Audit & Supervisory Committee Members strive to share information and understanding about Nippon Steel’s management issues with the Representative Director and Chairman, Representative Director and President and Outside Directors (excluding Directors who are Audit & Supervisory Committee Members) through liaison meetings and other means, as well as opportunities for exchanging opinions exclusively among Outside Directors.

Nippon Steel has established the Audit & Supervisory Committee Members’ Office and has assigned dedicated staff members, in order to assist the Audit & Supervisory Committee in the smooth execution of its duties. In addition, the Head of the Human Resources Division discusses with the Audit & Supervisory Committee in advance the transfer and evaluation, etc. of the dedicated staff members to ensure their independence from the executive divisions and the effectivness of the Audit & Supervisory Committee’s instructions to the dedicated staff members.

2. Cooperation between the Audit & Supervisory Committee and Internal Audit Departments
The full-time Audit & Supervisory Committee Members attend quarterly meetings of the Risk Management Committee. The Audit & Supervisory Committee receives regular reports from the Internal Control & Audit Division, and both parties exchange opinions to ensure close collaboration.

In addition, the Audit & Supervisory Committee regularly interviews functional divisions managing important risks, such as safety, environment, disaster prevention, quality assurance and other matters, on the status of their respective activities, to enhance the effectiveness of audit activities. Moreover, the Internal Control & Audit Division and functional divisions formulate an annual plan based on the opinions of the Audit & Supervisory Committee.

3. Cooperation between the Audit & Supervisory Committee and the Accounting Auditor
At the beginning of a fiscal year, the Audit & Supervisory Committee and the Accounting Auditor exchange opinions on matters of concern from the previous fiscal year, items of focus in the audit and other matters, based on the audit plan drafted by the Accounting Auditor, so that an effective accounting audit can be executed.

Moreover, at each quarter, the Audit & Supervisory Committee Members, particularly the full-time Members, receive a report on the progress and the results of the quarterly review from the Accounting Auditor and exchange opinions regarding matters stated in the quarterly report including non-financial information. Furthermore, at the end of a fiscal year, the Audit & Supervisory Committee receives the Auditor’s Report and a report on the audit results including the priority audit items for the period from the Accounting Auditor, and uses such reports for the basis of the Audit Report, which is subsequently prepared by the Audit & Supervisory Committee.

In addition, the Audit & Supervisory Committee Members, particularly the full-time Members, and the Accounting Auditor cooperate and mutually contribute to forming their respective audit opinions by exchanging opinions on audit activities at regular liaison conferences.

Policies on and Procedures in the Nomination of Director Candidates and the Appointment and Dismissal of Senior Management

4. Policies on the Nomination of Director Candidates and the Appointment of Senior Management
For the nomination of Director candidates, and the appointment of senior management, Nippon Steel’s policy is to consider not only each individual’s experience, insight, and expertise, but also the size of each of the Board of Directors and the Audit & Supervisory Committee as a whole, and the balance of candidates comprising these respective boards (including the number of Outside Directors) so that Nippon Steel will establish an optimum board composition in which each individual is able to appropriately fulfill its role and responsibilities and properly respond to the management challenges of the Group’s business.

Nippon Steel believes the appointment of the President and other senior management to be one of the most important roles/functions of the Board of Directors. To ensure that optimum human resources who are capable of realizing the sustainable growth of the entire Group and the mid- to long-term improvement of its corporate value are appointed to the office of President and other senior management in a timely manner, Nippon Steel provides various opportunities for Directors and Executive Officers who are to become successor candidates to improve their credentials by strategically assigning and rotating them to various positions, and by other means as well.

5. Procedures in the Dismissal of the President and Other Senior Management
In the event that any disqualification for Directors as stipulated by laws and regulations occurs to the President or other senior management, Nippon Steel shall dismiss him or her from the President or other managerial positions by the resolution of the Board of Directors. In addition, in the event that the President or other senior management has engaged in any acts suspected of committing fraud or breach of trust, or in the occurrence of an incident to the President or other senior management that has caused significant hindrance to the continuation of duties, etc., Nippon Steel may dismiss him or her from the President or other managerial positions by the resolution of the Board of Directors, while also taking into account discussions and deliberations at the Nomination and Compensation Advisory Committee as necessary.
Policies on and Procedures in Determining the Compensation of the Directors by the Board of Directors

1. Policies on Determining the Compensation

(1) Directors (excluding Directors who are Audit & Supervisory Committee Members)

Nippon Steel sets the base amount of compensation for each Director's rank taking into consideration each Director's required skills and responsibilities, and this base amount varies within a specific range based on Nippon Steel's consolidated results, and the amount of each Director's monthly compensation is determined within the limit approved by the General Meeting of Shareholders.

Such limit was approved at 140 million yen per month (of which 12 million yen is for Outside Directors) by the 96th General Meeting of Shareholders held on June 24, 2020.

(2) Directors who are Audit & Supervisory Committee Members

Nippon Steel determines the monthly compensation for each Director who is Audit & Supervisory Committee Member, within the limit approved by the General Meeting of Shareholders, by considering the Director's responsibilities, depending on its rank and whether the Director is full-time or part-time.

Such limit was approved at 22 million yen per month by the 96th General Meeting of Shareholders held on June 24, 2020.

(Performance-linked compensation)

Compensation for Directors (excluding Directors who are Audit & Supervisory Committee Members and Outside Directors) consists only of monthly compensation, and is all based upon performance of Nippon Steel, in order to give incentives for the Group's sustainable growth and improvement of its corporate value.

Although compensation for Directors who are Audit & Supervisory Committee Members (including Outside Directors) is fixed compensation in principle, the amount of compensation will be increased or decreased only in the event of significant changes in the consolidated performance of Nippon Steel.

Although compensation for Outside Directors is fixed compensation in principle, the amount of compensation may be increased or decreased only in the event of significant changes in the consolidated performance of Nippon Steel.

As indicators for performance-linked compensation, Nippon Steel uses consolidated annual profit/loss, which clearly indicates its business performance, and business profit/loss in the steelmaking segment, which accounts for about 90% of consolidated revenues, while taking into account other factors including revenue targets in the Mid-Term Management Plan. Nippon Steel abolished its retirement benefits for Directors in 2006. Furthermore, the policies relating to bonuses were deleted from the "Policies regarding the Decision on the Amount of Compensation for Directors" in 2013, and this has continued since the transition to a Company with an Audit & Supervisory Committee.

2. Procedures for Determining the Compensation

The policies on determining compensation mentioned in 1. above for Directors (excluding Directors who are Audit & Supervisory Committee Members) and the specific amount of monthly compensation of each Director (excluding Directors who are Audit & Supervisory Committee Members) are resolved at the Board of Directors after discussion at the Nomination and Compensation Advisory Committee.

The Nomination and Compensation Advisory Committee conducts discussions and deliberations on a wide range of topics including the system of Directors' compensation and the appropriateness of the compensation levels by position, taking into account the survey results of directors' compensation levels of other companies obtained from third-party research organizations.

The policies on determining compensation for Directors who are Audit & Supervisory Committee Members and the specific amount of monthly compensation of each Director who is Audit & Supervisory Committee Member are determined by discussions of the Directors who are Audit & Supervisory Committee Members.

Total amounts of Compensation for Directors and Audit & Supervisory Board Members (FY2019)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of recipients</th>
<th>Aggregate amount of compensation (millions of yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directors</td>
<td>15</td>
<td>1,120</td>
</tr>
<tr>
<td>Of which, Outside Directors</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Audit &amp; Supervisory Board Members</td>
<td>9</td>
<td>210</td>
</tr>
<tr>
<td>Of which, Outside Audit &amp; Supervisory Board Members</td>
<td>5</td>
<td>57</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>1,330</td>
</tr>
</tbody>
</table>

Analysis and Evaluation of the Effectiveness of the Board of Directors as a Whole

At Nippon Steel, the office of the Board of Directors (General Administration Division) conducts quantitative analysis through comparison of the number of the agenda items submitted for deliberation or reported to the Board of Directors and the number of hours of deliberation, as well as the attendance rate and the number of opinions expressed by attendees at the meetings of the Board of Directors with those of prior years; and the Board of Directors, taking into account self-assessments and opinions of each member of the Board of Directors, on the operation of the Board of Directors obtained through individual interviews with them, annually analyzes and evaluates the effectiveness of the entire Board of Directors and utilizes such analysis and evaluation to improve the future operation and administration of the Board of Directors.

The Board of Directors, at its meeting held in June 2020, analyzed and evaluated the effectiveness of the Board of Directors for fiscal 2019, confirming that the Board of Directors functions effectively because, among other reasons, all of the matters submitted for deliberation or reported to the Board of Directors pursuant to the Companies Act or Nippon Steel’s rules were resolved or confirmed, after discussion among Directors and Audit & Supervisory Board Members, from the point of view of improvement of Nippon Steel's corporate value in the mid- to long-term or other various perspectives, with relevant information being provided in advance.

In addition, from the standpoint of further enhancing the effectiveness of the Board of Directors, Nippon Steel has decided to take the opportunity of the transition to a Company with an Audit & Supervisory Committee to enhance discussions by the Board of Directors relating to matters such as the formulation of management policies and strategies, enhance the supervisory function of the Board of Directors over management, and devise and improve the operation of meetings that contribute to these efforts, based on the opinions voiced by each Director and Audit & Supervisory Board Member in the effectiveness evaluation for fiscal 2019.

Training Policy for Directors

Nippon Steel, via relevant officers, explains its corporate philosophy and the Group business lineups, among others, to each Outside Director individually once they assume their positions. Moreover, Nippon Steel provides opportunities for Directors to visit steelworks, research laboratories, and to have dialogue with the Chairman, the President, and the Vice Presidents. Nippon Steel also explains anew to Executive Directors and Directors who are Audit & Supervisory Committee Members, both of whom were employees of Nippon Steel, their responsibilities under important applicable laws and regulations such as the Companies Act, and Nippon Steel’s rules, upon the assumption of their positions. Moreover, Nippon Steel supports the performance of responsibilities by Outside Directors by assigning a sufficient number of staff members in the General Administration Division and the Audit & Supervisory Committee Members' Office, and timely and appropriately providing company information such as offering prior explanations about the matters to be submitted for deliberation or reported to meetings of the Board of Directors and other important meetings.

Independence of Outside Directors, and supporting system for Outside Directors

1. Independence of Outside Directors

Nippon Steel decides the independence of Outside Directors in accordance with the independence standards set by the financial instruments exchanges in Japan (e.g. Tokyo Stock Exchange), considering each individual’s personal relationship, capital relationship, transaction relationship, and other interests with Nippon Steel.

2. Supporting System for Outside Directors

Nippon Steel supports the performance of responsibilities by Outside Directors by assigning a sufficient number of staff members in the General Administration Division and the Audit & Supervisory Committee Members’ Office, and timely and appropriately providing company information such as offering prior explanations about the matters to be submitted for deliberation or reported to meetings of the Board of Directors and other important meetings.
Although Ms. Iki serves as President of Japan Institute for Women’s Empowerment & Diversity Management, to which Nippon Steel has designated him as an Independent Director. Because Nippon Steel believes that there is no possibility of a conflict of interest between him and the general shareholders as stated above, Nippon Steel has designated him as an Independent Director.

Tetsuro Tomita

Although Mr. Tomita is engaged in the execution of business of East Japan Railway Company, which has a business relationship with Nippon Steel for transactions of steel and other products/services, since the amount of transactions based on the said company accounts for less than 1% of the consolidated revenue of NIPPO STEEL, the said company is not a specified associated service provider of Nippon Steel. He does not conflict with the independence standards as set by each financial instruments exchange on which Nippon Steel is listed (e.g. Tokyo Stock Exchange), and does not have any special interests with Nippon Steel.

Knowing these facts, Nippon Steel has designated him as an Independent Director.

Masato Kitera

Mr. Kitera does not conflict with either the independence standards or attribute information as set by each financial instruments exchange on which Nippon Steel is listed (e.g. the Tokyo Stock Exchange), and does not have any special interests in Nippon Steel. Because Nippon Steel believes that there is no possibility of a conflict of interest between him and the general shareholders as stated above, Nippon Steel has designated him as an Independent Director.

Hiroshi Obayashi

Mr. Obayashi does not conflict with either the independence standards or attribute information as set by each financial instruments exchange on which Nippon Steel is listed (e.g. the Tokyo Stock Exchange), and does not have any special interests in Nippon Steel. Because Nippon Steel believes that there is no possibility of a conflict of interest between him and the general shareholders as stated above, Nippon Steel has designated him as an Independent Director.

Jiro Makino

Mr. Makino does not conflict with either the independence standards or attribute information as set by each financial instruments exchange on which Nippon Steel is listed (e.g. the Tokyo Stock Exchange), and does not have any special interests in Nippon Steel. Because Nippon Steel believes that there is no possibility of a conflict of interest between him and the general shareholders as stated above, Nippon Steel has designated him as an Independent Director.

Seisichiro Azuma

Mr. Azuma does not conflict with either the independence standards or attribute information as set by each financial instruments exchange on which Nippon Steel is listed (e.g. the Tokyo Stock Exchange), and does not have any special interests in Nippon Steel. Because Nippon Steel believes that there is no possibility of a conflict of interest between him and the general shareholders as stated above, Nippon Steel has designated him as an Independent Director.

Hiroshi Yoshikawa

Although Mr. Yoshikawa was engaged in the execution of business of The University of Tokyo until March 2016, to which Nippon Steel makes donations, he currently does not engage in the execution of business of the university. Furthermore, the university is not a specified associated service provider of Nippon Steel. Nippon Steel donates eighteen million (18,000,000) yen annually for a corporate sponsored research program in the School of Engineering at The University of Tokyo. He does not conflict with the independence standards as set by each financial instruments exchange on which Nippon Steel is listed (e.g. Tokyo Stock Exchange), and does not have any special interests with Nippon Steel. Because Nippon Steel believes that there is no possibility of a conflict of interest between him and the general shareholders as stated above, Nippon Steel has designated him as an Independent Director.

**Significance of having listed subsidiaries**

Nippon Steel is aiming at the Group’s sound and sustainable growth, improvement of its corporate value in the medium- to long-term, and winning the trust of society under the “Corporate Philosophy of the Nippon Steel Group.” In addition, Nippon Steel establishes and appropriately manages an internal control system for the business of the Group to comply with applicable laws and regulations, ensure integrity of financial reporting, as well as effectiveness and efficiency of business, and continues to improve such system. Under this basic policy, Nippon Steel and its Group companies share business strategies and manage the Group as a whole, while taking into account the business characteristics of each Group company. With respect to control of the Group companies, Nippon Steel sets forth basic rules in the Rules for Control of Group companies, and ensures their appropriate application, while each Group company builds and maintains its internal control system based on autonomous internal controls, and seeks to improve measures related to internal controls based on support, guidance, and advice from Nippon Steel.

In order to ensure the independence of listed subsidiaries, each listed subsidiary confirms that the terms and conditions of transactions between the parent company and the subsidiary are reasonably determined on the basis of general contract terms and conditions with other customers, market prices or other reasonable criteria and that the interests of the subsidiary are not harmed.

Furthermore, in order to ensure independent decision-making at listed subsidiaries, each listed subsidiary has a system in place where one-third or more of Directors are Independent Outside Directors, or where one-third or more of attendees at the meetings of the Board of Directors are Independent Outside Directors and Independent Outside Audit & Supervisory Board Members, and the Company believes that the autonomous management has been achieved for each listed subsidiary in this manner. Nippon Steel currently has five listed subsidiaries. (NS Solutions Corporation, Sanyo Special Steel Co., Ltd., Oyako Steel Co., Ltd., Krosaki Harima Corporation, Geostar Corporation)

Significance of having the listed subsidiaries is stated in the Corporate Governance Report, “5. Other Special Circumstances which may have Material Impact on Corporate Governance.”

**The Basic Policy on the Composition of Persons to Control the Decision-Making over the Financial and Business Policies of the Company**

Under the corporate philosophy that the Nippon Steel Group will pursue world-leading technologies and manufacturing capabilities, and contribute to society by providing excellent products and services, the Nippon Steel Group aims to improve its corporate value, and further the common interests of its shareholders, by enhancing its competitiveness and profitability through the planning and execution of management strategies.

Nippon Steel believes that in the event a third party proposes the acquisition of substantial shareholdings in Nippon Steel (a “Takeover Proposal”), the ultimate decision as to whether or not to accept the Takeover Proposal should be made by the then shareholders of Nippon Steel. On the other hand, Nippon Steel believes that such Takeover Proposals could include those with the potential to cause clear damage to the corporate value of Nippon Steel or the common interests of the shareholders of Nippon Steel or those with the potential to practically coerce shareholders into selling their shares of Nippon Steel.

Consequently, Nippon Steel pays close attention to the status of trading of shares of Nippon Steel and changes of its shareholders in order to prepare for such disadvantages to the shareholders of Nippon Steel in the event a Takeover Proposal is made by a third party, and, for the occasions where a Takeover Proposal is actually made, makes efforts to enable its shareholders to make an appropriate informed judgment based on sufficient information and with a reasonable time period to consider such proposal. If a Takeover Proposal is reasonably judged to damage the corporate value of Nippon Steel, which could result in harm to the common interests of shareholders of Nippon Steel, Nippon Steel aims to protect its corporate value and the common interests of its shareholders by taking prompt and appropriate measures to the extent permitted under the then applicable laws and regulations.

**Significance of having listed subsidiaries**

Nippon Steel is aiming at the Group’s sound and sustainable growth, improvement of its corporate value in the medium- to long-term, and winning the trust of society under the “Corporate Philosophy of the Nippon Steel Group.” In addition, Nippon Steel establishes and appropriately manages an internal control system for the business of the Group to comply with applicable laws and regulations, ensure integrity of financial reporting, as well as effectiveness and efficiency of business, and continues to improve such system. Under this basic policy, Nippon Steel and its Group companies share business strategies and manage the Group as a whole, while taking into account the business characteristics of each Group company. With respect to control of the Group companies, Nippon Steel sets forth basic rules in the Rules for Control of Group companies, and ensures their appropriate application, while each Group company builds and maintains its internal control system based on autonomous internal controls, and seeks to improve measures related to internal controls based on support, guidance, and advice from Nippon Steel.

In order to ensure the independence of listed subsidiaries, each listed subsidiary confirms that the terms and conditions of transactions between the parent company and the subsidiary are reasonably determined on the basis of general contract terms and conditions with other customers, market prices or other reasonable criteria and that the interests of the subsidiary are not harmed.

Furthermore, in order to ensure independent decision-making at listed subsidiaries, each listed subsidiary has a system in place where one-third or more of Directors are Independent Outside Directors, or where one-third or more of attendees at the meetings of the Board of Directors are Independent Outside Directors and Independent Outside Audit & Supervisory Board Members, and the Company believes that the autonomous management has been achieved for each listed subsidiary in this manner. Nippon Steel currently has five listed subsidiaries. (NS Solutions Corporation, Sanyo Special Steel Co., Ltd., Oyako Steel Co., Ltd., Krosaki Harima Corporation, Geostar Corporation)

Significance of having the listed subsidiaries is stated in the Corporate Governance Report, “5. Other Special Circumstances which may have Material Impact on Corporate Governance.”

**Significance of having listed subsidiaries is stated in the Corporate Governance Report, p.14-16.**

3 Policy on Strategic Shareholdings

Nippon Steel, from the standpoint of sustainable growth and improvement of its corporate value in the mid- to long-term, believes that it is extremely important to maintain and develop the relationships of trust and alliance with its extensive range of business partners and alliance partners both in Japan and overseas, which have been cultivated through its business activities over the years. Accordingly, Nippon Steel shall continue to hold strategic shareholdings which are judged to contribute to maintaining and strengthening its business foundation such as the business relationships and alliance relationships between Nippon Steel and the investees, enhancing the profitability of both parties, and thereby improving the corporate value of Nippon Steel and the investees, enhancing the profitability of both parties, and thereby improving the corporate value of Nippon Steel on a non-consolidated basis (as of March 31, 2020). The number of stocks held as strategic shareholdings by Nippon Steel on a non-consolidated basis was 495, as of October 1, 2012, when Nippon Steel & Sumitomo Metal Corporation was founded, while 308 stocks were held as of March 31, 2020 (total value on the balance sheet was 237.9 billion yen).

3 Basic Policy on Exercise of Voting Rights Concerning Strategic Shareholdings

Regarding the voting rights concerning each strategic shareholding, Nippon Steel exercises its voting rights upon comprehensively evaluating whether the agenda of the General Meeting of Shareholders of the investee company contributes to the improvement of the respective corporate values of Nippon Steel and the investee company. Specifically, Nippon Steel formulates criteria for the exercise of voting rights which set forth guidelines for judgment according to the type of agenda items such as the appropriation of surplus, the election of Directors and Audit & Supervisory Board Members, etc., and exercises its voting rights based on these criteria together with the results of the examination of the appropriateness of the shareholdings in 2 above.

Policy for Dialogues with Shareholders and Investors

With a view to achieving sustainable growth and improvement of Nippon Steel’s corporate value in the mid- to long-term, Nippon Steel takes various measures to enhance constructive dialogues with the shareholders. The dialogues with the shareholders and investors are generally supervised by the Director responsible for General Administration and the Director responsible for Accounting and Finance, and the General Administration Division and the Accounting & Finance Division work in conjunction with other divisions of Nippon Steel to enhance the measures.

Specifically, for shareholders, in addition to striving to actively provide information to the shareholders and sincerely responding to their questions and comments in the General Meeting of Shareholders, Nippon Steel holds management business briefings and plant tours, regularly in various locations, and issues information booklets. On the other hand, for institutional investors, Nippon Steel not only explains its management strategies, business lineups, business performance and other related matters, by means of briefings on financial results in each quarter, briefings on the Mid-Term Management Plan, steelworks/

“Nippon Steel Corporate Disclosure and Dialogue Policy”

Nippon Steel’s website

Please see details on corporate governance in Nippon Steel’s Corporate Governance Report and Securities Report.

Corporate Governance Report

Securities Report
Executives

As of June 24, 2020

Kosei Shindo
Representative Director and Chairman

Eiji Hashimoto
Representative Director and President

Katsuhito Miyamoto
Representative Director and Executive Vice President

Akio Migkeit
Representative Director and Executive Vice President

Shinichi Tanimoto
Representative Director and Executive Vice President

Shinichi Nakamura
Representative Director and Executive Vice President

Shuhei Onoyama
Representative Director and Executive Vice President

Tadashi Imai
Managing Director, Member of the Board

Representative Director and Executive Vice President

Status of attendance at the meetings of the Board of Directors (FY2019)

100%
94%
90%
96%
98%
92%
90%
### Corporate governance

<table>
<thead>
<tr>
<th>Directors, Members of the Board</th>
<th>Status of attendance at the meetings of the Board of Directors(FY2019)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noriko Ikii</td>
<td>100%</td>
</tr>
<tr>
<td>Masato Kitera</td>
<td>100%</td>
</tr>
<tr>
<td>Masato Kitera</td>
<td>100%</td>
</tr>
<tr>
<td>Tomomi Orito</td>
<td>100%</td>
</tr>
<tr>
<td>Tetsuo Tomita</td>
<td>100%</td>
</tr>
<tr>
<td>Shozo Furumoto</td>
<td>100%</td>
</tr>
<tr>
<td>Nobuhiro Miyoshi</td>
<td>100%</td>
</tr>
<tr>
<td>Seiichiro Azuma</td>
<td>100%</td>
</tr>
<tr>
<td>Hiroshi Obayashi</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Material position

<table>
<thead>
<tr>
<th>Directors, Members of the Board</th>
<th>Status of attendance at the meetings of the Board of Directors(FY2019)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noriko Ikii</td>
<td>100%</td>
</tr>
<tr>
<td>Masato Kitera</td>
<td>100%</td>
</tr>
<tr>
<td>Masato Kitera</td>
<td>100%</td>
</tr>
<tr>
<td>Tomomi Orito</td>
<td>100%</td>
</tr>
<tr>
<td>Tetsuo Tomita</td>
<td>100%</td>
</tr>
<tr>
<td>Shozo Furumoto</td>
<td>100%</td>
</tr>
<tr>
<td>Nobuhiro Miyoshi</td>
<td>100%</td>
</tr>
<tr>
<td>Seiichiro Azuma</td>
<td>100%</td>
</tr>
<tr>
<td>Hiroshi Obayashi</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Summary

Nippon Steel Corporation (Nippon Steel) believes that Mr. Masato Kitera is well-qualified for the position by reason of his deep insight and ample experience in corporate management. Nippon Steel believes that Mr. Hiroshi Obayashi is well-qualified for the position by reason of his deep insight and ample experience as a lawyer and corporate director.
### 11-Year Financial Performance

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net sales</strong></td>
<td>Nippon Steel*</td>
<td>3,487,714</td>
<td>4,109,774</td>
<td>4,090,936</td>
<td>4,389,922</td>
<td>5,514,180</td>
<td>5,610,030</td>
<td>4,907,429</td>
<td>4,632,890</td>
<td>5,668,663</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sumitomo Metals*</td>
<td>1,285,845</td>
<td>1,402,454</td>
<td>1,473,367</td>
<td>693,601</td>
<td>693,601</td>
<td>693,601</td>
<td>693,601</td>
<td>693,601</td>
<td>693,601</td>
<td></td>
</tr>
<tr>
<td><strong>Operating profit (loss)</strong></td>
<td>Nippon Steel*</td>
<td>32,800</td>
<td>165,405</td>
<td>79,344</td>
<td>20,110</td>
<td>288,390</td>
<td>349,510</td>
<td>167,731</td>
<td>114,202</td>
<td>182,382</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sumitomo Metals*</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td></td>
</tr>
<tr>
<td><strong>Ordinary profit (loss)</strong></td>
<td>Nippon Steel*</td>
<td>113,833</td>
<td>223,035</td>
<td>142,006</td>
<td>76,831</td>
<td>361,007</td>
<td>451,747</td>
<td>200,929</td>
<td>174,531</td>
<td>257,644</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sumitomo Metals*</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td></td>
</tr>
<tr>
<td><strong>Depreciation and amortization</strong></td>
<td>Nippon Steel*</td>
<td>11,242</td>
<td>185,377</td>
<td>120,000</td>
<td>395,457</td>
<td>376,188</td>
<td>376,188</td>
<td>376,188</td>
<td>376,188</td>
<td>376,188</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sumitomo Metals*</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td></td>
</tr>
<tr>
<td><strong>Capital expenditure</strong></td>
<td>Nippon Steel*</td>
<td>136,643</td>
<td>202,340</td>
<td>88,065</td>
<td>33,332</td>
<td>(367,115)</td>
<td>(451,843)</td>
<td>(337,555)</td>
<td>(135,054)</td>
<td>(89,190)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sumitomo Metals*</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td></td>
</tr>
<tr>
<td><strong>Cash flows from operating activities</strong></td>
<td>Nippon Steel*</td>
<td>46,824</td>
<td>46,663</td>
<td>48,175</td>
<td>60,701</td>
<td>64,437</td>
<td>62,966</td>
<td>63,789</td>
<td>70,043</td>
<td>70,043</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sumitomo Metals*</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td></td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>Nippon Steel*</td>
<td>5,002,378</td>
<td>5,000,060</td>
<td>4,924,711</td>
<td>4,881,794</td>
<td>4,881,794</td>
<td>4,881,794</td>
<td>4,881,794</td>
<td>4,881,794</td>
<td>4,881,794</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sumitomo Metals*</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td></td>
</tr>
<tr>
<td><strong>Shareholders’ equity</strong></td>
<td>Nippon Steel*</td>
<td>1,844,382</td>
<td>1,860,799</td>
<td>1,828,902</td>
<td>2,263,659</td>
<td>2,263,659</td>
<td>2,263,659</td>
<td>2,263,659</td>
<td>2,263,659</td>
<td>2,263,659</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sumitomo Metals*</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td></td>
</tr>
<tr>
<td><strong>Total net assets</strong></td>
<td>Nippon Steel*</td>
<td>2,335,670</td>
<td>2,440,761</td>
<td>2,386,158</td>
<td>2,488,750</td>
<td>2,488,750</td>
<td>2,488,750</td>
<td>2,488,750</td>
<td>2,488,750</td>
<td>2,488,750</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sumitomo Metals*</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td></td>
</tr>
<tr>
<td><strong>Interest-bearing debt</strong></td>
<td>Nippon Steel*</td>
<td>1,383,794</td>
<td>1,337,851</td>
<td>1,334,512</td>
<td>1,334,512</td>
<td>1,334,512</td>
<td>1,334,512</td>
<td>1,334,512</td>
<td>1,334,512</td>
<td>1,334,512</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sumitomo Metals*</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td>819</td>
<td></td>
</tr>
</tbody>
</table>

#### Financial Information

- **JGAAP**
- **IFRS**

#### Operating Results (fiscal year) <Millions of yen>

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net sales</strong></td>
<td>7,716,134</td>
<td>8,049,528</td>
<td>7,444,965</td>
</tr>
<tr>
<td><strong>Operating profit (loss)</strong></td>
<td>3,136,991</td>
<td>3,230,788</td>
<td>2,641,818</td>
</tr>
<tr>
<td><strong>Interest-bearing debt</strong></td>
<td>3,524,896</td>
<td>3,607,367</td>
<td>2,996,631</td>
</tr>
<tr>
<td><strong>Cash flows from operating activities</strong></td>
<td>485,339</td>
<td>452,345</td>
<td>494,330</td>
</tr>
<tr>
<td><strong>Cash flows from investing activities</strong></td>
<td>345,370</td>
<td>381,850</td>
<td>345,627</td>
</tr>
<tr>
<td><strong>Cash flows from financing activities</strong></td>
<td>(104,960)</td>
<td>(42,500)</td>
<td>(14,582)</td>
</tr>
</tbody>
</table>

#### Financial Position (end of fiscal year) <Millions of yen>

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total assets</strong></td>
<td>7,716,134</td>
<td>8,049,528</td>
<td>7,444,965</td>
</tr>
<tr>
<td><strong>Total equity attributable to owners of parent</strong></td>
<td>3,136,991</td>
<td>3,230,788</td>
<td>2,641,818</td>
</tr>
<tr>
<td><strong>Cash flows from operating activities</strong></td>
<td>485,339</td>
<td>452,345</td>
<td>494,330</td>
</tr>
<tr>
<td><strong>Cash flows from investing activities</strong></td>
<td>345,370</td>
<td>381,850</td>
<td>345,627</td>
</tr>
<tr>
<td><strong>Cash flows from financing activities</strong></td>
<td>(104,960)</td>
<td>(42,500)</td>
<td>(14,582)</td>
</tr>
</tbody>
</table>

---


*2. Only for “Tangible fixed assets,” construction base.

*3. The amounts stated for “Sumitomo Metals” for fiscal 2011 and before are only for “Tangible fixed assets.” The amounts stated for “Nippon Steel” and the amounts for “Sumitomo Metals” for “Nippon Steel” for the first half of fiscal 2012 (April 1 to September 30) do not include the share consolidation, and after adding the fiscal 2015 year-end dividend of 15 the share consolidation, and after adding the fiscal 2015 year-end dividend of 15 the share consolidation.

*4. “Shareholders’ equity” stated here is the sum of “Shareholders’ equity” as stated in the balance sheet and “Accumulated other comprehensive income.” The difference between “Shareholders’ equity” and “Net total assets” is “Non-controlling interests in consolidated subsidiaries.”

*5. The amounts of “Outstanding borrowings” (the sum of “Borrowings,” “Corporate bonds,” and “Commercial paper”) are stated.

*6. The amounts stated for “Nippon Steel” for fiscal 2012 are the sum of Nippon Steel’s amounts for the first half (April 1 to September 30) of fiscal 2012 and NSSMC’s amounts for the second half (October 1 to March 31) of fiscal 2012. The amounts stated for “Sumitomo Metals” for fiscal 2012 are Nippon Steel’s amounts for the first half (April 1 to September 30) of fiscal 2012.

*7. Div. 10/15/2012, NSSMC performed an 1-for-10 share consolidation.

*8. Profit attributable to owners of parent share per share for fiscal 2015 is calculated assuming the 1-for-10 share consolidation was performed at the beginning of the year.

*9. The interim dividend for fiscal 2015 works out to be 45 per share.

---

**Note:** Figures in parentheses indicate negative figures.
11-Year Financial Performance

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial Indices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on sales</td>
<td>0.3%</td>
<td>5.5%</td>
<td>3.5%</td>
<td>1.8%</td>
<td>6.5%</td>
<td>8.1%</td>
<td>4.1%</td>
<td>3.8%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Nippon Steel*1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sumitomo Metals</td>
<td>0.8%</td>
<td>2.4%</td>
<td>4.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on equity</td>
<td>(0.7)%</td>
<td>5.1%</td>
<td>3.2%</td>
<td>0.9%</td>
<td>4.0%</td>
<td>7.8%</td>
<td>5.1%</td>
<td>4.8%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Nippon Steel</td>
<td>(3.1)%</td>
<td>(9.1)%</td>
<td>(7.3)%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sumitomo Metals</td>
<td>3.5%</td>
<td>3.1%</td>
<td>2.9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shareholder's equity</td>
<td>Nippon Steel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sumitomo Metals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Segments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude steel production (Millions of tons)</td>
<td>4,567</td>
<td>4,496</td>
<td>4,217</td>
<td>4,262</td>
<td>4,067</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nippon Steel*2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sumitomo Metals</td>
<td>3,892</td>
<td>3,721</td>
<td>3,542</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steel products shipments (Ten thousands of tons)</td>
<td>4,221</td>
<td>4,146</td>
<td>3,970</td>
<td>3,970</td>
<td>3,880</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nippon Steel*3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sumitomo Metals</td>
<td>3,594</td>
<td>3,521</td>
<td>3,344</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average steel selling price (Non-consolidated)*4 (Non-consolidated)*5</td>
<td>88.0</td>
<td>94.2</td>
<td>103.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nippon Steel</td>
<td>57.9</td>
<td>65.0</td>
<td>75.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sumitomo Metals</td>
<td>90.3</td>
<td>97.4</td>
<td>107.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Export ratio (volume basis)*6</td>
<td>5.9%</td>
<td>0.9%</td>
<td>7.3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nippon Steel</td>
<td>(5.9%)</td>
<td>(0.7%)</td>
<td>5.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sumitomo Metals</td>
<td>3.2%</td>
<td>(5.9%)</td>
<td>9.6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System solutions</td>
<td>(3.1)%</td>
<td>3.2%</td>
<td>4.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nippon Steel</td>
<td>(3.1)%</td>
<td>3.2%</td>
<td>4.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sumitomo Metals</td>
<td>3.8%</td>
<td>4.0%</td>
<td>4.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of employees (Consolidated)</td>
<td>52,205</td>
<td>51,933</td>
<td>50,505</td>
<td>51,187</td>
<td>51,836</td>
<td>51,797</td>
<td>51,743</td>
<td>51,217</td>
<td>50,292</td>
</tr>
<tr>
<td>Nippon Steel</td>
<td>23,674</td>
<td>22,597</td>
<td>21,609</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sumitomo Metals</td>
<td>28,531</td>
<td>29,336</td>
<td>28,996</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Figures for fiscal 2012 and earlier are for Nippon Steel. Figures in parentheses indicate either negative figures or elimination. Segment profit (loss) stated for fiscal 2009 and earlier is “Segment operating profit (loss).” Figures for fiscal 2012 and earlier are for Nippon Steel. Figures in parentheses indicate either negative figures or elimination. Segment profit (loss) stated for fiscal 2009 and earlier is “Segment operating profit (loss).” Following the business integration of Nippon Steel City Produce, Inc. and Kowa Real Estate Co., Ltd. on October 1, 2012, the business segment classification has been changed to include the results for “Urban development” in “Elimination of inter-segment transactions” for “Net sales by segment” and “Profit (loss) by segment” from fiscal 2012.

---

### Non-Financial Performance

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steel products shipments</strong> (Non-consolidated)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nippon Steel</td>
<td>2,992</td>
<td>3,492</td>
<td>3,244</td>
<td>3,603</td>
<td>4,816</td>
<td>4,732</td>
<td>4,453</td>
<td>4,517</td>
<td>4,692</td>
</tr>
<tr>
<td>Sumitomo Metals</td>
<td>2,750</td>
<td>3,246</td>
<td>3,020</td>
<td>3,455</td>
<td>4,567</td>
<td>4,496</td>
<td>4,217</td>
<td>4,262</td>
<td>4,076</td>
</tr>
<tr>
<td><strong>Steel products shipments</strong> (Not-consolidated)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nippon Steel</td>
<td>2,756</td>
<td>3,042</td>
<td>2,822</td>
<td>3,171</td>
<td>4,038</td>
<td>3,874</td>
<td>3,664</td>
<td>3,743</td>
<td>3,904</td>
</tr>
<tr>
<td>Sumitomo Metals</td>
<td>2,093</td>
<td>2,550</td>
<td>2,332</td>
<td>2,778</td>
<td>3,704</td>
<td>3,525</td>
<td>3,316</td>
<td>3,369</td>
<td>3,430</td>
</tr>
</tbody>
</table>

---

### Summary of Financial Information

- **Financial statements** for Nippon Steel Corporation for the financial years ended March 31, 2020 and March 31, 2019, and for the six months ended September 30, 2020 and December 31, 2019. Financial statements for Nippon Steel Corporation for the six months ended September 30, 2019 and December 31, 2018.
- **Profit (loss) by segment** from fiscal 2012.

---

### Financial Information

- **Segment revenue**: Steel making and steel fabrication, System solutions, Engineering and construction, Chemicals.
- **Financial Indices**: Financial indices include those of Sumitomo Metals (Kokura), Ltd. (merged with Sumitomo Metals on January 1, 2012), Sumitomo Metals (Naoetsu), Ltd. (merged with Sumitomo Metals on January 1, 2012), and Sumikin Iron & Steel Corporation.
## Consolidated Statements of Financial Position

<table>
<thead>
<tr>
<th></th>
<th>March 31, 2019 (Millions of Yen)</th>
<th>March 31, 2020 (Millions of Yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>163,176</td>
<td>289,459</td>
</tr>
<tr>
<td>Trade and other receivables</td>
<td>968,333</td>
<td>826,596</td>
</tr>
<tr>
<td>Inventories</td>
<td>1,587,116</td>
<td>1,532,181</td>
</tr>
<tr>
<td>Other financial assets</td>
<td>16,915</td>
<td>17,340</td>
</tr>
<tr>
<td>Other current assets</td>
<td>143,669</td>
<td>119,396</td>
</tr>
<tr>
<td><strong>Total current assets</strong></td>
<td><strong>2,859,211</strong></td>
<td><strong>2,794,974</strong></td>
</tr>
<tr>
<td>Non-current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>3,246,669</td>
<td>2,812,542</td>
</tr>
<tr>
<td>Right-of-use assets</td>
<td>-</td>
<td>93,673</td>
</tr>
<tr>
<td>Goodwill</td>
<td>52,803</td>
<td>45,486</td>
</tr>
<tr>
<td>Intangible assets</td>
<td>106,131</td>
<td>96,673</td>
</tr>
<tr>
<td>Investments accounted for using the equity method</td>
<td>793,146</td>
<td>878,271</td>
</tr>
<tr>
<td>Other financial assets</td>
<td>826,669</td>
<td>481,117</td>
</tr>
<tr>
<td>Defined benefit assets</td>
<td>1,047</td>
<td>4,261</td>
</tr>
<tr>
<td>Deferred tax assets</td>
<td>88,572</td>
<td>186,457</td>
</tr>
<tr>
<td>Other non-current assets</td>
<td>8,292</td>
<td>7,132</td>
</tr>
<tr>
<td><strong>Total non-current assets</strong></td>
<td><strong>5,190,316</strong></td>
<td><strong>4,659,990</strong></td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td><strong>8,049,528</strong></td>
<td><strong>7,444,965</strong></td>
</tr>
</tbody>
</table>

| **LIABILITIES**      |                                  |                                  |
| Current liabilities  |                                  |                                  |
| Trade and other payables | 1,611,403                      | 1,449,801                        |
| Bonds, borrowings and lease liabilities | 915,355                        | 376,900                          |
| Other financial liabilities | 1,017                          | 2,199                            |
| Income taxes payable | 38,779                          | 27,323                           |
| Other current liabilities | 34,042                        | 38,978                           |
| **Total current liabilities** | **2,200,538**                  | **1,895,192**                    |
| Non-current liabilities |                                  |                                  |
| Bonds, borrowings and lease liabilities | 1,853,876                      | 2,111,641                        |
| Other financial liabilities | 6,501                          | 4,621                            |
| Defined benefit liabilities | 186,765                        | 236,758                          |
| Deferred tax liabilities | 28,253                         | 27,765                           |
| Other non-current liabilities | 146,295                        | 72,154                           |
| **Total non-current liabilities** | **2,241,632**                  | **1,553,141**                    |
| **Total liabilities** | **4,442,160**                   | **4,448,333**                    |

| **EQUITY**           |                                  |                                  |
| Common stock         | 419,524                          | 419,524                          |
| Capital surplus      | 393,917                          | 394,404                          |
| Retained earnings    | 2,300,175                        | 1,870,948                        |
| Treasury stock       | 114,383                          | 114,383                          |
| Other components of equity | 176,000                      | 15,425                           |
| **Total equity attributable to owners of the parent** | **3,230,788**                  | **2,641,618**                    |
| Non-controlling interests | 376,579                        | 355,013                          |
| **Total equity**     | **3,607,367**                    | **2,996,631**                    |

| **Total liabilities and equity** | **8,049,528** | **7,444,965** |

## Consolidated Statements of Profit or Loss

<table>
<thead>
<tr>
<th></th>
<th>Fiscal 2018 (Millions of Yen)</th>
<th>Fiscal 2019 (Millions of Yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td>6,177,642</td>
<td>5,921,525</td>
</tr>
<tr>
<td><strong>Cost of sales</strong></td>
<td>(5,399,490)</td>
<td>(5,313,347)</td>
</tr>
<tr>
<td><strong>Gross profit</strong></td>
<td>788,152</td>
<td>699,849</td>
</tr>
<tr>
<td>Selling, general and administrative expenses</td>
<td>(584,409)</td>
<td>(571,781)</td>
</tr>
<tr>
<td>Share of profit in investments accounted for using the equity method</td>
<td>86,411</td>
<td>38,395</td>
</tr>
<tr>
<td>Other operating income</td>
<td>182,665</td>
<td>104,844</td>
</tr>
<tr>
<td>Other operating expenses</td>
<td>(70,332)</td>
<td>(445,005)</td>
</tr>
<tr>
<td><strong>Business profit (loss)</strong></td>
<td>334,914</td>
<td>(281,447)</td>
</tr>
<tr>
<td>Losses on natural disaster</td>
<td>(22,349)</td>
<td>-</td>
</tr>
<tr>
<td>Losses on reorganisation</td>
<td>(49,480)</td>
<td>(54,704)</td>
</tr>
<tr>
<td><strong>Operating profit (loss)</strong></td>
<td><strong>281,181</strong></td>
<td>(366,751)</td>
</tr>
<tr>
<td><strong>Finance income</strong></td>
<td>6,104</td>
<td>7,706</td>
</tr>
<tr>
<td><strong>Finance costs</strong></td>
<td>(22,445)</td>
<td>(25,159)</td>
</tr>
<tr>
<td><strong>Profit (loss) before income taxes</strong></td>
<td><strong>257,736</strong></td>
<td><strong>(423,572)</strong></td>
</tr>
<tr>
<td><strong>Income tax expense</strong></td>
<td>8,809</td>
<td>(2,548)</td>
</tr>
<tr>
<td><strong>Profit (loss) for the year</strong></td>
<td><strong>257,157</strong></td>
<td><strong>(421,084)</strong></td>
</tr>
<tr>
<td>Owners of the parent</td>
<td><strong>257,157</strong></td>
<td><strong>(421,084)</strong></td>
</tr>
<tr>
<td>Non-controlling interests</td>
<td>4,621</td>
<td>5,393</td>
</tr>
<tr>
<td><strong>Earnings (loss) per share</strong></td>
<td><strong>Basic earnings (loss) per share</strong></td>
<td><strong>(468,747)</strong></td>
</tr>
</tbody>
</table>

## Consolidated Statements of Comprehensive Income or Loss

<table>
<thead>
<tr>
<th></th>
<th>Fiscal 2018 (Millions of Yen)</th>
<th>Fiscal 2019 (Millions of Yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Profit (loss) for the year</strong></td>
<td>257,157</td>
<td>(421,084)</td>
</tr>
<tr>
<td><strong>Other comprehensive income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Items that cannot be reclassified to profit or loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes in fair value of financial assets measured at fair value through other comprehensive income</td>
<td>(104,657)</td>
<td>(81,305)</td>
</tr>
<tr>
<td>Share of other comprehensive income of investments accounted for using the equity method</td>
<td>(2,953)</td>
<td>(6,785)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>(426,120)</strong></td>
<td><strong>(91,540)</strong></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>(111,342)</td>
<td>(91,540)</td>
</tr>
<tr>
<td><strong>Items that might be reclassified to profit or loss</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes in fair value of cash flow hedges</td>
<td>(1,522)</td>
<td>(1,821)</td>
</tr>
<tr>
<td>Share of other comprehensive income of investments accounted for using the equity method</td>
<td>(9,346)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>(117,521)</strong></td>
<td><strong>(101,052)</strong></td>
</tr>
<tr>
<td><strong>Comprehensive income for the year attributable to:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owners of the parent</td>
<td><strong>84,126</strong></td>
<td><strong>(543,881)</strong></td>
</tr>
<tr>
<td>Non-controlling interests</td>
<td>998</td>
<td><strong>239</strong></td>
</tr>
</tbody>
</table>
# Consolidated Statements of Changes in Equity

<table>
<thead>
<tr>
<th>Fiscal 2018</th>
<th>Common stock</th>
<th>Capital surplus</th>
<th>Retained earnings</th>
<th>Treasury stock</th>
<th>Changes in fair value of financial assets measured at fair value through other comprehensive income</th>
<th>Remeasurements of defined benefit plans</th>
<th>Equity attributable to owners of the parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance as of March 31, 2018</td>
<td>419,524</td>
<td>388,867</td>
<td>2,145,658</td>
<td>(132,162)</td>
<td>334,301</td>
<td>-</td>
<td>3,201,423</td>
</tr>
<tr>
<td>Changes of the year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comprehensive income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit (loss) for the year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other comprehensive income</td>
<td>251,369</td>
<td></td>
<td></td>
<td>(104,254)</td>
<td></td>
<td></td>
<td>120,311</td>
</tr>
<tr>
<td>Total comprehensive income</td>
<td></td>
<td>251,369</td>
<td></td>
<td>(104,254)</td>
<td></td>
<td></td>
<td>120,311</td>
</tr>
<tr>
<td>Transactions with owners and others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash dividends</td>
<td></td>
<td></td>
<td></td>
<td>(70,710)</td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Purchases of treasury stock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(8)</td>
</tr>
<tr>
<td>Disposals of treasury stock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(4,297)</td>
</tr>
<tr>
<td>Changes in ownership interests in subsidiaries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8,477</td>
<td></td>
</tr>
<tr>
<td>Transfer from other components of equity to retained earnings</td>
<td>(2,194,2)</td>
<td></td>
<td></td>
<td>17,573</td>
<td></td>
<td></td>
<td>4,369</td>
</tr>
<tr>
<td>Changes in scope of consolidation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(242)</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td>7,060</td>
<td>92,652</td>
<td>73,311</td>
<td>17,573</td>
<td>4,369</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance as of March 31, 2019</td>
<td>419,524</td>
<td>393,917</td>
<td>2,300,175</td>
<td>(58,831)</td>
<td>248,020</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fiscal 2019</th>
<th>Common stock</th>
<th>Capital surplus</th>
<th>Retained earnings</th>
<th>Treasury stock</th>
<th>Changes in fair value of financial assets measured at fair value through other comprehensive income</th>
<th>Remeasurements of defined benefit plans</th>
<th>Equity attributable to owners of the parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance as of March 31, 2019</td>
<td>419,524</td>
<td>393,917</td>
<td>2,300,175</td>
<td>(58,831)</td>
<td>248,020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes of the year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comprehensive income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit (loss) for the year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other comprehensive income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total comprehensive income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transactions with owners and others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash dividends</td>
<td></td>
<td></td>
<td></td>
<td>(44,101)</td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Purchases of treasury stock</td>
<td></td>
<td></td>
<td></td>
<td>(49)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disposals of treasury stock</td>
<td></td>
<td></td>
<td></td>
<td>(904)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes in ownership interests in subsidiaries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>91</td>
<td></td>
</tr>
<tr>
<td>Transfer from other components of equity to retained earnings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>48,387</td>
<td></td>
</tr>
<tr>
<td>Changes in scope of consolidation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(250)</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td>-</td>
<td>486</td>
<td>2,286</td>
<td>325</td>
<td></td>
<td></td>
<td>(50,817)</td>
</tr>
<tr>
<td>Balance as of March 31, 2020</td>
<td>419,524</td>
<td>394,404</td>
<td>1,870,948</td>
<td>(58,505)</td>
<td>111,924</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Integrated Report 2020 NIPPON STEEL CORPORATION**

**Overview**
- Inputs
- Business activities
- Outputs and outcomes
- Results and outlook
- The value creation process
- Risks, opportunities, and strategies
- Corporate governance
- Financial information and investor information

**Financial Information**
### Consolidated Statements of Cash-Flows

<table>
<thead>
<tr>
<th>Fiscal 2018</th>
<th>Fiscal 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Millions of Yen)</td>
<td></td>
</tr>
</tbody>
</table>

#### Cash flows from operating activities

<table>
<thead>
<tr>
<th>Description</th>
<th>Fiscal 2018</th>
<th>Fiscal 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit (loss) before income taxes</td>
<td>248,769</td>
<td>(423,572)</td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td>408,616</td>
<td>477,339</td>
</tr>
<tr>
<td>Impairment losses</td>
<td></td>
<td>333,968</td>
</tr>
<tr>
<td>Finance income</td>
<td>(6,098)</td>
<td>(5,765)</td>
</tr>
<tr>
<td>Finance costs</td>
<td>22,445</td>
<td>25,559</td>
</tr>
<tr>
<td>Gain on sale of property, plant and equipment and intangible assets</td>
<td>(5,901)</td>
<td>(6,105)</td>
</tr>
<tr>
<td>Losses from sales of property, plant and equipment and intangible assets</td>
<td>49,480</td>
<td>121,702</td>
</tr>
<tr>
<td>(Increase) decrease in trade and other receivables</td>
<td>(154,665)</td>
<td>157,635</td>
</tr>
<tr>
<td>(Increase) decrease in inventories</td>
<td>(213,408)</td>
<td>23,844</td>
</tr>
<tr>
<td>Increase (decrease) in trade and other payables</td>
<td>81,058</td>
<td>(162,864)</td>
</tr>
<tr>
<td>Other, net</td>
<td>21,640</td>
<td>98,809</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>489,547</td>
<td>539,842</td>
</tr>
<tr>
<td>Interest received</td>
<td>5,796</td>
<td>7,887</td>
</tr>
<tr>
<td>Dividends received</td>
<td>57,888</td>
<td>61,024</td>
</tr>
<tr>
<td>Interest paid</td>
<td>(19,278)</td>
<td>(21,913)</td>
</tr>
<tr>
<td>Income taxes paid</td>
<td>(962,815)</td>
<td>(92,510)</td>
</tr>
<tr>
<td><strong>Net cash flows provided by operating activities</strong></td>
<td>452,341</td>
<td>494,330</td>
</tr>
</tbody>
</table>

#### Cash flows from investing activities

<table>
<thead>
<tr>
<th>Description</th>
<th>Fiscal 2018</th>
<th>Fiscal 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase of property, plant and equipment and intangible assets</td>
<td>(438,758)</td>
<td>(460,555)</td>
</tr>
<tr>
<td>Proceeds from sale of property, plant and equipment and intangible assets</td>
<td>12,841</td>
<td>13,283</td>
</tr>
<tr>
<td>Proceeds from investments securities</td>
<td>8,362</td>
<td>7,993</td>
</tr>
<tr>
<td>Proceeds from sale of investments in associates</td>
<td>191,934</td>
<td>204,994</td>
</tr>
<tr>
<td>Proceeds from sales of investment securities</td>
<td>2,787</td>
<td>(112,062)</td>
</tr>
<tr>
<td>Proceeds from sale of investments in associates</td>
<td>5,348</td>
<td>12,404</td>
</tr>
<tr>
<td>Purchases of shares of subsidiaries resulting in change in scope of consolidation</td>
<td>(35,658)</td>
<td></td>
</tr>
<tr>
<td>Loans to associates and others</td>
<td>(11,870)</td>
<td>(225,850)</td>
</tr>
<tr>
<td>Collection of loans from associates and others</td>
<td>3,948</td>
<td>238,418</td>
</tr>
<tr>
<td>Other, net</td>
<td>5,796</td>
<td>(1,155)</td>
</tr>
<tr>
<td><strong>Net cash flows used in investing activities</strong></td>
<td>(438,800)</td>
<td>(445,827)</td>
</tr>
</tbody>
</table>

#### Cash flows from financing activities

<table>
<thead>
<tr>
<th>Description</th>
<th>Fiscal 2018</th>
<th>Fiscal 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase (decrease) in short-term borrowings, net</td>
<td>67,401</td>
<td>(89,452)</td>
</tr>
<tr>
<td>Proceeds from long-term borrowings</td>
<td>285,857</td>
<td>46,020</td>
</tr>
<tr>
<td>Repayments of long-term borrowings</td>
<td>(192,799)</td>
<td>(215,628)</td>
</tr>
<tr>
<td>Proceeds from issuance of bonds</td>
<td>60,000</td>
<td>370,550</td>
</tr>
<tr>
<td>Redemption of treasury stock</td>
<td>(82,990)</td>
<td>(60,000)</td>
</tr>
<tr>
<td>Purchase of treasury stock</td>
<td>650</td>
<td>(43)</td>
</tr>
<tr>
<td>Dividends paid to non-controlling interests</td>
<td>(20,710)</td>
<td>(46,707)</td>
</tr>
<tr>
<td>Dividends paid to non-controlling interests</td>
<td>(7,604)</td>
<td>(5,045)</td>
</tr>
<tr>
<td>Proceeds from changes in ownership interests in subsidiaries that do not result in change in scope of consolidation</td>
<td>1,910</td>
<td></td>
</tr>
<tr>
<td>Other, net</td>
<td>(92,289)</td>
<td>(24,791)</td>
</tr>
<tr>
<td><strong>Net cash flows used in financing activities</strong></td>
<td>(42,900)</td>
<td>(14,582)</td>
</tr>
</tbody>
</table>

#### Effect of exchange rate changes on cash and cash equivalents

<table>
<thead>
<tr>
<th>Description</th>
<th>Fiscal 2018</th>
<th>Fiscal 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>(7,328)</td>
<td>(7,838)</td>
<td></td>
</tr>
</tbody>
</table>

#### Net increase in cash and cash equivalents

<table>
<thead>
<tr>
<th>Description</th>
<th>Fiscal 2018</th>
<th>Fiscal 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,305</td>
<td>126,283</td>
<td></td>
</tr>
</tbody>
</table>

#### Cash and cash equivalents at beginning of the year

<table>
<thead>
<tr>
<th>Description</th>
<th>Fiscal 2018</th>
<th>Fiscal 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>142,869</td>
<td>163,576</td>
<td></td>
</tr>
</tbody>
</table>

#### Cash and cash equivalents at end of the year

<table>
<thead>
<tr>
<th>Description</th>
<th>Fiscal 2018</th>
<th>Fiscal 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>163,576</td>
<td>289,459</td>
<td></td>
</tr>
</tbody>
</table>
## Financial Information

### Total Shareholder Return, Stock Price and Market Cap, and Strategic Shareholdings

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Shareholder Return (TSR) (%)</th>
<th>Highest Share Price ($)</th>
<th>Lowest Share Price ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>32.0</td>
<td>441.8</td>
<td>225.3</td>
</tr>
<tr>
<td>2016</td>
<td>87.8</td>
<td>401.7</td>
<td>76.5</td>
</tr>
<tr>
<td>2017</td>
<td>82.5</td>
<td>431.2</td>
<td>76.3</td>
</tr>
<tr>
<td>2018</td>
<td>72.5</td>
<td>313.2</td>
<td>57.0</td>
</tr>
<tr>
<td>2019</td>
<td>38.9</td>
<td>2,689.8</td>
<td>837.0</td>
</tr>
</tbody>
</table>

**Consolidated Ordinary Dividend (Dividend-Included Total):**
- 71.5% of total dividend
- 284.0% of total dividend

### Investor Information (As of March 31, 2020)

#### Head Office
- 2-6-1, Marunouchi, Chiyoda-ku, Tokyo 100-0001, Japan
- Phone: +81-3-3323-7111

#### Inception
- April 1, 1950

#### Common Stock
- Number: 4,019,524 million

#### Stock Code
- 5401

#### Common Shares (Issued)
- Number of Shares: 1,950,321,402 shares

#### Common Shares (Authorized)
- Number of Shares: 2,000,000,000 shares

#### Number of Shareholders
- 439,491

#### Listings
- Tokyo Stock Exchange
- Nagoya Stock Exchange
- Osaka Stock Exchange

#### Share Ownership by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Shares</th>
<th>Shareholding Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial institutions</td>
<td>237,800,315</td>
<td>31.8</td>
</tr>
<tr>
<td>Securities companies</td>
<td>123,201,942</td>
<td>16.0</td>
</tr>
<tr>
<td>Individuals and others in Japan</td>
<td>231,513,457</td>
<td>30.7</td>
</tr>
<tr>
<td>Other companies</td>
<td>31,799,300</td>
<td>4.3</td>
</tr>
<tr>
<td>Treasury stock</td>
<td>197,226</td>
<td>0.3</td>
</tr>
<tr>
<td>Overseas investors</td>
<td>18,917,010</td>
<td>2.5</td>
</tr>
</tbody>
</table>

#### Number of Shares per Trading Unit
- 100 shares

#### Registration Agent
- Sumitomo Mitsui Trust Bank, Limited
- 1-4-1, Marunouchi, Chiyoda-ku, Tokyo 100-0001, Japan
- Phone: +81-3-3323-7711 (Outside Japan)
-ADR Information

#### Overview of corporate communication tools
- [Corporate Website](https://www.nipponsteel.com/en/ir/)
- [Integrated Report](https://www.nipponsteel.com/en/csr/)
- [Various reports for investors](https://www.nipponsteel.com/en/csr/library/corporate_activities.html)

#### Disclaimer regarding forward looking statements
This integrated report is not disclosure document statutory required by the Act on Financial Instruments and Exchange and other laws and does not guarantee accuracy and completeness of the information. This report contains statements that constitute forward looking statements, including expectations based on the assumptions, projections, and plans as of the published date of this report. It should be noted that actual business results and other matters could differ materially from the details contained in this report.

This report is not prepared for the purpose of providing the basis for an investment decision. The Company is not responsible for any damages or loss incurred due to the information available on this report.