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# On route to brighter horizons

Nippon Yusen Kabushiki Kaisha  
NYK Report **2017**

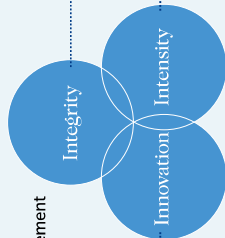


## Basic Philosophy

Through safe and dependable monohakobi (transport), we contribute to the betterment of societies throughout the world as a comprehensive global-logistics enterprise offering ocean, land, and air transportation.

## NYK Group Values—Integrity, Innovation, and Intensity (3I's)

Outlook and approach that we need in order to achieve our NYK Group Mission Statement



Continually think of new ideas for improvement, even when conditions appear satisfactory. Remain open to betterment.

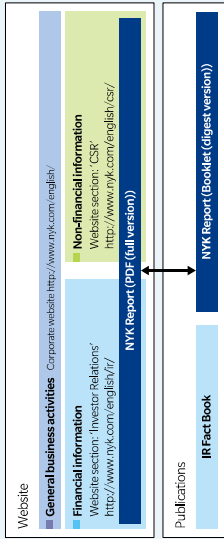
Be respectful and considerate to your customers and colleagues. Stay warm, cordial, courteous, and caring.

Carry through with and accomplish your tasks. Never give up. Overcome challenges. Remain motivated.

### Editorial Policy for NYK Report 2017

The NYK Report 2017 is an integrated report that combines financial information, such as business results, reviews of operations, and future strategies, with general non-financial information about corporate social responsibility (CSR) activities and other initiatives. This report aims to further understanding among as many stakeholders as possible that the NYK Group not only pursues earnings but also tackles a wide range of issues relating to the environment, society, and governance (ESG) to contribute to the realization of a sustainable society. Further, please use this report in conjunction with the NYK Group's website, which includes information that is more comprehensive and detailed.

This report has been edited in accordance with version 1.0 of the International Integrated Reporting Framework issued by the International Integrated Reporting Council in December 2013.



Website  
General business activities Corporate website <http://www.nyk.com/english/>  
Financial information Website section: "CSR" <http://www.nyk.com/english/csr/>  
Non-financial information Website section: "Investor Relations" <http://www.nyk.com/english/ir/>  
NYK Report (PDF (full version))  
NYK Report (Booklet (digest version))

Publications  
IF Fact Book  
NYK Report (Booklet (digest version))

Scope of Report  
Reporting period April 2016 to March 2017 (In some cases, information from April 2017 and beyond is included.)  
Coverage The activities of NYK as well as group companies in Japan and overseas. Scope is indicated when there are differences in the major companies involved in specific activity areas.

Date of Issue August 2017 (Previous publication: August 2016; Next publication: August 2018 (tentative))  
Audience This report has been prepared for all parties who have an interest in the activities of the NYK Group, including customers, shareholders, investors, business partners, employees, local communities, NGOs, students, certification bodies, researchers, and those responsible for CSR at other companies.

Guidelines for Disclosure about the Environment, Society, and Governance  
Environmental Reporting Guidelines (fiscal 2012 edition), Ministry of the Environment (Japan)  
G4 Sustainable Reporting Guidelines, Global Reporting Initiatives (GRI)  
ISO 26000 (See the website for a table comparing the GRI Guidelines with ISO 26000)

CSIR > NYK Report > GRI Guidelines / ISO 26000

Cautionary Statement with Regard to Forward-Looking Statements  
Some statements made in this report are forward-looking statements, which are based on information currently available and involve certain risks and uncertainties that could cause actual results to differ materially from those projected. Please be advised against undue reliance on such forward-looking statements. NYK undertakes no obligation to publish revised forward-looking statements to reflect events, circumstances, or unanticipated events after the present juncture.

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### Cover Story | Hikawa Maru



Hikawa Maru is a cargo-passenger ship that played an active role in the Seattle route. In World War II, the ship served as a hospital ship, and immediately after the war Hikawa Maru was used to transport demobilized soldiers and repatriate citizens. During its 85 years of service, Hikawa Maru has been designated as an Important Cultural Property. Currently moored at Yamashita Park in Yokohama, Hikawa Maru was designated as an Important Cultural Property of Japan in August 2016 as valuable material for communicating the shipbuilding technology of the era in which the vessel was built (1930).

Completed in 1930 (87 years old)  
Designated as an Important Cultural Property in August 2016 (First time for a preserved ship)



# Our History

Over a long history spanning more than 130 years, the NYK Group has continued to grow while repeatedly innovating and taking on new challenges. The Group's frontier spirit remains vibrant and has enabled aggressive expansion into new business domains.

## From 1885: Taking the first steps toward expanding shipping routes

NYK contributed to the development of Japan's shipping industry by establishing Japan's first international shipping services, independently opening shipping routes that had previously been monopolized by the Western shipping companies.

### Establishment of the company



Nippon Yusen Kaisha (NYK) was established in 1885 through the merger of Japan's two leading shipping companies at that time. With the merger, a new company flag was created featuring stripes in two colors, representing NYK's determination to transport goods across the globe.

### Tosa Maru becomes NYK's first ship to be deployed in a shipping route to Europe



In 1893, NYK began Japan's first long-distance liner service by offering shipments to Bombay (present-day Mumbai, India), and soon afterwards added routes to Europe, North America, and Australia.



**Mitsubishi Group founder Yataro Iwasaki**  
NYK's roots go back to a company named Tokuho Shokai, which was established by the Tosa clan in 1870 and passed down to Yataro Iwasaki the following year. Tased with international shipping, this company later changed its name to Mitsubishi Shokai, which eventually became NYK.

Photo: copyright of the Mitsubishi Archives

## From 1950: Helping drive Japan's post-war revival and rapid economic growth

NYK helped support Japan's rapid economic growth during the country's post-war revival by launching new shipping services using specialized vessels built for transporting commodities such as oil and iron ore, and containerships that enabled goods to be transported in containers by sea and land, thus expanding the company's business.

### World's first wood-chip carrier, *Kure Maru*



As Japan's industries transformed, there was a growing need for ships specially designed vessels for raw materials import and manufactured goods export. In response, NYK constructed the world's first wood-chip carrier, *Kure Maru*.

### Japan's first all-container ship, *Hakone Maru II*



NYK commissioned the *Hakone Maru II* as Japan's first all-container ship in 1968. Taking advantage of this achievement, the Group began switching over to the use of containers on their shipping routes.

### The NYK's first pure car carrier, *Jintsu Maru*



NYK commissioned its first pure car carrier, *Jintsu Maru*, in 1970, and expanded the company's shipping services to support the growth of the automotive industry.

## From 1985: Moving forward with full-scale expansion of an integrated logistics business

By the 100th anniversary of its founding, the NYK Group had established a global network for responding to diverse shipping needs and was working to further expand its integrated logistics business, which could transport goods by sea, land, and air.

### International expansion of container terminal operations



After establishing its own container terminal in the U.S., the NYK Group has expanded its network of terminals internationally to include Thailand and Taiwan, among many others.

### Comprehensive automobile logistics business



In addition to its maritime shipping service by pure car carriers, the NYK Group began supporting the entire supply chains of automobile manufacturers by providing other services, including pre-delivery inspections and inland trucking of finished vehicles.

## From 2010: Leveraging creative solutions to expand business domains

Amid intensifying global competition, the NYK Group must work to differentiate its services from rival shipping companies. Accordingly, leveraging the know-how, knowledge, and technological expertise it has accumulated over many years, the Group has been expanding its operations into high-added-value services that require even advanced transport-related engineering capabilities.

### Entry into the shuttle tanker business



NYK entered a new area of the energy value chain when it acquired a stake in an offshore shuttle tanker company, making NYK the first Japanese shipping company to be involved in this business.

### Operation of FPSO units



As part of its efforts to proactively participate in maritime resource development projects, the NYK Group began jointly operating floating production, storage, and offloading (FPSO) units off the coast of Brazil.

### Promotion of LNG fuel



In 2015, the NYK Group commissioned *Sakagake* as Japan's first tugboat fitted to handle LNG fuel. The ship is now operating in the LNG and the Group has since been carrying out initiatives for promoting greater usage of LNG fuel.

# Our Future

For the NYK Group to expand its businesses in a broad range of markets associated with ocean, land, and air transport, the Group must identify and quickly respond to constantly changing social trends with shrewdness and the ability to take action. This section describes some of the new challenges being taken by the NYK Group, which has continually evolved in step with the needs of society.



## Aiming to generate stable profits

Amid intensifying competition, the container shipping industry is undergoing reorganization on a global scale. In that context, NYK has decided to integrate its container shipping operations with those of Kawasaki Kisen Kaisha Ltd. and Mitsui O.S.K. Lines Ltd., and the new venture is preparing to commence operations from April 2018. The aim is to generate stable profits and bolster competitiveness by leveraging the economies of scale and best practices of the three parent companies.

Total effect of integrating the container shipping business  
**110 billion yen** annually

## Working to bolster growth businesses

As a differentiation strategy targeting sustainable growth, the NYK Group is focusing on business areas for which market growth is expected in the future. In the automobile logistics market, the Group has established a top position in the industry by providing value-added services such as pre-delivery inspections and roll-on / roll-off (RO-RO) terminal facilities,\* in addition to maritime automobile transport.

Likewise, in the fuel transport market, in anticipation of a projected rise in demand for liquefied natural gas (LNG) amid increasingly stricter environmental regulations, the Group is bolstering its LNG-related business.

Number of total vehicles handling  
**6.71 million** vehicles (fiscal 2016)

\* Roll-on / roll-off (RO-RO) terminal facilities are specially designed to allow vehicles, such as automobiles, semi-trailer trucks, and forklifts, to be directly rolled or driven on and off ships without the use of lifting equipment.



## Dealing with environmental issues

Given that it transports goods all around the globe, the NYK Group regards dealing with environmental issues as one of its most important responsibilities. Accordingly, in every region of the world, the Group works to ensure full compliance with environmental regulations intended for preventing air pollution, curbing global warming, and protecting oceans. Taking into consideration for the future of the global environment, the Group strives for further energy conservation in vessel operations and reduction of CO<sub>2</sub> emissions.

Targeted reduction of CO<sub>2</sub> emissions compared with fiscal 2010  
**15% reduction** (fiscal 2018 target)





## Ensuring safe shipping operations

Ensuring safe and dependable shipments of all cargo is the mission of every member of the NYK Group. Therefore, the Group strives to completely eliminate occurrences of accidents through various initiatives, such as setting uniform safety standards under the company's own NAV9000 system for promoting safe shipping operations, and utilizing big data to examine the main causes of mechanical breakdowns both on land and sea.

Number of vessels inspected under the NAV9000 system

**303** vessels  
(fiscal 2016)



## Hiring and training highly skilled crews

Highly skilled ship crews are essential for ensuring safe transport, implementing environmental initiatives, and responding to customers' shipping needs, which are becoming increasingly sophisticated. With that in mind, NYK is training crew members, those who are responsible for company's safe vessel operation in the future, by drawing on know-how accumulated over many years. For that purpose, the NYK-TDG Maritime Academy was established as a merchant marine academy in the Philippines in 2007. The academy celebrated its 10th anniversary in 2017.

Cumulative number of graduates of the NYK-TDG Maritime Academy

**675** graduates  
(as of March 31, 2017)



## Staying competitive with IT

The NYK Group proactively utilizes information technology (IT) in various operations, and has installed Microsoft Office 365 as its cloud-based systems platform at about 230 workplaces around the world with a view of enabling efficient work styles. Moreover, the Group is actively utilizing the Internet of Things (IoT), big data, and other technologies in its shipping operations in an effort to optimize shipping routes, upgrade ships, and prevent accidents. In recognition of these efforts, NYK has been selected as a Competitive IT Strategy Company by the Tokyo Stock Exchange and Japan's Ministry of Economy, Trade and Industry for two consecutive years.

Number of personnel using Office 365  
**18,000** users  
(as of March 31, 2017)



President and  
President Corporate Officer  
**Tadaaki Naito**

## Message from the President

We will make all-out efforts to establish a business foundation for sustainable growth in the future.

### Looking back on fiscal 2016

**In a most difficult operating environment, the Company posted extraordinary losses of about ¥200 billion for business restructuring**

In fiscal 2016, the year ended March 31, 2017, the shipping industry suffered from deteriorating market conditions that resembled a perfect storm. In February 2016, the Baltic Dry Index, which reflects market conditions for shipments by dry bulk carriers, recorded the lowest rates in its history. Then in August 2016, a major South Korean shipping company with worldwide container shipping operations suddenly declared bankruptcy, sending shock waves throughout the industry.

Amid such an unprecedented and challenging operating environment, NYK posted consolidated revenues of ¥1,923.8 billion, an operating loss of ¥18.0 billion, and recurring profit of ¥1.0 billion. It also recorded a loss attributable to owners of the parent amounting to ¥265.7 billion, mainly due to an impairment loss of about ¥200 billion and a provision for losses related to contracts. That was the result of impairment on containerships, dry bulk carriers, and cargo aircraft in the first half of the fiscal year, which we conducted as business restructuring. In consideration of these results, I regret to say that the Company decided not to pay a fiscal year-end dividend. We made this decision after giving full consideration to various factors, including the need to maintain a sufficient amount of internal reserves to deal with market changes and the prolonged slump in the shipping market. The Company as a whole is aiming to resume the payment of dividends as quickly as possible in the future.

The shipping market began to pick up from the beginning of autumn last year, indicating that the market has already bottomed out. Looking ahead, we expect the market to continue recovering moderately. On that basis, in our forecast of consolidated financial results for fiscal 2017, we foresee ¥2,008.0 billion in revenues, ¥24.5 billion in operating income, ¥23.0 billion in recurring profit, and ¥5.0 billion in profit attributable to owners of the parent.

### Management plans in fiscal 2017

**Integrating NYK's container shipping business with those of two other companies and implementing group-wide management reforms**

In order to overcome the current difficult conditions and build a business foundation for a new stage of growth, we are now carrying out a two-year group-wide project called "Beat the Crisis," which aims to prepare the NYK Group for the times ahead. Meanwhile, due to the recent changes in the operating environment and our decision to integrate the Group's container shipping business with those of two other companies, we decided to terminate the fiscal 2018 profit and financial targets of our five-year medium-term

management plan, "More Than Shipping 2018—Stage 2: Leveraged by Creative Solutions," which has been carried out since April 2014. Nevertheless, we believe the basic strategies of the medium-term management plan have not lost their relevance. Accordingly, we intend to aggressively move forward with initiatives based on four policies of the plan: differentiating our businesses by offering value-added shipping services, concentrating investment in liquefied natural gas (LNG) and offshore businesses, shifting to a light-asset model for businesses that operate under highly volatile conditions, and accumulating earnings from businesses with stable freight rates.

Under these basic policies, we regard fiscal 2017 as a year for carrying out two key objectives of our Beat the Crisis project. The first is to make smooth and steady progress toward integrating the Group's container shipping business with those of two other Japanese shipping companies, Kawasaki Kisen Kaisha Ltd. ("K" Line), and Mitsui O.S.K. Lines Ltd. (MOL). As a key part of the Liner Trade segment, which accounts for about 30% of consolidated revenues, about 20% of assets, and about 20% of the Group's employees, container shipping is a very important business. The formation of global shipping alliances has been accelerating, so in order to remain competitive in the future, we recognized that it will be essential to increase the scale of these operations. Therefore, since NYK and the other two companies are in the same alliance, we took advantage of that opportunity and moved forward with negotiations for integrating container shipping operations. The final agreement to establish a joint-venture company was announced in October 2016.

Following the integration, the new joint-venture company will have the world's fifth largest container shipping fleet. Its container shipping capacity will total about 1.4 million 20-foot equivalent units. By leveraging a comprehensive service network and combining the best practices of the three parent companies, we expect the joint-venture company to generate at least ¥110 billion in income annually, which is enough to compete globally. We are now making preparations together with "K" Line and MOL to equip the new company with an even stronger and more dynamic business structure leading up to the launch of its services in April 2018.

People have questioned whether the Company plans to withdraw from the container shipping industry, since it will spin off the container shipping operations into the joint venture. That is absolutely not our intention. Ultimately, the goal of the integration is to secure a more competitive footing in the industry. The outlook for the container shipping industry is promising, with growth forecast at over 3% annually. We will make sure to bolster container shipping operations as a core business of the NYK Group.

The other key objective of our Beat the Crisis project is to carry out group-wide management reforms. In recent years, the contribution of group companies to overall revenues and profits has increased. Against that backdrop,



we are carrying out reforms designed for maximizing the capabilities of the Group as a whole. Meanwhile, the public's interest in capital efficiency has grown over the past few years, so we want to maintain systems that allow capital efficiency to be given more emphasis in management.

Initiatives that were previously taken by NYK alone will be fully implemented by management at group companies going forward. Through these reforms, we will strive to bolster the competitiveness of every subsidiary while also raising the competencies of the Group as a whole.

## Expanding businesses in growing markets

### Flexibly transforming our business portfolio in response to changing market conditions and industrial shifts

At present, the NYK Group is in the process of formulating a new medium-term management plan, which will commence in April 2018. While various issues are being discussed at this stage, basically, we intend to further develop the strategies of the More Than Shipping 2018 plan. A major component of that will be our differentiation strategy, through which we intend to expand into various peripheral businesses by leveraging the expertise we have gained in shipping operations over many years.

An example of this is the LNG business. LNG is now attracting attention around the world as an energy source that is more environmentally friendly than other fossil fuels. The NYK Group has been transporting LNG by tankers for many years, but more recently, NYK has commissioned vessels that are fueled by LNG, enabling shipping services that meet the needs of customers who are highly conscious of the environment. Moreover, we are developing diverse peripheral businesses that help promote the use of LNG, including sales and marketing of LNG fuel, and bunkering operations for supplying LNG fuel to vessels that use it.

Another example is the offshore business, which originated in the Group's fuel transport fleet that includes LNG tankers and crude oil tankers. In the past, crude oil and natural gas mining was mainly done on land or in shallow ocean areas. In recent years, however, amid concerns over the depletion of existing oil fields, efforts have been stepped up to develop offshore oil fields, which have abundant deposits. In response to the need for ocean resource development, the NYK Group has joined projects involving drill ships, which perform test drilling in the seabed, as well as shuttle tankers, and floating production storage and offloading vessels. The Group is already seeing results from oil field development projects underway in the Norwegian North Sea and offshore Brazil.

In the car transport business, which has built up a solid track record over many years, we have been pursuing new business opportunities in response to the growing automobile production and the globalization of markets and automobile manufacturing networks. Trade no longer flows

between a pair of countries, as in the past. For example, vehicles manufactured in Thailand are transported to the U.S. after passing through Japan and other Asian countries, and on the way back, vehicles made in the U.S. are shipped to Europe and Asia. In that context, we have drawn on the know-how gained in our automotive transport operations to initiate other businesses, including roll-on / roll-off terminals, pre-delivery inspections, and inland transportation services. Moreover, with the globalization of the automotive industry, we have expanded the NYK Group's service areas to every part of the world, including Africa, Central Asia, and Central and South America.

Market conditions and industrial structures are undergoing major changes. Under such conditions, in order to ensure sustainable growth for the NYK Group, we recognize the need to flexibly transform the Group's business portfolio and reinforce our management system going forward.

## First approach for strengthening our business foundation

### Exploring business opportunities through safety and environmental initiatives

As a shipping company, NYK recognizes that safety and the environment are crucial issues for management. In fact, the NYK Group has been earnestly carrying out related initiatives for many years. Although measures for ensuring safety and protecting the environment result in expenses, we believe they also open up opportunities for business, and recognize them as positive investments for raising competitiveness.

In order to further enhance our safety and environmental measures, we are currently focusing on innovations based on the latest information technology (IT) applications, such as the Internet of Things (IoT) and big data. At the core of these efforts is our Ship Information Management System (SIMS), which we set up in 2008 as a means to improve shipping operations. SIMS is an information platform that uses IoT to collect shipping data, which the system can share in real time at sea and on land. By analyzing the SIMS data and optimizing ship operations, we can reduce fuel consumption and lower the environmental burden of shipping operations. Based on operational data, we can predict various kinds of mechanical breakdowns of engines and other equipment on vessels, and study ways for preventing such breakdowns. Downtime occurs when a vessel must suspend service due to factors like collisions, running a ground, and mechanical problems. Through efforts to reduce downtime, the NYK Group succeeded in decreasing the average annual downtime per vessel from 19.1 hours in 2015 to 11.2 hours in 2016, a record low level. In the future, by making greater use of SIMS-generated data analyses, we expect to reduce downtime even more because it will be possible to incorporate warnings and predictions of mechanical breakdowns. Keeping a ship in continuous operation is not only beneficial economically, it also benefits

the environment because it eliminates the need for ships to operate at higher speeds in order to return to service after being laid up, which results in greater CO<sub>2</sub> emissions. Therefore, we intend to actively continue with this initiative.

Obviously, the NYK Group alone cannot solve the safety and environmental issues confronting society today. Nevertheless, we are proactively encouraging the shipping industry as a whole to promote innovations using shipping data.

## Second approach for strengthening our business foundation

### Promoting a venturesome corporate culture while developing outstanding human resources worldwide

For the NYK Group to create new businesses and reform its existing shipping businesses, the most important operational resources are its people. Based on the concept of "Creative Solutions," a key theme of our medium-term management plan, we have been helping employees expand their awareness while working to foster a corporate culture that allows each member to demonstrate his or her technical skills, on-site capabilities, and creativity, thereby enabling new businesses to be created and problems to be solved.

For example, in order to motivate members of the Group to try and start new businesses, we established the Creative Solutions Development Fund in 2014, which provides funding for outstanding commercialization plans selected from ideas submitted by group companies. Through financial backing from the fund, a new company was established in Singapore in 2016, and has launched a new business in collaboration with outside partners.

As another example, since April 2015, we have been holding creative solutions workshops as a program for developing mid-career employees into leaders that can drive innovation in the future. Held twice annually for a period of six months, the workshops include lectures by outside experts, training retreats and instruction on how to practically and systematically carry out projects based on actual case studies. While the workshops are primarily for mid-career employees, young employees also gain practical experience working under them, and highly experienced executive managers and general managers provide support.

In order to ensure safe transport and implement environmental measures at the highest level, it is essential to hire and train highly skilled seafarers. About 90% of seafarers working on vessels operated by the NYK Group are not Japanese nationals. This multinational trend is expected to continue in the future, so it will be necessary for us to consider an appropriate composition of crews by nationality. As part of our efforts to train seafarers, we opened the NYK-TDG Maritime Academy in June 2007 as a merchant marine academy in a suburb of Manila in the Philippines. Having celebrated its 10th anniversary this year, the academy has been contributing to development of the Group's seafarers,



and has earned a good reputation in the Philippines for providing educational opportunities and helping create jobs.

## Future aspirations

### Promoting diversity and workplace reforms while aiming for sustainable growth

Around three decades ago, the vast majority of the NYK Group's employees were Japanese. At present, however, among the approximately 50,000 people employed by the Group as office workers and seafarers, about 85% are from a wide range of countries other than Japan. In order to draw on the capabilities of all these employees, we place importance on fairly evaluating and promoting personnel regardless of their nationality or gender. Furthermore, we are proactively promoting career advancement for women, and in April 2017, assigned the first female captain in the Company's 132-year history. Meanwhile, we are also focusing on workplace reforms, including measures for shortening working hours.

At the same time, we have been working to improve compliance, paying close attention to having the NYK Group fully meet the expectations of society. Accordingly, in every region of the world, we are striving to ensure that all members of the Group follow local social norms, respect human rights, and comply with laws and regulations, including antitrust and anti-bribery laws.

People around the world depend on the NYK Group. Therefore, in order to continue being a sustainable corporate enterprise, the Group is placing importance on environmental, social and governance criteria, while earnestly soliciting the views of a broad range of stakeholders in an effort to meet their expectations. To accomplish that, we have positioned fiscal 2017 as a year for making a fresh start for achieving new growth, and will channel the concerted efforts of the entire Group toward improving its performance and results. As we undertake these endeavors, we sincerely hope for the ongoing support of all stakeholders going forward.

内藤 忠顕

Tadaaki Naito

President and President Corporate Officer

# Medium-Term Management Plan "More Than Shipping 2018 – Stage 2 Leveraged by Creative Solutions"

## Maintaining the Basic Strategy and Working to Achieve Differentiation

In light of the changes occurring in its business environment and the decision to integrate its container shipping business with two other companies, the Group withdrew the financial forecasts and investment plans included in the five-year medium-term management plan "More Than Shipping 2018 – Stage 2 Leveraged by Creative Solutions," released in April 2014. However, the basic strategy of the plan remains in place. In fiscal 2017, the Group will continue to develop business in accordance with the "More Than Shipping" strategy and work to achieve differentiation from the Group's competitors.

### Basic Strategy / Management Plans

The Group has implemented the following measures in accordance with the More Than Shipping 2018 strategy

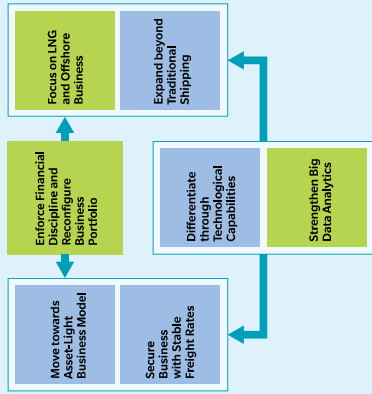
- Reconfigure Business Portfolio**
  - Sold share of North American terminal business, U.S. cruise ship business, and refrigerated cargo transportation business
  - Acquired stable, growth-oriented new projects in LNG, offshore business, and automotive logistics
- Move towards Asset-Light Business Model**
  - Sold and scrapped surplus dry bulk carriers
  - Minimized the number of containerhips under long-term NYK management and shortened chartering periods
  - Rationalized service loops according to demand
- Expand beyond Traditional Shipping**
  - Entered the LNG fuel business
  - Developed next-generation logistics solutions by utilizing IoT
  - Improved fuel efficiency and yield management in containerhip business

### Major changes in the business environment

- Widening supply-demand gap in the containerhip market**
  - Further supply of newly delivered ultra-large vessels accelerated the oversupply of capacity
  - Low freight demand has widened the supply-demand gap → Freight rate levels have plummeted
- Prolonged market slump brought on by an oversupply of dry bulk carrier shipping capacity**
  - Dry bulk market reaches new low
- Dropping crude-oil prices**
  - Oil and gas development projects postponed

Implemented structural reforms in fiscal 2016 2Q  
Decided to integrate the container shipping business with two other companies in October 2016

### More Than Shipping 2018



■ Strategy from More Than Shipping 2013  
■ New strategy in More Than Shipping 2018

#### 1 Asset Strategy

- Reconfigure business portfolio**
  - Focus on LNG and offshore business
  - Reinforce asset-light strategy for containerhips and dry-bulk carriers
- Maximize asset efficiency**

#### 2 Differentiation Strategy

- Achieve differentiation through technological capabilities in such segments as LNG carrier and offshore businesses**
- Further eliminate the 3 M's of Muda, Mura, and Muru (Muda: non-value adding activities, Mura: unevenness in production or work activities, Muru: excessive burdens) at frontline (gemba) operations**

#### 3 Debt and Equity Strategy

- Review asset-intensive business model**
- Control financial leverage**  
(DER target of 1.0 / BBB or higher rating)

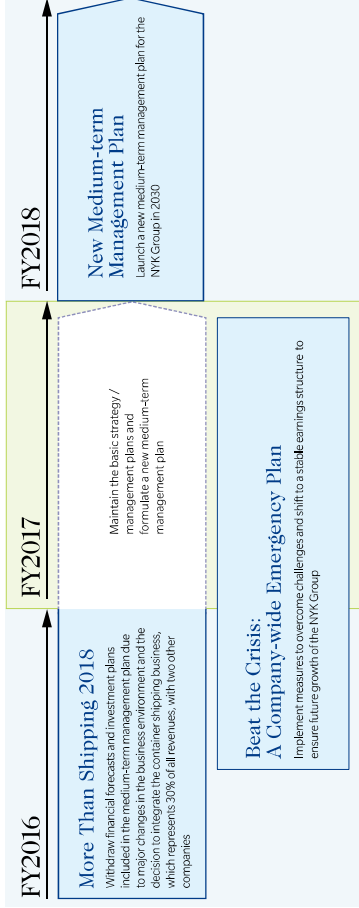
#### 4 Dividend Policy

- Balance growth opportunities and stable dividends**  
(Payout ratio of 25% or more)

#### 5 Thorough Compliance

- Ensure legal compliance (antitrust law, etc.)**
- Establish global compliance structure**

## Current Conditions and Future Approach



The focus for fiscal 2017 will be on giving the Group a running start on even greater development and growth, a process that will involve holding discussions on a wide variety of topics and using that foundation to create strategies for enhancing corporate value.

#### How the Group is Working to "Beat the Crisis"

### Integration of the Container Shipping Business with Two Other Companies

In October 2016, NYK decided to integrate its container shipping business (including its terminal operating business outside Japan) with those of Kawasaki Kisen Kaisha Ltd. ("K" Line) and Mitsui O.S.K. Lines Ltd. (MOL). The new joint venture is scheduled to begin services in April 2018.

The three companies intend to generate synergies to increase their combined competitiveness and achieve a total shipping capacity of 1.4 million TEUs, thereby creating the industry's fifth-largest fleet with the necessary resources to go head to head against global leaders.

#### Aims of the New Company

By strengthening the global organization and enhancing the liner network, we will be able to provide higher quality services and unlock new value to exceed our clients' expectations.

#### Operational Efficiency

Take advantage of best practices at each partner company and spark synergy to boost operational efficiency and enhance profitability

#### Economy of Scale

Integrate the businesses of three companies to create benefits of scale

#### Competitiveness (Profitability)

Stabilize profits by accomplishing synergies of approx. 110 billions JPY/year

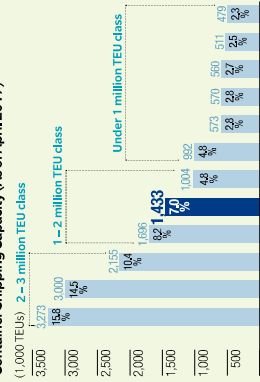
#### Overview of the New Company

Service trade name: Ocean Network Express (ONE)  
Investment ratios: "K" Line: 31%; MOL: 31%; NYK: 38%

Location:

- Holding company: Tokyo, Japan
- Operating company: Singapore
- Regional headquarters: Hong Kong, Singapore, London (UK), Richmond, VA (U.S.), and Sao Paulo (Brazil)

#### Container Shipping Capacity (As of April 2017)

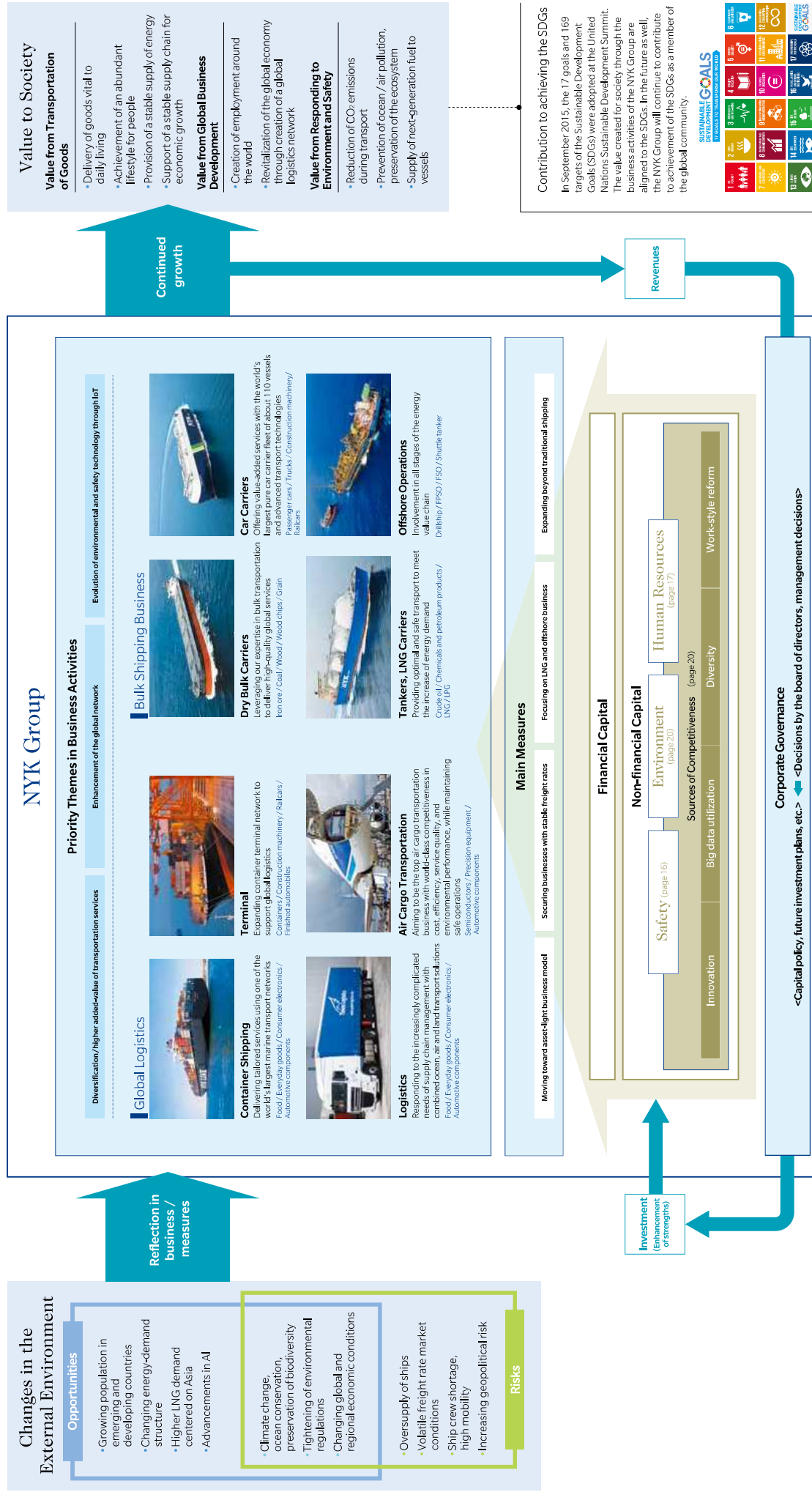


Source: Created by NYK based on Alphaliner Monthly Monitor, April 2017

# Striving to Develop a Sustainable NYK Group and Society

The NYK Group accurately grasps and analyzes global trends and changes in the business environment, and utilizes that information in its business activities.

Those business activities are supported by a variety of capital. In particular, the Group positions "safety," "environment," and "human resources" as capital with materiality, and strives to enhance such non-financial capital and improve competitiveness. Further, revenues from business activities circulate throughout the Group and are used for business investment and a variety of capital, creating new corporate value for the Group and value for society, in an effort to achieve sustainable development.





# Safety, Human Resources, and the Environment as Top Priorities

## Safety

### Differentiation from Other Companies through Steady Effort for Safe and Reliable Operations

NYK has worked to ensure safe operation of vessels for 132 years. The greatest mission of the Group is to deliver our customers' goods safely and securely. In the unlikely event of an accident, not only would the Group lose our customers' trust, but it is possible that the environment and economic activity could be affected as well.

Aiming to eliminate downtime, NYK steadily works with its partners who are responsible for safe operation, visits the vessels, and conducts other activities to ensure safe and secure operation, united both on land and at sea. In addition, the Group strives to differentiate itself from other companies through the utilization of big data and the advanced technological strength of the seafarers, thereby finding new business opportunities.

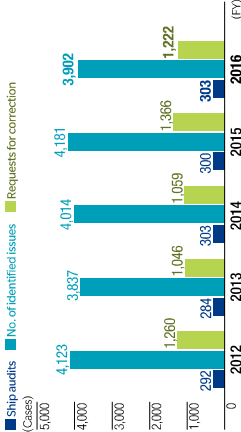
#### Risks

- Accidents causing:
  - Environmental pollution
  - Vessel damage
  - Loss of trust
  - Hindrance to economic activities
  - Workplace injuries

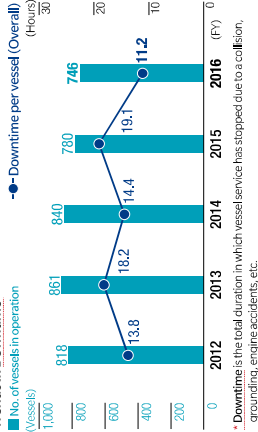
#### Opportunities

- Increase of trust
- Improvement of outside evaluation
- New business opportunities

#### NAV9000 Track Record



#### Trends in Downtime\*



#### Main Measures

### Implementation of Original Safety Promotion Activities

Since 1998, the Group has been conducting safety promotion activities based on NAV9000, NAV9000 is an original safety standard of NYK. It contains approximately 1,500 items, including international treaties, international quality standards, measures to prevent accidents from recurring, and requirements from customers, etc. accumulated by NYK. The standards have been applied to all of the approximately 750 vessels in operation. Audits based on these standards are conducted on over 300 vessels and more than 30 shipowners and ship management companies per year.

Through these activities, NYK is working to have the ship crew members and ship management companies that handle the actual operation of vessels understand the necessity of safety and increase safety awareness through dialogue during audits. A high-quality safety management system has resulted from on-site confirmation of the compliance of these requirements by Filipino and Indian auditors, in addition to Japanese auditors, and by maintaining a stronger partnerships with everyone involved.



Safety promotion meetings with shipowners and ship management companies



Ship visit activities



Seafarer meetings



NAV9000 audits

## Human Resources

### Achieving a Workplace Environment Active with Diverse Human Resources

In order for the Group to implement a broad range of business globally, it must secure and develop talented human resources. The Group has over 50,000 employees, and strives to reform workstyles to enable employees with diverse backgrounds to utilize their abilities as much as possible. It is working to move the system infrastructure to the cloud, promote work-life balance, promote the advancement of women's careers, and concentrate on health management of the employees, thereby improving productivity and competitive strength.

In addition, NYK has established original training programs both on land and at sea to develop the human resources that support the company and is striving to create an environment in which individuals can develop while they work.

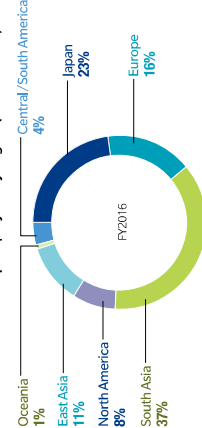
#### Risks

- Shortages of talented human resources causing:
  - Decrease of competitive strength
  - Loss of business opportunities
  - Decrease of technological strength

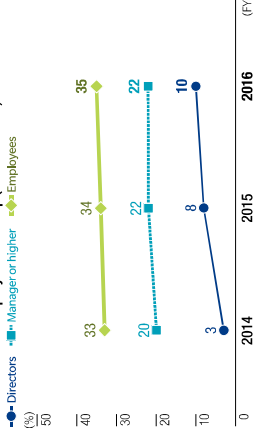
#### Opportunities

- Establishment of a competitive advantage through accumulation of expertise
  - Creation of new value by diverse human resources
  - Promotion of innovation
  - High level of ability to handle high-risk freight (crude oil, LNG, etc.)

#### Breakdown of NYK Group Employees by Region (Consolidated)



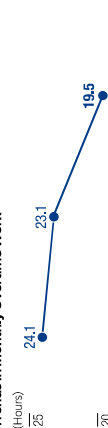
#### Ratio of Female Employees in Group (Consolidated)



#### Main Measures

- Education and training to encourage utilization of groupware
- Free distribution of breakfast
- Prohibition, as a rule, of supervisors making requests of staff members more than 15 minutes before the work-start time
- Earlier activation of air-conditioning and the opening of the office building (headquarters)
- Quantitative understanding and analysis of working hours
- Operation of Yusen Chikara (in-house childcare service)
- Thorough implementation of physical examinations for 100% of employees
- Implementation of practical skill events by professional trainers

#### Trends in Monthly Overtime Work



Practical skill event by a professional trainer



Groupware utilization workshop



## Environment

### Thorough Implementation of Environmentally Friendly Operation Aimed at a Sustainable Society

As an organization that conducts business activities globally, the Group has positioned response to global environmental problems as one of its most important issues.

The Group established its Environmental Green Policy in 2001 and its Environmental Management Vision in 2005, and strives to improve corporate value by attaining the best balance of environment and economy.

The Group has established CO<sub>2</sub> emissions—a cause of global warming—as an environmental management indicator, and manages CO<sub>2</sub> emissions per ton-km discharged by each type of vessel. In addition, the Group is working to reduce CO<sub>2</sub> emissions through efforts that include the development of environmentally friendly vessels and utilizing big data to achieve optimal operation.

#### Risks

- Delayed compliance with regulations causing:
  - Suspension of business activities
  - Increased cost of compliance
  - Decreased trust

- Opportunities
  - Control of costs by reducing fuel consumption
  - Differentiation through environmental advancement
  - Actualization of innovation

#### Main Measures

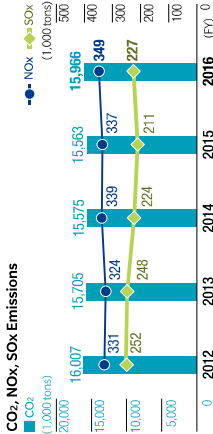
### Response to Global Environmental Regulations

As awareness of a variety of environmental issues, such as climate change and preservation of oceans and biodiversity, increases around the world, environmental regulations related to ocean vessels are also gradually becoming more stringent. The Group is engaged in efforts to prevent air pollution, prevent global warming, and preserve the marine environment, etc. (see page 66 of full version for details).

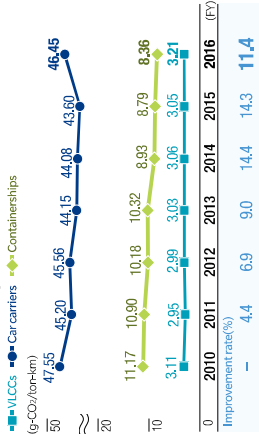
The CO<sub>2</sub> generated through the use of marine fuel is believed to be a cause of global warming, and SO<sub>x</sub> and NO<sub>x</sub> are causes of air pollution. Accordingly, the Group is promoting a conversion to LNG fuel, which makes it possible to significantly reduce these emissions compared to heavy oil (see page 36 for details).

In addition, measures against the impact on the ocean environment from the movement of the aquatic organisms contained in the ballast water\* discharged from vessels are also an important issue. The International Maritime Organization (IMO) adopted the International Convention for the Control and Management of Ship's Ballast Water and Sediments, and it will take effect in September 2017. From that time, vessels will be required to be equipped with ballast water management systems. The Group began installing them in 2010 one after another.

\* Ballast water is seawater carried by vessels to maintain their balance. Normally, tanks at the bottom of vessels take on ballast water at unloading ports and release it at the loading port.



#### CO<sub>2</sub> Emissions and Improvement Rate According to Environmental Management Indicators

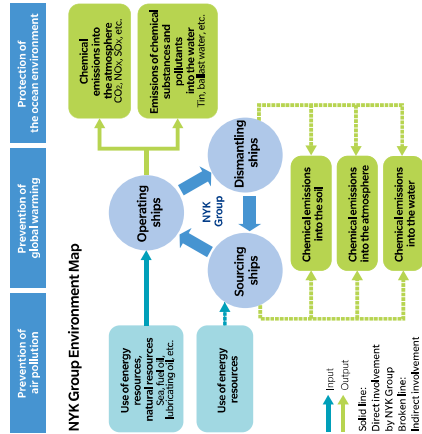


\* The indicators increase for car carriers because they have a low weight / space ratio.

\* A decrease in the numbers on the graph indicates an improvement in emissions per ton-km.

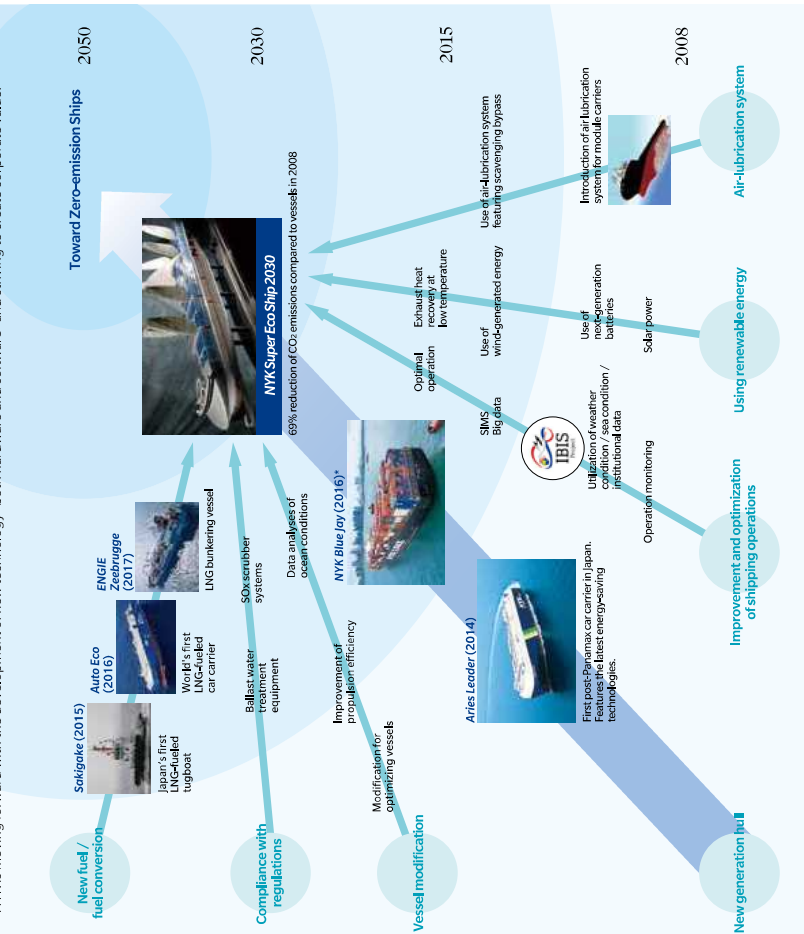
\* CO<sub>2</sub> emissions improvement rate with fiscal 2010 as the benchmark.

#### Three Issues to Address



### Roadmap for Environmentally Friendly Vessel Technologies

The Group is progressing with the development of onboard technologies for the future concept ship, NYK Super Eco Ship 2030, by designing a new generation hull and energy-saving equipment, promoting a switchover to LNG fuel, and vessel modification by utilizing big data. NYK is moving forward with the development of new technology—both hardware and software—and striving to create corporate value.



#### \* NYK Blue Jay

A state-of-the-art 14,000-TEU containership that minimizes engine room space to further increase cargo-loading efficiency. The main engine is equipped with the world's first dual rating system, which has two output ranges, one for high-speed operation and another low-speed operation, significantly reducing CO<sub>2</sub> emissions and fuel consumption and allowing the ship to meet the industry's highest levels for energy-saving shipping operation. In fact, the ship's environmental performance is comparable to a 20,000-TEU containerships.

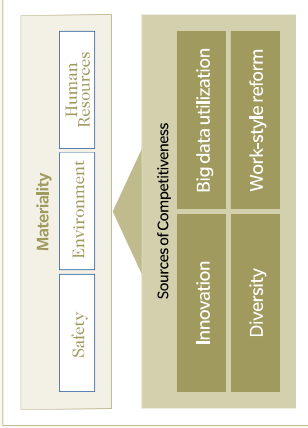
#### The Energy Efficiency Design Index (EEDI)\* of 14,000-TEU Containerships

With the CO<sub>2</sub> emissions for transportation of a single container on a 9,600-TEU vessel set as the 100 mark, the emissions of a 14,000-TEU vessel are reduced to about 50. Compared to EEDI regulations, it is significantly lower than the Phase 3 standards.

\* The Energy Efficiency Design Index is an indicator for assessment of CO<sub>2</sub> emissions per primary unit (ton-mile) based on specifications at the vessel design / construction stage. Calculation of the EEDI is mandatory for newly manufactured vessels, and a certificate indicating the EEDI specific to each vessel will be issued. The regulations will be strengthened in stages in the future, in 2020 (Phase 2) and 2025 (Phase 3).

## Sources of Competitiveness

As global competition keeps heating up, companies need to create new value to survive as sustainable enterprises. The Group is in constant pursuit of new competitive advantages, always striving to fuel innovation, utilize big data, promote diversity, drive work-style reforms, and find creative solutions to whatever challenges might come its way.



### Co-developing J-Marine NeCST, an Operational Support Tool

NYK, MHI Co. Ltd. (a group company), and Japan Radio Co. Ltd. recently teamed up to develop J-Marine NeCST, an operational support tool that lets users manage and share electronic charts and other voyage information on large-screen displays.

All large cargo vessels making international voyages must have Electronic Chart Display and Information Systems (ECDIS) by 2018. By fusing its years of experience in vessel operation management with its partners' technological capabilities, the Group has successfully developed a one-of-a-kind tool that not only lets users write information by hand on electronic charts but also boasts incredible operability and maneuverability—and even a feature that integrates prepared route information with ECDIS.

The tool also lets users superimpose meteorological and sea conditions information, thereby streamlining and optimizing the process of drafting voyage plans. By digitizing vessel-specific information, as well, the tool enables information sharing among ships and land-based sites to make onboard and onshore work processes more efficient. The Group plans to start installing J-Marine NeCST on new vessels going into operation in fiscal 2018.



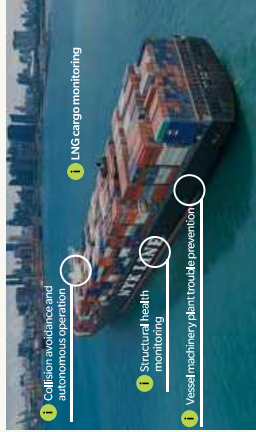
J-Marine NeCST in action

### Close up 2 Big data utilization

## Taking Part in “i-Shipping,” a Japanese Government R&D Project for Advanced Safety Technology

IoT and other information technology (IT) are showing enormous potential to transform the shipping industry. Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT) is promoting research and development projects in this new technical area for a “productivity revolution in the maritime business” (i-Shipping). NYK and MHI are now cooperating and pursuing technological development initiatives with ClassNK and other industry partners on four i-Shipping projects, including “vessel machinery plant trouble-prevention” and “collision avoidance and autonomous operation.”

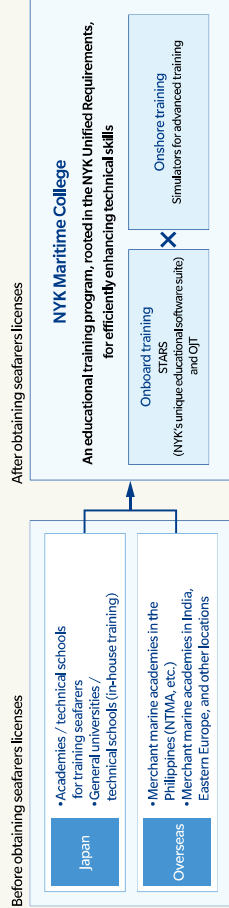
1 i-Shipping (operation) NYK / MHI projects selected by MLIT for R&D in advanced safety technology for vessels (2016).



### Close up 3 Diversity

## Educating Seafarers through the NYK Unified Requirements

Safe vessel navigation requires highly capable teams of seafarers. In the NYK Group, the seafaring workforce is a multinational mix: less than 10% of the seafarers working on the Group's approximately 750 operating vessels are Japanese. The Group provides that wide-ranging workforce with standardized education through NYK Maritime College, a training system that establishes a unique set of common, consistent requirements and defines the necessary knowledge and skills that seafarers need for their individual positions—from third officer and third engineer all the way to captain and chief engineer.



## Securing Seafarers from around the World

In 2007, aiming to create a foundation for training seafarers for senior positions from the basic level up, NYK opened the NYK-TDG Maritime Academy (NTMA) in the Philippines—the country that produces more seafarers than any other country in the world. The Group also sends NYK seafarers to various partner merchant marine academies in India, Eastern Europe, and Asian nations, where they offer classes on the Group's safety and environmental policies, marine technology expertise, and more. All students from NTMA and selected students from other merchant marine academies across the globe undergo training aboard NYK's cadet training ships\*, obtain their seafarers licenses, and then go on board the Group fleet to apply their skills as promising officers and engineers.

\* Cadets are trainees who undergo onboard training to obtain their seafarers licenses.  
\* Cadet training ships are normal commercial vessels equipped with educational facilities (20 cadet rooms, classrooms, instructor rooms, etc.).



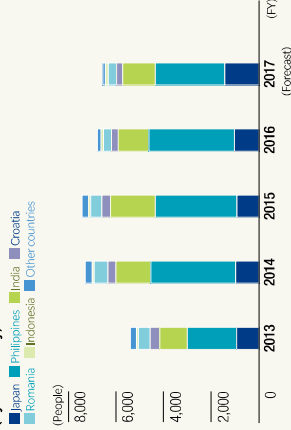
Exterior view of NTMA and the training center

## Integrated Education in the NYK Maritime College System

Through the NYK Maritime College, Group seafarers gain the wide-ranging specialized knowledge and sophisticated skills that they need for vessel navigation. The curriculum fuses together NYK's unique computer-based training (STARS), onboard training (OJT), and onshore training (via simulators) to make the skill-development process as efficient and effective as possible.

Every year, over 6,000 seafarers do onshore training at the Group's various training locations, which include two large-scale training facilities in Singapore and the Philippines. The Group also built a new training center next to NTMA in 2013. Boasting newly introduced, cutting-edge equipment, the facility provides trainees with an ideal environment for mastering advanced skills.

## Number of NYK Maritime College Seafarers Participants (by Nationality)



## Maintaining sound financial discipline while continuing to invest in growing businesses

Director,  
managing corporate officer,  
and chief financial officer

Eiichi Takahashi



### Q Please tell us about financial results in fiscal 2016 and your outlook for fiscal 2017.

**A** The Company posted a loss and a decrease in revenues, but we expect to return to profitability in fiscal 2017.

In fiscal 2016, the maritime shipping market slumped to historically low levels, which greatly affected the Company's financial performance. Container shipping spot freight rates fell to all-time lows in the first quarter of the fiscal year, and then gradually improved from the third quarter onwards. Nevertheless, the Group's Global Logistics business posted losses. The dry bulk shipping market also recovered moderately from the second half after an unprecedented slump, but the conditions in the tanker shipping market worsened and the automobile transport market became sluggish. Consequently, the bulk shipping segment also posted a loss. Owing to these and other factors, NYK posted consolidated revenues of ¥1,923.8 billion, an operating loss of ¥18.0 billion, and recurring profit of ¥1.0 billion. The Group also recorded a loss attributable to owners of the parent amounting to ¥265.7 billion, mainly due to an extraordinary loss associated with restructuring expenses.

In fiscal 2017, the container shipping and dry bulk shipping markets are expected to continue recovering moderately. Against that backdrop, we are looking forward to higher freight rates in annual contracts and greater cargo volume under a new alliance in the container shipping business, and we plan to cut costs and boost operational

efficiency in the bulk shipping business. As a result, the Group's bottom line is projected to improve. Specifically, we forecast ¥2,008.0 billion in revenues, ¥24.5 billion in operating income, ¥23.0 billion in recurring profit, and ¥5.0 billion in profit attributable to owners of the parent.

### Q How are structural reforms contributing to performance?

**A** We expect structural reforms to improve the bottom line by between ¥15 billion to ¥16 billion over one year.

In the first half of fiscal 2016, a huge impairment loss and provision for losses related to contracts associated with container ships, dry bulkers, and cargo aircraft were incurred as expenses for structural reforms. Combined, they amounted to an extraordinary loss of approximately ¥200.0 billion. The accounting procedures for handling these assets have largely been completed, and I think these actions are no longer having an adverse effect on the Company's assets and overall attractiveness to investors. Looking forward, we plan to closely consider whether to cancel contracts for chartered vessels before the end of their contracted periods depending on the cancellation fees, while taking into consideration market conditions and the balance of supply and demand.

Due to the structural reforms carried out in the first half of fiscal 2016, we expect the balance of income and expenditures to improve by ¥15 billion to ¥16 billion over the span of a year, and the full effects of the reforms to materialize

#### Consolidated Financial Results and Forecasts

	FY2015 (Results)	1Q	2Q	3Q	4Q	Full year	FY2016 (Results)	FY2017 (Forecast)	Year on year difference
Revenue	2,272.3	470.7	457.8	485.9	509.3	1,923.8	2,008.0	2,008.0	+84.2
Operating income (loss)	48.9	(10.9)	(11.5)	6.9	(2.5)	(18.0)	24.5	24.5	+42.5
Recurring profit (loss)	60.0	(9.9)	(13.6)	25.9	(1.2)	1.0	23.0	23.0	+22.0
Profit (loss) attributable to owners of parent	18.2	(12.7)	(219.0)	5.7	(39.6)	(265.7)	5.0	5.0	+270.7
Currency exchange rate (¥/US\$)	¥120.78	¥111.12	¥103.50	¥106.13	¥114.29	¥108.76	¥108.00	¥108.00	-¥0.76
Banker's call price (US\$/NT)	\$298.66	\$192.62	\$238.71	\$270.71	\$312.94	\$253.75	\$340.00	\$340.00	-\$86.25

from fiscal 2017. Furthermore, from fiscal 2018 we believe financial results will rebound as a result of the integration of the container shipping business we are now preparing with two other Japanese shipping companies.

### Q Financial targets under the Company's medium-term management plan have been withdrawn, but have the financial strategies changed?

**A** We have not changed our basic strategies, and will maintain financial discipline while giving importance to the right balance of liabilities and equity.

We withdrew financial targets for fiscal 2018 after considering the major changes happening in the operating environment and reaching the decision to integrate the container shipping business with two other companies. Nevertheless, in fiscal 2017, we will continue to pursue the basic strategies of our medium-term management plan. More Than Shipping 2018, without any major changes. Furthermore, we have not modified our financial strategy of maintaining financial discipline while always giving importance to attaining the right balance of liabilities and equity.

As of the fiscal year-end on March 31, 2017, interest-bearing debt amounted to ¥945.3 billion, which was on par with the previous fiscal year-end. Shareholders' equity, however, decreased from ¥773.6 billion to ¥522.4 billion year on year, mainly due to the extraordinary losses posted in the first half of the fiscal year. As a result, the shareholders' equity ratio fell about 8 percentage points to 26%, and the debt-to-equity ratio (DER) worsened from 1.22 to 1.81. Meanwhile, net cash provided by operating activities decreased from ¥142.8 billion to ¥27.9 billion year on year, while net cash used in investing activities increased from ¥46.8 billion to ¥144.6 billion. Accordingly, free cash flow became negative.

Given these results, the balance of the Group's financial position has worsened overall. Nevertheless, from the second half of the fiscal year under review, the shareholders' equity ratio has gradually bounced back, and interest-bearing debt

#### Financial Position

	FY2014 (Results)	FY2015 (Results)	FY2016 (Results)	FY2017 (Forecast)
Interest-bearing debt (billions of yen)	1,098.3	940.5	945.3	1,000.0
Shareholders' equity (billions of yen)	810.3	773.6	522.4	530.0
Shareholders' equity ratio	32%	34%	26%	25%
Debt-to-equity ratio (DER)	1.36	1.22	1.81	1.90
Return on equity (ROE)	6.2%	2.3%	-	1.0%
Net cash provided by operating activities (billions of yen)	136.4	142.8	27.9	55.0
Net cash provided by (used in) investing activities (billions of yen)	26.7	(46.8)	(144.6)	(150.0)
Depreciation and amortization (billions of yen)	101.0	103.3	92.0	84.0

has been kept around the level of the previous fiscal year. Looking ahead, we will work hard to improve the bottom line through structural reforms and invest in businesses that have growth potential. The NYK Group as a whole is committed to restoring a balanced financial structure.

### Q Please tell us about the Company's medium- and long-term investment strategies.

**A** We will continue making necessary investments with the goal of enabling the Group to generate stable profits.

Under our medium-term management plan, while we plan to spend less than the ¥790.0 billion earmarked over five years in our investment plan, investment will be concentrated in businesses that have good prospects for generating stable profits. For that purpose, our policy is to make effective use of assets, off-balance-sheet financing, and whatever other measures are necessary. Since investment funds have been settled for fiscal 2017 and 2018, a certain level of net cash used in investing activities has been forecast. The necessary funds can be provided without any problems through bank loans, straight bonds, and so on. We are not considering equity financing or other such measures.

The NYK Group has accumulated expertise and experience over many years. By drawing on those intangible assets, we intend to differentiate the NYK Group's services from those offered by competitors. That is our path toward survival in the industry going forward. For example, in the automobile logistics business, we are applying information technology (IT) to provide services with added value, and such services will be the source of the Group's competitiveness in the future. Therefore, we recognize that over the medium and long terms, in addition to investing in things like vessels, it will become increasingly necessary to invest in the Internet of Things (IoT) and big data

applications, human resources development, and other "invisible capital." Furthermore, when responding to environmental issues and regulatory requirements, instead of just passively complying with such regulations, we will need to make investments for capitalizing on new business opportunities. In order to properly judge the merits of such investments, we are refining our decision-making process and putting a system into place for better controlling the amount and substance of investments.

The shipping industry is extremely challenging because it fluctuates cyclically from boom to bust. Nonetheless, we are now pushing ahead with structural reforms with the goal of enabling the Group to secure stable earnings and return profits to shareholders. Due to the extraordinary losses incurred in fiscal 2016, NYK did not pay dividends for the first time in 52 years, but we are doing all that we can to resume the payment of dividends as soon as possible. We hope that the NYK's shareholders will continue offering their unwavering support and encouragement going forward.





Director General, National Institute of Informatics, Professor,  
Institute of Industrial Science, the University of Tokyo  
**Masaru Kitsuregawa**

President, Monohakobi Technology Institute  
Technical Advisor, NYK  
**Yasuo Tanaka**

## Special Discussion on Today's Technical Challenges Associated with IoT

### Taking the lead in effectively applying IoT and big data in shipping operations from the perspective of users

The NYK Group is carrying out a variety of activities aimed at meeting the demands of customers and society for safe, economical, and environmentally friendly shipping operations. Among these activities, the Group is focusing on applying information and communication technology (ICT) in its shipping operations, including the Internet of Things (IoT) and big data. In this section, we invited the University of Tokyo professor Masaru Kitsuregawa, who serves as a director general of the National Institute of Informatics, a leader in the field of ICT research and development, and Yasuo Tanaka, president of the Monohakobi Technology Institute (MTI), which oversees technological development for the NYK Group, to discuss the Group's most recent initiatives and future outlook.

**Applying IoT to Improve Business Processes**  
— IoT and big data applications have been attracting attention in recent years. Please begin by explaining how IoT is being applied in society today.

**Kitsuregawa** As an example, at the University of Tokyo's Institute of Industrial Science, we are making use of IoT to analyze nursing care by hospital nurses.

Nurses are very busy, as you know, but even nurses themselves are not aware of exactly how much time and labor they spend for specific work duties. Therefore, we had them attach triaxial accelerometers and radio-frequency identification (RFID) tags to their pockets, wrist, and waist, so that we could understand how nursing care is actually done.

**Tanaka** That makes people the targets of IoT. Were you able to determine the different categories of their work using the sensors?

**Kitsuregawa** Under the direction of a professor from Kyushu University's School of Medicine, we determined 41 categories

of nursing duties, which included measuring blood pressure, taking blood samples, handling intravenous drips, and assisting patients. As the nurses equipped with the sensors repeatedly carry out those activities, we collected and analyzed the data, and created an academic model for automatically distinguishing between the respective duties.

We studied the activities carried out by 75 nurses at a hospital over a period of 1,655 days. The results showed that, by far, most of their time was spent inputting data in nursing records. The same results were found by a study at a different hospital. So, ironically, while IT was used to uncover this finding, IT-related data inputs were the cause of the nurses' busy work days. We were able to identify an important issue for nursing work by using big data, so IoT can be expected to help solve such issues in the future.

**Tanaka** That demonstrates how problems can be identified by digitizing activities and then analyzing them using IoT and big data.

**Kitsuregawa** Big data goes far beyond conventional notions of digitization and enables phenomena to be rendered completely visible, which opens up new worlds.

For instance, in another project, big data has been analyzed for the purpose of eliminating traffic accidents. Researchers installed IoT devices in cars to record driving information, and analyzed that data to identify potential hazards. According to Heinrich's Law, for every one major accident, there are 300 incidents that almost led to an accident. Therefore, when devising accident prevention measures, it is very important to grasp not only accidents that occur but also hazardous situations.

In this particular project, the researchers collaborated with a large home delivery company. By analyzing data collected by the recording devices, such as GPS location information and changes in driving speeds, the researchers could

determine when and where drivers abruptly applied the brakes, made sudden turns, or other dangerous actions. That made it possible to identify the times and places on a map where accidents are most likely to occur. When they checked which situations were actually hazardous, many cases of sudden braking were detected even on roads that are generally straight and do not appear to be problematic when seen from a map. When studied more closely, however, the



researchers found hazards such as telephone poles obstructing the views of home driveways, causing drivers to abruptly brake.

These findings make it possible to take countermeasures in the future, like installing signs at those hazardous spots, and having car navigation systems alert drivers when approaching them. Moreover, by sharing vast amounts of driver data, we should be able to reduce traffic accidents even more. Data can be used to make our communities safer and more livable.

**Striving to conserve energy in shipping operations by sharing data on land and sea operations by sharing data on land and sea**  
— Please tell us about initiatives being taken by the NYK Group to utilize big data.

**Tanaka** In recent years, the NYK Group has been utilizing big data in order to operate vessels more safely and economically. One system that serves as a platform for this is our Ship Information Management System (SIMS), which was first set up in 2008. By operating SIMS, we can share data among workplaces on land and sea in real time, including detailed hourly updates on shipping operations and data related to fuel consumption. Based on such an accurate grasp of our operations, we have been able to manage shipping with a high degree of precision.

**Kitsuregawa** What are the main differences between before and after the system was adopted?

**Tanaka** Compared to inland transport, maritime shipping is greatly affected by weather and ocean conditions, so a ship's fuel consumption can vary drastically even when sailing at the same speed. In the past, the amount of fuel being consumed during a voyage could not be determined in real time, so it was impossible to improve operational efficiency. Therefore, when equipment that could monitor fuel consumption became available, we installed it on the bridges of our vessels.

In addition to fuel consumption data, vessel speed, wind direction, wind speed, compass bearing, rudder angles and other data related to the status of vessel operations is collected and recorded by SIMS, and the database is shared between workplaces on land and sea via broadcast satellites. As vessels installed with SIMS repeatedly sail their routes, data collected under a wide range of conditions has been accumulated. After analyzing that data, we have classified seven main factors that cause fuel consumption to increase, including weather conditions, vessel speed allotment, and the chosen course.

Moreover, after conducting a comparative analysis of six or seven similarly shaped container ships travelling on the same shipping routes, we found out that some consumed less fuel even under the same weather conditions, while others needed to be improved.

**Kitsuregawa** So, by comparing and analyzing those conditions, you could clarify how to make vessel operation more efficient.



**Tanaka** Exactly. We regard the digitization of actual conditions and optimization of vessel operations according to those situations as best practices. We are working to improve our maritime and inland shipping operations as a whole. And determining how to adjust vessel speed to match weather conditions and how to reduce speed by leaving the port ahead of time are a few examples of that.

**Kitsuregawa** Those examples make it very clear how the process of business itself is gradually being transformed by big data, and how the world is changing with the power of ICT.

**Systematically utilizing shipping data with the goal of making vessels safer and more environmentally friendly**

**Tanaka** By using SIMS, we have been improving fuel efficiency, which, at the same time, allows us to reduce emissions of CO<sub>2</sub>. In addition, at the design stage of building or remodeling vessels, we use operational data accumulated during shipping operations to make the vessels consume even less fuel with the goal of reducing their environmental burden.

As an example, from the design stage we have been re-examining and rebuilding the bows and propellers of vessels that more frequently operate at shallow drafts and lower speeds. This enables CO<sub>2</sub> emissions from the vessels to be cut by over 20%. To date, about 40 ships have already been remodeled in this way. Furthermore, we applied a vast amount of expertise based on the accumulated data to the design of a series of large 14,000-TEU capacity container ships that were commissioned in 2016.

**Kitsuregawa** As global competition grows more intense, the environment is one field in which Japan can leverage its competitive advantages going forward. Particularly in the markets of emerging countries, we can expect growing demand for products and technologies that help reduce environmental burden in the future. I would like the NYK Group to demonstrate leadership and play an active role in this field.

**Tanaka** With a view to promoting a zero-emissions society in the future, the NYK Group has commissioned the design of the environment-friendly concept ship NYK Super Eco Ship 2030. To develop technologies for reducing the environmental burden of this ship, utilizing data will be extremely important.

Along with developing environmental technologies, we are now launching an initiative for utilizing data to ensure the safety of vessel operations. Since upgrading to the second-generation version of SIMS in 2014, we have been able to monitor not only voyage-related data and fuel consumption, but also mechanical-related data covering hundreds of variables, such as engine exhaust gas temperature and scavenging pressure. Alarms and information alerts warn if measurements reach abnormal levels. Because the condition of the main machinery, especially the engines, can be monitored and understood with analysis techniques, we want to use that to identify potential problems and prevent any



breakdowns from happening in advance.

**Leading the way for innovation in the industry by promoting open platforms**

**Tanaka** The NYK Group shares data with its joint-research partners, such as shipbuilding companies and equipment manufacturers, for the purpose of raising the performance of vessels and equipment. In order to create an open platform for vessel IoT data, we have been working together with classification organizations in Japan and Europe to set up a data center and comply with ISO standards. By sharing and utilizing shipping data throughout the entire shipping industry, we are aiming to promote innovation in the industry. MIT is the NYK Group's organization involved in this kind of innovation, and is collaborating with a wide range of partners in the industry besides shipbuilding companies and equipment manufacturers.

**Kitsuregawa** So, through the use of data, the NYK Group is not only trying to improve its own operations, but also the business processes of the entire shipping industry.

Companies that have evolved to that level are rare in Japan, and even around the world. I am impressed by such a forward-looking approach.

**Tanaka** The NYK Group takes the standpoint of users rather than manufacturers, and I think that is a big factor. In order to make effective use of know-how and data gained from the continual operations of ships, collaboration with manufacturers, universities, and research institutes is essential.

**Kitsuregawa** Engineering based on user-derived data will probably become an essential factor for future production, because ships, as well as vehicles and machinery, are used for a vastly longer period by users than the time spent by shipbuilders and manufacturers to design and produce those things.

**Tanaka** For ships, in particular, it is often the case that after 10 or 20 years of continuous use, they are assigned to different shipping routes as cargo conditions change. Furthermore, their crews operate the vessels with various kinds of technical know-how, like the ability to carry out onboard maintenance of equipment. In other words, there are cases when vessels are remade to suit the times through

the combination of data and the expertise of the crew.

**Kitsuregawa** The people who most understand how to use a product after it has been released by the manufacturer are the users, themselves. For that reason, we can be confident that a time will definitely come in the future when user-friendly and environmentally friendly innovations are produced as a result of data being shared by users and manufacturers.

**Making the most of leading-edge ICT, including artificial intelligence (AI)**

**— AI has recently been attracting attention, so we would like to hear your views on its potential in the future.**

**Kitsuregawa** Big data, IoT, and AI are three technical terms that, in practice, largely cover the same domain. The basis for all of them is big data. IoT is the tool for effectively collecting the data, and AI is the means for analyzing it. Before the AI boom, this field was called analytics. Nowadays, the sophistication of AI has made rapid progress due to deep learning, but the biggest factor underlying the recent innovations was the ability to utilize vast amounts of data. Put in perspective, big data has become the basis for that. Therefore, we could say "data is everything".

For example, to test drive self-driving cars that utilize AI, it is crucial to collect enough data covering a broad range of variables so that unforeseen situations can be avoided. Likewise, for medical applications, collecting vast amounts of clinical data, including data on rare cases, is essential for increasing the accuracy of diagnosis.

**Tanaka** Yes, it is important to organize data so that AI can decipher it. In connection to self-driving, a project has begun to research vessels that can navigate automatically, called self-navigating ships.

Japan's Ministry of Land, Infrastructure, Transport and Tourism is leading a project called i-Shipping with the goal of dramatically improving productivity in the shipping industry (see page 20 for details). The NYK Group is participating in the project to conduct research on autonomous navigation, although the company has no intention to abruptly switch to unmanned operations by applying AI. First, we want to use ICT, which, in a broad sense, includes AI, as a tool for helping crews operate ships safely.

**Kitsuregawa** Since it is necessary to deal with various conditions, such as changes in the weather, I assume it will be difficult to shift to unmanned operations at any time soon.

**Tanaka** Even if we could operate our own ships safely, we would be concerned about collisions with other vessels, particularly in narrow channels of the ocean where there is a lot of shipping traffic. For that reason, when technologies integrating AI are adopted, risk assessments, laws, and other rules will have to be created, and infrastructure will need to be upgraded to ensure safety across the entire industry.

**— Finally, we would like Professor Kitsuregawa to offer his concluding remarks.**

**Kitsuregawa** I have come to understand how the NYK Group is making full-fledged efforts to apply ICT centered on big data, while recognizing changes in the social climate and trends related to technological innovations.

Even beyond the shipping industry, the Group's promotion of innovation in the industry and society at large, especially through proactive efforts to establish an open platform, is an extremely relevant approach. I hope the NYK Group confidently pushes ahead with its ongoing initiatives and continues to take on new challenges going forward.

**A message from the CEO of DNV GL, an international shipping classification society**

**The NYK Group's technical development is providing solutions and creating value in many ways.**

DNV GL believes digitalization in shipping will offer great benefits in safer, more efficient and greener operations as well as enhanced value creation. DNV GL sees NYK in the forefront of these developments. The collaboration between NYK and DNV GL on sensor data and data ingestion has proven effective and valuable and we believe it will benefit the whole maritime industry in its further development.

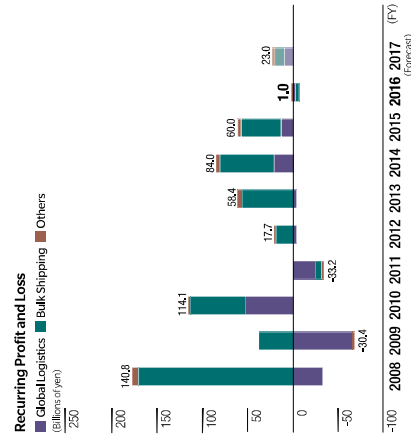
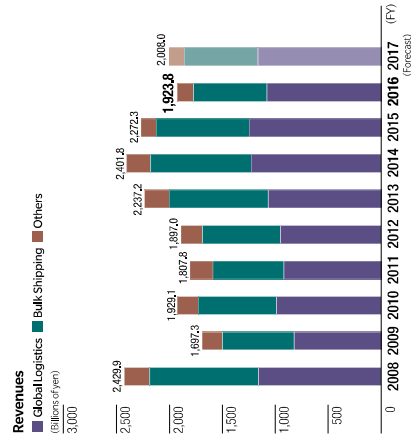
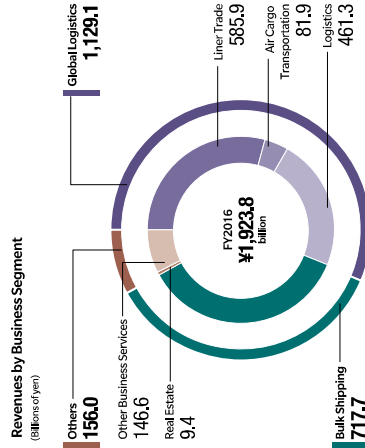
There is a strong business case for NYK's broad engagement with the UN Sustainable Development Goals (SDGs). In particular, driving down transport costs and raising logistics efficiencies benefits NYK while improving market access for developing countries, and lowering emissions. DNV GL was honored to feature NYK's many SDG-aligned initiatives in the report The Future of Spaceship Earth (2016).

Link to the report:

<https://www.dnvgl.com/technology-innovation/spaceship-earth/index.html>



**Remi Eriksen**  
Group President and CEO  
DNV GL Group AS



## Global Logistics

### Decreased Revenues Due to Lower Freight Rates for Container Shipping; Improvement Expected for fiscal 2017

In the Liner Trade segment, although spot freight rates for container shipping dropped to historically low levels in the first quarter of the fiscal year, the effects of the bankruptcy of a Korean shipping company along with increased shipping traffic led to an improvement in the balance of supply and demand, while market conditions appeared to gradually recover for North American and European shipping routes. The balance of supply and demand also improved for Central and South American routes, but market conditions remained severe for routes in Asia. To strengthen its ability to withstand market conditions in such circumstances, the NYK Group worked to improve its gross profit by switching to newly built large vessels that have superior cargo loading rates and fuel efficiency, reducing fuel consumption by upgrading existing vessels, reducing fleet and operating costs by efficiently deploying vessels, and efficiently utilizing containers. Although overall handling volume at container terminals in Japan and around the world increased year on year, the Liner Trade segment as a whole posted a loss and a decrease in revenues compared with the previous fiscal year, mainly due to persistently low freight rates for container shipping.

## Bulk Shipping

### Despite Continued Challenging Conditions, Gradual Recovery in fiscal 2017

In the automobile transport market, demand for automobile shipments to resource-rich countries in particular slowed down amid declining prices of resources, resulting in fewer vehicles shipped compared with the previous fiscal year. Under such tough circumstances, the NYK Group worked to reduce operating costs by continuing to use slow steaming, and to improve shipping efficiency by selling off aging ships for demolition, returning chartered ships, and other measures. In the automobile logistics business, existing operations performed solidly overall, particularly in China and India. NYK concluded agreements with local companies in Kenya and Vietnam, which are expected to be the next growth markets, to establish joint-venture firms that will provide new logistics services for finished vehicles.

In the dry bulk transport market, the production of new vessels continued, with the scrapping of older ships and increased shipments of iron ore, grains, and other items, so the problem of excess capacity was not resolved, but the gap between supply and demand began to shrink. Under those circumstances, the NYK Group strove to secure long-term shipping contracts, in addition

## Others

### Significant Increase in Profit, Slight Decrease in Revenues in Real Estate Business Overall

In the Real Estate segment, the market was stable, as was the operation of new lease properties. In addition, gains on the sale of real estate trust beneficiary rights from certain investments were recorded under non-operating income. As a result, income increased markedly compared with the previous fiscal year. The

## Fiscal 2016 Highlights

● Global Logistics ■ Bulk Shipping ◆ Others

### July 2016

■ **Oil Production Starts at Third FPSO Unit off the Shore of Brazil**

### August 2016

● **New Container Terminal in Indonesia Starts Commercial Operations**

### September 2016

■ **Oil Production Starts at Fourth FPSO Unit in the Gulf of Mexico**

■ **ENGIE, Mitsubishi Corporation and NYK Announce a New Global Brand for LNG Bunkering: Gas4Sea**

■ **World's First LNG-fueled Pure Car and Truck Carrier Auto Eco Delivered (See page 36 for details.)**

### October 2016

● **Announcement of Container Shipping Business Integration with Two Other Japanese Shipping Companies (See page 13 for details.)**

■ **NYK Establishes Logistics Company for Finished Cars in Kenya**

### November 2016

● **NYK Ports Acquires Share of New York / New Jersey's Largest Terminal**

● **NYK Procures 4,700 Additional Brand-new Refrigerated Containers (Including 600 Controlled Atmosphere (CA) Containers) and Begins Utilization (CA containers are mainly used for shipments of fruits and vegetables)**

■ **LNG Vessel Prachi Delivered for Petronet LNG (India)**

### December 2016

■ **NYK Establishes Logistics Company for Finished Cars in Vietnam**

■ **Decision for Joint Ownership of a Newly Built LNG Vessel for the Cameron LNG Project (U.S.)**

■ **LNG-fueled Pure Car and Truck Carrier Auto Energy Delivered (See page 36 for details.)**

◆ **NYK Cruises Honored at 2016 Cruise of the Year Awards**

### January 2017

◆ **Asuka II Honored as Cruise Ship of the Year for 25th Consecutive Year**

### February 2017

■ **LNG Bunkering Vessel ENGIE Zeebrugge Delivered (See page 37 for details.)**

In the Air Cargo Transportation segment, market conditions continued to be harsh in the first half of the fiscal year, but shipping traffic was revitalized in the second half of the fiscal year, and the segment recorded a foreign exchange gain owing to the cancellation of aircraft orders. As a result of these factors, the segment posted a decrease in revenues and an increase in income compared with the previous fiscal year.

In the Logistics segment, although handling volume grew significantly in both the air freight forwarding business and the ocean freight forwarding business, the operating environment remained challenging in Asia, especially China, and gross profit decreased in the air freight forwarding business. In the Logistics business, inland transport warehousing conditions did not show any improvement in the Americas, and the slowdown of economic growth in emerging countries in Asia contributed to weak performance. Coastal transportation business traffic improved, but the Logistics segment as a whole posted a decrease in both revenues and income compared with the previous fiscal year.

Liner Trade business market conditions are expected to continue a gradual recovery in fiscal 2017. The Logistics business and Air Cargo Transportation business are forecast to be steady.

to improving the bottom line by reducing costs through improved operational efficiency, reducing ballast voyages by combining cargoes, and more efficiently deploying vessels.

In the liquid transport market, although very large crude-oil carrier (VLC) shipping traffic was strong, heavy pressure from the supply of new vessels, decreased east-west shipping traffic with petrochemical tanker shipments, and decreased shipping distances with LPG tankers as the shipping points for cargo bound for East Asia were shifted from the U.S. to the Middle East resulted in worsened conditions in each of those markets. LNG tankers performed well, bolstered by long-term contracts. In the offshore business, two new FPSO units began operations, and drill ships and shuttle tankers performed strongly.

As a result of these factors, the Bulk Shipping segment posted a loss along with a decrease in revenues compared with the previous fiscal year. It is anticipated that dry bulk market conditions will recover gradually in fiscal 2017, with liquid transport market conditions unchanged, and the same number of vehicles shipped as in fiscal 2016 in the automobile transport business.

ship merchandise business performed solidly, and the cruise business was stable. On the other hand, the bunker oil sales business continued to face difficult market conditions due to the impact of exchange rates and other factors. In addition, temporary expenses related to fund-raising were also recorded, so Other Business Services as a whole posted a loss and a decrease in revenues compared with the previous fiscal year.

# Global Logistics Business

## Liner Trade

### Improving Container Shipping Service through a New Alliance

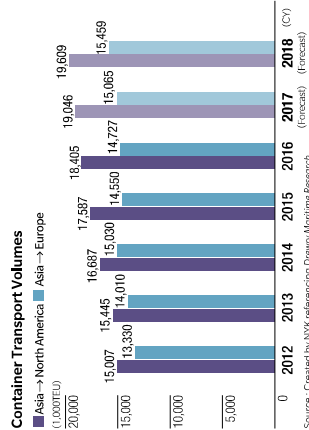
Freight rates, which had been sluggish until the first half of fiscal 2016, began to recover in early autumn. As shipping traffic increased slightly in North American and European routes, NYK rationalized its unprofitable routes, suspended some services, and otherwise worked to streamline and improve the bottom line. Delivery of ultra-large vessels will continue in fiscal 2017, preventing the gap between supply and demand from shrinking, but freight rates are expected to gradually increase.

In April 2017, THE Alliance (formed by five companies: NYK, MOL, "K" Line, Hapag-Lloyd, and Yang Ming) launched new services. Approximately 240 containerships have been deployed in 32 services connecting over 75 major ports with a wide range of direct calls, making THE Alliance one of the top three alliances, with a share exceeding 20% of shipping capacity for the North American and European shipping routes. Further, in light of the bankruptcy of a South Korean shipping company last summer and other events, THE Alliance established the industry's first trust fund. The fund will guarantee transportation of cargo to the unloading port even in the event that a participating shipping company suddenly faces severe financial circumstances. Through this new alliance structure, NYK will strive to improve the bottom line for fiscal 2017 by increasing lifting volume and improving yearly contract freight rates.

In addition, NYK is gradually deploying 15 new 14,000-TEU containerships in European shipping routes, collecting and analyzing a variety of actual voyage data from ships in the same series and using it to improve not only economic efficiency, but the safety of vessels as well.

The decision was made to integrate container shipping business with two Japanese shipping companies.

Preparations are currently underway to launch services in April 2018.



### Strengthening the Container Terminal Network

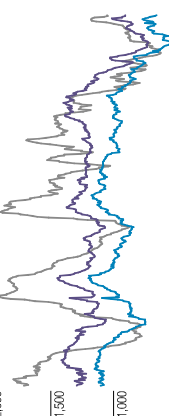
The handling volume at domestic and overseas terminals in 2016 increased significantly compared to the previous year. The handling volume and number of sites are both increasing on a yearly basis.

A new container terminal in Indonesia, in which NYK also participated, is a deep-water terminal that can accommodate large containerships, and is outfitted with environmentally friendly cargo-handling equipment. It began operations in August 2016. Further, in November 2016, NYK acquired 20% of the shares in a company that operates a terminal in the U.S. port of New York and New Jersey. An increase in handling volume at the terminal can be expected as traffic bound for the East Coast of the U.S. through the Suez Canal rises as manufacturing shifts from China to Southeast Asia, and as larger ships make use of the expanded Panama Canal.

In the future as well, the Group will utilize the synergistic effect with the liner trade container business and work to strengthen its global network of container terminals.

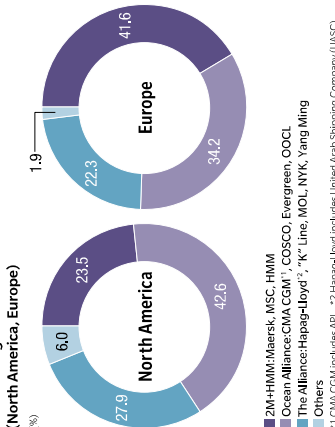
#### Container Freight Rates

— China to North America (East Coast) — China to North America (West Coast)  
(Jan. 1, 1998 = 1,000 point)



Source: Created by NYK referencing China Export Containerized Freight Index

#### Share of Megacarriers and Alliances on Core Routes



## Air Cargo Transportation

### Striving to Improve Revenues through Use of the Strengths of Production Freighter

Airfreight market conditions, which began worsening in December 2015, have been recovering since around September 2016, revitalizing cargo movements for IT-related cargo and machinery, etc.

Semiconductor manufacturing equipment and other large cargo can only be carried by production freighter. In addition, because cargo flights usually depart at night, the ability for cargo received in the early evening of the departure date to arrive in Europe and the U.S. the next morning is another significant strength. Nippon Cargo Airlines Co. Ltd. (NCA) utilizes these strengths to focus efforts on

transportation of special cargo such as semiconductor-related devices, jet engines, finished car, and works of art, in addition to general cargo. Further, NCA is working to improve the de-rate ratio that appropriately controls engine output. Improvement of that value makes it possible to optimize the engine maintenance cycle and aim for significantly improved costs. In addition, the company will steadily execute measures to improve the bottom line, including improvement of the load factor (loading ratio).

NCA eliminated its backlog of orders for aircraft by canceling orders for two aircraft in 2017, now its fleet remains at 12 aircrafts. This fleet size is deemed to be an appropriate one, and future efforts will be focused on improvement of efficiency and profitability.

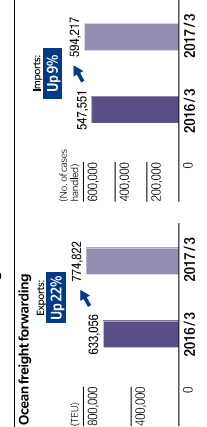
## Logistics

### Ocean-Freight Progressing as Planned; Airfreight Struggling

Yusen Logistics Co. Ltd.'s (YLK) contract logistics and air- and ocean-freight forwarding businesses, which constitute the core of the NYK Group's logistics business, both saw a significant increase in handling volume in fiscal 2016.

Although income and expenditures were according to plan in the ocean-freight forwarding business, there was no improvement in the procurement environment in the airfreight business or the logistics business, resulting in a decrease in overall revenues and income. Fiscal 2017 is expected to be relatively steady.

#### Consolidated Handling Volume



### Formulation of a Long-term Plan Until 2025

In April 2017, YLK announced the new long-term vision "TRANSFORM 2025" as its roadmap for growth heading toward 2025. In it, the company redefines its vision, mission, and values, and formulated four basic strategies. In addition, it designated building a system for the YLK group's overall strength, enhancing human resources development and organizational capabilities, investment in growth areas, improving the quality of work, improving global presence through expanded scale, etc. as priority themes heading toward fiscal 2025, and formulated strategy for each business and regional strategy accordingly.

The YLK group aims for ¥570 billion in revenues and ¥14 billion in operating income in the closing financial statements of fiscal 2019. Expanded sales, improved gross margin, and operational reforms are expected to increase operating income by approximately ¥10 billion in fiscal 2016. The group has established targets of ¥880 billion in consolidated revenues, ¥35 billion in operating income, 1.7 million TEUs in ocean-freight handling volume, and 0.71 million tons in airfreight handling volume.



## Bulk Shipping Business

### Car Transportation Division

#### Development of the Fleet according to Demand

The number of finished automobiles shipped by ocean in 2017 is anticipated to be about the same as last year. Of the 90 million cars sold worldwide, approximately 30% were transported by ship. It is anticipated that the number of cars sold and number of cars transported will increase between 2% and 3% per year in the future. However, automobile manufacturers are increasingly mass producing cars in the optimal location for maximum efficiency, and while transportation within the region has been revitalized, the trend is toward a decrease of long-distance transportation.

The NYK Group transported approximately 3.4 million finished automobiles in fiscal 2016, and anticipates that the number will increase to about 3.6 million in fiscal 2017. The Group's operating fleet had 111 vessels at the end of fiscal 2016, down eight ships from the end of the previous fiscal year. As a result of returning chartered ships and scrapping aging ships in conjunction with a decrease in demand, supply and demand are balanced for the most part currently. This scale of operation is at a level that makes it possible to respond sufficiently to customers' requests, and the ships in the fleet are relatively new, so there is no plan to erect a new fleet for the time being. However, the Group will carefully consider the short-term chartering and replacement of vessels in the fleet as necessary in light of anticipated demand in the future. In addition, the Group will study the optimal fleet when building new ships, including post-panamax-type and LNG-fueled car carriers.

Moreover, the Group has strengthened transportation of high and heavy cargo not only from Japan, but from Europe and the U.S. as well, and is putting effort into the transportation of railcars, in addition to the usual construction machinery, heavy equipment, and agricultural equipment.

#### Global Car Transport Fleet Ranking (As of December 31, 2016)

Ranking	Operator	Vessels	Ships (%)	Capacity (Cars)	Share (%)
1	NYK	108	15.6	642,000	16.2
2	Mitsui O.S.K. Lines	99	14.3	590,000	14.6
3	K. LINE	78	11.3	447,000	11.3
4	EUKOR	67	9.7	449,000	11.3
5	G&M	96	8.1	242,000	6.1
6	WWIL	54	7.8	385,000	9.2
7	GLOVIS	54	7.8	337,000	8.5
8	HAL	46	6.6	304,000	7.7
9	NMCC	9	1.3	46,000	1.2
9	NEPTUN	9	1.3	34,000	0.9
9	ECL	9	1.3	32,000	0.8
12	SCC	8	1.2	44,000	1.1
12	Toyotsuji Shipping Co., Ltd.	8	1.2	42,000	1.1
14	ARC	5	0.7	28,000	0.7
14	COSCO	5	0.7	22,000	0.6
—	Others	78	11.3	352,656	8.9
	Total	683		3,957,000	

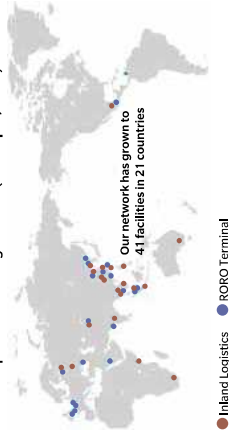
Source: Hermes Shipping AS, The Car Carrier Market 2016  
Note: This table includes only vessels with a capacity of 2,000 cars or more.

#### Further Evolution of the Automobile Logistics Business

The Group's automobile logistics business handled a total of 11 million cars in fiscal 2016, approximately 7 million cars at RORO terminals and about 4 million through inland transportation. A further increase is anticipated for fiscal 2017. The establishment of overseas sites is nearly complete. In the future, focus will be placed on improving the quality of service at each site, sharing expertise across regional boundaries, etc. In addition to establishment of new automobile production and transportation sites in Mexico and India, logistics within Asia is expected to become more active, and the Group will utilize its experiences in regions where operations were started earlier, such as Thailand and the Philippines, to develop operations in other countries. The Group participates in operation of four major RORO terminals in China. In Europe, the number of vehicles handled at the port of Zeebrugge and other RORO terminals has increased to 2.2 million per year, making them major logistics sites for imported and exported finished automobiles. Further, in Africa, NYK partnered with a Japanese company and a French company to jointly establish a logistics company for finished automobiles at the Port of Mombasa in Kenya, which is expected to develop as a logistics gateway for East Africa. The Group anticipates entry into North and West Africa, including sites in South Africa, in the future.

Moreover, in addition to RORO terminals, inland transportation, and the provision of PDI services, the Group intends to fuse on-site strength and its global network, as well as advanced quality control expertise and IT, grasp customer needs in advance, and provide innovative logistics solutions. The Group also intends to expand to a global scale collaboration with the Group company Yusen Logistics Co. Ltd., which has abundant experience with logistics for automobile production parts and service parts.

#### NYK Group automotive logistics site (As of April, 2017)



### Dry Bulk Division

#### Optimizing Fleet Composition with an Eye on Recovery

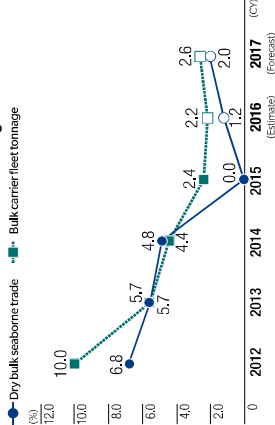
The dry bulk market was at an unprecedented low in the first half of 2016, but began to recover in the second half. World crude steel production volume surpassed the 1.6 billion tons mark in 2016, an increase of 0.7% from the previous year. In China, the trend toward importation of high-grade foreign materials became more active, resulting in a 7.5% year-on-year increase of iron ore imports and a 25% year-on-year increase of coal imports. Iron ore import volume broke the 1 billion tons barrier, which had been believed to be difficult. Iron ore production is planned to increase in Brazil and Australia from fiscal 2017 onwards, with about half the increase expected to be directed toward the demand in China. Accordingly, it is anticipated that the strong cargo movement will continue.

Meanwhile, the scrapping of aged vessels has progressed and the delivery of new vessels has passed its peak, so the gap between supply and demand is in the process of disappearing. The backlog of orders for new capesize vessels until the end of 2018 is approximately 130 vessels, but will drop below 30 vessels in 2019, and to just a few vessels in 2020, so it is anticipated that the excessive supply will weaken and the balance between supply and demand will improve. Although the Group's current dry bulk carrier fleet is well-balanced in light of freight contracts, termination of charter contracts will be carefully considered in the context of future trends in market conditions.

#### Strengthening of the Overseas Business to Accommodate Increased Demand in Southeast Asia

Although transportation of coal for domestic power companies is strong, deregulation of electric power business and other factors have made it impossible to make long-term

#### Increase in Seaborne Trade and Fleet Tonnage



Source: Created by NIKK referencing Clarkson's Dry Bulk Trade Outlook (February, 2017)

estimates, resulting in a trend toward short-term charter contract. On the other hand, there are many plans for coal-fired power stations in Vietnam, Indonesia, and other Southeast Asian countries, so an increase in transportation of coal for power plants is anticipated.

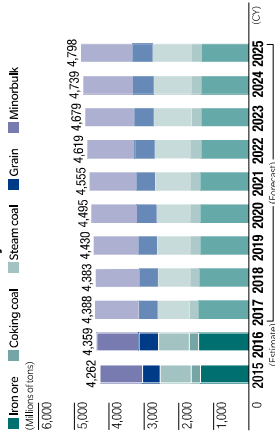
In April 2017, the Group established a new department to handle sales and operation control for overseas customers, in order to accommodate these changes. In collaboration with overseas group companies, the Group will strengthen the development of the global market, in the emerging countries of Asia in particular, beyond capesize and panamax size vessels.



#### Promotion of Tailor-made Customer Service

The Group has developed and implemented a proprietary SIMS (an information management system for ships), and is accumulating knowledge on optimal operations by monitoring the data. In the future, the Group will fully utilize this knowledge to promote upgrading to long-term contracts with steel manufacturers, power companies, paper manufacturers, resource companies, and other companies that place significant emphasis on stable transportation. In addition, the Group will also provide tailor-made services, including the pursuit of technologies that will improve customer competitiveness and proposals for optimal ship types. In recent years, the emphasis has been placed on reducing the number of high-cost ships, and other defensive measures, but in fiscal 2017, the Group intends to go on the offensive.

#### Volume and Forecast of Dry Bulk Seaborne Trade



Source: After 2016, Created by NIKK (including estimation)



## Bulk Shipping Business

### Liquid Division

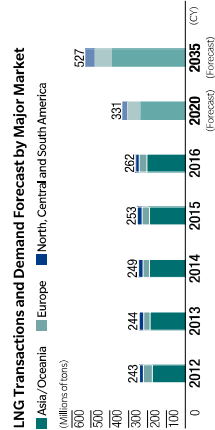
#### Differentiation from Other Companies Through Involvement in All Stages of the Energy Value Chain

Energy demand is proportionate to population and standard of living, and is thus expected to continue to rise, particularly in emerging countries. In developed countries, a portion of energy demand is in the process of being replaced by renewable energy, but approximately 80% of all energy demand is estimated to still be covered by fossil fuels in 2030.

In such circumstances, the Group has established a basic strategy of developing business at every stage of the energy value chain, from upstream to downstream. The Group's energy transport fleet comprises 188 ships, and will exceed 200 when vessels on order are delivered. Utilizing strengths in its ship management and operation management capabilities that ensure fleet safety, technological strength at the vessel design stage, and financial ability, the Group will respond to requests from the oil industry's major players overseas, who demand strict safety standards, and other top-class customers around the world.

#### Steadily Expanding Business in Response to Growing Demand for LNG

As worldwide energy demand increases, it is anticipated that LNG, with its superior environmental performance compared to other fossil fuels, will have the most growth in demand in the future. LNG transportation mainly consists of long-term contracts, so it is positioned as a stable business that is less affected by market conditions, and the Group intends to develop the business steadily in the future as well. Currently, the LNG market seems glutted and there are delays in launching new projects, but the forecast is for steady increase in demand for shipping capacity for projects in East Africa, Indonesia, Russia, etc., beginning in early 2020's. In addition, new shale gas-related projects are under consideration, so the Group is increasing its competitiveness in order to respond to the increase in demand for shipping capacity.



#### Broad Implementation of Offshore Business, from Upstream to Downstream

The main sector for resource development is shifting from land to offshore and deep sea, and the offshore business is an area in which stable revenues and differentiation are possible, so the Group will aggressively expand its business in this field.

There are four floating production storage and offloading (FPSO) units in operation involving the Group. For example, the third FPSO unit that began production off Brazil in fiscal 2016 has a 20-year contract with Petrobras, a publicly held company in Brazil, and expectations are that it will be a stable source of revenues. The Group plans to take a positive approach to considering participation in new FPSO projects in the future as well. In addition, Norwegian shuttle tanker owner and operator Knutsen NYK Offshore Tankers AS (KNOT), of which NYK has a 50% share, operates approximately 40% of all shuttle tankers on the market, and has thus established itself as a top global player. Although the competition is becoming more severe, the Group will continue to consider entry into the LNG Floating Storage and Regasification Unit (FSRU) business, in which the Group has yet to participate.

#### Comparison of LNG Fleets (Vessels delivered by End of March, 2017)

Company	Vessels	Capacity (Thousand cubic meters)	Capacity Share (%)
NYK	70	4,194	6.3
Mitsui O.S.K. Lines	71	3,897	5.8
"K" Line	42	1,500	2.2
Other Japanese Shipowners (Shipping & Trading Companies)	57	1,311	2.0
South Korean Shipowners	27	3,483	5.2
Buyer/Buyer (Overseas)	24	1,889	2.8
QOIC	110	12,106	18.2
MSC	64	9,106	13.7
Teekay Shipping	32	3,377	5.1
Bergesen Worldwide	15	1,428	2.1
Golar	15	2,251	3.4
Gaoling	15	2,421	3.6
Marangas	24	2,987	4.5
Dynagas	11	1,883	2.8
China	12	1,557	2.3
Sovcomflot	8	937	1.4
Others	88	9,078	13.6
<b>Total</b>	<b>709</b>	<b>66,676</b>	<b>100.0</b>

Source: NYK  
Note: 1. LNG tankers are usually co-owned by multiple companies. Number of vessels shown above are counted as one vessel regardless of the ownership percentage of the vessel.  
2. Capacity (thousand cubic meters) shown above are assigned to individual companies in accordance with their ownership percentage of each vessel.  
3. The number of LNG vessels in shipping fleets does not include remodeled floating storage and regasification units.

#### Focusing Efforts on LNG Marine Fuel Sales Business

The restrictions on vessel emission of SOx will be tightened beginning in 2020, and there is increasing movement toward reduction of CO<sub>2</sub> emissions. In such circumstances, it is anticipated that LNG fuel will be a leading solution in the future.

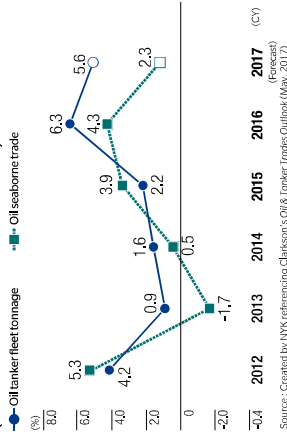
In anticipation of the era of LNG fuel, an LNG bunkering vessel was delivered in February 2017. With Zeebrugge, Belgium, serving as its home port, the vessel began providing LNG fuel to ships operating in Europe. Two LNG-fueled pure car and truck carriers operated by an NYK Group company are also among those ships.

In addition, NYK has partnered with Mitsubishi Corporation and France's ENGIE to launch "Gas4Sea," a brand name for marketing ship-to-ship LNG bunkering services worldwide, and is conducting sales activities toward ferries, passenger ships, RORO ships, and other vessels that use LNG fuel. Consideration of a switch to LNG for marine fuel has become active in Japan as well, so the Group will develop the business.

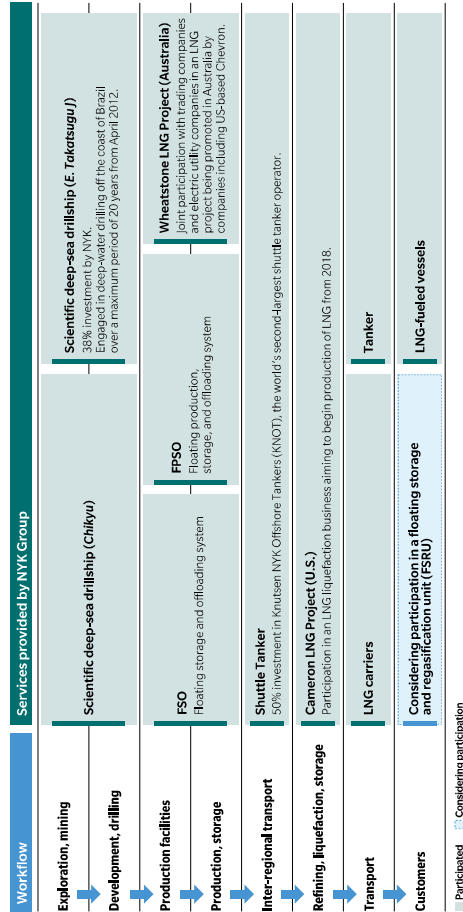
#### Promoting Formation of the Appropriate Fleet for Tanker Business

As for very large crude-oil carriers (VLCCs), the Group will continue to maintain a stable business model focused on long-term contracts for domestic and overseas customers. As for product (petroleum products) tankers, consolidation of oil refineries is advancing in developed countries, and an expansion of shipping traffic is anticipated. Accordingly, the Group will secure revenues by assembling a fleet of the appropriate scale in accordance with the market, based on the forecast for supply and demand for shipping capacity. As for very large gas carriers (VLGCs), the Group intends to expand its fleet in conjunction with expansion of the LPG market sparked by the shale revolution in the U.S.

#### Increase in Seaborne Trade and Fleet Tonnage (Sum of Crude Oil and Oil Product Tankers)



#### Offshore Business and LNG Value Chain



# Helping Next-Generation LNG Fuel Establish a Broader Market Base

LNG is a cleaner alternative to heavy oil, the vessel fuel that has traditionally powered most vessels. Recognizing the potential benefits of LNG, the NYK Group is currently expanding its business scope to feature offerings for transporting LNG, operating LNG-fueled vessels, and supplying and marketing LNG fuel. On numerous fronts, we are constantly working to help build a stronger presence for LNG.

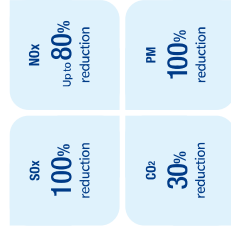
## Society's Needs and Expectations

### Tapping into Growing Needs for LNG as Environmental Regulations Grow Tighter

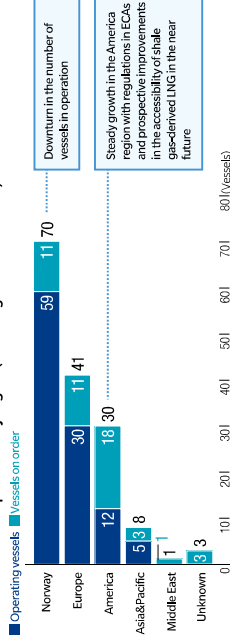
Recent years have seen environmental issues—from climate change and global warming to air pollution—become pressing social concerns on a global scale, leading nations around the world to tighten their various environment-related laws and regulations. In the shipping industry, as well, restrictions on vessels' emissions of SOx (sulfur oxide), NOx (nitrogen oxide), and CO<sub>2</sub> (carbon dioxide) are becoming increasingly strict. SOx emission regulations on fuel oil are growing particularly stringent. In January 2015, the sulfur limit for fuels usable in the North Sea, Baltic Sea, and North America Emission Control Area was lowered from 1.0% to 0.1%. Starting in January 2020, ships operating in other sea areas will need to comply with a new sulfur limit of 0.5%.

The growing demand for cleaner fuel sources has made LNG—an environmentally friendly fuel that generates no SOx emissions whatsoever—a promising solution. LNG-fueled vessels, which originally made their debut in Norway, are now expanding their reach: not only are their operating areas extending into Europe and the U.S., but more and more vessels in zones with environmental controls are switching to LNG fuel. The spread of LNG fuel hinges on the establishment and development of a solid supply infrastructure. Thus, projects aiming to lay infrastructural foundations for LNG hubs are now underway at ports in Singapore, Yokohama, and other major shipping hubs across the globe.

#### A comparison of heavy oil and LNG fuel



#### LNG-fueled vessel operations by region (including vessels on order)



Source: Created by NYK referencing aggregate data from Japan Marine Science Inc. (Data current as of February 28, 2017).  
Vessels include ferries, PSVs, commercial vessels (tankers, container ships, and bulk carriers, etc.), and dredgers.  
Note: The number of vessels on order includes vessels that are under construction and those that have been ordered but not yet started.  
Dredger = A vessel capable of gathering up bottom-floor sediments, etc. to secure sufficient water depths for ports (including rivers and shipping routes)

## Expanding the NYK Group's LNG-Related Business



**LNG transport business launch**

The NYK Group partners with Japanese electricity/gas companies to establish the LNG transport business, an effort that continues to expand NYK's international reach.



**Sakigake, Japan's first LNG-fueled tugboat**

Sakigake features the same basic hull design and operability as a conventional tugboat but delivers incredible environmental performance.



**Auto Eco and Auto Energy, two LNG-fueled car carriers**

The NYK Group completes and introduces two LNG-fueled car carriers (both vessels with "A Super" ice-class specifications) into European waters, where SOx emission regulations are particularly tight.

Source: Created by NYK referencing UCCS Service Network Planning 2017



ENGIE Zeebrugge, an LNG bunkering vessel, supplies fuel to LNG-fueled vessels operating in the North Sea and Baltic Sea

## The NYK Group's Approach

### Translating Extensive LNG Transport Expertise into New Ventures: Supplying and Marketing LNG-Fueled Vessels/LNG Fuel

The NYK Group has continued to expand its LNG transport network since launching routes between Japan and Indonesia in 1983. For more than 30 years now, we have given safe operations top priority and leveraged our expertise in vessel management, operation management, vessel design technologies, and financial arrangements to build strong relationships of trust with customers. LNG transport demands sophisticated technical know-how. Taking advantage of our extensive expertise in LNG vessel operations, we have successfully completed work on LNG-fueled tugboats, LNG-fueled car carriers, and LNG bunkering vessels. We also

play active roles in collaborative LNG sales initiatives, working with domestic and international partners. Looking ahead, the market is likely to start seeing users requiring large amounts of LNG fuel for cross-ocean routes. The NYK Group, aware of that potential, thus serves on a government-led feasibility study to explore the development of LNG supply bases, including onshore infrastructure and fuel supplies from offshore locations. As we bolster and expand our sales of vessel fuel, we will continue to give LNG fuel a stronger market presence through a diverse range of activities.

#### Pooling a Wide Range of LNG Transport Knowledge

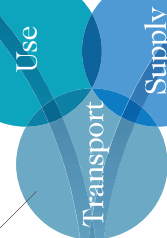
- From vessel management and operation management to partnerships with customers, the NYK Group has amassed a wealth of expertise over more than three decades of experience in the LNG transport business.
- Managing vessels through wholly owned subsidiaries**  
Wholly owned subsidiaries handle vessel management, ensuring safe operations and excellent transport quality
- Networking with partners in Japan and abroad**  
Our LNG transport efforts help build strong connections with vessel owners and operators internationally, including major players in the oil industry
- Establishing overseas bases for the energy sector**  
Bases in the U.K., the U.S., and Singapore provide a strong global foundation for LNG-related business

#### Developing Cutting-Edge Technologies


The NYK Group builds LNG vessels with "dual fuel" engines that run on both heavy oil and LNG. We also devote considerable resources toward developing cutting-edge technologies, drawing on our operational experience to drive advances.

#### Strengthening LNG Fuel Business

In the shipping industry, rising fuel prices can put a company's bottom line at risk. By marketing LNG fuel, the NYK Group gives itself footholds on both the supply side and the demand side—an arrangement that helps hedge risks.




2017



**Supply**  
ENGIE Zeebrugge, an LNG bunkering vessel


The NYK Group introduces the world's first purpose-built LNG bunkering vessel, which begins fueling the vessels Auto Eco and Auto Energy.



**Supply**  
LNG fuel sales business on a global scale

GAS4SEA  
Available Gas for Global Shipping

The NYK Group works with ENGIE (France) and Mitsubishi Corporation to supply and market LNG fuel for use in vessels; the effort also promotes sales activities for LNG-fueled vessels.



**Supply**  
Feasibility Study on LNG bunkering hub development plan at the port of Yokohama

The NYK Group works on a variety of efforts, including plans for facilities and initiatives to ensure safety. Photo source: Feasibility Study Report on the LNG bunkering hub development plan at the port of Yokohama (Summary) (Released by the Ministry of Land, Infrastructure, Transport and Tourism in December 2016, p. 21)



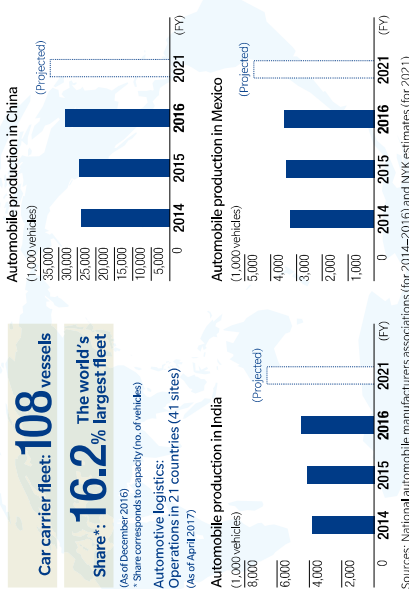
# NYK's Unchanging Commitment: The Group's Efforts to Support the Automobile Industry

As the global automobile industry's logistics needs continue to grow increasingly diverse and complex, the Group is working to meet that demand through ocean transportation, RORO terminal operations, a strengthened inland-transportation network, pre-delivery inspections (PDI), and a wide variety of other services. The Group takes advantage of its advanced transport skills and quality-control capabilities to fortify the automotive supply chain.

## Growing, Diversifying Demand The Growing Automobile Industry and Logistics Market

NYK made its full-fledged entry into the car transport business in 1969. Ever since the signing of the Plaza Accord in 1985, Japanese automotive manufacturers have been shifting their production efforts overseas. NYK, have thus ventured into trilateral transport—a setup that facilitates the process of exporting items from production sites abroad. The Group is developing other offerings to help automotive manufacturers globalize their operations, as well. In addition to operating RORO terminals and providing inland transportation around the world, the Group also works to enhance its PDI and other high-value-added services to develop an integrated lineup of transport services spanning the entire scope of the process—from auto production to sales. Through other efforts, including the recent completion of LNG-fueled car carriers, the Group is also aiding in the effort to establish a cleaner automotive supply chain.

Global automobile production is on pace to reach 100 million vehicles in 2020, with China, India, and Mexico representing the major growth drivers over the medium to long term. Forecasts project demand growth in emerging nations, as well. The Group will continue to develop its business in line with diversifying logistics needs.



## The NYK Group's Integrated Transport Services: Providing a Foundation for the Automotive Supply Chain



The History of the NYK Group's Efforts in Car Transport

- 1960s**
  - Entering the car transport business
- 1990s**
  - Making a full-fledged entry into trilateral transport\*



Automobile loading / unloading in Thailand  
 \* Trilateral transport is transport taking multi-lateral trade routes other than shipping routes departing from or arriving in Japan.

- 2000s**
  - Breaking into the automotive logistics business, including RORO terminal operations, inland transportation, and PDI
  - Building environmentally friendly vessels



## The NYK Group's Approach

# Sharpening the Group's Competitive Edge through Technological Innovation and Personnel Capabilities

- Case study** Cultivating high-quality transport skills
- Making Loading and Unloading as Safe as Possible**

Over its 45-year history, the Group's car transport organization has made quality control its top priority. That means keeping the automobiles free of even the slightest damage. As the loading and unloading processes involve actually driving the cars onto and off the car carrier, personnel need to do everything—from driving to opening and closing the doors—with the utmost care. To ensure optimal safety, then, cargo-handling companies, on-site managers, and all the other relevant parties have to work together.

The Group's safe cargo work promotion committees\*, in place at companies both in Japan and abroad, help meet that need by improving overall awareness of safety-related issues. In fiscal 2016, cargo-handling operations in Japan posted an annual accident rate of just 0.65 PPM\*2 on NYK-chartered vessels.

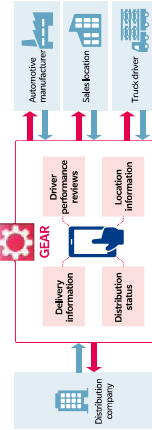
In hopes of taking transport quality and efficiency to even higher levels, the Group will leverage its extensive experience, expertise, and big data to ensure consistent safety performance from the factory to the sales floor.

\*1 Safe cargo work promotion committees are made up of members from group companies in and outside Japan, including companies that supervise operations in each region of the world. The committees promote safe work procedures, share information on best practices and accidents, and organize problem-solving workshops, among other activities.  
 \*2 PPM means Parts Per Million. 0.65 PPM thus equates to one accident per 1.55 million vehicles.

- Case study** Reaching solutions through mobile apps
- Using the IoT to Provide Innovative Solutions**

NYK, MIT Co. Ltd., and NYK Business Systems Co. Ltd., along with Weathernews Inc. and Kozo Keikaku Engineering Inc., established a joint venture—Symphony Creative Solutions Pte. Ltd.—in Singapore. One of the product-development goals for the new company, which aims to develop and market next-generation solutions in the shipping and logistics field, is to create additional value that complements offerings for streamlining existing business.

"GEAR," a mobile app for truck drivers hauling automobiles on inland transportation routes, lets drivers and operators share information quickly—a process that has posed significant challenges in the past. With that functionality, the app not only boosts operational efficiency but also enhances customer-service capabilities. GEAR also makes it easier to share information on driver locations, malfunctions, accidents, and other conditions, thereby making driver performance reviews fairer and boosting motivation.



- Case study** Developing human resources for the future
- Using Local Personnel with a Mastery of Japanese Quality to Drive Human Resources Development around the World**

In addition to accumulating abundant expertise and high-quality operational skills in finished-car terminals, inland transportation, and storage management, the Group has spent years nurturing an improvement-oriented mindset in its local personnel. Operating around the world, the Group's local personnel draw on a common background in Japanese quality to thrive in their respective positions.

In Asia, for example, the Group is implementing personnel exchanges to enrich know-how transfers and energize organizations. The Group pursued several exchange initiatives in 2017, organizing a management-level exchange program between NAII (a local company in India) and the Group's representative office in South Africa as well as a dispatch program that sends NAII operation managers to the Group's joint-venture company in Kenya.

As its business scope crosses more and more borders, the Group will continue to develop human resources capable of spearheading new undertakings across the globe.





**Yoshihiro Katayama**  
Independent Outside Director (part-time)  
Professor, Graduate School of Public Management, Waseda University

**Yukio Okamoto**  
Independent Outside Director (part-time)  
President of Okamoto Associates, Inc.  
Outside Director of Mitsubishi Materials Corporation  
Outside Director of NTT Data Corporation

## A Discussion Between Outside Directors

### Aiming for a new stage of growth through continuous independent reforms while recognizing shifting trends around the world

NYK invites people with expertise and success in a wide range of fields to serve as outside directors and outside auditors, and apply their respective specialties toward supervising management from a more objective standpoint. In this section, we asked two outside directors to discuss various issues and assess the Company's businesses and management.

#### **Q We would like to hear your frank opinions and impressions of the NYK Group.**

**Katayama** As an outside director, I always try to be aware of the perspectives of general shareholders and institutional investors. When taking the standpoint of an outsider, I can readily talk about the basic questions and opinions they may have, or whether an explanation from the Company is sufficient, or if information it provides is difficult to understand.

This is my second year since I was appointed as an outside director, but I have discovered many new things so

far. I am still impressed by the complexity of the shipping industry. Transporting goods by ship is a business that requires many things to be taken into account, of course, including customers' needs, the actions of other companies in the industry, market shifts, and fluctuating fuel costs, but for the NYK Group, there is still more involved. For example, world affairs in North America, Europe, Asia, and the Middle East need to be monitored. The Group must also pay attention to economic trends, like places where manufacturers are setting up factories. There are vast amounts of things that need to be watched, including political and diplomatic trends. To smoothly run this business, all kinds of information must be gathered in order to make accurate decisions. That takes a lot of work, so this job is very challenging.

**Okamoto** As you said, the maritime shipping industry is complicated.

We cannot create demand ourselves—it depends on orders from customers—so we have to consider how we can offer optimized and cost-competitive logistics services.

Ultimately, shipments of goods reflect major structural changes in society. The shipping industry is like a thermometer that reacts to subtle trends in the global economy. For that reason, we have to keep a close eye on events that are happening around the world.

#### **Q What kind of issues do you think management should be focusing on when planning the future of the NYK Group?**

**Okamoto** First of all, we need to grasp changes in world affairs. The changes happening today are approaching the scale of the upheavals that followed the end of the Berlin Wall in 1989, including the reunification of East and West Germany and the collapse of the former Soviet Union.

One particular trend is the market growth driven by the ascendance of emerging economies, including China and countries in Southeast Asia. In the past, member countries of the Organisation for Economic Co-operation and Development (OECD), with their combined population of a billion people, comprised an important market in the world, but emerging countries currently account for about half of the world's gross domestic product. With globalization, the flow of people, goods, capital, and information is becoming increasingly borderless, and the world is now a single community.

While there is opposition to this trend and resistance movements have arisen, product distribution channels and logistics are undergoing big changes. Therefore, instead of settling on a single mold, the NYK Group will have to keep transforming itself.

**Katayama** I would have to say that opposition to globalization has gained ground, demonstrated by the push to restrict free trade. If you look back on history, however, the opening up and liberalization of markets has benefited the world.

The continuation and development of free trade is tied to world peace and helps make people's lives more affluent. Free trade also has a positive effect on the NYK Group's businesses. But resistance to free trade is a problem related to diverse factors in international affairs and diplomacy, so the NYK Group cannot deal with it through the Group's own efforts. Nevertheless, I think it will be important to act in ways that have a direct or indirect effect while staying aware of the social significance of this issue.

**Okamoto** In addition, it will be important to follow changes in the structure of the global economy. The world population is currently growing by about one billion every 12 years, an alarming rate. If you look back on ancient history, it took five or six thousand years for the human population to reach one billion, but now a billion people are being added every dozen years. This is truly astounding.

Assuming that countries undergoing this population growth will expand their economies, all kinds of goods will have to be transported, like resources, fuel, vehicles,

electronic goods, industrial machinery, and food. This will drive up new shipping demand in terms of total volume, even if consumers change. Consequently, the flow of goods will have to be precisely kept in check, and for the NYK Group, it will be important to open up promising new markets and expand the Group's network of logistics centers and ports.

Personally, I think the NYK Group should conduct some research on various regions of the world. A region that I would particularly like to focus on in the future is Africa. Among emerging countries, those in Africa have populations that continue to grow at explosive rates. Africa's population will soon surpass two billion, and eventually about one-third of the world's people will be African. As a result, Europe is paying a lot of attention to Africa.



I would also like to mention the energy structure. In the U.S., the newly established Trump administration intends to aggressively develop coal, shale gas, and shale oil. Therefore, the importance of fossil fuels will not change significantly in the near future in my view.

**Katayama** If we consider the environment, liquefied natural gas (LNG) offers tremendous advantages, so I think the attention being paid to it is very good. The NYK Group has been transporting LNG for more than 30 years, and is now focusing on ships that use LNG as fuel, and bunkering operations for supplying LNG fuel. In Japan, the Group can also take credit for conducting research with the government and other organizations on the port of Yokohama, which is being studied as a model for the supply of LNG fuel. For LNG to be widely adopted as a fuel for ships, many difficult issues must be addressed, such as making structural upgrades to vessels, ensuring safety, and enforcing regulations.

Nonetheless, I hope the Group will continue to actively take on these challenges going forward.

Mr. Okamoto mentioned the need to open up new markets earlier on, but I would like to add that in existing businesses, adding more value will be an essential task for NYK Group in the future. With the spread of information and computers, we are now in an era in which the same products can be produced anywhere. That could reduce shipping demand in some cases, but, on the other hand, adding value will be relevant for products too, since it is very difficult to do

that. Food products are one such example.

One illustrative case I am familiar with is a cold storage technique developed by a research institute in Tottori prefecture. According to the technique, food is stored in a cold temperature range as close to the freezing point as possible, which, unlike frozen storage, prevents the destruction of cell membranes. As a result, the food does not lose its fresh taste. The technique makes it possible to transport squid caught in the Sea of Japan in a hibernation-like state without water. Yet, when the squid arrive at the Tsukiji fish market in Tokyo the next day and are put in water tanks, they swim around as normal. The NYK Group is focusing on shipping with controlled atmosphere containers, which can maintain the freshness of fruits and vegetables for long periods. And this initiative has attracted attention from the National Federation of Agricultural Cooperative Associations and other organizations.

To transport such products, in addition to technological innovations, it is important to combine information and advanced technologies, such as the Internet of Things (IoT), and apply them in new businesses. Besides information about vessels and oceans, the NYK Group constantly stays updated about all kinds of news, like politics, economics, and the weather, and makes this vast amount of data accessible to its employees. Because the Group handles a huge amount of information, it should be able to create unconventional and unique businesses if the information is effectively utilized.

**Q** **Managing operational risks and enhancing corporate governance groupwide are regarded as necessary for taking advantage of business opportunities. How do you evaluate the NYK Group's corporate governance, and what issues do you think should be addressed in the future?**

**Katayama** No matter how big a company is, and regardless of its history and track record, over a very short time, it can lose the trust of the public and see its brand collapse if a problem associated with corporate governance occurs. Nowadays, not only executive officers but also every employee must be highly aware of the importance of governance and pay very close attention to its practice.

Governance is associated with reporting and supervision of individual operational procedures. That will lead to sounder management, of course, but in my experience, the most crucial component is that each individual maintains an awareness of accountability while carrying out his or her duties.

Aside from cases in which big decisions are made, it is necessary to carry out everyday duties while keeping in mind whether one can explain them to others with confidence later on. Furthermore, information must be shared in an organization in order to confirm whether its members have grown complacent or have failed to pay attention to legal



requirements and rules.

**Okamoto** In my view, it is very important to ensure strict legal compliance through governance-related activities. In the case of NYK, the Executive Committee Overseeing Thorough Antitrust and Anti-bribery Law Compliance has been held twice a year since 2013, and all members of management from section chiefs right up to the president participate. I also participate in this committee.

Corporate enterprises that, like the NYK Group, conduct business and transactions internationally are required to observe laws and rules around the world. Since law is changing, it is necessary to keep track of legal trends in relevant countries and properly deal with them. In addition, some commercial practices in the world today are not technically illegal, but they fall within a grey zone, so we need to pay attention to them too.

I believe the NYK Group is doing a good job of carrying out these very difficult tasks, and its level of compliance appears to be solid.

**Q** **The efficacy of a company's Board of Directors is gaining an increasing amount of attention in discussions on corporate governance in Japan. NYK has analyzed and discussed this based on the results of a questionnaire, but how do you evaluate the Company's Board of Directors at this time?**

**Okamoto** In meetings of the Board of Directors, deliberations are dynamic and a sufficient amount of time is given for debate. If I could make one remark, there is a tendency for discussions to arise from questions and opinions raised by outside directors. From the standpoint of the internal directors, there is no need for board meetings to be interrupted with differing opinions because the agenda has already been approved by the Committee of Corporate Officers. I can understand that way of thinking, but I do feel that it would be better if the internal directors offered a wider range of viewpoints.

**Katayama** I agree. The meetings of the Board of Directors enable members who oversee organizations and

management to meet, so the internal directors should more actively give their views on the concerns of other departments. Many of the internal directors have probably gained experience in several different departments over the course of their careers. People who are positioned at a certain distance even within the same company can calmly observe the bigger picture from a bystander's vantage point. So it might be better if internal directors like that would discuss their ideas more actively.

I am interested in how workplaces and various departments in a company view and react to matters discussed and plans decided by its Board of Directors. In the case of NYK, many employees are working on vessels and at frontline (gemba), and the Group has many subsidiaries, including those outside Japan. Are the management goals of the Board of Directors reaching workplaces and group companies that are located far from the head office? If the Board of Directors more actively incorporates and reflects the views of those workplaces in its discussions, its efficacy will increase.

**Q** **As a final question, what is your impression of NYK's human resources, and what expectations do you have for them?**

**Katayama** Everyone is very conscious of the need for high ethical standards, and company morale is high.

**Okamoto** I feel the same way. For example, even though there is such a pessimistic outlook for the operating environment, everyone is optimistic and enthusiastic. They are readily working with a frontier spirit and appear to have no anxiety about the times ahead, taking the view that

business is an expansive field, like the ocean. During Japan's Meiji period (1868 to 1912), people aspired to have the country join the international community, and that spirit can still be found in this corporate culture today.

The skills and knowledge of all employees are excellent, of course, and everyone appears to think independently, which is impressive. The young employees, in particular, are ambitious, very willing to try anything, and driven by a spirit of challenge. In in-house workshops, which I am occasionally invited to join, the discussions are lively and participants share creative ideas. At NYK, employees either work in seafarers or office workers, but they express a strong desire to learn about things outside of their own work.

If I could offer one bit of advice to employees, it would be to consider working in a rougher manner without being so gentlemanly.

**Katayama** I have not yet had the same opportunities as Mr. Okamoto to meet with young employees, but based on my experience in organizational management and administration, in order to make an organization more dynamic, it is important to encourage frank discussions among its members and draw on the skills and energy of each individual.

I hope that supervisors and managers are seriously listening to the views of young people, and that even more progress will be made in fostering a corporate culture that makes the most of their ambitions and abilities.

**Okamoto** Young people are extremely valuable for NYK, so it would be splendid if systems are in place for more actively soliciting their opinions and ideas, and reflecting them in the Group's vision of the future and other plans.

### A Message from Newly Appointed Outside Director Hiroko Kuniya

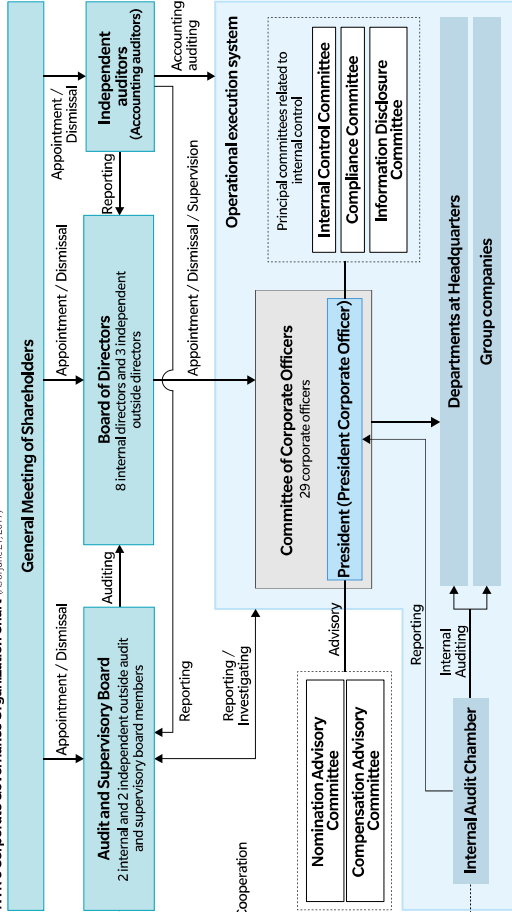
For almost three decades, I have covered a wide range of social, economic, and international issues as a television journalist. Due to problems like global warming, resource depletion, poverty, and widening income disparities, there is growing concern all around the world that the global systems that maintain the very existence of humanity are increasingly at risk of collapsing. In response to this growing concern, all member countries of the United Nations adopted the Sustainable Development Goals in 2015. Improving the sustainability of the global environment is an urgent matter. There are growing expectations for leading corporations to play an active role in addressing the issues, and pressure is being stepped up on companies to ensure that their business activities contribute towards solving the social issues.

I have been newly appointed as an outside director at NYK. NYK aims to develop environmental technologies that will eliminate CO<sub>2</sub> emissions from ships and has been actively promoting diversity and helping to decrease poverty and income disparities in developing countries by training seafarers. I will do my best to cast diverse viewpoints in the board room so that NYK can contribute to the sustainability of the global environment while driving growth and creating new value through its global business activities.





NYK's Corporate Governance Organization Chart (as of June 21, 2017)



Corporate Governance Guidelines: [https://www.nyk.com/english/csr/gvn/guideline/pdf/gvn\\_report\\_01.pdf](https://www.nyk.com/english/csr/gvn/guideline/pdf/gvn_report_01.pdf)

## Initiatives to Strengthen Corporate Governance

Year	Initiative
2002	Introduced Committees of Corporate Officers to strengthen operational execution system
2006	Established advisory board to heighten transparency of business management
2008	Abolished advisory board, appointed two outside directors Shortened term of service of directors from two years to one year to clarify management responsibility of directors and build system that expedites responses to changes in business conditions
2010	Filed notification of independent directors and auditors as stipulated by stock exchanges in Japan for all four outside directors and outside audit and supervisory board members
2015	Prepared and maintained guidelines, etc. related to corporate governance (Corporate Governance Guidelines: Our Views on Size, Balance and Diversity of the Board of Directors; Policies and Procedures for the Appointment and Nomination of Directors; Audit and Supervisory Board Members and Corporate Officers; Independence Criteria for Recommendation of Candidates for Outside Directors and Outside Audit and Supervisory Board Members; Policies and Procedures for Determining Compensation for Directors, Audit and Supervisory Board Members and Corporate Officers)
2016	Conducted a non-anonymous self-evaluation survey on all directors including outside directors, and on all audit and supervisory board members including outside members, regarding the effectiveness of the meetings of the Board of Directors, revised (including organization, etc. of matters to be reported) standards for submitting proposals, and implemented concrete measures, such as delegation of authority to Committee of Corporate Officers Introduced a performance-based stock remuneration plan for directors and corporate officers of the Company (excluding outside directors and some corporate officers of the Company) Established the Nomination Advisory Committee and the Compensation Advisory Committee

2017	<ul style="list-style-type: none"><li>Established the position of Chief outside director (Yuko Okamoto)</li><li>Conduct a non-anonymous self-evaluation survey on all directors and audit and supervisory board members regarding the effectiveness of the meetings of the Board of Directors, organize, etc., matters to be reported, and implement measures to further stimulate discussions</li></ul>			
NYK is a company with a Board of Directors and an Audit and Supervisory Board. The Board of Directors comprises 11 directors, including three highly independent outside directors, while the Audit and Supervisory Board comprises four audit and supervisory board members, including two highly independent outside audit and supervisory board members.				
The Board of Directors decides on legal matters, establishes important management policies and strategies, and oversees the execution of operations. In addition, the Committee of Corporate Officers comprises 29 members including directors but excluding outside directors. These members execute operations based on the resolutions and supervision of the Board of Directors, within the scope of authority delegated to them by the Board of Directors.				
Through that system, we endeavor to ensure prompt, appropriate decision-making, and increase business management transparency and efficiency.				
<b>Changes in the Number of Directors and Audit and Supervisory Board Members</b>				
		2015	2016	2017
Directors	Internal	11	9	8
	Outside	2	3	3
Audit and Supervisory Board Members	Internal	2	2	2
	Outside	2	2	2

In order to facilitate prompt decision-making at all times at meetings of the Board of Directors while ensuring the quality of such decision-making through active and substantive discussion, the Company believes that the appropriate size for the Board of Directors to be efficient is around 12 members, of which around three should be outside directors who meet the Independence Criteria. The Board of Directors shall comprise a sufficient number of internal directors who are well-versed with the Group's globally operated businesses with shipping and logistics businesses at its core, as well as a certain number of independent outside directors with high expertise that can contribute to corporate management and further enhance the supervisory function of the Board of Directors.

## Nomination Advisory Committee and Compensation Advisory Committee

In October 2016, the Nomination Advisory Committee and the Compensation Advisory Committee were established to enhance further the Company's corporate governance and ensure the transparency of the Board of Directors function. Both committees comprise the chairman, the president, and three independent outside directors.

The main purposes of the committees are as follows.

(Nomination Advisory Committee)

- Matters related to the appointment and dismissal of directors and corporate officers, etc.
- Matters related to independence criteria for independent outside directors and independent outside audit and supervisory board members

(Compensation Advisory Committee)

- Matters related to the policies and procedures for remuneration of directors and corporate officers
- Matters related to the content of compensation for directors and corporate officers

## Remuneration for Directors, Audit and Supervisory Board Members, and Corporate Officers

In November 2015, the Company established "Policies and Procedures for Determining Compensation for Directors, Audit and Supervisory Board Members and Corporate Officers," and disclosed them in the "Business Report" and the "Report on Corporate Governance," etc. In June 2016, the Company introduced a

performance-based stock remuneration plan for its directors, etc. This highly transparent and objective directors' remuneration plan is intended to encourage directors, etc., to contribute to the Company's sustainable growth and to have directors, etc., share benefits and losses with shareholders. In addition, a portion of the basic remuneration that had been paid in cash was reduced, and if the performance targets are achieved, basic remuneration and stock remuneration are paid to the president and the chairman in a ratio of about 5:5, and a ratio of about 6:4 in the case of executive directors. The plan is modeled after performance share and restricted stock systems in the U.S., and is an incentive plan for directors and corporate officers. Shares of the Company acquired by a trust established by the Company are granted to directors, etc., according to the degree of achievement of performance targets, etc.

## Evaluation of the Effectiveness of the Meetings of the Board of Directors

Since fiscal 2015, in order to further enhance the effectiveness of the meetings of the Board of Directors, the Company has conducted a non-anonymous self-evaluation survey on all directors and all audit and supervisory board members regarding the effectiveness of the meetings of the Board of Directors for the previous fiscal year. The aim is to strengthen governance further by discussing the proper orientation and problems of the Board of Directors.

Based on the results of the previous fiscal year's survey, in fiscal 2016 we implemented concrete measures, such as organizing the matters to be reported, reviewing the standards for submitting proposals, and delegating authority to the Committee of Corporate Officers, in order to appropriately secure time for discussions at the meetings of the Board of Directors. In addition, we established the voluntary Nomination Advisory Committee and Compensation Advisory Committee as advisory committees of the president for the purpose of further enhancing the governance function of the Board of Directors. Furthermore, we strove to enhance the effectiveness of the meetings of the Board of Directors through initiatives such as holding meetings to provide outside directors and outside audit and supervisory board members with opportunities for preliminary explanations regarding important matters and a forum for providing information and exchanging opinions among directors and audit and supervisory board members, including outside directors and outside audit and supervisory board members.

The survey on fiscal 2016 indicated that the above measures, etc. have resulted in a general improvement of effectiveness. On the other hand, the survey also identified issues to address in the future,

### Total Amount of Directors' Remuneration

Category	Number of persons remunerated	Fixed remuneration (Millions of yen)		Performance-based remuneration (Millions of yen)		Total (yearly) amount (Millions of yen)
		Basic remuneration amount	Bonus	Stock remuneration	Bonus	
Directors (outside directors)	15 [3]	521 [52]	—	134 [—]	—	656 [52]
Audit and Supervisory Board Members (outside audit and supervisory board members)	5 [3]	105 [27]	—	—	—	105 [27]
Total (outside directors and outside audit and supervisory board members)	20 [6]	627 [79]	—	134 [—]	—	762 [79]

- The amount of remuneration paid to three directors who retired during fiscal 2016.
- The amount of remuneration paid to audit and supervisory board members includes the amount paid to one audit and supervisory board member who retired during fiscal 2016.
- For the performance-based remuneration, the Company has no payment to the president and the chairman.
- The stock remuneration amount is the provision for stock payment during this fiscal year based on the performance-based stock remuneration plan introduced by resolution at the General Meeting of Shareholders of the previous fiscal year.



including the need for further explanation concerning the process of assessment and consideration of risks related to important matters to be decided. Accordingly, it was confirmed that efforts to enhance the supervisory function of the Board of Directors would continue, in order make meetings of the Board of Directors a forum for making decisions after further thorough discussion.

Training for Directors, Audit and Supervisory Board Members, and Corporate Officers

Upon the assumption of office by directors and audit and supervisory board members, including outside directors and outside audit and supervisory board members, the Company provides them with an opportunity for acquiring the necessary knowledge about the business, finance, organization, and other matters of the Company, and to properly understand the roles and responsibilities required for directors and audit and supervisory board members, including legal obligations.

In addition to the usual training for officers, in fiscal 2016 we began providing internal directors and outside directors, internal and outside members of the audit and supervisory board, and corporate officers with opportunities to take in-house training and outside courses on the Companies Act, internal control, compliance, crisis management, business analysis, financial strategy, and other matters. This is aimed at enabling them to deepen their knowledge needed for continuous improvement of corporate value, as well as their understanding of the latest trends. The Board of Directors reviews the progress of implementation of these measures.

Policy for Holding Strategic Shareholdings

The Board of Directors is given reports on the results of verification of the purpose and significance of strategic shareholding, in accordance with the Corporate Governance Guidelines. We have been engaged in verifying the purpose and significance of strategic shareholding since fiscal 2008. As of this time, the Company has sold more than 40% (acquisition price ratio) of the shares held for strategic purposes compared to fiscal 2008. Current strategic shareholding consists of the stock of important customers related to long-term contracts etc., which contribute to the stability of the Company's performance, and has been judged to be appropriate as a measure to maintain and strengthen relationships with those customers etc.

In addition, when exercising voting rights for strategic shareholdings, the Company decides to vote for or against proposals after confirming whether it will result in damage to the value of the relevant company, as well as whether it will contribute to improvement of the Company's corporate value, and the degree of such contribution.

Dialogue with Shareholders and Investors

In fiscal 2015, at the same time as establishing the Corporate Governance Guidelines, we stated clearly our Policy for Promoting Constructive Dialogue with Shareholders and Investors. The senior management team receives regular, timely reports on valuable opinions obtained from shareholders and investors and uses these opinions to improve our business management.

For reference, the main cases of dialogue (Q&A) for fiscal 2016 are given below.

Liner Trade

Q What degree of monetary synergistic effect do you anticipate from integration of the container shipping business?

A We anticipate that the synergistic effect of the integrated company will be approximately ¥110 billion per year.

We believe that if we are able to utilize this synergistic effect fully, we will be able to remain profitable even in a sluggish market such as that of fiscal 2016, when almost all container shipping companies around the world were in the red.

Bulk Shipping

Q Do you plan to implement further structural reform, such as early termination of contracts for a certain substantial number of chartered vessels in the Dry Bulk Division?

A Early termination all at once that also entails cashing out in the midst of an extremely sluggish market would result in significant early-termination fees, so we do not believe it to be a good idea.

Our policy is to consider it on a vessel-by-vessel basis, taking into account the market conditions, contract conditions, our relationship with the shipowner, the characteristics of the chartered vessel, and other factors.

Main Activities for Investor Relations

Activity	Details
For institutional investors	<ul style="list-style-type: none"><li>• Financial results briefings</li><li>• Individual interviews</li><li>• Individual visits to overseas investors in the U.S., Europe, and Asia, etc.</li><li>• Business briefings</li></ul>
For individual investors	<ul style="list-style-type: none"><li>• Participation in briefings for individual investors</li><li>• NYK plus booklet for shareholders*</li></ul>
Releases on corporate website	<ul style="list-style-type: none"><li>• Notices of Ordinary General Meetings of Shareholders</li><li>• Annual Securities Reports and Quarterly Securities Reports*</li><li>• Integrated reports (NYK Reports)</li><li>• Summaries of financial results</li><li>• Materials from financial results briefings</li><li>• Summaries of questions and answers at financial results briefings</li><li>• Videos of financial results briefings</li><li>• Timely disclosure of materials</li></ul>
Other	<ul style="list-style-type: none"><li>• Feedback on markets' expectations and evaluations of the NYK Group (seminars conducted by securities analysts)</li></ul>

\*Published only in Japanese

Auditing System

Fifty percent or more of the members of the Audit and Supervisory Board is comprised of independent outside audit and supervisory board members, who are selected from among persons who have a high level of expertise conducive to audits. The Company endeavors to appoint one or more audit and supervisory board members who have appropriate knowledge on finance and accounting.

The Audit and Supervisory Board enhances the effectiveness of audits by improving the information-gathering ability of full-time audit and supervisory board members, integrating the independence of outside audit and supervisory board members, and sharing necessary information with independent outside directors.

All four audit and supervisory board members, including the two outside audit and supervisory board members, have the authority to audit the execution of duties by directors, elect or dismiss independent auditors (accounting auditors), and conduct matters related to independent auditor remuneration. Audit and supervisory board members undertake auditing activities in accordance with audit plans determined by the Audit and Supervisory Board. These activities include attending meetings of the Board of Directors and other important meetings, interviewing directors and members of the Committee of Corporate Officers, etc. regarding their execution of duties, and examining important approval documents, etc. Audit and supervisory board members monitor the independence, structure, quality, etc. of the independent auditor while maintaining an organic relationship, complementing audit-related activities through mutual information exchange, and working to raise audit quality and efficiency. Audit and supervisory board members also hold monthly meetings where the results of audits and other information are shared. They also meet with the Internal Audit Chamber on a regular basis and convene meetings with the independent auditor, thereby strengthening communication between all three audit-related groups. The Audit and Supervisory Board Office, consisting of three full-time staff members, supports audit and supervisory board members in the execution of their auditing duties.

The Internal Audit Chamber conducts internal audits of the Company and domestic group companies, all in accordance with internal auditing rules approved by the Board of Directors. Internal audits of overseas group companies are performed by internal auditors assigned to the group regional headquarters who act under the direction and guidance of the Internal Audit Chamber.

Internal Audits Conducted in fiscal 2016

Japan: 32 companies  
Overseas: 68 companies

Accounting Audits by Independent Auditor

The certified public accountants who audit the Company's consolidated and non-consolidated financial statements are Toshiyuki Ono, Yuji Takei, and Tomoya Noda, all of whom are with the accounting firm Deloitte Touche Tohmatsu LLC and have been auditing the Company's accounts for less than seven consecutive years. These accountants are assisted by 19 certified public accountants and 26 others. Audits are undertaken in accordance with standards generally accepted as fair and appropriate.

Independent Auditor Remuneration

Classification	Fiscal 2015	Fiscal 2016
	Remuneration paid for audit certification activities (Millions of yen)	Remuneration paid for audit certification activities (Millions of yen)
	Remuneration paid for non-audit activities (Millions of yen)	Remuneration paid for non-audit activities (Millions of yen)
The Company	145	4
Consolidated Subsidiaries	144	0
Total	289	4
	145	9
	141	0
	286	9

Internal Control System

The Internal Control Committee, chaired by the president, was established to strengthen compliance for internal control under Japan's Companies Act, the Financial Instruments and Exchange Act, and other laws. Internal control is a means of achieving four corporate goals: reliable financial reporting, compliance with statutory laws and regulations, effective and efficient operations, and the safeguarding of assets. Based on this viewpoint, the Internal Control Committee periodically checks the status of internal control and reflects findings in improvements.

Further, the Board of Directors re-approved a resolution on basic policy for the provision of an internal control system in compliance with Japan's Companies Act. The NYK Group will continue to strengthen the system and develop internal regulations in order to prevent illegal acts and corruption and ensure that operation of the organization is effective and efficient.

### A Message from the Chief Compliance Officer

## Thorough Diffusion of the Revised Code of Conduct and Strengthening of Cooperation with Overseas Legal Affairs Sites

Director, Managing Corporate Officer, and Chief Compliance Officer  
Yoshiyuki Yoshida

**Q** NYK's Code of Conduct was significantly revised for the first time in 17 years. What were the main changes, and what was the aim of the revision?

In recent years, as the globalization and increased sophistication of business continue, companies now must conduct business while adhering to the laws, regulations, and societal norms of diverse countries and regions. The Company established a Code of Conduct based on the management philosophy in 1999, but in light of such changes in societal circumstances and the trends of the era, we made significant revisions to the Code of Conduct for the first time in 17 years.

The revisions of the Code of Conduct include creating separate clauses on compliance with antitrust laws and antimonopoly laws as well as clauses related to the prohibition of bribery, enhancing the contents of the section on respect for human rights, and clearly indicating what officers and staff members\* should aim for and what they should not do when conducting corporate activities. We also distributed a guidebook to all officers and staff members, providing supplementary information on the background and intent of the Code of Conduct, and conducted 66 briefings on the matter, aimed at thoroughly spreading the information.

In addition, we decided to get a written pledge from all officers and staff members to comply with the Code of Conduct, and will do so on a yearly basis beginning in fiscal 2017. The act of pledging will encourage each officer and staff member to reaffirm the proper aims of the Company and what should be adhered to in corporate activities, get back to the basics, and review their daily actions and workplace environment. We believe that this will result in establishment of an environment in which individuals can protect themselves, protect the Company, and work with assurance.

\* Staff members include secondees from other companies and temporary staff, in addition to employees.

**Q** This is the third year since legal offices were established in three overseas regions. What are your expectations for them going forward?

In order to establish a structure for comprehensively grasping the laws of each country, we are deepening cooperation between the Legal & Fair Trade Promotion Group at NYK headquarters and the legal offices opened in three overseas regions in 2015. At the semiannual Global Legal Meeting, attendees share information on the management policies and legal trends, etc. of each region, and confirm future orientation.

Further, in light of the importance not only of antitrust laws but the prohibition of bribery as well, we have established a structure for consultation with legal departments when launching new business, and are using it to help with risk management.

Under policies designated by the NYK headquarters, individual legal offices conduct compliance training at group companies in the relevant region, with content suited to the characteristics of that region.

We will continue to strengthen cooperation between legal departments in Japan and overseas, and thoroughly implement risk management, in order to promote the Group's business activities smoothly.

#### Main Measures Aimed at Strengthening Compliance

1997	• Established NYK Business Credo
1999	• Established NYK Code of Conduct
2002	• Established position of Chief Compliance Officer
2005	• Established NYK Group Mission Statement
2006	• Established Internal Control Committee
2008	• Established Antitrust Law Task Force
2013	• Established Executive Committee Overseeing Thorough Antitrust Law Compliance
2016	• Introduced measures to prevent bribery of overseas public officials when establishing new business • Revised the NYK Code of Conduct
2017	• Implemented a written pledge of adherence to the NYK Code of Conduct

### The NYK Group's Overseas Legal Offices

#### Enhancement of global cooperation between legal departments

#### Europe

London is home to Europe, one of the core areas in the maritime industry. The office there handles the review of many transportation contracts and the processing of cargo claims, and is also engaged in legal matters related to energy, which has many complex forms of contracts. In addition, the office interacts daily with the many insurance companies and maritime law offices in London. Training and compliance activities are being conducted not only in EU countries, but in Russia as well.



Legal team of the Group regional headquarters in Europe

#### Asia

##### Singapore

The office in Singapore, home to the Company's Liner Trade Headquarters, handles the processing of a broad range of cargo claims, as well as legal affairs work for such things as consortiums and slot charters\*. It has jurisdiction over Southeast Asia and South Asia, and provides legal support to the group companies in each country.



Legal team of the Group regional headquarters in Asia (Singapore)

##### Shanghai/Hong Kong

In China, where economic growth continues, the office provides a variety of legal work not only related to maritime matters to support the growth of the Group's business, but also related to logistics, etc. The office also conducts periodic training at the many offices in China's expansive area. The office is also responsible for South Korea and Taiwan.



Legal team of the Group regional headquarters in Asia (Shanghai/Hong Kong)

\* A slot charter is a charter party that leases a set amount of space in its container ships to another container shipping company.





(As of June 21, 2017; Number of shares held as of April 30, 2017)

**Yasumi Kudo**

**Chairman, Chairman Corporate Officer**  
Number of shares held: 163,168  
1975 Joined the Company  
1980 General Manager of Semi-Liner Group  
2005 General Manager of Semi-Liner Group  
2004 Managing Director and Corporate Officer  
2006 Representative Director,  
Senior Managing Corporate Officer  
2008 Representative Director,  
Executive Vice-President, Corporate Officer  
2009 Representative Director, Corporate Officer  
2015 Chairman, Chairman Corporate Officer

**Naoya Tazawa**

**Representative Director,  
Executive Vice-President, Corporate Officer**  
**Chief Executive of Technical Headquarters  
(ECET)**  
**Executive Chief of Environmental Management  
(ECEM)**  
**Chairman of Technology Strategy Committee**  
Number of shares held: 134,573  
1978 Joined the Company  
1980 General Manager of Human Resources Group  
2005 General Manager of Technology Strategy Committee  
2007 Managing Corporate Officer  
2009 Director, Managing Corporate Officer  
2010 Representative Director,  
Senior Managing Corporate Officer  
2015 Representative Director,  
Executive Vice-President,  
Corporate Officer

**Koichi Chikaraishi**

**Representative Director,  
Senior Managing Corporate Officer**  
**Chief Executive of Automotive Transportation  
Headquarters**  
Number of shares held: 91,694  
1980 Joined the Company  
2003 General Manager of Petroleum Product and LPG Group  
2009 Corporate Officer  
2012 Director, Managing Corporate Officer  
2013 Representative Director,  
Senior Managing Corporate Officer

**Yoshiyuki Yoshida**

**Director, Managing Corporate Officer**  
**Chief Compliance Officer**  
**Chief Executive of General Affairs Headquarters**  
Number of shares held: 80,398  
1981 Joined the Company  
2005 General Manager of Tramp Coordination Group  
2011 Corporate Officer  
2015 Director, Managing Corporate Officer

**Tadaaki Naito**

**President, President Corporate Officer**  
Number of shares held: 127,130  
1978 Joined the Company  
1980 General Manager of Petroleum Group  
2005 General Manager of Petroleum Group  
2007 Managing Corporate Officer  
2008 Director, Managing Corporate Officer  
2009 Representative Director,  
Senior Managing Corporate Officer  
2013 Representative Vice-President, Corporate Officer  
2015 President, President Corporate Officer

**Hiroshi Nagasawa**

**Representative Director,  
Senior Managing Corporate Officer**  
**Chairman of Tramp Shipping Strategy Committee**  
Number of shares held: 111,474  
1980 Joined the Company  
1982 General Manager of LNG Group  
2007 Managing Corporate Officer  
2009 Managing Corporate Officer  
2011 Director, Managing Corporate Officer  
2013 Representative Director,  
Senior Managing Corporate Officer

**Hidetoshi Maruyama**

**Director, Senior Managing Corporate Officer**  
**Chairman of IT Strategy Committee**  
**Chief Executive of Information Technology  
Headquarters**  
**Chief Executive of Global Logistics  
Services Headquarters**  
Number of shares held: 56,448  
1981 Joined the Company  
2008 Corporate Officer,  
Senior Managing Corporate Officer  
2013 Director, Managing Corporate Officer  
2016 Director, Senior Managing Corporate Officer

**Eiichi Takahashi**

**Director, Managing Corporate Officer**  
**Chief Financial Officer**  
**Chief Executive of Management  
Planning Headquarters**  
Number of shares held: 47,732  
1982 Joined the Company  
2010 General Manager of Accounting Group  
2012 Corporate Officer  
2016 Director, Managing Corporate Officer

**Managing Corporate  
Officers**

Hitoshi Oshika  
Kazuo Ogasawara  
Hiroyuki Okamoto  
Tomoyuki Koyama  
Akira Kono

**Corporate Officers**

Takuji Nakai  
Svein Steinmler  
Jeremy Nixon  
Hiroki Harada  
Noriko Miyamoto  
Takaya Soga  
Yutaka Higurashi

**Audit and Supervisory  
Board Members**

Yoko Wasaki  
Hiroshi Hiramatsu

**Outside Directors and Outside Audit and Supervisory Board Members**

(As of June 21, 2017; Number of shares held as of April 30, 2017)

**Yukio Okamoto**

**Independent Outside Director**  
Number of shares held: 103,147  
Attendance at Board of Directors' meetings: 14/14  
1989 Joined Japan's Ministry of Foreign Affairs  
1991 President of Okamoto Associates, Inc.  
(current position)  
1996 Special Adviser to the prime minister  
2001 Special Adviser to the cabinet secretary  
2003 Special Adviser to the prime minister  
2004 Resigned from the position  
2008 Resigned from the position  
2017 Chief Outside Director of NYK (part-time)

**Toshio Mita**

**Independent Outside Audit and  
Supervisory Board Member**  
Attendance at Board of Directors' meetings: 13/14  
1989 Joined Chubu Electric Power Co., Ltd.,  
General Manager of the Tokyo  
office of the company  
2005 Director and Managing Executive Officer,  
General Manager of Customer Service Division of  
the company  
2006 President and Director of the company  
2007 President and Director (Executive Officer) of the  
company  
2010 Chairman of the company  
2015 Honorary Advisor to the company  
(current position)  
Outside Audit and Supervisory Board Member of  
NYK (part-time)

**Reason for Selection**

To advise regarding management and contribute to the appropriate oversight of the execution of business, based on the knowledge and experience of an expert knowledge regarding international affairs.

**Yoshihiro Katayama**

**Independent Outside Director**  
Number of shares held: 13,923  
Attendance at Board of Directors' meetings: 11/11  
1974 Joined Japan's Ministry of Home Affairs  
1988 Researcher of the Ministry of Home Affairs  
1999 Governor of Fukuoka Prefecture  
2007 Completed term as governor  
Professor at Keio University  
2010 Minister for Internal Affairs and Communications  
2013 Resigned from the Ministry of Internal Affairs and Communications  
2016 Outside Director of NYK (part-time)  
2017 Retired from position as Professor at Keio University  
2017 Professor at the Graduate School of  
Public Management, Waseda University  
(current position)

**Reason for Selection**

To advise regarding management and contribute to the appropriate oversight of the execution of business, based on the knowledge and experience of an expert knowledge regarding government, politics, and academia.

**Hiroko Kuniya**

**Independent Outside Director**  
Number of shares held: 0  
Attendance at Board of Directors' meetings: -  
1981 Announcer and writer for English-language  
news on NHK General TV  
"Svein O'Clock News": Researcher of  
"NHK Special" (NHK - Nippon Hoso Kyokai  
[Japan Broadcasting Corporation])  
1987 Newscaster of NHK satellite broadcasting's  
World News  
1993 Newscaster of NHK General TV's  
"Today's Close-Up"  
2016 Trustee of Tokyo University of the Arts  
(part-time) (current position)  
2017 Outside Director of NYK (part-time)

**Reason for Selection**

To advise regarding management and contribute to the appropriate oversight of the execution of business, based on the knowledge and experience of an expert knowledge regarding international affairs, and society, etc.

**Hirohide Yamaguchi**

**Independent Outside Audit and  
Supervisory Board Member**  
Attendance at Board of Directors' meetings: 10/11  
Number of shares held: 4,041  
1974 Joined Bank of Japan  
2006 Executive Director of Bank of Japan  
2013 Deputy Governor of Bank of Japan  
2013 Chairman of the Advisory Board of Nikko Research  
Center, Inc. (current position)  
2016 Outside Audit and Supervisory Board Member of  
NYK (part-time)

**Reason for Selection**

To contribute to appropriate oversight, mainly from the perspective of an expert knowledge cultivated through abundant experience in finance and economics.

\*Attendance by Yoshihiro Katayama and Hirohide Yamaguchi at meetings of the Board of Directors is indicated from June 20, 2016, the date they assumed their positions.

**Independence Criteria for Recommendation of  
Candidates for Outside Directors and Outside Audit  
and Supervisory Board Members**

1. NYK appoints individuals who have extensive experience as corporate managers or who have advanced insight regarding international affairs and social and economic trends and seeks to ensure appropriate decision-making and transparency through diverse perspectives and to strengthen oversight functions.
2. NYK gives consideration to impartiality and appoints individuals for whom there is no concern over potential conflicts of interest with general shareholders.

**Transaction Relationships, Conflicts of Interest**

The NYK Group had no conflicts of interest with the three outside directors and the two outside audit and supervisory board members.

	(Millions of yen)				(Thousands of U.S. dollars)	
Results of Operation:						
Revenues	¥1,897,101	¥2,237,239	¥2,401,820	¥2,272,315	¥1,923,881	\$17,148,426
Costs and expenses	1,704,591	1,991,043	2,127,207	2,009,547	1,736,723	15,480,201
Selling, general and administrative expenses	175,075	201,200	208,419	213,802	205,236	1,829,366
Operating profit (loss)	17,434	44,995	66,192	48,964	-18,078	-161,141
Recurring profit (loss)	17,736	58,424	84,010	60,058	1,039	9,267
Profit (loss) attributable to owners of parent	18,896	33,049	47,591	18,238	-265,744	-2,368,704
Capital expenditures	302,326	248,230	199,343	115,791	154,437	1,390,444
Depreciation and amortization	97,522	105,956	101,045	103,347	92,004	820,077

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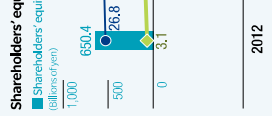
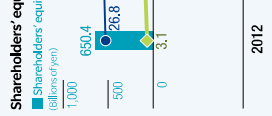
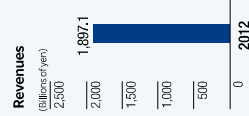
Cash Flows:						
Operating activities	93,951	136,522	136,448	142,857	27,924	248,902
Investing activities	-135,566	6,409	26,755	-46,895	-144,612	-1,289,000
Financing activities	177,966	-95,485	-199,007	-160,260	1,952	17,402

	Per Share Data:						(Yen)	(U.S. dollars)
Basic net income (loss)	¥	11.14	¥	19.48	¥	28.06	¥ -157.23	-\$1.40
Equity		383.50		424.67		477.79	309.80	2.76
Cash dividends applicable to the year				5.00		7.00	6.00	-
Dividend payout ratio				35.9%		25.7%	55.8%	-

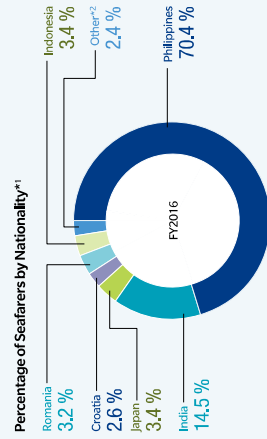
Managing Indicators:					
Return on equity (ROE)	3.1%	4.8%	6.2%	2.3%	-
Return on assets (ROA)	0.8%	1.3%	1.9%	0.8%	-12.4%
Return on invested capital (ROIC)	1.1%	2.3%	3.1%	2.6%	0.6%
Debt-to-equity ratio (DER) (Times)	1.99	1.72	1.36	1.22	1.81
Shareholders' equity ratio	26.8%	28.2%	31.5%	34.5%	25.6%

Environment, Society, and Governance (ESG) Data:					
Number of employees <sup>*2</sup>	28,865	32,342	33,520	34,276	35,935
Number of female managers: Directors <sup>*2</sup>	26	32	42	83	116
Number of female managers: Managers or higher <sup>*2</sup>	825	788	830	844	833
NYK fleet CO <sub>2</sub> emissions (Thousands of tons) <sup>*3</sup>	16,007	15,705	15,575	15,563	15,966
NYK fleet fuel consumption (Thousands of tons) <sup>*3</sup>	4,722	4,629	4,644	4,619	4,786
R&D expenses (Millions of yen)	776	715	717	1,148	1,306

<sup>3</sup> The data is recalculated using the amount of fuel used by NYK each year, based on coefficients given in IMO guidelines.

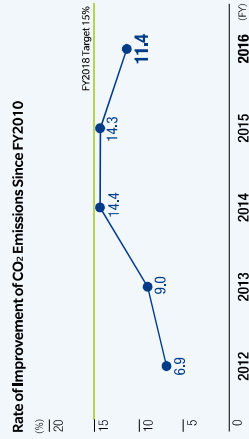


## Environment, Society, and Governance (ESG) Data



\*1 Percentage of seafarers of NYK Ship management (officers and crew members)

\*2 China, Vietnam, Russia, Myanmar, Nigeria, Angola, Panama, Singapore



## Consolidated Balance Sheet

Nippon Yusen Kabushiki Kaisha and Consolidated Subsidiaries  
(March 31, 2017)

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
<b>ASSETS</b>				
<b>CURRENT ASSETS:</b>				
Cash and deposits (Notes 4 and 13)	¥ 143,180	¥ 237,219	\$ 1,276,230	
Notes and operating accounts receivable-trade (Note 4)	249,094	222,831	2,220,291	
Short-term investment securities (Notes 4 and 5)	-	24,000	-	
Inventories (Note 7)	39,689	27,495	353,767	
Deferred and prepaid expenses	61,882	57,554	551,584	
Deferred tax assets (Note 15)	2,460	3,326	21,930	
Other	81,279	82,596	724,477	
Allowance for doubtful accounts (Note 4)	(2,238)	(2,284)	(19,951)	
Total current assets	575,347	652,740	5,128,331	
<b>NON-CURRENT ASSETS:</b>				
<b>VESSELS, PROPERTY, PLANT, AND EQUIPMENT, NET OF ACCUMULATED DEPRECIATION (Notes 8, 10, 11, and 13):</b>				
Vessels	631,393	802,324	5,627,891	
Buildings and structures	72,952	76,963	650,256	
Aircraft	24,024	23,576	214,138	
Machinery, equipment, and vehicles	30,457	34,967	271,480	
Equipment	5,930	7,217	52,859	
Land	69,887	72,511	622,938	
Construction in progress	50,574	43,952	450,789	
Other	5,328	6,430	47,499	
Total vessels, property, plant, and equipment	890,547	1,067,943	7,937,853	
<b>INTANGIBLE ASSETS:</b>				
Leasehold right	4,477	4,102	39,912	
Software	12,675	15,138	112,981	
Goodwill	18,636	21,205	166,118	
Other	2,995	2,123	26,702	
Total intangible assets	38,785	42,569	345,715	
<b>INVESTMENTS AND OTHER ASSETS:</b>				
Investment securities (Notes 4, 5, 9, and 13)	410,236	358,090	3,656,618	
Long-term loans receivable (Note 4)	30,028	29,678	267,657	
Net defined benefit asset (Note 21)	47,253	39,403	421,194	
Deferred tax assets (Note 15)	5,877	6,777	52,387	
Other	52,460	50,032	467,604	
Allowance for doubtful accounts (Note 4)	(6,626)	(2,812)	(59,068)	
Total investments and other assets	539,229	481,168	4,806,393	
Total non-current assets	1,468,562	1,591,681	13,089,962	
<b>DEFERRED ASSETS</b>				
TOTAL ASSETS	2,044,183	2,244,772	18,220,732	

See notes to consolidated financial statements.

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
<b>LIABILITIES</b>				
<b>CURRENT LIABILITIES:</b>				
Notes and operating accounts payable-trade (Note 4)	¥ 196,317	¥ 178,065	\$ 1,749,864	
Short-term loans payable (Notes 4, 12, and 13)	102,842	92,374	916,683	
Income taxes payable (Note 15)	8,099	8,963	72,195	
Deferred tax liabilities (Note 15)	3,668	5,522	32,703	
Advances received	38,894	40,653	346,683	
Provision for bonuses	9,359	9,906	83,426	
Provision for directors' bonuses	384	353	3,425	
Provision for losses related to antitrust law	19,515	-	173,950	
Provision for losses related to contracts	5,328	8,678	47,494	
Other	73,527	76,826	655,383	
Total current liabilities	457,938	421,343	4,081,812	
<b>NON-CURRENT LIABILITIES:</b>				
Bonds payable (Notes 4 and 12)	145,000	145,445	1,292,450	
Long-term loans payable (Notes 4, 12, and 13)	686,598	690,005	6,119,964	
Deferred tax liabilities (Note 15)	50,039	38,684	446,027	
Net defined benefit liability (Note 21)	18,596	18,708	165,760	
Provision for directors' retirement benefits	1,857	1,717	16,557	
Provision for stock payment	226	-	2,014	
Provision for periodic dry docking of vessels	22,424	21,295	199,879	
Provision for losses related to contracts	16,373	-	145,946	
Other	53,192	63,301	474,127	
Total non-current liabilities	994,309	979,158	8,862,728	
Total liabilities	1,452,247	1,400,502	12,944,540	
<b>EQUITY (Notes 12, 16, and 24)</b>				
<b>SHAREHOLDERS' CAPITAL:</b>				
Common stock	144,319	144,319	1,286,387	
Capital surplus	155,461	155,691	1,385,695	
Retained earnings	202,488	470,483	1,804,873	
Treasury stock	(3,814)	(2,098)	(33,999)	
Total shareholders' capital	498,455	768,396	4,442,956	
<b>ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS):</b>				
Unrealized gain (loss) on available-for-sale securities	48,860	34,147	435,518	
Deferred gain (loss) on hedges	(27,284)	(35,411)	(243,202)	
Foreign currency translation adjustments	(4,816)	7,527	(42,927)	
Remeasurements of defined benefit plans	7,255	(981)	64,675	
Total accumulated other comprehensive income (loss)	24,015	5,281	214,064	
Non-controlling interests	69,464	70,591	619,171	
Total equity	591,936	844,269	5,276,192	
TOTAL LIABILITIES AND EQUITY	2,044,183	2,244,772	18,220,732	
Equity per share	¥ 309.80	¥ 456.21	\$ 2.76	

See notes to consolidated financial statements.



Consolidated Statement of Income and  
Consolidated Statement of Comprehensive Income

Nippon Yusen Kabushiki Kaisha and Consolidated Subsidiaries  
(Year ended March 31, 2017)

(Consolidated Statement of Income)

	Millions of yen		Thousands of U.S. dollars (Note 2)
	2017	2016	2017
REVENUES	¥1,923,881	¥2,272,315	\$17,148,426
COST AND EXPENSES	1,736,723	2,009,547	15,480,201
Gross profit	187,158	262,767	1,668,224
SELLING, GENERAL, AND ADMINISTRATIVE EXPENSES	205,236	213,802	1,825,366
Operating income	(18,078)	48,964	(161,141)
NON-OPERATING INCOME:			
Interest income	3,671	3,411	32,730
Dividend income	6,321	5,611	56,349
Equity in earnings of unconsolidated subsidiaries and affiliates	13,900	22,068	123,900
Foreign exchange gains	674	-	6,012
Gain on investments in silent partnership	8,745	368	77,955
Other	6,100	6,937	54,378
Total non-operating income	39,415	38,397	351,327
NON-OPERATING EXPENSES:			
Interest expenses	15,557	16,924	138,673
Foreign exchange losses	-	6,652	-
Other	4,739	3,725	42,244
Total non-operating expenses	20,297	27,303	180,918
Recurring profit	1,039	60,058	9,267
OTHER GAINS:			
Gain on sales of non-current assets	11,578	13,368	103,199
Other	2,742	31,243	24,447
Total other gains	14,320	44,611	127,647
OTHER LOSSES:			
Loss on sales of non-current assets	1,013	2,526	9,032
Impairment loss (Note 17)	168,127	35,431	1,498,596
Provision for losses related to contracts	44,820	-	395,504
Other	42,869	2,963	382,113
Total other losses	256,830	40,922	2,289,246
PROFIT BEFORE INCOME TAXES	(241,470)	63,748	(2,152,331)
Income taxes - Current	17,419	29,106	155,267
Income taxes - Deferred	2,697	8,176	24,045
Total income taxes (Note 15)	20,117	37,283	179,313
PROFIT (LOSS)	(261,587)	26,464	(2,331,644)
PROFIT ATTRIBUTABLE TO NON-CONTROLLING INTERESTS	4,157	8,226	37,059
PROFIT (LOSS)/ATTRIBUTABLE TO OWNERS OF PARENT	(265,744)	18,238	(2,368,704)
Yen			Thousands of U.S. dollars (Note 2)
Basic profit (loss)	¥(157,23)	¥10,75	\$ (1,40)
Diluted profit	-	10.75	-
Cash dividends applicable to the year	0.00	6.00	0.00

(Consolidated Statement of Comprehensive Income)

	Millions of yen		Thousands of U.S. dollars (Note 2)
	2017	2016	2017
Profit (Loss)	¥(261,587)	¥26,464	\$(2,331,644)
Other comprehensive income (Note 18)			
Unrealized gain (loss) on available-for-sale securities	14,580	(20,474)	129,960
Deferred gain on hedges	6,674	5,425	59,488
Foreign currency translation adjustments	(10,140)	(22,461)	(90,384)
Re measurements of defined benefit plans	8,400	(6,453)	74,874
Share of other comprehensive income of associates accounted for using equity method	(1,406)	229	(12,540)
Total other comprehensive income	18,107	(43,734)	161,398
Comprehensive income	(243,479)	(17,269)	(2,170,246)
Comprehensive income attributable to owners of parent	(246,874)	(20,700)	(2,200,507)
Comprehensive income attributable to non-controlling interests	3,395	3,431	30,261

See notes to consolidated financial statements.

Consolidated Statement of Changes in Equity

Nippon Yusen Kabushiki Kaisha and Consolidated Subsidiaries  
(Year ended March 31, 2017)

Millions of yen

	Common stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' capital	Unrealized gain (loss) on available-for-sale securities	Deferred gain (loss) on hedges	Foreign currency translation adjustments	Re-measurements of defined benefit plans	Total accumulated other comprehensive income	Non-controlling interests	Total equity
Balance, April 1, 2015	¥144,319	¥155,616	¥467,092	¥(2,070)	¥764,957	¥54,665	¥(41,857)	¥27,196	¥5,348	¥45,353	¥70,611	¥890,923
Dividends from surpluses	-	-	(15,263)	-	(15,263)	-	-	-	-	-	-	(15,263)
Profit (loss) attributable to owners of the parent company	-	-	18,238	-	18,238	-	-	-	-	-	-	18,238
Purchase of treasury stock	-	-	-	(30)	(30)	-	-	-	-	-	-	(30)
Disposal of treasury stock	-	(6)	-	2	1	-	-	-	-	-	-	1
Change in equity of parent related to transactions with non-controlling shareholders	-	75	-	-	75	-	-	-	-	-	-	75
Adjustment due to change in the fiscal period of consolidated subsidiaries	-	-	22	-	22	-	-	-	-	-	-	22
Change in scope of consolidation	-	-	255	-	255	-	-	-	-	-	-	255
Change in scope of equity method	-	-	172	-	172	-	-	-	-	-	-	172
Other	-	-	(33)	0	(33)	-	-	-	-	-	-	(33)
Net change of items other than shareholders' capital	-	-	-	-	-	(20,517)	6,445	(19,669)	(6,329)	(40,071)	(20)	(40,091)
Total changes of items during the period	-	74	3,391	(27)	3,438	(20,517)	6,445	(19,669)	(6,329)	(40,071)	(20)	(36,653)
Balance, March 31, 2016	144,319	155,691	470,483	(2,098)	768,396	34,147	(35,411)	7,527	(981)	5,281	70,591	844,269
Dividends from surpluses	-	-	(3,391)	-	(3,391)	-	-	-	-	-	-	(3,391)
Profit (loss) attributable to owners of the parent company	-	-	(265,744)	-	(265,744)	-	-	-	-	-	-	(265,744)
Purchase of treasury stock	-	-	-	(1,720)	(1,720)	-	-	-	-	-	-	(1,720)
Disposal of treasury stock	-	(2)	-	4	2	-	-	-	-	-	-	2
Change in equity of parent related to transactions with non-controlling shareholders	-	(227)	-	-	(227)	-	-	-	-	-	-	(227)
Adjustments due to change in the fiscal period of consolidated subsidiaries	-	-	(117)	-	(117)	-	-	-	-	-	-	(117)
Change in scope of consolidation	-	-	179	-	179	-	-	-	-	-	-	179
Change in scope of equity method	-	-	1,093	-	1,093	-	-	-	-	-	-	1,093
Other	-	-	(14)	-	(14)	-	-	-	-	-	-	(14)
Net change of items other than shareholders' capital	-	-	-	-	-	14,713	8,126	(12,343)	8,237	18,734	(1,126)	17,607
Total changes of items during the period	-	(230)	(267,995)	(1,716)	(269,941)	14,713	8,126	(12,343)	8,237	18,734	(1,126)	(252,333)
Balance, March 31, 2017	144,319	155,461	202,488	(3,814)	498,455	48,860	(27,284)	(4,816)	7,255	24,015	69,464	591,936

Thousands of U.S. dollars (Note 2)

	Common stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' capital	Unrealized gain (loss) on available-for-sale securities	Deferred gain (loss) on hedges	Foreign currency translation adjustments	Re measurements of defined benefit plans	Total accumulated comprehensive income	Non-controlling interests	Total equity
Balance, March 31, 2016	\$1,266,387	\$1,387,708	\$4,193,633	\$(15,703)	\$6,849,066	\$304,370	\$(315,637)	\$67,092	\$6,747	\$47,077	\$629,214	\$7,525,358
Dividends from surpluses	-	-	(30,232)	-	(30,232)	-	-	-	-	-	-	(30,232)
Profit (loss) attributable to owners of the parent company	-	-	(2,368,704)	-	(2,368,704)	-	-	-	-	-	-	(2,368,704)
Purchase of treasury stock	-	-	-	(15,337)	(15,337)	-	-	-	-	-	-	(15,337)
Disposal of treasury stock	-	(21)	-	40	19	-	-	-	-	-	-	19
Change in equity of parent related to transactions with non-controlling shareholders	-	(2,031)	-	-	(2,031)	-	-	-	-	-	-	(2,031)
Adjustments due to change in the fiscal period of consolidated subsidiaries	-	-	(1,044)	-	(1,044)	-	-	-	-	-	-	(1,044)
Change in scope of consolidation	-	-	1,604	-	1,604	-	-	-	-	-	-	1,604
Change in scope of equity method	-	-	9,743	-	9,743	-	-	-	-	-	-	9,743
Other	-	-	(126)	-	(126)	-	-	-	-	-	-	(126)
Net change of items other than shareholders' capital	-	(2,053)	(2,388,760)	(15,296)	(2,406,110)	131,148	72,435	(110,020)	73,423	166,986	(10,042)	156,943
Total changes of items during the period	-	1,286,387	1,385,695	(33,999)	4,442,956	435,518	(243,202)	(42,927)	64,675	214,064	619,171	5,276,192
Balance, March 31, 2017	1,286,387	1,385,695	1,804,873	(33,999)	4,442,956	435,518	(243,202)	(42,927)	64,675	214,064	619,171	5,276,192

See notes to consolidated financial statements.

## Consolidated Statement of Cash Flows

Nippon Yusen Kabushiki Kaisha and Consolidated Subsidiaries  
(Year ended March 31, 2017)

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
<b>OPERATING ACTIVITIES</b>				
Profit (loss) before income taxes	¥(241,470)	¥ 63,748	\$(2,152,331)	820,077
Adjustments for:				
Depreciation and amortization	92,004	103,347	1,498,596	1,498,596
Impairment loss	168,127	35,431	173,950	364
Losses related to antitrust law	19,515	-	399,504	-
Provision for losses related to contracts	44,820	(10,633)	(91,650)	(10,633)
Loss (Gain) on sales and retirement of vessels, property, plant and equipment and intangible assets	(10,282)	(40,882)	(12,902)	(40,882)
Loss (Gain) on sales of short-term and long-term investment securities	(803)	(28,976)	(7,165)	(28,976)
Loss (Gain) on valuation of short-term and long-term investment securities	9,720	173	86,640	173
Loss (Gain) on investments in silent partnership	(8,745)	(368)	(77,955)	(368)
Equity in (earnings) losses of unconsolidated subsidiaries and affiliates	(13,900)	(22,068)	(123,302)	(22,068)
Interest and dividend income	(9,993)	(9,023)	(89,079)	(9,023)
Interest expenses	15,557	16,924	138,673	16,924
Foreign exchange losses (gains)	(11,014)	6,373	(98,176)	6,373
Decrease (increase) in notes and accounts receivable-trade	(27,778)	58,107	(247,598)	58,107
Decrease (increase) in inventories	(12,232)	18,774	(109,038)	18,774
Increase (decrease) in notes and accounts payable-trade	21,289	(34,410)	189,758	(34,410)
Other, net	(6,472)	(51,190)	(57,696)	(51,190)
<b>Subtotal</b>	<b>28,340</b>	<b>192,573</b>	<b>252,607</b>	<b>252,607</b>
Interest and dividend income received	31,866	17,600	284,038	17,600
Interest expenses paid	(15,516)	(17,205)	(138,302)	(17,205)
Paid expenses related to antitrust law	(862)	(2,898)	(7,683)	(2,898)
Income taxes (paid) refund	(15,903)	(47,212)	(141,757)	(47,212)
<b>Net cash provided by operating activities</b>	<b>27,924</b>	<b>142,857</b>	<b>248,902</b>	<b>142,857</b>
<b>INVESTING ACTIVITIES</b>				
Purchase of vessels, property, plant and equipment and intangible assets	(156,229)	(115,913)	(1,392,540)	(115,913)
Proceeds from sales of vessels, property, plant and equipment and intangible assets	30,509	74,144	271,943	74,144
Purchase of investment securities	(49,886)	(38,767)	(444,664)	(38,767)
Proceeds from sales and redemption of investment securities	11,164	8,605	99,511	8,605
Purchase of shares of subsidiaries resulting in change in scope of consolidation	(475)	-	(4,235)	-
Proceeds from purchase of shares of subsidiaries resulting in change in scope of consolidation	35	-	319	-
Payments for sales of shares in subsidiaries resulting in change in scope of consolidation	(1,813)	-	(16,164)	-
Proceeds from sales of shares of subsidiaries resulting in change in scope of consolidation	-	9,437	-	9,437
Payments of loans receivable	(20,443)	(25,557)	(182,220)	(25,557)
Collections of loans receivable	20,114	40,570	179,287	40,570
Other, net	22,411	585	199,762	585
<b>Net cash used in investing activities</b>	<b>(144,612)</b>	<b>(46,895)</b>	<b>(1,289,000)</b>	<b>(46,895)</b>
<b>FINANCING ACTIVITIES</b>				
Net increase (decrease) in short-term loans payable	3,053	(2,016)	27,213	(2,016)
Proceeds from long-term loans payable	113,672	28,754	1,013,214	28,754
Repayments of long-term loans payable	(97,764)	(114,208)	(871,422)	(114,208)
Redemption of bonds	(445)	(50,000)	(3,966)	(50,000)
Proceeds from share issuance to non-controlling shareholders	120	130	1,075	130
Purchase of treasury stock	(1,720)	(30)	(15,337)	(30)
Proceeds from sales of treasury stock	2	1	19	1
Cash dividends paid to shareholders	(3,391)	(15,263)	(30,232)	(15,263)
Cash dividends paid to non-controlling interests	(4,611)	(3,760)	(41,108)	(3,760)
Other, net	(6,961)	(3,867)	(62,054)	(3,867)
<b>Net cash provided by (used in) financing activities</b>	<b>1,952</b>	<b>(160,260)</b>	<b>77,402</b>	<b>(160,260)</b>
<b>Effect of exchange rate change on cash and cash equivalents</b>	<b>(2,051)</b>	<b>(10,351)</b>	<b>(18,289)</b>	<b>(10,351)</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>(116,788)</b>	<b>(74,650)</b>	<b>(1,040,385)</b>	<b>(74,650)</b>
<b>Cash and cash equivalents at beginning of period</b>	<b>253,618</b>	<b>327,243</b>	<b>2,260,614</b>	<b>2,260,614</b>
<b>Increase (decrease) in cash and cash equivalents resulting from change in scope of consolidation</b>	<b>632</b>	<b>993</b>	<b>5,635</b>	<b>993</b>
<b>Increase (decrease) in beginning balance of cash and cash equivalents resulting from change in fiscal period of consolidated subsidiaries</b>	<b>(17)</b>	<b>32</b>	<b>(160)</b>	<b>32</b>
<b>Cash and cash equivalents at end of period (Note 14)</b>	<b>137,444</b>	<b>253,618</b>	<b>1,225,104</b>	<b>253,618</b>

See notes to consolidated financial statements.

## Notes to Consolidated Financial Statements

Nippon Yusen Kabushiki Kaisha and Consolidated Subsidiaries  
(Year ended March 31, 2017)

### 1. Basis of Presentation of Consolidated Financial Statements

The accompanying consolidated financial statements have been prepared in accordance with the provisions set forth in the Japanese Financial Instruments and Exchange Act and its related accounting regulations and in conformity with accounting principles generally accepted in Japan ("Japanese GAAP"), which are different in certain respects as to the application and disclosure requirements from International Financial Reporting Standards.

In preparing these consolidated financial statements, additional information is provided in order to present the data.

### 2. U.S. Dollar Amounts

The accompanying consolidated financial statements are stated in yen, and the U.S. dollar amounts represent the arithmetic results of translating yen to U.S. dollars using the exchange rate prevailing at March 31, 2017, which was ¥112.19 to \$1.00. The statements in such dollar

### 3. Summary of Significant Accounting Policies

#### A. Consolidation Policies

(1) The consolidated financial statements include the accounts of Nippon Yusen Kabushiki Kaisha (the "Company") and its 552 consolidated subsidiaries (the "NYK Group") at March 31, 2017.

During the fiscal year ended March 31, 2017, the Company newly established 1 company and judged 11 companies to have a material impact on the consolidated financial statements. Consequently, the Company brought these companies under the scope of consolidation in the consolidated fiscal year ended March 31, 2017.

2 companies became consolidated subsidiaries due to the acquisition of shares.

1 company changed its status from a consolidated subsidiary to an affiliate accounted for using the equity method due to merger.

19 companies were excluded from consolidation due to liquidation.

1 company was excluded from consolidation due to merger.

(2) Investments in unconsolidated subsidiaries and affiliates are accounted for either using the cost method or using the equity method, depending on the extent of influence or fiscal significance each carries. The Company accounted for 8 unconsolidated subsidiaries and 192 affiliates using the equity method at March 31, 2017.

In the consolidated fiscal year ended March 31, 2017, the Company judged 30 companies to have a material impact on the consolidated financial statements. Consequently, these companies are newly included in the scope of companies accounted for

consolidated financial statements in a format familiar to international readers. The result of this does not affect the financial position, results of operations and cash flows of the consolidated companies as reported in the original consolidated financial statements.

Yen figures less than a million yen are rounded down to the nearest million yen, except for per share data. U.S. dollar figures less than a thousand dollars are rounded down to the nearest thousand dollars, except for per share data.

amounts are solely for the convenience of readers outside Japan and are not intended to imply that the yen amounts have been, or could be, readily converted, realized, or settled in dollars at that rate, or any other rates, of exchange.

using the equity method.

3 companies became affiliate companies as a result of the acquisition of stock and were included in the scope of the companies accounted for by the equity method.

2 companies changed its status from consolidated subsidiaries to affiliates accounted for using the equity method due to the disposal of shares.

1 company was excluded from the scope of companies accounted for using the equity method due to merger.

(3) Any material difference between the cost of an investment in a subsidiary and the amount of underlying equity in net assets of the subsidiary upon inclusion in the consolidation, unless specifically identified and reclassified to the applicable accounts from which the value originates, is treated as goodwill or negative goodwill, as the case may be, and amortized over a period of 5 to 20 years on a straight-line basis.

(4) All significant intercompany balances, transactions, and material unrealized profit within the consolidated group have been eliminated in consolidation.

#### B. Accounting Period

The Company's accounting period begins each year on April 1 and ends the following year on March 31.

During the fiscal year ended March 31, 2017, December 31 was used by 33 consolidated subsidiaries as the closing date for their financial statements. Necessary adjustments have been made to address transactions that occurred between closing dates different to that of the Company. 5 companies with a fiscal year end of December 31

provide financial statements based on provisional settlement of accounts as of March 31 to facilitate preparation of the consolidated financial statements.

#### C. Foreign Currency Financial Statements

The balance sheet accounts of consolidated foreign subsidiaries are translated into yen at the current exchange rate as of the balance sheet date, except for equity, which is translated at the historical rate. Differences arising from such translation are shown as "Foreign currency translation adjustments" in a separate component of equity and "Non-controlling interests." Revenue and expense accounts of consolidated foreign subsidiaries are translated into yen at the average exchange rate.

#### D. Valuation of Assets

- (1) Short-term and long-term investment securities are classified and accounted for, depending on management's intent, as follows:
    - i) Held-to-maturity debt securities, which are expected to be held to maturity, with the positive intent and ability to hold to maturity, are reported at amortized cost; and
    - ii) (a) available-for-sale securities with fair value, which are not classified as the aforementioned securities, are reported at fair value, with unrealized gains and losses, net of applicable taxes, reported in a separate component of equity and (b) available-for-sale securities whose fair value was not readily determinable are reported at cost using the moving average method.
  - (2) Derivatives are valued at market.
  - (3) Inventories are stated at the lower of cost, determined by the first-in, first-out method, or net selling value, which is defined as the selling price less additional estimated manufacturing costs and estimated direct selling expenses.
- #### E. Depreciation and Amortization
- (1) Vessels, property, plant, and equipment, except for lease assets, are depreciated as follows:
    - Vessels, property, plant, and equipment are depreciated generally by the straight-line method. Assets for which the purchase price is more than ¥100,000, but less than ¥200,000 are depreciated generally in equal allotments over three years based on the Japanese Corporation Tax Law.
  - (2) Intangible assets, except for lease assets, are amortized as follows:
    - Computer software is amortized by the straight-line method based principally on the length of period it can be used internally (five years). Other intangible assets are amortized by the straight-line method.
  - (3) Leased assets are depreciated as follows:
    - Leased assets related to financial leases that transfer

ownership rights are depreciated by the same depreciation method that is applied to fixed assets owned by the Company. Leased assets related to financial leases that do not transfer ownership rights are depreciated under the straight-line method based on the lease term as the useful life and assuming no residual value.

#### F. Capitalization of Interest Expenses

Interest expenses are generally charged to income as incurred. However, interest expenses incurred in the construction of certain assets, particularly projects for vessels, are capitalized and included in the costs of assets when a construction period is substantially long and the amount of interest incurred during such a period is significantly material.

#### G. Provisions

- (1) Allowance for doubtful accounts:
 

The allowance for doubtful accounts is stated in amounts considered to be appropriate based on the Company's past credit loss experience and an evaluation of potential losses in receivables outstanding.
- (2) Provision for bonuses:
 

Bonuses to employees are accrued at the year-end to which such bonuses are attributable.
- (3) Provision for directors' bonuses:
 

Bonuses to directors and corporate auditors are accrued at the year-end to which such bonuses are attributable.
- (4) Provision for directors' retirement benefits:
 

To provide for the payment of retirement benefits to directors and corporate auditors, in accordance with internal policies, consolidated subsidiaries record such provisions calculated as the estimated amount that would be payable if all directors and corporate auditors were to retire at the balance sheet date.
- (5) Provision for periodic dry docking of vessels:
 

Provision for periodic dry docking of vessels is provided based on the estimated amount of expenditures for periodic dry docking in the future.
- (6) Provision for losses related to antitrust law:
 

Provision for possible losses associated with surcharge and other payments arising from suspected violation of competition laws (including antitrust laws) are based on estimated amounts of losses.
- (7) Provision for losses related to contracts:
 

Provision for possible losses associated with purchase of non-current assets, as well as performance of lease contracts are based on estimated amounts of losses.
- (8) Provision for stock payment
 

Provision for stock payment is calculated based on estimated amount of shares of the Company corresponding to the points granted to eligible Directors and Corporate Officers at the end of the

current fiscal year, to prepare for the payment of the Company stocks to Directors and Corporate Officers based on the Share Delivery Rules.

#### H. Accounting Method for Retirement Benefits

- (1) Method of attributing estimated amounts of retirement benefits to periods:
 

In calculating defined benefit obligations, the estimated amount of retirement benefits attributed to a period up to the current fiscal year is primarily determined based on a benefit formula basis.
- (2) Amortization of unrecognized actuarial gain (loss) and prior service cost:
 

Unrecognized actuarial gain (loss) is amortized in the year following the year in which the gain or loss is recognized by the straight-line method over a certain period (primarily 8 years), which is not more than the average remaining service period of employees. Prior service cost is amortized by the straight-line method over a certain period (primarily 8 years), which is not more than the average remaining service period of employees.

#### I. Income Taxes

The Company and its domestic subsidiaries recognize future tax consequences of temporary differences between assets and liabilities in accounting and tax treatments. Deferred taxes are computed based on the pretax income or loss included in the consolidated statement of income and measured by applying currently enacted laws to the temporary differences. The asset and liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of the temporary differences between the carrying amounts and the tax bases of assets and liabilities.

#### J. Freight Revenue and Expense Recognition

- Freight revenues and expenses are recognized by two different methods depending on types of cargo transportation.
- (1) Transportation by containerships
 

Revenues and expenses arising from ocean transportation of containers are recognized proportionately as shipments move.
  - (2) Transportation by vessels other than containerships
 

Revenues and expenses from transportation by vessels other than containerships are principally recognized upon the voyage completion method.

#### K. Accounting for Leases

Finance leases that existed at March 31, 2008, and do not transfer ownership of the leased property to the lessee are accounted for as operating lease transactions.

#### L. Method of Accounting for Material Hedge

#### Transactions

For derivative transactions used to offset the risks of assets and liabilities due to fluctuations in interest rates, foreign currency exchange rates, and cash flows, the Company and its consolidated subsidiaries apply hedge accounting.

In addition, hedge accounting is also applied to derivative transactions used to mitigate the risks of price fluctuations in fuel procurement and others. For hedge accounting, the Company and its consolidated subsidiaries adopt a deferred hedge method that requires the Company to mark the derivative transactions effective as hedges to market and to defer the valuation loss/gain. For forward foreign exchange contracts, etc., that meet the required conditions under the accounting standard, the Company and its consolidated subsidiaries translate hedged foreign currency assets and liabilities at the rates of these contracts. In addition, for interest rate swap contracts, etc., that meet specified conditions under the accounting standard, the related interest differentials paid or received under the contracts are included in the interest income/expense of the hedged financial assets and liabilities. In addition, the following hedging methods for various risks are utilized: interest rate swaps to hedge the risk of interest rate fluctuations related to borrowings, bonds, and others; currency swap contracts, forward foreign currency exchange contracts, debts, and credits in foreign currency to hedge the foreign exchange risk associated with monetary assets and liabilities, expected transactions, and others; and fuel swap contracts to hedge the risk of price fluctuations in fuel oil and others. The Company and its consolidated subsidiaries evaluate the effectiveness of hedging methods at the end of each financial quarter, except for interest rate swaps and interest rate caps that meet specified conditions under the accounting standard by analyzing the ratios of the cumulative amount of market fluctuation or cash flow among the hedging financial instruments and the hedged items.

For foreign currency transactions, both short-term and long-term receivables and payables denominated in foreign currencies are translated into yen at exchange rates in effect at the balance sheet date.

However, short-term and long-term receivables and payables covered by forward exchange contracts are translated at the contract rates.

Any differences between the foreign exchange contract rates and historical rates resulting from the translation of receivables and payables are recognized as income or expense over the lives of the related contracts.

#### M. Per Share Information

Basic profit per share is computed by dividing profit available to common shareholders by the weighted-average number of common shares outstanding for the period, retroactively adjusted for stock splits. Cash dividends per share consist of interim dividends



paid during the year and dividends to be paid after the end of the year.

## N. Cash and Cash Equivalents

Cash and cash equivalents are composed of cash on hand, bank deposits that are able to be withdrawn on demand, and short-term investments with original maturities of three months or less that are exposed to minor value fluctuation risk.

## O. Additional Information

### (1) Changes in accounting policies

Adoption of a Practical Solution Concerning a Change in the Depreciation Method Resulting from Tax Reforms in 2016  
Following a revision to the Corporation Tax Law of Japan, in the fiscal year ended March 31, 2017, the Company adopted the "Practical Solution on a Change in Depreciation Method Due to Tax Reform 2016" (Practical Issue Task Force No. 32) issued by the Accounting Standards Board ("ASB") of Japan on June 17, 2016. Accordingly, effective from April 1, 2016, the Company changed its method for depreciating buildings and structures from declining-balance method to straight-line method. The impact of this change in accounting policy in the fiscal year ended March 31, 2017, was minor.

### (2) Changes in presentation

Consolidated statement of income  
"Gain on investments in silent partnership," which was included in "other" under "non-operating income" in the fiscal year ended March 31, 2016, has been presented as a separate item in the fiscal year under review because the amount exceeded 10% of "total non-operating income." The consolidated financial statements for the fiscal year ended March 31, 2016, were reclassified in order to reflect this change in the presentation method. Consequently, the previously stated amount of ¥7,305 million for "other" under "non-operating income" in the consolidated statement of income for the fiscal year ended March 31, 2016, has been reclassified as "gain on investments in silent partnership" totaling ¥368 million, and "other" amounting to ¥6,937 million.  
Meanwhile, "gain on sales of shares of subsidiaries and affiliates," which was presented as a separate item under "other gains" in the fiscal year ended March 31, 2016, has been included under "other" in the fiscal year under review because the amount was less than 10% of "total other gains." The consolidated financial statements for the fiscal year ended March 31, 2016, were reclassified in order to reflect this change in the presentation method. Consequently, the previously stated amount of ¥28,747 million for "gain on sales of shares of subsidiaries and affiliates" under "other gains" in the consolidated statement of income for the fiscal year ended March 31, 2016, has been reclassified as "other."

Consolidated statement of cash flows  
"Losses related to antitrust law" and "loss (gain) on investments in silent partnership," which were included in "other, net" under "operating activities" in the consolidated statement of cash flows for the fiscal year ended March 31, 2016, have been presented as separate items in the fiscal year under review because their respective amounts were substantial. The consolidated financial statements for the fiscal year ended March 31, 2016, were reclassified in order to reflect this change in the presentation method. Consequently, the previously stated negative amount of ¥5,194 million for "other, net" under "operating activities" in the consolidated statement of cash flows for the fiscal year ended March 31, 2016, has been reclassified as "losses related to antitrust law" totaling ¥364 million, "loss (gain) on investments in silent partnership" totaling negative ¥368 million, and "other, net" of minus ¥5,190 million.

### (3) Adoption of Implementation Guidance on Recoverability of Deferred Tax Assets

The Company adopted ASBJ No. 26 "Implementation Guidance on Recoverability of Deferred Tax Assets" (March 28, 2016) from the current fiscal year.

### (4) Transactions related to the Board Incentive Plan Trust

Based on the resolution at the General Meeting of Shareholders held on June 20, 2016, the Company introduced "Board Incentive Plan Trust" (the "Plan") as a performance-based stock remuneration plan for Directors and Corporate Officers of the Company (excluding Outside Directors, as well as Directors and Corporate Officers who are non-resident in Japan, foreign nationals, or listed subsidiaries; hereinafter collectively referred to as "Director(s), etc.").

Accounting treatments related to the trust are in accordance with Practical Solution on Transactions of Delivering the Company's Own Stock to Employees etc. through Trusts" (PTIF No. 30, March 26, 2015).

The Plan is a stock remuneration plan, wherein a trust established by the Company (Board Incentive Plan Trust) acquires the Company shares using the cash contributed by the Company, and through this trust the Company shares and money equivalent to the amount obtained by converting the Company shares into cash corresponding to the points granted based on the degree of achievement of business performance of each fiscal year and according to individual position of the recipient are delivered and paid to Directors, etc.

The shares of the Company remained in the trust are recorded as treasury stock under equity based on the book value (excluding incidental costs) in the trust. The shares at the end of the current fiscal year were 1,705 million yen and 9,319,000 shares.

In addition, the estimated amount of the above Directors' remuneration allotted at the end of the current fiscal year was recorded as provision for stock payment.

### (5) Agreement to the Integration of Container Shipping Business

The Company resolved at the meeting of the Board of Directors held on October 31, 2016, subject to regulatory approvals, etc., from the authorities, to sign a business integration contract and a shareholders' agreement with Kawasaki Kisen Kaisha, Ltd. and Mitsui O.S.K. Lines, Ltd. in order to integrate the container shipping business (including terminal operating business other than Japan) of all three companies, and on the same date, the three companies entered into

contract and agreement.  
Establishment of a joint venture company for the business integration is planned to be on July 1, 2017 and the commencement of service for container shipping business by the joint venture company is planned to be on April 1, 2018, and the three companies are currently promoting the preparation together.

Overview of the new joint venture company (Plan)  
Amount of contribution: Approximately 300 billion yen  
Contribution ratio: Kawasaki Kisen Kaisha, Ltd. 31%  
Mitsui O.S.K. Lines, Ltd. 31%  
The Company 38%  
Business domain: Container Shipping Business (including terminal operating business other than Japan)

## 4. Financial Instruments

### (1) Disclosure on Financial Instruments

#### a. Policy on financial Instruments

Internal funding provides the Company and its consolidated subsidiaries with some of the funds they require for capital expenditures for vessels, aircraft, and transport equipment, as well as working capital. Other funds are procured from outside sources. Methods of raising funds include loans from banks and other financial institutions, as well as issuing corporate bonds. Funds are invested mainly in short-term deposits. The Company and its consolidated subsidiaries utilize derivatives to hedge risks mentioned below and do not engage in speculative financial transactions.

#### b. Contents and risks of financial instruments

Notes and operating accounts receivable—trade are subject to client credit risk. In addition, foreign currency-denominated transactions are subject to foreign exchange rate risk.

Investment securities include held-to-maturity debt securities and corporate shares. The Company and its consolidated subsidiaries used the current value method to evaluate investment securities that have explicit market values, taking as the market value the average market price during the one-month period preceding the end of the fiscal year. Consequently, shifts in stock market conditions could affect the operating performance and financial condition of the Company and its consolidated subsidiaries.

Notes and operating accounts payable—trade are settled in the short term. Of these, transactions denominated in foreign currencies are subject to foreign exchange rate risk.

Loans payable are subject to interest rate risk, and the Company and its consolidated subsidiaries utilize derivative financial instruments to hedge against these risks.

As for derivative financial instruments, to avert interest rate risks associated with loans payable, the Company and its consolidated subsidiaries utilize interest rate swap contracts. To avert foreign exchange risk associated with foreign currency assets and liabilities, the Company and its consolidated subsidiaries utilize forward foreign exchange contracts and currency swap contracts. Similarly, to deal with the risk of price fluctuations in fuel and chartered freight, the Company and its consolidated subsidiaries utilize fuel swap contracts, freight (chartered-freight) forward transactions, and other methods.  
The details of hedge accounting for derivative financial instruments are described below. Methods for evaluating effectiveness of hedging are described above in "3. Summary of Significant Accounting Policies, L. Method of Accounting for Material Hedge Transactions."

#### ① Hedge accounting method

The Company and its consolidated subsidiaries primarily adopt deferral hedge accounting that requires them to mark the derivative financial instruments effective as hedges to market, and to defer the valuation loss/gain. For forward foreign exchange contracts, etc., that meet the required conditions for designation accounting under the accounting standard, the Company and its consolidated subsidiaries translate hedged foreign currency assets and liabilities at the rates of these contracts. In addition, for interest rate swap contracts that meet specified conditions for exceptional accounting under the accounting standard, the related interest differentials paid or received under the contracts are included in the interest income/expense of the hedged financial assets and liabilities.

- ② Principal hedging methods and items hedged  
Principal hedging methods      Principal items hedged  
Currency swap contracts      Loans payable and receivable  
Interest rate swap contracts      Loans payable and receivable  
Fuel swap contracts      Purchase price of fuel  
Forward foreign exchange contracts      Forecasted foreign currency transactions, investments in overseas subsidiaries

- ③ Risks inherent in derivative transactions  
Derivative transactions are subject to inherent market risk, which is derived from future changes in market prices (currency rates, interest rates, and share prices), and credit risk, which arises from the counterparties becoming unable to perform their contractual obligations. The derivative financial instruments utilized by the Company and its consolidated subsidiaries are only those that offset the fluctuation in fair value of the underlying financial assets and liabilities; thereby, the Company and its consolidated subsidiaries are not exposed to material market risk. The counterparties in the derivative transactions are financial institutions with high credit ratings, implying that credit risk is immaterial.

#### c. Risk management for financial instruments

- ① Credit risk management  
The Company utilizes credit management regulations to minimize its risk on notes and operating accounts receivable—trade and long-term loans receivable. In terms of held-to-maturity debt securities, in line with the asset management regulations, the Company and its consolidated subsidiaries hold only highly rated debt securities, so credit risk is negligible.  
② Market risk management  
To hedge exchange rate fluctuation risk associated with foreign currency assets and liabilities, the Company and its consolidated subsidiaries make use of forward foreign exchange contracts, currency swap contracts, and other methods.  
The Company and its consolidated subsidiaries utilize interest rate swaps and other methods to avert the fluctuation risks of interest paid on loans payable.

The Company and its consolidated subsidiaries periodically ascertain the price of short-term and long-term investment securities and the financial conditions of their issuers (corporate business partners).

The Company and its consolidated subsidiaries review the status of their holdings in instruments other than held-to-maturity debt securities on an ongoing basis, taking into consideration their relationships with their corporate business partners.

The derivative transactions of the Company and its consolidated subsidiaries follow the internal approval process specified in the Company's Rules for Risk Management Employing Financial Instruments and other rules and regulations, and are subject to internal controls operated principally by the divisions in charge of accounting. In addition, to prevent improper transactions, the back-office function for these transactions is performed by personnel of the Company and its consolidated subsidiaries who are not directly involved in the transactions. The contract amounts and other information related to derivative financial instruments are reported to the Board of Directors periodically.

- ③ Management of liquidity risk associated with capital-raising activities  
Cash planning is made and updated by the financial division of the Company on a timely basis based on reports from business divisions of the Company, and the Company also enters into commitment-line contracts with a number of financial institutions in order to meet unexpected cash demand.

#### d. Supplementary explanation of fair value of financial instruments and others

The fair value of financial instruments includes, in addition to the value determined based on market prices, valuations calculated on a reasonable basis if no market price is available. However, as certain variables are used for these calculations, the result of such calculations may vary if different assumptions are used. The contract amounts of interest rate swap transactions and currency swap transactions do not represent the amounts exchanged by the parties and do not measure the Company's and its consolidated subsidiaries' exposure to credit or market risk.

#### (2) Disclosure of the Fair Value of Financial Instruments and Others

The table below shows the book value of financial instruments as indicated in the consolidated balance sheets as of March 31, 2017 and 2016, as well as their fair values and unrealized gains or losses. Note that financial instruments for which fair value cannot be reliably determined are not included in this table (Refer to Note b).

	2017			2016			2017		
	Book value	Fair value	Difference	Book value	Fair value	Difference	Book value	Fair value	Difference
Millions of yen									
Thousands of U.S. dollars (Note 2)									
○ Cash and deposits	¥ 143,180	¥ 143,180	¥ -	¥ 237,219	¥ 237,219	¥ -	\$ 1,276,230	\$ 1,276,230	\$ -
○ Notes and operating accounts receivable—trade	249,094			222,831			2,220,291		
	(1,474)			(1,547)			(13,140)		
○ Allowance for doubtful accounts <sup>*1</sup>	247,620	247,620	-	221,283	221,283	-	2,207,151	2,207,151	-
○ Balance									
○ Short-term and long-term investment securities (Note 5)									
○ Held-to-maturity debt securities	117	124	7	24,117	24,124	7	1,045	1,112	66
○ Available-for-sale securities	140,471	140,471	-	120,387	120,387	-	1,252,089	1,252,089	-
○ Investments in affiliates	13,851	14,303	451	13,554	8,750	(4,803)	123,468	127,494	4,025
○ Long-term loans receivable	30,028			29,678			267,657		
	(135)			(87)			(1,208)		
○ Allowance for doubtful accounts <sup>*1</sup>									
○ Balance	29,892	31,062	1,169	29,590	31,743	2,152	266,448	276,871	10,423
○ Subtotal	575,134	576,763	1,628	646,152	643,509	(2,643)	5,126,434	5,140,949	14,515
○ Notes and operating accounts payable—trade	196,317	196,317	-	178,065	178,065	-	1,749,864	1,749,864	-
○ Short-term loans payable	102,842	102,842	-	92,374	92,374	-	916,683	916,683	-
○ Bonds payable	145,000	152,072	7,072	145,445	155,011	9,566	1,292,450	1,355,486	63,035
○ Long-term loans payable	686,598	700,532	13,933	690,005	709,102	19,097	6,119,964	6,244,158	124,194
○ Subtotal	1,130,758	1,151,764	21,005	1,105,889	1,134,553	28,664	10,078,963	10,266,193	187,230
○ Derivative financial instruments <sup>*2</sup>	(3,628)	(3,628)	-	(2,564)	(2,564)	-	(32,340)	(32,340)	-

\*1. An individual listing of allowance for doubtful accounts on notes and operating accounts receivable—trade and long-term loans receivable has been omitted.

\*2. Amounts of derivative financial instruments are net of related assets and liabilities.

#### a. Calculation method for the market value of financial instruments and matters concerning marketable securities and derivative transactions

##### Assets

- ① Cash and deposits  
These assets are stated at book value as they are settled in the short term and their market values approximate book values.  
② Notes and operating accounts receivable—trade  
These assets are stated at book value as they are settled in the short term and their market values approximate book values.  
Claims with default possibility are stated at adjusted book value. The expected amount of doubtful accounts on these assets are calculated based on either the present value of expected future cash flows or the expected recoverable amount of their collateral or the guarantees; hence, their market values approximate their book values at the closing date, less the current expected amount of doubtful accounts.

- ③ Short-term and long-term investment securities  
Shares are stated at the stock exchange quoted price and bonds are stated at either the stock exchange quoted price or the price presented by transacting financial institutions.  
④ Long-term loans receivable  
Long-term loans receivable with variable interest rates are stated at book value. The interest rate on these assets reflects the market rate in the short term; therefore, their market values approximate book values. Those with fixed-interest rates are stated at market value, which is calculated by discounting the principal and interest using the assumed rate applied to a similar type of new loan. Meanwhile, loans with default possibility are stated at adjusted book value. The expected amount of doubtful accounts on these assets are calculated based on either the present value of expected future cash flows or the expected recoverable amount of their collateral or guarantees; hence, their market values approximate their book values at the closing date, less the current expected amount of doubtful accounts.

## Liabilities

- ① Notes and operating accounts payable-trade and
- ② Short-term loans payable

These assets are stated at book value as they are settled in the short term and their market values approximate book values.

- ③ Bonds payable

The market value of the corporate bonds issued by the Company is calculated based on the market price.

- ④ Long-term loans payable

Long-term loans payable with variable interest rates are stated at book value as the interest rate on these loans reflects the market rate in the short term and their

- b. Financial instruments for which fair value cannot be reliably determined

Segment	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
Investments in unconsolidated subsidiaries and affiliates		Book value		Book value
Shares in unlisted companies	¥225,392	¥197,252	\$2,009,029	
Others	12,306	11,936	109,694	
	18,095	14,841	161,290	
<b>Total</b>	<b>235,794</b>	<b>224,031</b>	<b>2,280,014</b>	

As these instruments do not have readily available market values, and their fair values cannot be reliably determined, they are not included in “③ Short-term and long-term investment securities.”

## c. Maturity analysis for financial assets and securities with contractual maturities

	Millions of yen					2016				
	2017	More than one year, within five years	More than one year, within five years	More than one year, within five years	More than one year, within five years	2016	More than one year, within five years	More than one year, within five years	More than one year, within five years	More than one year, within five years
Cash and deposits	¥143,180	¥ -	¥ -	¥ -	¥ -	¥237,219	¥ -	¥ -	¥ -	¥ -
Notes and operating accounts receivable-trade	247,587	1,507	-	-	221,748	1,083	-	-	-	-
Short-term and long-term investment securities:										
Held-to-maturity debt securities (government bonds)	-	100	-	-	-	100	-	-	-	-
Held-to-maturity debt securities (others)	-	17	-	-	24,000	17	-	-	-	-
Available-for-sale securities with maturity dates (government bonds)	-	42	-	-	18	42	-	-	-	-
<b>Long-term loans receivable</b>	<b>390,767</b>	<b>16,726</b>	<b>7,040</b>	<b>7,927</b>	<b>482,986</b>	<b>15,082</b>	<b>2,732</b>	<b>13,104</b>	<b>13,104</b>	<b>13,104</b>

Thousands of U.S. dollars (Note 2)

	2017					2016				
	Within one year	More than one year, within two years	More than two years, within three years	More than three years, within four years		Within one year	More than one year, within two years	More than two years, within three years	More than three years, within four years	
Cash and deposits	\$1,276,230	\$ -	\$ -	\$ -		\$1,276,230	\$ -	\$ -	\$ -	
Notes and operating accounts receivable-trade	2,206,858	13,432	-	-		2,206,858	13,432	-	-	
Short-term and long-term investment securities:										
Held-to-maturity debt securities (government bonds)	-	891	-	-		-	891	-	-	
Held-to-maturity debt securities (others)	-	154	-	-		-	154	-	-	
Available-for-sale securities with maturity dates (government bonds)	-	374	-	-		-	374	-	-	
<b>Long-term loans receivable</b>	<b>3,483,088</b>	<b>149,089</b>	<b>62,755</b>	<b>70,665</b>		<b>3,483,088</b>	<b>149,089</b>	<b>62,755</b>	<b>70,665</b>	

## d. Maturity analysis for corporate bonds and long-term loans after the balance sheet date

	Millions of yen					2017				
	Within one year	More than one year, within two years	More than two years, within three years	More than three years, within four years	More than four years, within five years	2017	More than one year, within two years	More than two years, within three years	More than three years, within four years	More than four years, within five years
Short-term loans payable	¥102,842	¥ -	¥ -	¥ -	¥ -	¥102,842	¥ -	¥ -	¥ -	¥ -
Bonds payable	-	30,000	30,000	20,000	25,000	-	30,000	30,000	20,000	25,000
Long-term loans payable	-	99,628	81,539	94,033	106,695	-	99,628	81,539	94,033	106,695
<b>Total</b>	<b>102,842</b>	<b>129,628</b>	<b>111,539</b>	<b>114,033</b>	<b>131,695</b>	<b>102,842</b>	<b>129,628</b>	<b>111,539</b>	<b>114,033</b>	<b>131,695</b>

Thousands of U.S. dollars (Note 2)

	2017					2016				
	Within one year	More than one year, within two years	More than two years, within three years	More than three years, within four years	More than four years, within five years	2017	More than one year, within two years	More than two years, within three years	More than three years, within four years	More than four years, within five years
Short-term loans payable	\$916,683	\$ -	\$ -	\$ -	\$ -	\$916,683	\$ -	\$ -	\$ -	\$ -
Bonds payable	-	267,403	267,403	178,269	222,836	-	267,403	267,403	178,269	222,836
Long-term loans payable	-	888,030	726,801	838,159	951,025	-	888,030	726,801	838,159	951,025
<b>Total</b>	<b>916,683</b>	<b>1,155,434</b>	<b>994,204</b>	<b>1,016,428</b>	<b>1,173,862</b>	<b>916,683</b>	<b>1,155,434</b>	<b>994,204</b>	<b>1,016,428</b>	<b>1,173,862</b>

Millions of yen

	2016					2015				
	Within one year	More than one year, within two years	More than two years, within three years	More than three years, within four years	More than four years, within five years	2016	More than one year, within two years	More than two years, within three years	More than three years, within four years	More than four years, within five years
Short-term loans payable	¥92,374	¥ -	¥ -	¥ -	¥ -	¥92,374	¥ -	¥ -	¥ -	¥ -
Bonds payable	-	-	30,000	30,000	20,000	-	-	30,000	30,000	20,000
Long-term loans payable	-	91,508	97,516	89,951	51,546	-	91,508	97,516	89,951	51,546
<b>Total</b>	<b>92,374</b>	<b>91,508</b>	<b>127,516</b>	<b>119,951</b>	<b>71,546</b>	<b>92,374</b>	<b>91,508</b>	<b>127,516</b>	<b>119,951</b>	<b>71,546</b>



## 5. Securities

(1) Short-term and long-term investment securities held-to-maturity with fair value as of March 31, 2017 and 2016, are summarized as follows:

	Millions of yen				Thousands of U.S. dollars (Note 2)			
	2017		2016		2017		2016	
	Book value	Fair value	Book value	Fair value	Book value	Fair value	Difference	Difference
<b>Securities for which fair value exceeds book value:</b>								
Government bonds and others	¥100	¥102	¥2	¥104	\$ 891	\$ 917	\$26	
Corporate bonds	-	-	-	-	-	-	-	
Others	17	21	4	17	154	194	40	
<b>Subtotal</b>	<b>117</b>	<b>124</b>	<b>7</b>	<b>117</b>	<b>1,045</b>	<b>1,112</b>	<b>66</b>	
<b>Securities for which fair value is equal to or less than book value:</b>								
Government bonds and others	-	-	-	-	-	-	-	
Corporate bonds	-	-	-	-	-	-	-	
Others	-	-	-	24,000	-	-	-	
<b>Subtotal</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>24,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>Total</b>	<b>117</b>	<b>124</b>	<b>7</b>	<b>24,117</b>	<b>1,045</b>	<b>1,112</b>	<b>66</b>	

(2) Short-term and long-term investment securities classified as available-for-sale securities with fair value as of March 31, 2017 and 2016, are summarized as follows:

	Millions of yen				Thousands of U.S. dollars (Note 2)			
	2017		2016		2017		2016	
	Book value	Acquisition costs	Book value	Acquisition costs	Book value	Acquisition costs	Difference	Difference
<b>Securities for which book value exceeds acquisition costs:</b>								
Corporate shares	¥126,278	¥54,930	¥71,347	¥104,962	\$1,125,574	\$489,623	\$635,950	
Government bonds and others	42	41	0	60	375	372	3	
Corporate bonds	-	-	-	-	-	-	-	
Others	-	-	-	-	-	-	-	
<b>Subtotal</b>	<b>126,320</b>	<b>54,972</b>	<b>71,347</b>	<b>105,022</b>	<b>1,125,949</b>	<b>489,996</b>	<b>635,953</b>	
<b>Securities for which book value is equal to or less than acquisition costs:</b>								
Corporate shares	14,142	17,681	(3,538)	15,356	126,059	157,603	(31,543)	
Government bonds and others	-	-	-	-	-	-	-	
Corporate bonds	-	-	-	-	-	-	-	
Others	9	15	(6)	8	80	141	(60)	
<b>Subtotal</b>	<b>14,151</b>	<b>17,697</b>	<b>(3,545)</b>	<b>15,365</b>	<b>126,139</b>	<b>157,744</b>	<b>(31,604)</b>	
<b>Total</b>	<b>140,471</b>	<b>72,670</b>	<b>67,801</b>	<b>120,387</b>	<b>1,252,089</b>	<b>647,740</b>	<b>604,349</b>	

"Acquisition costs" are the book value after recording of impairment losses. Impairment losses were recognized in the fiscal year ended March 31, 2017, and were recorded as a loss on valuation of investment securities in the amount of ¥9,720 million (\$86,640 thousand).

(3) Proceeds, gains, and losses on sales of available-for-sale securities in the fiscal years ended March 31, 2017 and 2016, are summarized as follows:

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
Proceeds from sales		¥1,309		\$2,002
Gross realized gains	¥224	468		1,106
Gross realized losses	(0)	(30)		(0)

## 6. Derivatives

Derivative financial instruments with fair value as of March 31, 2017 and 2016, are summarized as follows:

(1) Derivative transactions not qualifying for hedge accounting

	Millions of yen				Thousands of U.S. dollars (Note 2)			
	2017		2016		2017		2016	
	Contracts outstanding (more than one year)	Fair value	Contracts outstanding (more than one year)	Fair value	Contracts outstanding (more than one year)	Fair value	Contracts outstanding (more than one year)	Fair value
<b>a. Currency-related</b>								
<b>Forward foreign currency exchange contracts:</b>								
Buy U.S. dollar, sell Japanese yen	¥ 678	¥ -	¥ 1,184	¥ -	\$ 6,045	\$ -	\$ -	\$ (56)
Sell U.S. dollar, buy Japanese yen	149,574	-	191,579	-	1,333,220	-	-	1,788
Sell Chinese Yuan, buy U.S. dollar	8,511	-	-	-	75,871	-	-	(29)
Sell Thai baht, buy Japanese yen	2,372	-	5,360	-	21,146	-	-	(1,570)
Sell Euro, buy Japanese yen	-	-	1,891	-	-	-	-	-
Others	12,884	211	6,069	-	114,844	1,883	-	(879)
<b>Currency swaps:</b>								
Receive Japanese yen, pay U.S. dollar	6,805	6,336	-	-	60,662	56,479	-	462
Receive U.S. dollar, pay Japanese yen	1,420	-	-	-	12,660	-	-	35
Receive Thai baht, pay Euro	914	-	942	-	8,149	-	-	181
Receive Thai baht, pay Japanese yen	2,640	-	957	-	23,536	-	-	1,036
<b>Interest rate currency swaps:</b>								
Receive U.S. dollar floating, pay Mexican Peso fixed	327	315	-	-	2,921	2,815	-	218
	<b>186,129</b>	<b>6,863</b>	<b>133</b>	<b>207,984</b>	<b>1,639,058</b>	<b>61,178</b>	<b>1,187</b>	
<b>b. Interest rate-related</b>								
<b>Interest rate swaps:</b>								
Receive fixed, pay floating	1,280	464	14	3,021	11,416	4,135	130	
Receive floating, pay fixed	1,257	466	(18)	2,993	11,212	4,158	(161)	
	<b>2,538</b>	<b>930</b>	<b>(3)</b>	<b>6,015</b>	<b>22,628</b>	<b>8,294</b>	<b>(31)</b>	
<b>c. Commodity-related</b>								
<b>Freight (chartered-freight) forward transactions:</b>								
Forward chartered-freight agreements on buyer's side	-	-	64	-	-	-	-	-
Forward chartered-freight agreements on seller's side	711	-	(78)	-	6,339	-	(698)	
	<b>711</b>	<b>-</b>	<b>(78)</b>	<b>64</b>	<b>6,339</b>	<b>-</b>	<b>(698)</b>	

1. Indicated values are based on the market rates reported by the financial institutions handling these transactions for the Company or present value as of March 31.

(2) Derivative transactions qualifying for hedge accounting

		Thousands of U.S. dollars (Note 2)		
		Millions of yen		
		2017	2016	2017
		Contracts outstanding	Contracts outstanding	Contracts outstanding
		Fair value	Fair value	Fair value
<b>a. Currency-related</b>				
<b>Derivative transactions qualifying for general accounting policies, deferred hedge accounting</b>				
Forward foreign currency exchange contracts:	Principal items hedged:			
Sell U.S. dollar, buy Japanese yen	Investment for equity of overseas subsidiary	¥130,383	¥ 130,357	¥ 2,732
Sell Euro, buy Japanese yen		5,494	-	(159)
Others		782	283	20
<b>Currency swaps:</b>				
Receive Japanese yen, pay U.S. dollar	Charterage received	-	-	-
Receive U.S. dollar, pay Malaysian ringgit	Loans payable	1,228	842	184
Receive Singapore dollar, pay U.S. dollar	Loans receivable	474	411	(59)
<b>Foreign exchange contracts and other derivative transactions qualifying for designation accounting</b>				
Forward foreign currency exchange contracts:	Principal items hedged:			
Buy U.S. dollar, sell Japanese yen	Forecasted capital expenditures	1,575	1,575	59
Sell U.S. dollar, buy Japanese yen		1,120	-	(0)
Others		1,352	-	41
<b>Integration treatment of interest rate and currency swaps (qualifying for designation accounting and exceptional accounting)</b>				
Interest rate and currency swaps:	Principal items hedged:			
Receive fixed U.S. dollar, pay floating Japanese yen	Accounts payable	6,125	4,763	729
		148,534	27,233	3,548
		1,323,956	242,746	31,629
<b>b. Interest rate-related</b>				
<b>Derivative transactions qualifying for general accounting policies, deferred hedge accounting</b>				
Interest rate swaps:	Principal items hedged:			
Receive fixed, pay floating		10,000	10,000	984
Receive floating, pay fixed	Long-term loans payable	126,219	114,530	(7,932)
<b>Interest rate swap derivative transactions qualifying for exceptional accounting</b>				
Interest rate swaps:	Principal items hedged:			
Receive fixed, pay floating	Long-term loans payable	25,000	25,000	25,000
Receive floating, pay fixed		53,662	43,085	* 2
		214,881	192,616	(6,825)
<b>c. Commodity-related</b>				
<b>Derivative transactions qualifying for general accounting policies, deferred hedge accounting</b>				
Freight (charter/dry-dock) forward transactions:	Principal items hedged:			
Forward charter/dry-dock agreements on seller's side	Charterage received	-	-	-
Fuel swaps	Principal items hedged:			
Receive floating, pay fixed	Fuel	23,132	2,068	530
Fuel oil call transactions * 3	Principal items hedged:			
Buy call option, sell put option	Fuel	13,291	-	(39)
		36,423	2,068	491
		23,801	700	(5,218)

\* 1. Fair values are based on the market rates reported by the financial institutions handling these transactions for the Company or present value as of March 31, 2017 and 2016.  
2. As exceptional accounting for interest rate swaps is handled together with the long-term loans payable hedged, their fair value is included in that of the long-term loans payable.  
3. The currency options and fuel oil call transactions are zero-cost option transactions, and call options and put options are shown as a lump sum because they are included in integrated contracts.

7. Inventories

Inventories as of March 31, 2017 and 2016, consisted of the following:

	2017	2016	Thousands of U.S. dollars (Note 2)
Products and goods	¥1,681	¥ 2,089	\$ 14,986
Work in progress	539	516	4,804
Raw materials, fuel and supplies	37,468	24,888	333,976

8. Accumulated Depreciation

As of March 31, 2017 and 2016, accumulated depreciation of vessels, property, plant, and equipment is as follows:

	2017	2016	Thousands of U.S. dollars (Note 2)
Accumulated depreciation	¥987,379	¥977,814	\$8,800,961

9. Investment in Non-consolidated Subsidiaries and Affiliates

Amounts corresponding to non-consolidated subsidiaries and affiliates as of March 31, 2017 and 2016 are as follows:

	2017	2016	Thousands of U.S. dollars (Note 2)
Investment securities (stocks)	¥239,244	¥210,806	\$2,132,498
Other in investment and other assets (investment in capital)	14,410	13,919	128,443

10. Investment and Rental Property

The Company and some of its consolidated subsidiaries own offices and other buildings (including land) for earning rentals and other purposes in Tokyo and other regions. Profit from rentals related to these properties (with main rental income recorded as revenues and main rental expense recorded as costs and expenses) in the consolidated fiscal year ended March 31, 2017, totaled ¥4,775 million (\$42,564 thousand), and profit from sales totaled ¥1,093 million (\$9,744 thousand) (with gain on sales as other gains and loss on sales as other losses).

The amounts recorded in the consolidated balance sheets, the increase (decrease) during the fiscal years ended March 31, 2017 and 2016, and the fair values of the relevant investment and rental property as of March 31, 2017 and 2016, are as follows:

	2017	2016	Thousands of U.S. dollars (Note 2)
Amount recorded in consolidated balance sheets:			
Balance at beginning of year	¥ 49,175	¥ 39,923	\$ 438,320
Increase (decrease) during the fiscal year	(1,128)	9,251	(10,056)
Balance at end of year	48,046	49,175	428,263
Fair value as of current fiscal year end	112,646	110,619	1,004,069

\* 1. The amount recorded in the consolidated balance sheets is the acquisition cost, net of accumulated depreciation and impairment losses.  
2. Of the increase (decrease) during the fiscal year ended March 31, 2017, the primary increase was ¥1,133 million (\$10,100 thousand) from acquisition and the primary decreases were ¥1,017 million (\$9,339 thousand) from depreciation and ¥1,606 million (\$14,320 thousand) from sales.  
3. The market value as of the fiscal year end is the amount calculated primarily based on the Real Estate Appraisal Standard (including adjustments made using indexes).

## 11. Deferred Capital Gains

Under certain conditions, such as exchanges of fixed assets of similar kinds, gains from insurance claims, and sales and purchases resulting from expropriation, Japanese tax laws permit companies to defer gains arising from such transactions by reducing the cost of the assets

acquired. As such, deferred capital gains from insurance claims were deducted from the cost of properties acquired in replacement, which amounted to ¥6,744 million (\$60,120 thousand) and ¥6,687 million as of March 31, 2017 and 2016, respectively.

## 12. Short-Term and Long-Term Debt

(1) Bonds as of March 31, 2017 and 2016, consisted of the following:

	Interest rate	Maturity date	2017	2016	2017
			Millions of yen	Millions of yen	Thousands of U.S. dollars (Note 2)
Unsecured Straight Bonds No. 23	2.36%	June 7, 2024	¥ 10,000	¥ 10,000	\$ 89,134
Unsecured Straight Bonds No. 24*1	2.06%	June 22, 2016	-	-	-
Unsecured Straight Bonds No. 25	2.65%	June 22, 2026	10,000	10,000	89,134
Unsecured Straight Bonds No. 27*1	2.05%	June 20, 2017	-	-	-
Unsecured Straight Bonds No. 29	1.782%	August 9, 2019	30,000	30,000	267,403
Unsecured Straight Bonds No. 30*1	0.475%	September 9, 2016	-	-	-
Unsecured Straight Bonds No. 31	1.218%	September 9, 2021	25,000	25,000	222,836
Unsecured Straight Bonds No. 32	2.13%	September 9, 2031	10,000	10,000	89,134
Unsecured Straight Bonds No. 33*1	0.472%	June 16, 2017	-	-	-
Unsecured Straight Bonds No. 34	0.594%	June 18, 2018	10,000	10,000	89,134
Unsecured Straight Bonds No. 35	1.177%	June 17, 2022	20,000	20,000	178,269
Unsecured Straight Bonds No. 36	0.572%	September 13, 2018	20,000	20,000	178,269
Unsecured Straight Bonds No. 37	0.939%	September 11, 2020	20,000	20,000	178,269
Convertible bonds *2 *3	0%	September 24, 2026	-	445	-
<b>Total</b>			<b>145,000</b>	<b>145,445</b>	<b>1,292,450</b>

\*1. Unsecured Straight Bonds No. 24, Unsecured Straight Bonds No. 27, Unsecured Straight Bonds No. 30, and Unsecured Straight Bonds No. 33 were treated as a redemption as a debt assumption contract was entered into and debts to be discharged were transferred. Further, bond redemption obligations with respect to bondholders have been noted as contingent liabilities in the consolidated balance sheets.

2. An early redemption for the entire convertible bonds were carried out on November 10, 2016.

3. Details of convertible bonds were as follows:

	Ordinary shares of common stock
Class of shares to be issued	-
Issue price for warrants	¥777.96 (\$6.93 (Note 2))
Exercise price per share	¥0 million (\$0 thousand (Note 2))
Total amount of debt securities issued	-
Total amount of shares issued by exercising warrants	100
Percentage of shares with warrants (%)	October 4, 2006-September 10, 2026
Exercise period	

The aggregate annual maturities of convertible bonds and bonds as of March 31, 2017, were as follows:

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	More than one year, within one year	More than two years, within two years	More than three years, within three years	More than four years, within four years
Within one year	¥30,000	¥30,000	¥20,000	¥25,000
¥-				
	More than one year, within one year	More than two years, within two years	More than three years, within three years	More than four years, within four years
Within one year	\$267,403	\$267,403	\$178,269	\$222,836
\$-				

(2) Loans payable, obligations under finance leases, and other interest-bearing liabilities as of March 31, 2017 and 2016, were as follows:

	Average interest rate	Repayment deadline	2017	2016	Thousands of U.S. dollars (Note 2)
			Millions of yen	Millions of yen	
Short-term loans payable (including overdraft)	1.26%	-	¥ 13,312	¥ 10,157	\$ 118,657
Current portion of long-term loans payable	1.28%	-	89,530	82,216	798,026
Current portion of obligations under finance leases	3.07%	-	1,155	3,854	10,301
Long-term loans payable	1.32%	2018-2031	686,598	690,005	6,119,964
Obligations under finance leases	2.34%	2018-2026	9,794	8,897	87,303
Other interest-bearing liabilities					
Current portion of long-term accounts payable	1.61%	-	1,361	1,361	12,132
Long-term accounts payable	1.81%	2021	7,856	9,230	70,025
<b>Total</b>			<b>809,609</b>	<b>805,723</b>	<b>7,216,410</b>

Average interest rate is the weighted average interest rate for amounts outstanding as of the fiscal year end.

Long-term loans payable, obligations under finance leases, and long-term accounts payable (excluding current portion) scheduled for repayment within five years from March 31, 2017, are as follows:

	More than one year, within two years	More than two years, within three years	More than three years, within four years	More than four years, within five years	Thousands of U.S. dollars (Note 2)
	Millions of yen	Millions of yen	Millions of yen	Millions of yen	
Long-term loans payable	¥99,628	¥81,539	¥94,033	¥106,695	
Obligations under finance leases	1,076	2,833	814	749	
Long-term accounts payable	1,361	1,361	1,361	3,772	
<b>Total</b>	<b>\$888,030</b>	<b>\$726,801</b>	<b>\$838,159</b>	<b>\$951,025</b>	
Long-term loans payable	9,591	25,252	7,263	6,680	
Obligations under finance leases	12,132	12,132	12,132	33,628	
Long-term accounts payable					

## 13. Pledged Assets and Secured Liabilities:

As of March 31, 2017, the following assets were pledged as collateral for short-term loans payable, long-term loans payable, and others:

	Millions of yen	Thousands of U.S. dollars (Note 2)
	Net book value	
Pledged assets		
Cash and deposits	¥ 1,877	\$ 16,732
Vessels *	192,790	1,718,431
Buildings and structures	842	7,511
Land	3,699	32,973
Investment securities *	63,697	567,766
Others	4	36
<b>Total</b>	<b>262,911</b>	<b>2,343,451</b>
<b>Secured liabilities</b>	<b>Net book value</b>	<b>Thousands of U.S. dollars (Note 2)</b>
Short-term loans payable	¥ 16,377	\$ 145,978
Long-term loans payable	152,709	1,361,171
<b>Total</b>	<b>169,087</b>	<b>1,507,149</b>

\*. Vessels include ¥313 million (\$2,791 thousand) and investment securities include ¥63,649 million (\$567,339 thousand) pledged as collateral for the debt of affiliates, etc.



#### 14. Supplementary Information on Consolidated Statements of Cash Flows

Cash and cash equivalents in the accompanying consolidated statements of cash flows for the years ended March 31, 2017 and 2016, are reconciled to cash and deposits reflected in the accompanying consolidated balance sheets as of March 31, 2017 and 2016, as follows:

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
Cash and deposits				
Time deposits with a maturity of more than three months	¥143,180	¥237,219	\$1,276,230	
Certificate of deposit with a maturity of not more than three months after the purchase date (included in short-term investment securities on consolidated balance sheets)	(5,735)	(7,600)	(51,125)	
Cash and cash equivalents	-	24,000	-	
	137,444	253,618	1,225,104	

#### 15. Income Taxes

(1) Significant components of deferred tax assets and liabilities as of March 31, 2017 and 2016, were as follows:

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
<b>Deferred tax assets:</b>				
Provision for bonuses	¥ 2,239	¥ 2,364	\$ 19,965	
Net defined benefit liabilities	4,889	5,056	43,583	
Impairment loss on vessels, property, plant, and equipment	56,693	13,270	505,338	
Losses on revaluation of securities	6,832	4,773	60,898	
Tax loss carryforwards	80,414	51,232	716,767	
Unrealized gains on sale of vessels, property, plant, and equipment	1,526	1,559	13,609	
Provision for periodic dry docking of vessels	6,115	5,611	54,510	
Accrued expenses	1,523	1,903	13,581	
Deferred loss on derivatives under hedge accounting	8,280	10,322	73,807	
Allowance for doubtful accounts	2,267	1,302	20,207	
Provision for losses related to contracts	6,256	2,526	55,770	
Others	8,342	5,332	74,361	
<b>Subtotal of deferred tax assets</b>	<b>185,383</b>	<b>105,255</b>	<b>1,632,402</b>	
<b>Valuation allowance</b>	<b>(171,877)</b>	<b>(89,110)</b>	<b>(1,532,019)</b>	
<b>Total deferred tax assets</b>	<b>13,505</b>	<b>16,144</b>	<b>120,382</b>	
<b>Deferred tax liabilities:</b>				
Net defined benefit asset	(12,358)	(9,603)	(110,155)	
Gain on securities contribution to employee retirement benefit trust	(2,864)	(2,858)	(25,530)	
Depreciation	(2,810)	(4,132)	(25,054)	
Reserve for reduction entry	(4,433)	(4,406)	(39,517)	
Valuation difference on available-for-sale securities	(18,775)	(16,381)	(167,358)	
Deferred gain on derivatives under hedge accounting	(3,938)	(3,641)	(35,107)	
Undistributed retained earnings of consolidated subsidiaries	(3,692)	(2,002)	(32,914)	
Others	(10,002)	(7,221)	(89,155)	
<b>Total deferred tax liabilities</b>	<b>(58,876)</b>	<b>(50,248)</b>	<b>(524,795)</b>	
<b>Net deferred tax (liabilities) assets</b>	<b>(45,371)</b>	<b>(34,103)</b>	<b>(404,412)</b>	

(2) Reconciliation of the statutory income tax rate to the effective income tax rate for the years ended March 31, 2017 and 2016, was as follows:

	2017	2016
Normal statutory income tax rate	28.9%	29.8%
<b>Increase (decrease) in taxes resulting from:</b>		
Amortization of goodwill	-	0.9
Equity in earnings of unconsolidated subsidiaries and affiliates	-	(7.9)
Permanently non-deductible expenses for tax purposes, such as entertainment expenses	-	1.1
Changes in valuation allowance	-	29.2
Tax exemption of shipping business	-	(10.1)
Effects of foreign tax included in deductible expenses	-	13.1
Income tax for prior periods	-	1.2
Other	-	1.2
<b>Actual effective income tax rate</b>	<b>-</b>	<b>58.5%</b>

\* For the fiscal year ended March 31, 2017, the reconciliation of the statutory tax rate to the effective income tax rate is not stated as the Company and its consolidated subsidiaries recorded loss before income taxes.

#### 16. Equity

The consolidated financial statements have been reported in accordance with the provisions set forth in the Japanese Companies Act (the "Companies Act").

##### (1) Dividends

Under the Companies Act, companies can pay dividends at any time during the fiscal year in addition to the year-end dividend upon resolution at the shareholders' meeting. For companies that meet certain criteria, such as (a) having a Board of Directors, (b) having independent auditors, (c) having Audit & Supervisory Board and (d) the term of service of the directors is prescribed as one year or more, the Companies Act also provides that companies can pay dividends at any time during the fiscal year if the company has prescribed so in its articles of incorporation.

Semiannual Interim dividends may also be paid once a year upon resolution of the company as stipulated. The Companies Act provides certain limitations on the amounts available for dividends or the purchase of treasury stock. The limitation is defined as the amount available for distribution to the shareholders, but the amount of net assets after dividends must be maintained at no less than ¥3 million.

##### (2) Increases/decreases and transfer of common stock, reserve, and surplus

The Companies Act requires that an amount equal to 10% of dividends must be appropriated as legal retained

earnings (a component of retained earnings) or as legal capital surplus (a component of capital surplus) depending on the equity account charged upon the payment of such dividends, until the aggregate amount of legal retained earnings and legal capital surplus equals 25% of the amount of common stock. Under the Companies Act, the total amount of legal retained earnings and legal capital surplus may be reversed without limitation. The Companies Act also provides that common stock, legal retained earnings and legal capital surplus, other capital surplus, and retained earnings can be transferred among the accounts under certain conditions upon resolution by the shareholders.

##### (3) Treasury stock and treasury stock acquisition rights

The Companies Act also provides for companies to purchase treasury stock and dispose of such treasury stock upon resolution by the Board of Directors. The amount of treasury stock purchased cannot exceed the amount available for distribution to the shareholders, which is determined by a specific formula. Under the Companies Act, stock acquisition rights are presented as a component of equity. The Companies Act also provides that companies can purchase both treasury stock purchase rights and treasury stock. Such treasury stock acquisition rights are presented as a separate component of equity or deducted directly from stock acquisition rights.

**(A) Matters concerning outstanding shares**

Changes in the number of outstanding shares in the consolidated fiscal year ended March 31, 2017, were as follows:

	Share of common stock (Thousands)	Share of treasury stock (Thousands)
At March 31, 2016		4,671
Increase in number of shares	1,700,550	9,389
Decrease in number of shares	-	10
At March 31, 2017	1,700,550	14,050

**(B) Matters concerning dividends**

Total dividend payments to be paid for the consolidated fiscal year ended March 31, 2017, are as follows:

	Millions of yen	Thousands of U.S. dollars (Note 2)
Approved at the ordinary general meeting of shareholders on June 20, 2016	¥3,391	\$30,232

**17. Impairment Losses**

The Company and its consolidated subsidiaries have grouped business assets into businesses separated for management accounting purposes and for making separate investment decisions, while properties for rent, assets held for sale and idle assets are grouped on the basis of individual assets. In the consolidated fiscal year

ended March 31, 2017, regarding assets held for sale with their estimated sales prices lower than book value and business assets with deteriorated profitability due to poor business performance, the book value is reduced to the recoverable amount and reduced amount is posted as impairment loss of ¥168,127 million (\$1,498,596 thousand).

The breakdown is as follows:

Location	Application	Type	Millions of yen	Thousands of U.S. dollars (Note 2)
Japan	Assets for operations	Vessels (Container ships)	¥ 74,297	\$ 662,249
Japan	Assets for operations	Vessels (Dry bulk carriers)	77,860	694,009
Japan	Assets held for sale	Cargo aircrafts and others	7,377	65,761
Belgium	Assets for operations	Vessels (Dry bulk carriers)	5,688	50,706
Singapore	Assets held for sale	Vessels and others	1,946	17,352
Others	Assets for operations	Buildings and structures	955	8,517
Total			168,127	1,498,596

The recoverable amount for these asset groups will be the higher of the net selling price of the asset or its value in use. The net selling price is based on an appraisal value reasonably calculated by a third party, etc., and the value in use is calculated from the projected future cash flows discounted mainly at 5.86%.

**18. Other Comprehensive Income**

The components of other comprehensive income for the years ended March 31, 2017 and 2016, were as follows:

	2017	2016	Thousands of U.S. dollars (Note 2)
Unrealized gain (loss) on available-for-sale securities:			
Gains (losses) arising during the year	¥ 20,398	¥(29,576)	\$181,825
Reclassification adjustments to profit or loss for the year	37	(181)	335
Amount before income tax effect	20,436	(29,757)	182,160
Income tax effect	(5,856)	9,283	(52,200)
Total	14,580	(20,474)	129,960
Deferred gain (loss) on hedges:			
Gains (losses) arising during the year	10,305	(10,678)	91,856
Reclassification adjustments to profit or loss for the year	(1,754)	19,557	(15,635)
Adjustment for the acquisition cost of assets	(1,808)	(1,796)	(16,117)
Amount before income tax effect	6,742	7,082	60,103
Income tax effect	(68)	(1,657)	(614)
Total	6,674	5,425	59,488
Foreign currency translation adjustments:			
Gains (losses) arising during the year	(10,181)	(22,002)	(90,752)
Reclassification adjustments to profit or loss for the year	41	(459)	368
Amount before income tax effect	(10,140)	(22,461)	(90,384)
Income tax effect	-	-	-
Total	(10,140)	(22,461)	(90,384)
Remeasurements of defined benefit plans:			
Gains (losses) arising during the year	8,962	(10,469)	79,887
Reclassification adjustments to profit or loss for the year	2,483	1,489	22,139
Amount before income tax effect	11,446	(8,980)	102,027
Income tax effect	(3,046)	2,527	(27,152)
Total	8,400	(6,453)	74,874
Share of other comprehensive income of associates accounted for using the equity method:			
Gains (losses) arising during the year	(5,879)	(4,443)	(52,410)
Reclassification adjustments to profit or loss for the year	4,467	4,606	39,823
Adjustment for the acquisition cost of assets	5	66	46
Total	(1,406)	229	(12,539)
Total other comprehensive income (loss)	18,107	(43,734)	161,400

**19. Commitments and Contingent Liabilities**

(1) Commitments made by the Company and its consolidated subsidiaries as of March 31, 2017, totaled ¥129,720 million (\$1,156,259 thousand) for the construction of vessels.

Contingent liabilities for notes receivable discounted and endorsed, guarantees of loans, and debt assumption as of March 31, 2017, were as follows:

	Millions of yen	Thousands of U.S. dollars (Note 2)
Notes receivable discounted and endorsed	¥ 9	\$ 82
Guarantees of loans	117,565	1,047,910
Debt assumption:		
Unsecured Straight Bonds No. 27	30,000	267,403
Unsecured Straight Bonds No. 33	20,000	178,269

- (2) Certain operating lease agreements that the NYK Group concluded on its respective vessels incorporate a residual value guarantee clause. The maximum amount of potential future payment under the guarantee obligation is ¥12,557 million (\$111.931 thousand). The guarantee may be paid if the companies choose to return the leased property rather than exercise an option to buy it. The operating lease agreements will expire by March 2020.
- (3) Some operating lease agreements that the NYK Group concluded on its aircraft incorporate a residual value guarantee clause. The maximum amount of potential future payment under the guarantee obligation is ¥71,241 million (\$635,010 thousand). The companies may pay the guarantee if they choose to return the leased

- properties at the end of the lease term. The operating lease agreements will expire by December 2026.
- (4) The NYK Group has been under investigation by some authorities overseas on account of suspected violations of the antitrust laws concerning the shipping of cargo, including automobiles handled in or after September 2012. Also, the NYK Group has been sued in class action lawsuits in the U.S. and other regions for damages and suspension of shipments, etc., without specific amount of damage, for its conspiracy to fix prices of shipping with major automobile shipping companies concerning marine transportation of assembled automobiles, etc. It is difficult to reasonably predict the results of the investigations by overseas authorities and class action lawsuits at present.

## 20. Accounting for Leases

As discussed in Note 3. K, the Company accounts for leases that existed at the transition date and do not transfer ownership of the leased property to the lessee as operating lease transactions. Pro forma information of such leases existing at the transaction date on an “as if capitalized” basis for the years ended March 31, 2017 and 2016, was as follows:

### (1) Finance leases accounted for as operating leases, which started before the consolidated fiscal year ended March 31, 2009

- As lessees**
- a. Acquisition cost, accumulated depreciation, accumulated impairment loss, and net balance at the end of the year of leased assets as of March 31, 2017 and 2016, which included the portion of interest thereon, would have been shown in the consolidated balance sheets as follows, if the leased assets had been capitalized:

	Millions of yen			Thousands of U.S. dollars (Note 2)		
	2017		2016	2017		2016
	Equipment	Total	Equipment	Equipment	Total	Equipment
Acquisition cost	¥2	¥2	¥2	\$18	\$18	\$18
Accumulated depreciation	1	1	1	16	16	16
Accumulated impairment loss	-	-	-	-	-	-
Net balance at end of the year	0	0	0	1	1	1

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
Within one year	¥0	¥0	\$1	\$1
More than one year	-	-	-	-
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>

- b. Future lease payments as of March 31, 2017, which included the portion of interest thereon, are as follows:

- c. Lease expenses, depreciation, and interest expenses for the years ended March 31, 2017 and 2016, were as follows:

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
Lease expenses for the year	¥0	¥742	\$3	\$3
Depreciation	0	741	3	3
Interest expenses	-	4	-	-

- d. Calculation of depreciation equivalent

Assumed depreciation amounts are computed using the straight-line method over the lease terms assuming no residual value.

### (2) Operating leases

#### As lessees

Future lease payments as of March 31, 2017, are as follows:

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
Within one year	¥72,375	¥72,375	\$ 645,119	\$ 645,119
More than one year	200,694	200,694	1,788,877	1,788,877
<b>Total</b>	<b>273,070</b>	<b>273,070</b>	<b>2,433,997</b>	<b>2,433,997</b>

#### As lessors

Future lease income as of March 31, 2017, is as follows:

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
Within one year	¥4,720	¥4,720	\$ 42,078	\$ 42,078
More than one year	42,953	42,953	383,222	383,222
<b>Total</b>	<b>47,674</b>	<b>47,674</b>	<b>425,301</b>	<b>425,301</b>

## 21. Accounting for Employees' Retirement Benefits

### 1. Outline of employees' retirement benefit plans

The Company and its domestic consolidated subsidiaries maintain the following defined benefit plans: the national government's Employees' Pension Fund and a retirement lump-sum allowance system.

Some overseas consolidated subsidiaries also maintain defined contribution plans or defined benefit plans.

### 2. Defined benefit plans

#### (1) Changes in defined benefit obligation for the years ended March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
Balance at beginning of year	¥83,419	¥86,718	\$743,555	\$743,555
Service costs	3,299	3,604	29,412	29,412
Interest costs	1,107	1,192	9,875	9,875
Actuarial (gains) losses	1,590	413	14,172	14,172
Benefits paid	(3,432)	(3,595)	(30,596)	(30,596)
Prior service cost	(6)	(118)	(54)	(54)
Decrease due to exclusion from consolidation	-	(2,866)	-	-
Others	(1,028)	(1,927)	(9,167)	(9,167)
<b>Balance at end of year</b>	<b>84,949</b>	<b>83,419</b>	<b>757,196</b>	<b>757,196</b>

#### (2) Changes in plan assets for the years ended March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
Balance at beginning of year	¥110,889	¥124,446	\$ 988,409	\$ 988,409
Expected return on plan assets	1,454	1,766	12,968	12,968
Actuarial gains (losses)	10,362	(10,388)	92,369	92,369
Contributions from the employer	1,371	1,312	12,227	12,227
Benefits paid	(2,570)	(2,628)	(22,910)	(22,910)
Decrease due to exclusion from consolidation	-	(2,222)	-	-
Others	(1,042)	(1,397)	(9,290)	(9,290)
<b>Balance at end of year</b>	<b>120,466</b>	<b>110,889</b>	<b>1,073,774</b>	<b>1,073,774</b>



(3) Reconciliation between the balance at beginning of year and the balance at end of year in relation to net defined benefit liability for which the shortcut method was applied for the years ended March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
Balance at beginning of year	¥6,775	¥6,971	\$60,389	
Net periodic benefit costs	1,253	1,303	11,171	
Benefits paid	(550)	(758)	(4,904)	
Contributions from the employer	(615)	(674)	(5,489)	
Other	(2)	(66)	(22)	
Balance at end of year	6,859	6,775	61,144	

(4) Reconciliation between the liability recorded in the consolidated balance sheets and the balances of defined benefit obligation and plan assets as of March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
Funded defined benefit obligation	¥85,534	¥84,294	\$ 762,406	
Plan assets	(127,855)	(118,028)	(1,139,632)	
Unfunded defined benefit obligation	(42,320)	(33,734)	(377,225)	
Net liability (asset) arising from defined benefit obligation	13,663	13,039	121,791	
Net liability (asset) arising from defined benefit obligation	(28,657)	(20,695)	(255,433)	
Net defined benefit liability	18,596	18,708	165,760	
Net defined benefit asset	(47,253)	(39,403)	(421,194)	
Net liability (asset) arising from defined benefit obligation	(28,657)	(20,695)	(255,433)	

(5) Components of net periodic benefit costs for the years ended March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
Service costs	¥3,299	¥3,604	\$29,412	
Interest costs	1,107	1,192	9,875	
Expected return on plan assets	(1,454)	(1,766)	(12,968)	
Recognized actuarial (gains) losses	2,478	635	22,093	
Amortization of prior service cost	(1)	(54)	(11)	
Net periodic benefit costs calculated using the shortcut method	1,253	1,303	11,171	
Other	1	70	8	
Net periodic benefit costs	6,684	4,985	59,581	

(6) Amounts recognized in other comprehensive income (before income tax effect) in respect of defined retirement benefit plans for the years ended March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
Prior service cost	¥ 5	¥ 9	\$ 47	
Actuarial gains (losses)	11,441	(8,991)	101,979	
Transitional obligation	-	0	-	
Total	11,446	(8,980)	102,027	

(7) Amounts recognized in accumulated other comprehensive income (before income tax effect) in respect of defined retirement benefit plans as of March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
Unrecognized prior service cost	¥ (15)	¥ (20)	\$ (133)	
Unrecognized actuarial gains (losses)	10,292	(1,228)	91,742	
Total	10,277	(1,249)	91,608	

(8) Components of plan assets

Plan assets consisted of the following as of March 31, 2017 and 2016:

	2017		2016	
Debt investments		36%		38%
Equity investments		51%		47%
Cash and cash equivalents		3%		4%
Others		10%		11%
Total		100%		100%

A retirement benefit trust established for a corporate pension plan accounts for 36% and 32% of plan assets as of March 31, 2017 and 2016, respectively.

(9) Method of determining the expected rate of return on plan assets

The expected rate of return on plan assets is determined considering the long-term rates of return which are expected currently and in the future from the various components of the plan assets.

(10) Assumptions in calculation of the above information

Discount rate	Mainly 1.1%
Expected rate of return on plan assets	Mainly 1.6%
Expected rate of salary increase	Mainly 1.2% ~7.2%

Note: A point system has been adopted for certain employees, and the expected rate of salary increase includes the expected rate of point increase.

3. Defined contribution plan

Certain consolidated subsidiaries had ¥2,403 million (\$21,424 thousand) for the fiscal year ended March 31, 2017, in defined contribution retirement benefit costs. Besides the retirement benefit costs shown above, certain consolidated subsidiaries treated the amount of defined contributions paid to the multi-employer plan as retirement benefit costs.

## 22. Segment Information:

The Company and its consolidated subsidiaries operate in six businesses: Liner Trade, Bulk Shipping, Logistics, Air Cargo Transport, Real Estate, and Others.

The table below presents certain segment information for the years ended March 31, 2017 and 2016.

Year ended March 31, 2017:

	Millions of yen					
	Global Logistics			Others		
	Liner Trade	Air Cargo Transport	Logistics	Bulk Shipping	Real Estate	Others
<b>I Revenues:</b>						Consolidated Total
(1) Revenues from customers	¥572,883	¥75,997	¥457,935	¥ 716,840	¥ 8,147	¥ 92,078
(2) Intersegment revenues	13,021	5,921	3,426	889	1,292	54,536
Total	585,904	81,919	461,361	717,729	9,439	146,614
Segment profit (loss)	(12,716)	2,631	7,650	(4,168)	12,079	(1,496)
Segment assets	401,983	53,004	255,189	1,269,346	56,266	209,981
<b>II Other items:</b>						
Depreciation and amortization	17,646	2,360	7,175	61,223	1,056	2,543
Amortization of goodwill and negative goodwill	357	-	324	1,543	-	1
Interest income	457	150	336	2,782	1	3,707
Interest expenses	2,954	187	606	13,134	52	2,386
Equity in earnings (losses) of unconsolidated subsidiaries and affiliates	935	-	63	12,858	35	7
Investments in equity method affiliates	33,937	-	1,102	193,904	989	211
Increase in vessels, property, plant, and equipment and intangible assets	50,231	20,681	10,461	70,487	2,603	1,656
<b>III Information about impairment loss by reportable segments:</b>						
Impairment loss	75,304	5,075	1,439	85,588	-	661
<b>IV Information about balance of goodwill by reportable segments:</b>						
Balance of goodwill (negative goodwill) at the end of current period	2,165	-	2,156	14,314	-	-

Thousands of U.S. dollars (Note 2)

	Global Logistics			Others			Total	Adjustments*	Consolidated Total
	Liner Trade	Air Cargo Transport	Logistics	Bulk Shipping	Real Estate	Others			
<b>I Revenues:</b>									
(1) Revenues from customers	\$5,106,364	\$677,399	\$4,081,784	\$6,389,518	\$ 72,625	\$ 820,733	\$17,148,426\$	-	\$17,148,426
(2) Intersegment revenues	116,066	52,781	30,539	7,926	11,516	486,108	704,939	(704,939)	-
Total	5,222,431	730,181	4,112,324	6,397,445	84,142	1,306,841	17,853,366	(704,939)	17,148,426
Segment profit (loss)	(113,345)	23,452	68,196	(37,157)	107,668	(13,336)	35,478	(26,210)	9,267
Segment assets	3,583,057	472,455	2,274,616	11,314,253	501,528	1,871,658	20,017,570	(1,796,837)	18,220,732
<b>II Other items:</b>									
Depreciation and amortization	157,287	21,042	63,961	545,714	9,414	22,673	820,094	(16)	820,077
Amortization of goodwill and negative goodwill	3,186	-	2,891	13,759	-	11	19,850	-	19,850
Interest income	4,074	1,340	3,002	24,804	10	33,046	66,278	(33,548)	32,730
Interest expenses	26,333	1,670	5,409	117,070	467	21,271	172,222	(33,548)	138,673
Equity in earnings (losses) of unconsolidated subsidiaries and affiliates	8,336	-	567	114,616	319	63	123,902	-	123,902
Investments in equity method affiliates	302,497	-	9,824	1,728,360	8,822	1,889	2,051,393	(363)	2,051,030
Increase in vessels, property, plant, and equipment and intangible assets	447,734	184,347	93,251	628,283	23,210	14,767	1,391,595	(1,150)	1,390,444
<b>III Information about impairment loss by reportable segments:</b>									
Impairment loss	671,222	45,239	12,828	762,887	-	5,898	1,498,076	520	1,498,596
<b>IV Information about balance of goodwill by reportable segments:</b>									
Balance of goodwill (negative goodwill) at the end of current period	19,303	-	19,220	127,594	-	-	166,118	-	166,118

Adjustments of segment profit or loss are ¥52 million (\$471 thousand) of internal exchanges or transfers among segments and ¥2,887 million (\$25,739 thousand) of corporate expenses which are not attributed to specific segments. The Company treats general and administrative expenses that do not belong to any single segment as corporate expenses. Adjustments of segment assets are ¥2,244,172 million (\$2,176,415 thousand) of receivables or assets relating to internal exchanges among segments and ¥42,584 million (\$379,577 thousand) of corporate assets. Major corporate assets are the excess of operating funds (cash and deposits).

Year ended March 31, 2016:

	Millions of yen						Consolidated Total
	Global Logistics			Others			
	Line Trade	Air Cargo Transport	Logistics	Bulk Shipping	Real Estate	Others	
<b>I Revenues:</b>							
(1) Revenues from customers	¥691,922	¥84,694	¥493,059	¥ 901,279	¥ 8,377	¥ 92,980	¥ 2,272,315
(2) Intersegment revenues	14,443	6,407	3,449	1,011	1,404	54,034	80,751
Total	706,366	91,101	496,509	902,291	9,781	147,015	2,272,315
Segment profit (loss)	(321)	1,585	11,869	46,595	3,379	(53)	60,058
Segment assets	419,247	47,597	250,303	1,338,549	63,542	251,326	2,244,772
<b>II Other items:</b>							
Depreciation and amortization	20,173	2,160	8,202	68,942	1,118	2,916	103,514
Amortization of goodwill and negative goodwill	394	-	310	1,246	-	1	1,952
Interest income	438	51	352	2,305	3	2,435	5,586
Interest expenses	2,429	361	776	13,590	53	1,886	19,099
Equity in earnings (losses) of unconsolidated subsidiaries and affiliates	1,651	-	(6)	20,361	37	24	22,068
Investments in equity method affiliates	11,860	-	1,178	175,143	965	216	189,322
Increase in vessels, property, plant, and equipment and intangible assets	20,489	3,122	8,027	70,467	12,313	1,370	115,791
<b>III Information about impairment loss by reportable segments:</b>							
Impairment loss	10	-	1,003	34,408	-	-	35,431

<b>IV Information about balance of goodwill by reportable segments:</b>						
Balance of goodwill (negative goodwill) at the end of current period	2,540	-	2,641	16,023	-	1
Adjustments of segment profit or loss are ¥89 million (-\$801 thousand) of internal exchanges or transfers among segments and ¥2,907 million (-\$2,914 thousand) of corporate expenses which are not attributed to specific segments. The Company treats general and administrative expenses that do not belong to any single segment as corporate expenses.						
Adjustments of segment assets are ¥249,529 million (-\$2,224,167 thousand) of receivables or assets relating to internal exchanges among segments and ¥123,733 million (-\$1,102,891 thousand) of corporate assets. Major corporate assets are the excess of operating funds (cash and deposits).						

## 23. Related Information

Information by geographical segment is as follows. As there were no customers that accounted for more than 10% of consolidated revenues, information about revenues from major customers is omitted.

Year ended March 31, 2017:

	Millions of yen					Total
	Japan	North America	Europe	Asia	Others	
I Revenues	¥1,393,172	¥152,270	¥145,548	¥213,393	¥19,496	¥1,923,881
II Tangible fixed assets	640,046	31,279	157,129	60,745	1,347	890,547

	Thousands of U.S. dollars (Note 2)					Total
	Japan	North America	Europe	Asia	Others	
I Revenues	\$12,417,977	\$1,357,258	\$1,297,340	\$1,902,068	\$173,782	\$17,148,426
II Tangible fixed assets	5,705,018	278,807	1,400,569	541,447	12,010	7,937,853

Year ended March 31, 2016:

	Millions of yen					Total
	Japan	North America	Europe	Asia	Others	
I Revenues	¥1,690,920	¥176,688	¥171,937	¥212,189	¥20,578	¥2,272,315
II Tangible fixed assets	786,365	36,796	170,685	73,489	607	1,067,943

## 24. Related Party Transactions

The Company was contingently liable as guarantor of indebtedness of related parties at March 31, 2017 and 2016, as follows:

	Millions of yen		Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
	¥-	¥66,911	\$-	\$-



## 25. Subsequent Events

### (1) Issuance of corporate bonds

On May 25, 2017, the Company's management decided to issue straight bonds after taking into account the upper limit for the issuance of unsecured straight bonds set in a meeting of the Board of Directors held on December 22, 2016, and a review of that limit. The issuance of the bonds was conducted on May 31, 2017. Details are as follows:

Unsecured Straight Bonds No. 38	Unsecured Straight Bonds No. 39
1. Amount issued: ¥20 billion	1. Amount issued: ¥10 billion
2. Issue price: ¥100 per par value of ¥100	2. Issue price: ¥100 per par value of ¥100
3. Coupon rate: 0.390% per annum	3. Coupon rate: 0.530% per annum
4. Maturity date: May 31, 2022 (bullet repayment upon maturity)	4. Maturity date: May 31, 2024 (bullet repayment upon maturity)
5. Closing date and issuance date: May 31, 2017	5. Closing date and issuance date: May 31, 2017
6. Purpose of funds: Allocation for planned capital investment	6. Purpose of funds: Allocation for planned capital investment

### (2) Reduction of the capital reserve and earned surplus reserve, and appropriation of the surplus

In a meeting held on May 16, 2017, the Board of Directors

proposed to reduce the capital reserve and earned surplus reserve, and to appropriate the surplus. The proposal was approved by a vote at the 130th Ordinary General Meeting of Shareholders held on June 21, 2017.

#### 1. Purpose of reducing the capital reserve and earned surplus reserve, and appropriating the surplus

The decision to reduce the capital reserve and earned surplus reserve, and to appropriate the surplus was made for the purpose of replenishing a deficit in retained earnings carried forward, and of allowing greater options and flexibility when carrying out financial strategies in the future.

#### 2. Matters concerning the reduction of the capital reserve and earned surplus reserve

The Company reduced a portion of the capital reserve and the total amount of the earned surplus reserve, and transferred each amount to other capital surplus and retained earnings carried forward, respectively, in accordance with the provisions of Article 448,

Paragraph 1, of the Companies Act.

(1) Items and amount of reduction	
Capital reserve	¥121,500,000,000 of ¥151,691,857,047
Earned surplus reserve	¥13,146,867,258
(2) Items and amount of increase	
Other capital surplus	¥121,500,000,000
Retained earnings carried forward	¥13,146,867,258

#### 3. Matters concerning the appropriation of the surplus

After increasing other capital surplus and retained earnings carried forward by transferring a portion of the capital reserve and the total amount of the earned surplus reserve, respectively, the Company transferred a portion of other capital surplus to retained earnings carried forward, in accordance with the provisions of Article 452 of the Companies Act.

(1) Item and amount of reduction

Other capital surplus  
¥122,500,000,000 of ¥124,192,458,433

(2) Item and amount of increase

Retained earnings carried forward  
¥122,500,000,000

As a result of the above, the total amount transferred from the earned surplus reserve and other capital surplus to retained earnings carried forward was ¥135,646,867,258.

#### 4. Important dates concerning the reduction of reserves and appropriation of the surplus

- (1) Date of decision by the Board of Directors: May 16, 2017
  - (2) Date of resolution at the Ordinary General Meeting of Shareholders: June 21, 2017
  - (3) Effective date of transfers: June 22, 2017
- Procedures for handling objections by creditors were not required since the transfers fall under the provisions of Article 449, Paragraph 1, of the Companies Act.

### (3) Change in the number of trading unit shares and consolidation of shares

In a meeting held on May 16, 2017, the Board of Directors proposed to change the number of shares that constitute a single trading unit, to consolidate shares through a reverse stock split, and to partially amend the Articles of Incorporation. The proposals were approved by votes at the 130th Ordinary General Meeting of Shareholders held on June 21, 2017.

#### 1. Reason for the reverse stock split and change of trading unit shares

Stock exchanges throughout Japan have called on all domestic listed companies to make a transition to single trading units of 100 shares by October 2018, based on an action plan for consolidating trading units. As a company listed on the Tokyo Stock Exchange and the Nagoya Stock Exchange, the Company decided to change its single trading unit from 1,000 shares to 100 shares based on that plan. Furthermore, the Company will conduct a reverse stock split to consolidate 10 shares into one share in order to keep the price of a single trading unit within the range of ¥50,000 to ¥500,000, as requested by the stock exchanges.

#### 2. Details of the reverse stock split

- (1) Type of shares subject to the reverse stock split  
Ordinary shares
- (2) Reverse stock split method and ratio  
Effective from October 1, 2017, shares held by shareholders recorded in the registry of shareholders as of September 30, 2017, will be consolidated at the ratio of 10 shares to one share.
- (3) Number of shares to be reduced through the reverse stock split

Issued and outstanding shares as of March 31, 2017	1,700,550,988
Number of shares to be reduced through the reverse stock split	1,530,495,890
Issued and outstanding shares following the reverse stock split	170,055,098

Note: The number of shares to be reduced through the reverse stock split and the number of issued and outstanding shares following the reverse stock split are presumed values calculated based on the consolidation ratio and the number of issued and outstanding shares before the reverse stock split.

#### (4) Handling of fractional shares

All fractional shares (a share amounting to less than one full share) resulting from the reverse stock split will be sold, and the Company will distribute the proceeds to shareholders who held the fractional shares in proportion to their respective amounts, in accordance with the Companies Act.

#### 3. Details of the change in the number of shares in a single trading unit

The number of shares constituting a single trading unit will be changed from 1,000 shares to 100 shares effective from the date of the reverse stock split.

#### 4. Important dates concerning the reverse stock split and change of trading unit shares

Date of decision by the Board of Directors	May 16, 2017
Date of the Ordinary General Meeting of Shareholders	June 21, 2017
Effective date of the reverse stock split and change of trading unit shares	October 1, 2017 (planned)

#### 5. Effect of the reverse stock split on per share results

If the reverse stock split had been conducted as of the beginning of the previous fiscal year, the following per share data would have resulted in the previous fiscal year and the fiscal year under review.

Item	Fiscal year under review ended on March 31, 2017	Previous fiscal year ended on March 31, 2016
Equity per share	¥3,097.96	¥4,562.11
Net profit (loss) attributable to owners of the parent per share	(1,572.35)	107.54
Diluted net profit attributable to owners of the parent per share	-	107.51

Note: Diluted net profit attributable to owners of the parent per share in the fiscal year under review is not shown because the amount was a loss attributable to owners of the parent per share.

**1. Matters relating to the basic framework of internal control over financial reporting**

Tadaaki Naito, President, President Corporate Officer, and Eiichi Takahashi, Director, Managing Corporate Officer, are responsible for designing and operating effective internal control over financial reporting of the Company and have designed and operated internal control over financial reporting of the consolidated financial statements in accordance with the basic framework for internal control set forth in "On the Setting of the Standards and Practice Standards for Management Assessment and Audit concerning Internal Control Over Financial Reporting (Council Opinions)" published by the Business Accounting Council.

The internal control is designed to achieve its objectives to the extent reasonable through the effective function and combination of its basic elements. Therefore, there is a possibility that material misstatements may not be completely prevented or detected by internal control over financial reporting.

**2. Matters relating to the scope of assessment, the basis date of assessment, and the assessment procedures**

The assessment of internal control over financial reporting was performed as of March 31, 2017, which is the end of this fiscal year. The assessment was performed in accordance with assessment standards for internal control over financial reporting generally accepted in Japan.

In conducting this assessment, we evaluated internal controls which may have a material effect on our entire financial reporting on a consolidated basis ("company-level controls"). and based on the results of this assessment, we selected business processes to be tested. We analyzed these selected business processes, identified key controls that may have a material impact on the reliability of the Company's financial reporting, and assessed the design and operation of these key controls. These procedures have allowed us to evaluate the effectiveness of the internal controls of the Company.

We determined the required scope of assessment of internal control over financial reporting for the Company, as well as its consolidated subsidiaries and equity-method affiliated companies, from the perspective of the materiality that may affect the reliability of their financial reporting. The materiality that may affect the reliability of the financial reporting is determined taking into account the materiality of quantitative and qualitative impacts on financial reporting. In light of the results of assessment of company-level controls conducted for the Company and consolidated subsidiaries, we reasonably determined the scope of assessment of process-level controls. Regarding the consolidated subsidiaries and the equity-method affiliated companies that do not have a material effect on financial reporting, we did not include them in the scope of assessment of company-level controls.

Regarding the scope of assessment of process-level controls, we selected locations and business units to be tested in descending order of revenues, and the companies whose combined revenues reach two thirds of revenues on a consolidated basis were selected as "significant locations and/or business units". We included in the scope of assessment, at the selected significant locations and/or business units, business processes leading to revenues, costs and expenses, accounts receivable-trade, and fixed assets as significant accounts that may have a material impact on the business objectives of the Company. Further, in addition to selected significant locations and/or business units, we also selected for testing the business processes having greater materiality, taking into account their impact on the financial reporting.

**3. Matters relating to the results of the assessment**

As a result of the assessment described above, as of the end of this fiscal year, we concluded that the Company's internal control over financial reporting of the consolidated financial statements was effectively maintained.

内藤忠顕

Tadaaki Naito

President, President Corporate Officer  
June 21, 2017

高橋 栄一

Eiichi Takahashi

Director, Managing Corporate Officer



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**INDEPENDENT AUDITOR'S REPORT**

To the Board of Directors of Nippon Yusen Kabushiki Kaisha:

**Report on the Consolidated Financial Statements**

We have audited the accompanying consolidated balance sheet of Nippon Yusen Kabushiki Kaisha and its consolidated subsidiaries as of March 31, 2017, and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information, all expressed in Japanese yen.

**Management's Responsibility for the Consolidated Financial Statements**

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

**Auditor's Responsibility**

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in Japan. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

**Opinion**

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Nippon Yusen Kabushiki Kaisha and its consolidated subsidiaries as of March 31, 2017, and the consolidated results of their operations and their cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

**Emphasis of Matter**

As discussed in "3. Summary of Significant Accounting Policies, O. Additional Information, (5) Agreement to the Integration of Container Shipping Business," Nippon Yusen Kabushiki Kaisha resolved at the meeting of the Board of Directors held on October 31, 2016, subject to regulatory approvals, etc., from the authorities, to sign a business integration contract and a shareholders agreement with Kawasaki Kisen Kaisha, Ltd. and Mitsui O.S.K. Lines, Ltd. in order to integrate the container shipping businesses (including terminal operating business other than Japan) of all three companies, and on the same date, the three companies entered into contract and agreement. Our opinion is not modified in respect of this matter.

Member of  
Deloitte Touche Tohmatsu Limited

(As of March 31, 2017)

Convenience Translation

Our audit also comprehended the translation of Japanese yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made in accordance with the basis stated in Note 2 to the consolidated financial statements. Such U.S. dollar amounts are presented solely for the convenience of readers outside Japan.

Report on Internal Control

We have audited management's report on internal control over financial reporting of the consolidated financial statements of Nippon Yusen Kabushiki Kaisha as of March 31, 2017.

Management's Responsibility for Report on Internal Control

Management is responsible for designing and operating effective internal control over financial reporting and for the preparation and fair presentation of its report on internal control in accordance with assessment standards for internal control over financial reporting generally accepted in Japan. There is a possibility that misstatements may not be completely prevented or detected by internal control over financial reporting.

Auditor's Responsibility

Our responsibility is to express an opinion on management's report on internal control based on our audit. We conducted our internal control audit in accordance with auditing standards for internal control over financial reporting generally accepted in Japan. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether management's report on internal control is free from material misstatement.

An internal control audit involves performing procedures to obtain audit evidence about the results of the assessment of internal control over financial reporting in management's report on internal control. The procedures selected depend on the auditor's judgment, including the significance of effects on reliability of financial reporting. An internal control audit includes examining representations on the scope, procedures and results of the assessment of internal control over financial reporting made by management, as well as evaluating the overall presentation of management's report on internal control.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, management's report on internal control referred to above, which represents that the internal control over financial reporting of the consolidated financial statements of Nippon Yusen Kabushiki Kaisha as of March 31, 2017 is effectively maintained, presents fairly, in all material respects, the results of the assessment of internal control over financial reporting in accordance with assessment standards for internal control over financial reporting generally accepted in Japan.

*Deloitte Touche Tohmatsu LLC*


June 21, 2017

(Millions of yen)			
Domestic	Liner	Company	Paid-in capital
			Voting rights held (%)
		UNIK CORPORATION	83.00
		GENCO CORPORATION	55.14
		NIPPON CONTAINER TERMINALS CO., LTD.	242
		ASAHI UNYU KAISHA, LTD.	51.00
		YUSEN KOUJIN CO., LTD.	95.00
		NIPPON CONTAINER YUSO CO., LTD.	81.00
		NIPPO TUG BOAT SERVICE CO., LTD.	51.00
		NAKAI TUG BOAT SERVICE CO., LTD.	100.00
		ASIA PACIFIC MARINE CORPORATION	100.00
	Air Cargo	NIPPON CARGO AIRLINES CO., LTD.	100.00
	Transportation	YUSEN LOGISTICS CO., LTD.	59.73
	Logistics	KINKAI YUSEN KAISHA LTD.	100.00
		CAMELLIA LINE CO., LTD.	51.00
		NYK BULK & PROJECTS CARRIERS LTD.	100.00
		HACHUWA STEAMSHIP CO., LTD.	74.86
		ASAHI SHIPPING CO. LTD.	69.67
	Real Estate	YUSEN REAL ESTATE CORPORATION	100.00
	Others	NYK CRUISES CO., LTD.	100.00
		NYK BUSINESS SYSTEMS CO., LTD.	100.00
		SANTO TRADING CO., LTD.	46.04
		NYK TRADING CORPORATION	79.25
		BOLTECH CO., LTD.	100.00

(Millions of indicated units)			
Overseas	Liner	Company	Paid-in capital
		NYK TERMINALS (NORTH AMERICA) INC.	100.00
		YUSEN TERMINALS LLC	100.00
		NYK LINE (NORTH AMERICA) INC.	US\$ 4
		ACK PEARL CORPORATION	100.00
	Logistics	YUSEN LOGISTICS (AMERICAS) INC.	US\$ 70
		YUSEN LOGISTICS (CHINA) CO., LTD.	CHY1 58
		YUSEN LOGISTICS (UK) LTD.	£ 44
		YUSEN LOGISTICS (HONG KONG) LTD.	100.00
		YUSEN LOGISTICS (THAILAND) CO., LTD.	HK\$ 55
		NYK BULKSHIP (ASIA) PTE. LTD.	84.48
	Bulk Shipping	NYK ENERGY TRANSPORT (ATLANTIC) LTD.	100.00
		NYK BULKSHIP (ATLANTIC) N.V.	US\$ 51
		ADAGIO WATTIMEA S.A.	US\$ 555

Currencies: [B] Thai Baht [CNY] Chinese yuan [HK\$] Hong Kong dollar [US\$] U.S. dollar [£] Pound sterling














ISO 26000 core subjects	Activity name	Fiscal 2016 goals / programs	Achievement as of the end of March 2017	Evaluation Fiscal 2017 targets
<b>Organizational governance</b> 	Preparation for disasters	1) Revise the business continuity plan (BCP) to accommodate the cloud-based groupware center, etc. expanding work so that it can be handled at home, and therefore revised the BCP. 2) Implement training based on the revised BCP.	<ul style="list-style-type: none"> <li>Significantly improved the company's IT and communications infrastructure environments by implementing cloud-based groupware, and moving to a robust data center, etc. expanding work so that it can be handled at home, and therefore revised the BCP.</li> <li>In addition, prepared notification and reporting tools for sharing information in the event of a disaster, and implemented information-sharing and notification training using those tools.</li> </ul>	<ul style="list-style-type: none"> <li>1) Update the Group-wide business continuity plan (BCP) and the BCPs for each division.</li> <li>2) Implement BCP training and disaster-preparedness drills to increase effectiveness.</li> </ul>
	Strengthening of intra-Group coordination and security	Implement cross-departmental communication tools and raise security within the Group.	<ul style="list-style-type: none"> <li>Established intra-Group coordination by implementing cross-departmental communication tools (cloud-based global information-sharing IT infrastructure).</li> <li>Strengthened a business reform promotion team in April to promote utilization of groupware, in an effort to improve employees' IT literacy.</li> <li>Implemented educational activities to increase end users' safety awareness.</li> </ul>	<ul style="list-style-type: none"> <li>Implement e-learning and suspicious e-mail training, and disseminate information through bulletin boards to increase awareness.</li> <li>Expand the range of application of cross-departmental communication tools.</li> </ul>
	Promotion of IR / SR activities inside and outside the company	Promote an understanding of IR activities within the company through feedback through feedback.	<ul style="list-style-type: none"> <li>1) Issued seasonal IR reports within the company in March, June, and December (3 times). In addition, held an analysis lecture for employees in August.</li> <li>2) Implemented proactive dialogue through explanations of the company's governance structure, etc. Expanded visits to the people in charge of the exercise of voting rights for institutional investors in Japan and overseas (35 companies, 56 people).</li> </ul>	<ul style="list-style-type: none"> <li>1) Promote an understanding of IR activities within the company through feedback.</li> <li>2) Visit institutional investors and people in charge of the exercise of voting rights.</li> </ul>
<b>Human rights</b> 	Human rights due diligence	Recognizing human rights issues as risks: 1) Identify the current degree of risk and latent risks, etc. 2) Work to recognize human rights issues involving the company's business environment.	<ul style="list-style-type: none"> <li>Created a risk map with risks categorized according to the impact on the company and the frequency of the risk, and identified the current degree of risk and latent risks.</li> <li>Confirmed the status of Group companies' compliance with the Global Compact and attention to forced labor and child labor in the supply chain, etc. and worked to identify and resolve the company's human rights issues.</li> <li>Individually discussed human rights and the Group's efforts in regard to human rights with overseas experts.</li> <li>Participated in international conferences on business and human rights (overseas human rights experts, human rights NGOs / NPOs, and companies).</li> </ul>	<ul style="list-style-type: none"> <li>Recognizing human rights issues as risks:</li> <li>1) Identify the current degree of risk and latent risks, etc.</li> <li>2) Work to recognize human rights issues involving the company's business environment.</li> </ul>
	Human rights awareness	Implement training and disseminate human rights information; strengthen anti-harassment measures.	<ul style="list-style-type: none"> <li>Implemented human rights training under the main theme "Business and Human Rights" as part of training for new employees and new team leaders, and at gatherings at which the human resources departments of NYK Group companies can share information.</li> <li>Implemented activities during Human Rights Week to disseminate information on harassment and other human rights issues around us.</li> <li>Held a meeting of the Global Compact Promotion Committee in September and confirmed the company's efforts regarding human rights.</li> <li>Worked on creating a workplace environment free from discrimination and harassment, with consultation always available at the harassment consultation window and in the "Usen Chat Room" (which includes response by outside experts).</li> </ul>	<ul style="list-style-type: none"> <li>Implement training and disseminate human rights information, and strengthen anti-harassment measures and early detection.</li> </ul>
	Workstyle reform	1) Establish an environment and cultivate a workplace atmosphere that enable diverse human resources to play an active role. 2) Reduce working hours and promote a work-life balance by fostering awareness of improving efficiency and productivity. 3) Promote measures to improve employee health.	<ul style="list-style-type: none"> <li>Held an Ikuboss Seminar aimed at reforming manager awareness of staff members who have a restricted workstyle, and a Papa-Mama Seminar to encourage men to participate proactively in housework and childcare.</li> <li>Implemented recommendation of early-start / early-end work (providing breakfast to employees working in the early morning, etc.). Also established two days per week when employees are encouraged to limit overtime, and considered like-right and holiday work. Reduced overtime work and increased the number of vacation days taken compared to the previous fiscal year.</li> <li>Held a fitness (physical) and measurement meeting and sponsored practical seminars and physical training sessions led by professional trainers. A high percentage of employees participated in the measurement meeting.</li> <li>Implemented measures / feedback based on an analysis of the results of physical examinations.</li> <li>Certified as a company demonstrating outstanding health and productivity management (White 500).</li> </ul>	<ul style="list-style-type: none"> <li>1) Establish an environment and cultivate a workplace atmosphere that enable diverse human resources to play an active role.</li> <li>2) Reduce working hours and promote a work-life balance by fostering awareness of improving efficiency and productivity.</li> <li>3) Promote measures to improve employee health.</li> </ul>
<b>Fair operating practices</b> 	Human resources development in Japan and overseas	Implement a variety of training and human resources exchange programs in Japan and overseas based on the HR philosophy <sup>1)</sup> to enable Group employees to fully utilize their abilities in a broad range of business areas.	<ul style="list-style-type: none"> <li>Promoted human resources versatility between Group companies and participation of the national staff in projects, through dispatch of national staff to Kenya and Saudi Arabia (also proactively considered foreign dispatch to various countries in the Middle East and Africa), and implementation of human resources exchange of staff on the transfer of technology by continuing to develop Angolan and Nigerian seafarers in the Angola / Nigeria LNG Project (Nization Program<sup>2)</sup>).</li> </ul>	<ul style="list-style-type: none"> <li>Implement each type of training and human resources exchange in Japan and overseas based on the HR philosophy to enable Group employees to fully utilize their abilities in a broad range of business areas.</li> </ul>
	Comprehensive compliance inspections	Transmit CCO messages, then institute surveys and other measures.	Transmitted CCO messages and then conducted compliance-related awareness surveys and anonymous questionnaire surveys, and gave feedback by posting the results of the awareness surveys on the internal bulletin board.	<ul style="list-style-type: none"> <li>1) NYK Transnit CCO messages, then conduct compliance-related awareness surveys and anonymous questionnaire surveys.</li> <li>2) Domestic Group companies: Implement comprehensive inspection activities suited to the business type and scale.</li> </ul>
	Antitrust law risk advance inspection, assessment, and compliance activities	1) Implement reviews and antitrust law risk assessments (yearly). 2) Hold meetings of the Executive Committee Overseasing Through Antitrust and Anti-bribery Law Compliance.	<ul style="list-style-type: none"> <li>Added a review function for investment projects and conducted advance checks.</li> <li>Continued to implement antitrust law compliance surveys, interviews, and risk assessments in corporate divisions.</li> <li>Implemented the same activities at domestic and overseas Group companies and thoroughly ensured antitrust law compliance throughout the Group.</li> <li>Held meetings of the Executive Committee Overseasing Through Antitrust and Anti-bribery Law Compliance (September 2016 and March 2017), aiming for company-wide antitrust law and anti-bribery law compliance activities.</li> </ul>	<ul style="list-style-type: none"> <li>1) Implement reviews and antitrust law risk assessments (yearly).</li> <li>2) Hold meetings of the Executive Committee Overseasing Through Antitrust and Anti-bribery Law Compliance.</li> </ul>
<b>Consumer Issues</b> 	Thorough prohibition of bribery	Thoroughly ensure creation of local guidelines and individual company regulations concerning prevention of bribery at overseas Group companies.	Implemented mainly in Europe. Reviewed and revised monetary amount standards for Group companies (capital contribution ratio of more than 50% in North and South America and Asia).	<ul style="list-style-type: none"> <li>Periodically review / revise regulations concerning business entertainment, gift giving, and reception of gifts at overseas Group companies.</li> </ul>
	Supply chain management (fuel)	Implement assessments of all suppliers with which there are transactions and reflect the results in purchasing choices.	Implemented multifaceted supplier assessments that include bunker quality and delivery prices, problem-handling ability, provision of information, and other service and performance aspects, at the time of contract renewal (every 3 months or 6 months), and made use of them when making purchasing choices.	<ul style="list-style-type: none"> <li>Implement assessments of all suppliers with which there are transactions and reflect the results in purchasing.</li> </ul>
	Prevention of accidents, investigation of gathering of helpful information	1) Collect information on accidents and safety measures at overseas terminals and share this information among NYK-operated terminals. 2) Request thorough compliance with safety standards by contractors and operators with regard to cargo handling.	<ul style="list-style-type: none"> <li>Disseminate information on accidents, countermeasures, etc. at NYK-operated domestic terminals and Group companies (reference information concerning accident prevention).</li> <li>Held meetings of the NYK Container Terminal Safety Committee meetings. Conducted monthly patrols, etc. at each domestic terminal.</li> <li>Contractors and operators held monthly Safety Committee meetings. Conducted monthly patrols, etc. at each domestic terminal.</li> </ul>	<ul style="list-style-type: none"> <li>1) Review / revise safety standards at NYK-operated domestic terminals (aiming for effective operation of the three newly opened terminals).</li> <li>2) Raise the level of on-site strength through cross-divisional patrols between domestic terminals.</li> </ul>
<b>Community involvement and development</b> 	Safety promotion activities through dialogue	1) Provide shipowners with necessary information for safe operation and quality improvement of vessels. 2) Implement officers' dialogue to thoroughly ensure safety compliance by seafarers.	<ul style="list-style-type: none"> <li>Cooperated with the groups in charge to actively visit shipowners. Also provided shipowners with information regarding safe operation, accident prevention, optimal prevention, etc.</li> <li>Representatives from LNG Ship Management attended dialogues held in relevant countries and worked to ensure thorough safety compliance.</li> <li>September 21: Croatia, September 23: Romania, October 20: Delhi, February 8: Mumbai</li> </ul>	<ul style="list-style-type: none"> <li>1) Provide shipowners with necessary information for safe operation.</li> <li>2) Implement officers' dialogue to thoroughly ensure safety compliance by seafarers.</li> </ul>
	Promotion of social contribution activities	1) Continue transport assistance. 2) Promote volunteer activities by Group employees.	<ul style="list-style-type: none"> <li>Completed shipment of the prescribed amount of school backpacks, drinking water, picture books, bicycles, etc.</li> <li>Implemented activities to promote employee awareness of activities such as providing assistance at disaster sites, selling fair trade items, holding internal workshops, participating in outside volunteer activities, etc.</li> </ul>	<ul style="list-style-type: none"> <li>1) Continue transport assistance.</li> <li>2) Promote volunteer activities by Group employees.</li> </ul>
	Yusen Minal Project	Provide education on maritime topics and promote the merits of working on ocean-going ships to elementary school, junior high school, and maritime academy students throughout Japan.	Implemented many new initiatives, including opening to the general public on Marine Day, holding visiting classes jointly with shipyards, and sponsored a booth at Mombi no Fes ("Festival of Learning") for elementary school students, etc.	<ul style="list-style-type: none"> <li>Provide education on maritime topics and promote the merits of working on ocean-going ships to elementary school, junior high school, and maritime academy students throughout Japan.</li> </ul>
	Social contribution activities in partnership with customers	1) Collaborate with customers to deepen understanding of the significance of tree-planting programs and spread it inside and outside the company. 2) Continue to give support and local response for tours of coal carriers, etc.	<ul style="list-style-type: none"> <li>As a party involved in procurement of sustainable raw materials together with customers, and playing a role in the formation of a recycling-oriented society, deepened understanding of the significance of tree-planting programs. In that context, spread an understanding of investment in tree-planting projects and procurement of raw materials for papermaking, inside and outside the company.</li> <li>Invited local elementary school students to visit coal carriers and held tours inside the vessels, at the request of power stations.</li> <li>Continued to invite local municipalities, the media, and others to ceremonies for the first port call of newly built vessels, thereby contributing to a deepening of mutual understanding.</li> </ul>	<ul style="list-style-type: none"> <li>1) Collaborate with customers to deepen understanding of the significance of tree-planting programs and spread it inside and outside the company.</li> <li>2) Continue to give support and local response for tours of coal carriers, etc.</li> </ul>
		Persistently develop diverse human resources at each Group company in Japan and overseas, in global fields. Education ranging from vessel operation fundamentals to LNG vessel operation, through basic education at an educational institution and duties aboard a vessel. Confirmed, as needed, the educational progress of cadets at a maritime educational institution (in England).		(Self-evaluation standard) Achieved  Almost Achieved  Partially 

<sup>1)</sup> Persistently develop diverse human resources at each Group company in Japan and overseas, in global fields.

<sup>2)</sup> Education ranging from vessel operation fundamentals to LNG vessel operation, through basic education at an educational institution and duties aboard a vessel. Confirmed, as needed, the educational progress of cadets at a maritime educational institution (in England).

This environmental management programme is designed as a general plan encompassing the entire NYK Group. More detailed programmes have been established for specific vessel types, businesses, and regions.

ISO 26000 core subjects	Initiatives	Fiscal 2016 targets	Fiscal 2016 programmes	Achievement as of the end of March 2017	Evaluation	Fiscal 2017 targets
<div>The environment</div>	Use of ISO 14001 certification to promote environmental activities	1) Maintain and expand NYK Group multi-site environmental certification 2) Step up NYK Group multi-site environmental initiatives 3) Continually improve EMS** manual 4) Prepare for new certification standard, ISO 14001:2015	1) Maintain activities appropriate for communities and businesses, and expand certification as requested by customers 2) Implement internal audits of corporate divisions, hold discussions with Group companies, and external audits by external organizations 3) Operate and continually improve systems based on EMS manual 4) Formulate an ISO 14001:2015 EMS manual	1) Added one new site (NYK Germany) and subtracted two sites (Oceania (1) and Europe (1)) Total: 35 companies and 146 sites 2) Improvement requests resulting from audits: 29 from internal audits and 29 from external audits 3) Manual revisions: 1 4) Conducted a GAP analysis and 144 briefings		1) Maintain NYK Group multi-site environmental certification 2) Enhance operations of the environmental management system (conduct audits and continually improve EMS manual) 3) Transition to ISO 14001:2015
	Adherence to domestic and international laws and regulations, formulation of rules for realization of sustainable societies through industry-wide effort and adherence to industry and Company standards	1) Identify and rigorously adhere to treaties, laws, and regulations that impact vessels 2) Contribute to formulation of international rules for realization of sustainable societies through industry-wide effort	1) Update NAV9000 specifications to ensure compliance with ISO9001:2015 2) Proactively participate in the formulation of international rules	1) Ensured compliance with ISO9001:2015 2) Participated in industry body steering committees and the Marine Environment Protection Committee of the International Maritime Organization (IMO)		1) Identify and rigorously adhere to treaties, laws, and regulations that impact ships 2) Contribute to formulation of international rules for realization of sustainable societies through industry-wide effort
	Reduction of fleet accidents	1) Eliminate major accidents 2) Reduce fleet downtime (10 hours / year / vessel) 3) Conduct emergency preparedness and response	1-1) Conduct NAV9000 audits (ship-management companies and ships) 1-2) Near Miss 3000 activities (increase companies to be covered) 1-3) Hold various safety promotion meetings and safety seminars 1-4) Distribute safety information 1-5) Conduct safety campaigns 2) Continue activities to minimize fleet downtime 3-1) Conduct emergency response exercises and reviews 3-2) Conduct media response training and reviews	1-1) Audited 303 vessels / 32 companies, 1,222 improvement proposals 1-2) Near Miss scope: 42 companies / 63,698 reports 1-3) Held fire safety promotion meetings, a Global SEMC** safety meeting, and meetings among president, captains, and chief engineers 1-4) Implemented as appropriate (total: 41 vessels) 1-5) Visited 49 / vessels / 889 participants 2) Downtime (total): 11.2 hours / vessel 3-1) Held 6 exercises due to engine trouble 3.0 hours / vessel 3-2) Held a seminar with a media consultant (November)		1) Eliminate major accidents 2) Reduce fleet downtime (10 hours / year / ship) 3) Conduct emergency preparedness and response
	Maintenance and reinforcement of security and sharing of information	Share information throughout the NYK Group and with concerned parties	1) Hold meetings of Safety and Environmental Management Committee 2) Conduct assemblies of the NYK Group Environmental Management Conference 3) Permeate understanding of the NYK Group Environmental Management Guidelines 4) Conduct emergency drills in NYK building	1) Held at appropriate times for each vessel type (May-June 2016) 2) Conducted in November 2016 3) Collected Environmental Action Plans (100% collection rate) 4) Conducted twice (September 2016, March 2017)		Promote environmental activities throughout the NYK Group
	Prevention of global warming (Reduction of emissions)	1) Establish environmental management benchmark: Improve fuel efficiency by 15% from fiscal 2010 level by fiscal 2018 2) Determine total CO <sub>2</sub> emissions for NYK Group	1) Extract data from SPAS** for more accurate monitoring and calculation of environmental management indicator 2) Use environmental performance data tabulation system (NYKECOM)	1) Collected data from 459 vessels (11.4% improvement from fiscal 2010) 2) Installed the new ECO TRACK system, which collects data from 150 offices (overseas) and 47 companies / 251 offices (in Japan)		1) Establish environmental management benchmark: Improve fuel efficiency by 15% from fiscal 2010 level by fiscal 2018 2) Determine total CO <sub>2</sub> emissions for NYK Group (in Japan / overseas)
	Prevention of air pollution (Reduction of NOx and SOx emissions)	Reduce NOx and SOx emissions	1) Increase usage of electronically controlled engines 2) Cooperate with California Speed Reduction Programme 3) Make onshore power charging (AMP) equipment compliant with global standards 4) Utilize AMP equipment (contain-type) 5) Cooperate with SCR** onboard testing 6) Rigorously enforce EU and California low-sulfur fuel guidelines	1) Used electronically controlled engines in 11 vessels in fiscal 2016 2) Compliance rate: Los Angeles: 59% (20 miles) 3) Begin installing and operating global standard-compliant AMP equipment for container ships 4) Vessels with equipment for onshore power charging: 32 vessels 5) Vessels with NOx / SOx emission reduction equipment (LNG fueled): 4 vessels 6) All vessels using low-sulfur fuel		Reduce NOx and SOx emissions
	Introduction and use of equipment that reduces marine pollution, conserves and recycles resources, lowers emissions of toxic substance emissions, and protects biodiversity	1) Advance installation of ballast water management systems 2) Scrap ships in an environment-friendly manner 3) Advance installation of NYK Total Bilge System	1) Expand installation 2) Adhere to NYK Standards* on ship recycling 3) Actively install in new built ships	1) Installed on seven vessels in fiscal 2016 2) Recycled all vessels (5 vessels) at compliant yards in fiscal 2016 3) Installed in 11 vessels in fiscal 2016		1) Advance installation of ballast water management systems 2) Scrap ships in an environment-friendly manner 3) Advance installation of NYK Total Bilge System
	Reduction of office environmental burden	Reduce usage of paper, water, and electricity by 0.1% relative to fiscal 2015	Endeavour to reduce usage of paper, water, and electricity	Compared with fiscal 2015 Paper: -3.23% Water: +4.69% Electricity: +0.03%		Reduce usage of paper, water, and electricity by 0.1% relative to fiscal 2016
	Contribution to environmental protection through research and development of new technologies	1) Modify container ships to realize energy-efficient operations 2) Construct smart fleet operation system	1) Modify bulbous bows and install energy-saving equipment based on operation profiles 2) Promote installation of Ship Information Management System (SIMS2) and develop necessary software for energy-efficient operations	1) Analyzed SPAS / SIMS data, verified fuel consumption-reducing effects of hull modifications, and confirmed results to be generally in line with plans 2) For the fourth and final year of the project, promoted functional development and installation of SIMS2, completed installation on six vessels, and encouraged data utilization		Develop safety / economic improvement methods based on big data-based efforts to prevent engine plant accidents
	Stimulation of interest in environmental protection activities	1) Conduct environmental training 2) Conduct environmental e-learning programs 3) Step up dissemination of information to employees	1) Hold training and workshops 2) Create content for environmental e-learning program, and increase participant numbers 3) Feature environmental activities in internal newsletter, and conduct environmental preservation campaign	1) Conducted training for new employees / CSR training 2) Conducted environmental e-learning programs (November-February) Participants: 8,883 Participation rate: 91% (Participant count decreased by roughly 3,000 as Yusen Logistics Group companies conducted their own programs) 3) Continued to publish environment-related articles and conducted in-house environmental campaign (June-October)		1) Conduct environmental training, etc. 2) Conduct environmental e-learning programs 3) Strengthen in-house environmental publicity activities
Disclosure of environmental information	1) Provide up-to-date environmental information through website 2) Disclose CO <sub>2</sub> emissions information	1) Revise and update information contained on website 2) Update CO <sub>2</sub> calculator data, participate in CCWG** of BSFR (U.S. NPD), and verify Scope 3 data	1) Updated once (October) 2) Updated CO <sub>2</sub> calculator data (October), submitted data to CCWG, and completed third-party verification for GHG Scope 1, 2, and 3 (June)		1) Provide up-to-date environmental information through website 2) Disclose CO <sub>2</sub> emissions information	

\*1: EMS Environmental Management System, \*2: SEMC Safety & Environmental Management Committee, \*3: SPAS Ship Performance Analysis System, \*4: SOx Selective Catalytic Reduction, \*5: CO<sub>2</sub>W: Clean Cargo Working Group

[Self-evaluation standard] Achieved:  Almost Achieved:  Partially: 



## Promotion of Group Environmental Management

### The NYK Group's Environmental Management Vision and Three Strategies

(Formulated March 2005)

To contribute to the global environment and the creation of sustainable societies by managing environmental risks and arriving at an optimal balance between environment and economy

Strategy 1 Reducing greenhouse gas emissions  
Strategy 2 Promoting social contribution through activities to conserve the global environment  
Strategy 3 Strengthening group environmental management

#### ■ Scope of the NYK Group's Environmental Management System

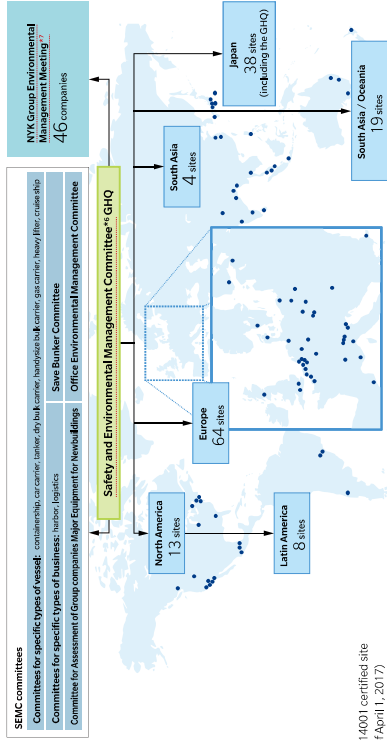
- Worldwide transportation of goods by sea on a fleet of owned and chartered ships and feeder vessels, and on land by rail and truck and through the use of warehousing operations
- Ship management business
- Container terminal business
○ Ship management business- Offshore business
- Airfreight business
- Freight & air forwarding and contract logistics business
- Other businesses associated with the NYK Group

### Global Environmental Management System

Under the Group's common environmental policy, roughly 150 operating sites around the world and approximately 750 vessels (including chartered vessels<sup>\*1</sup>) have obtained ISO 14001 environmental certification.<sup>\*2</sup> The aggregate revenue of the approximately 50 companies that have obtained this certification account for roughly 80% of the Group's total sales, making the Group's unique global system for certification a powerful business driver. Several Group companies<sup>\*3</sup> in Japan have also received Green Management certification.<sup>\*4</sup>

<sup>\*1</sup> Chartered vessels are ships leased from shipowners along with their fixtures and crew in a state capable of safe operation.

#### Global Promotion of Environmental Activities and Multi-Site System<sup>\*5</sup>



#### ■ The NYK Group's Environmental Green Policy

- We, the NYK Group, adopt responsible practices with due regard to the environmental impacts of our corporate activities. We set and continually review objectives and targets for achieving our goal to protect our entire global environment and biodiversity.
- We seek not only to comply with safety and environmental regulations but also to implement in-house standards to improve our environmental performance and to contribute to the realization of a sustainable society.
- We commit ourselves to the safe operation of all our services via sea, land and air, as well as operations at sea, terminal and warehouses.
- We seek to reduce environmental loads by efficiently using resources, saving energy, reducing waste, encouraging material recycling, and particularly by minimizing emissions of greenhouse gases, ozone-depleting substances, and toxic matter.
- We endeavor to minimize environmental loads and adopt environmentally friendly technologies when ordering and purchasing necessary resources, such as vessels and aircraft, for transportation services and cargo operations.
- We endeavor to use education programs to raise environmental awareness among our employees and to ensure that they recognize the essence of this policy and take appropriate action.
- We make wide-ranging social contributions in close partnership with local communities by disclosing environmental information and supporting environmental conservation initiatives.

Constituted on September 1, 2005  
Amended on April 1, 2017  
President

- <sup>\*2</sup> ISO 14001 environmental certification is the collective term for the international standard for environmental management systems issued by the International Organization for Standardization.
- <sup>\*3</sup> Group companies with Green Management certification were, as of April 1, 2017, Nippon Container Yuso Co. Ltd., Yusen Kouru Co. Ltd., UHLK Corporation, Asahi Unyu Kaisha Ltd., Kaiyo Kogyo Corporation, Yokohama Kyoritsu Warehouse Co. Ltd., Yusen Logistics Co. Ltd. (Narita Transport Section), Tokaiyu Kaifu Co. Ltd., and Nihon Yusen Kaisha Ltd. (Tokaiyu Transport Section).
- <sup>\*4</sup> Group companies with Green Management certification include Promoting Personal Mobility and Ecological Transportation to transportation operator companies that carry out initiatives above minimum standards set in its Green Management Promotion Manual, such as promoting ecologically conscious driving and using low-emission vehicles.
- <sup>\*5</sup> Multi-site system enables blanket certification for all of a company's operating bases.
- <sup>\*6</sup> The Safety and Environmental Management Committee (SEMC) formulates group-wide systems, with the president serving as chairman. The committee includes subsidiaries that are responsible for specific vessel types, businesses, and projects. The Group's four overseas regions also have similar committees.
- <sup>\*7</sup> The NYK Group Environmental Management Meeting first commenced in 2006 and is held annually to provide a forum for main group companies in Japan to share information about their environmental activities, and to give special commendations to companies that have made outstanding efforts.

## Responding to Environmental Regulations

In addition to playing an active role in discussions by the International Maritime Organization (IMO) on the nature and details of environmental regulations governing vessels, NYK also helps develop international rules from the perspective of vessel owners and operators.

To ensure compliance with the various environmental regulations in effect, the Group also works to research, develop, and adopt cutting-edge technologies, make the most of vessel IoT and big data, and thereby make operations and allocation procedures more efficient.

#### Timeline: Environmental Regulations

	2016	2017	2018	2019	2020	2021
SOx	General seas	Use fuel with sulphur content of 3.5% or less			Use fuel with sulphur content of 0.5% or less	
	ECA <sup>*1</sup>	Use fuel with sulphur content of 0.1% or less (the coasts of the United States and Canada, the Caribbean Sea, the North Sea and the Baltic Sea)				
NOx	General seas	Tier II regulations				
	ECA	Tier III regulations (the coasts of the United States and Canada, the Caribbean Sea, the North Sea and the Baltic Sea)				(Adding the North Sea and the Baltic Sea)
CO <sub>2</sub>	SEEMP <sup>*2</sup>	Applicable to all vessels				
	Data collection system <sup>*3</sup>			Scheduled to go into effect beginning January 1, 2019		
Biodiversity	The International Convention for the Control and Management of Ships' Ballast Water and Sediments					
	Hong Kong Convention (Ship Recycling Convention)			Goes into effect on September 8, 2017		
	IMO	Adopted in 2009; would be applicable to all vessels upon entering into effect				

<sup>\*1</sup> Emission Control Areas (ECAs) are ocean areas in which restrictions on air pollutants are in effect.  
<sup>\*2</sup> The Ship Energy Efficiency Management Plan (SEEMP) is an operational plan for improving energy efficiency on a voyage-specific basis.  
<sup>\*3</sup> A data collection system is used by shipping companies to report to the International Maritime Organization on fuel consumption, voyage distances, and voyage times for all vessels of 5,000 gross tonnage or above operating internationally.

### Efforts to Reduce CO<sub>2</sub> Emissions

- **Safe, Energy-Efficient Operations through Vessel IoT**  
The Group is currently working to ensure safe, energy-efficient operations by utilizing big data on underway vessel voyages, engine information, and other items. To gather big data for analysis, the Group uses SIMS (see page 25 for details) technology—a platform for sharing data between vessels and shoreside personnel. With SIMS equipment running on 187 vessels as of April 2017, the Group now operates a portal site for displaying and monitoring various forms of data and develops tools for analyzing vessel performance to take full advantage of its big-data resources. The data collected by SIMS provides a wealth of valuable input. By drawing on vessel performance models, incorporating weather statistics, and breaking the data down by season and month, the Group can formulate optimal voyage plans in a more detailed, systematic fashion than ever before. The data is also proving useful in the IBIS TWO

Project, an effort to establish economical, fuel-saving operations for each vessel type.

The Group's efforts to improve overall safety make use of big data, as well. Being able to visualize vessel-related information in a timely manner helps crew members and onshore personnel (operations personnel and vessel management companies) share information in a closer arrangement, thereby making it easier to identify potential engine breakdowns and prevent accidents before they occur.







## Responding to Environmental Regulations

### Reducing CO<sub>2</sub> Emissions through Modification Projects

To promote energy-saving vessel operations, the Group is remodeling its operating container ships. The modification projects have achieved a ClassNK-certified 23% reduction in CO<sub>2</sub> emissions in actual seas, exceeding analysis-based projections.

With energy-efficient operations moving into the mainstream and container ships sailing at speeds slower than their original design plans anticipated, the Group began modification bulbous bows<sup>\*1</sup> and installing MT-FAST<sup>TM</sup> vessel appendages in the summer of 2014. The modification operations, which optimizes operating vessels for low-speed operations, improves propulsion performance and enables further reductions of CO<sub>2</sub> emissions.

<sup>\*1</sup> A bulbous bow is a protruding bulb-shaped section of the bow situated just below the waterline of a vessel (shown in the photo below), and is designed to help reduce wave resistance as the vessel moves through the water. It attaches to a ship's hull just forward of the propeller, and is designed to recover unused energy from the flow of water around the propeller as a means of saving energy.



Before modification



After modification

### NYK Vessels Receive Environmental Awards from the Panama Canal Authority

In February 2017, two Group-operated vessels—*Garnet Leader*, a pure car carrier, and *NYK Remus*, a container ship—received the Panama Canal Authority's Green Connection Award, which recognizes vessels that demonstrate excellent environmental stewardship.

The awards are part of the Green Connection Environmental Recognition Program, which the Authority launched in 2017 to recognize environmentally friendly vessels with high Environmental Ship Index<sup>®</sup> scores when they pass through the canal.

<sup>\*</sup> The Environmental Ship Index is administered by the International Association of Ports and Harbors (IAPH). It is a performance index that measures a ship's emissions of air pollutants (NOx, SOx, etc.) against limits set by the International Maritime Organization.



NYK Remus receives its award



Garnet Leader receives its award

### NYK Discloses Environmental Data to Encourage ESG Dialogue

NYK, which has been a part of the Ministry of the Environment's Environmental Reporting Platform Development Pilot Project since it launched trial operations in 2014, actively discloses environmental information using the available systems.

In addition to enabling the disclosure of environmental information, the platform helps companies communicate with investors on ESG information. By encouraging ESG dialogue, not only disclosing information, NYK gathers valuable input from investors and applies the findings to its business activities.

#### Environmental Management Indicator (EMI)

$$\text{Environmental management indicator (Based on IMO Guidelines)} = \frac{\text{Environmental load (CO}_2 \text{ emissions from vessel transportation)}}{\text{Value added by the business (Mass of cargo in tons} \times \text{Transport distance in kilometers)}}$$

Since 2006, the Group has been using an environmental management indicator (in accordance with IMO Guidelines) to determine CO<sub>2</sub> emissions per unit of vessel transport work and facilitate the management of progress on fuel consumption-reduction activities (see page 18 for details).

## Responding to Environmental Regulations

### Efforts to Prevent Air Pollution

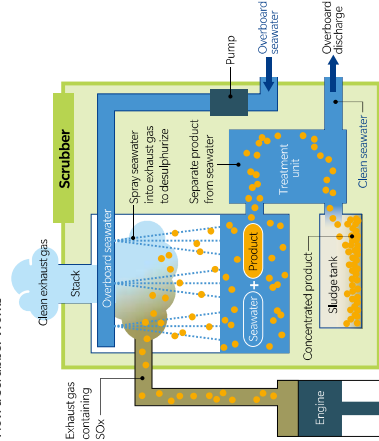
#### Striving to Put LNG Fuel into Practical Use

A vessel fueled with liquefied natural gas (LNG) instead of traditional heavy oil can reduce the vessel's emissions of CO<sub>2</sub> by roughly 30%, NOx by approximately 80%, and SOx by 100%. In October 2011, the Group created a project team to assess LNG as a next-generation fuel, research the prospects of fuel conversion, and develop technologies accordingly. To lead the way as a pioneer (*sokigake* in Japanese) in LNG fuel usage, the Group received delivery of *Sokigake*—Japan's first LNG-fueled tugboat—in August 2015 and completed two LNG-fueled pure car carriers—also the first of their kind—in fiscal 2016. The Group is working to popularize and develop LNG fuel from the supply side, as well, by taking part in a feasibility study on an LNG bunkering hub development plan at the port of Yokohama, partnering with companies in Japan and abroad to market LNG fuel, and pursuing other related initiatives.

#### Getting a Head Start on Compliance with SOx Emission Regulations

As part of its efforts to better the environment through measures other than LNG fuel, the Group decided in 2017 to install SOx scrubbers (systems for desulfurizing exhaust gas) on two dry bulk carriers—a first in the Japanese bulk shipping industry. NYK and Monohakobi Technology Institute (MTI) also began researching scrubber technology with ClassNK, Nanyang Technological University (Singapore), and Sembcorp Marine Technology (Singapore) in December 2014. Anticipating growing demand, the partners are working to develop emission-suppression methods for both SOx and CO<sub>2</sub>, simplify operations, and cut costs. The joint research project is funded by a grant from the Singapore Maritime Institute and supported by the ClassNK Joint R&D for Industry Program.

#### How a Scrubber Works



#### Using Cutting-Edge Technologies in Preparation for Stricter NOx Regulations

On 40 operating vessels, the Group has now installed electronically controlled engines, which reduce NOx by optimizing fuel injection and exhaust valve opening and closing. In hopes of ensuring compliance with Tier III regulations in designated American and Canadian seas, NYK is working with MTI and Mitsui Engineering & Shipbuilding Co. Ltd. to research exhaust gas recirculation (EGR) equipment. On Group-operated vessels built since January 2016, the joint effort is currently installing and validating EGR systems, which help reduce NOx emissions by returning a portion of an engine's exhaust gas back into the engine.

#### Use of Onshore Power while in Port

The California Air Resources Board (U.S.) requires all container ships, cruise ships, and refrigerated cargo ships in berths at ports in the state of California to stop their onboard generators and connect to a shoreside power supply. To meet that requirement Group container ships that stop at California ports subject to these regulations are equipped with alternative maritime power (AMP)<sup>\*</sup> units that can connect to AMP units at port terminals to establish connections to shoreside power supplies. Moving forward, the Group will continue to boost its shoreside power supply rates in the effort to reduce emissions of environmental pollutants (CO<sub>2</sub>, NOx, SOx, PM<sup>†</sup>, etc.) from its vessels.

<sup>\*</sup> Alternative maritime power (AMP) is a method for supplying shore-side electrical power to berthed vessels so that they can turn off onboard generators, thereby minimizing air pollutant emissions.  
<sup>†</sup> Pollutants matter (PM) is a harmful substance said to affect health adversely and cause conditions such as respiratory diseases.



A container ship receiving electricity from shore

Air AMP container unit

## Responding to Environmental Regulations

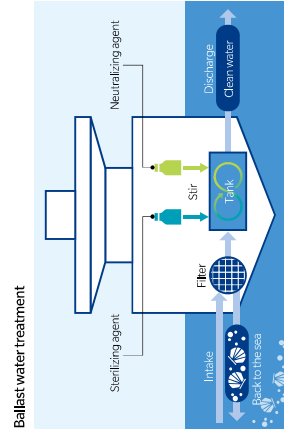
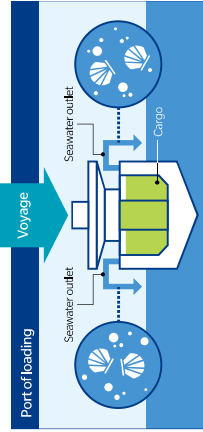
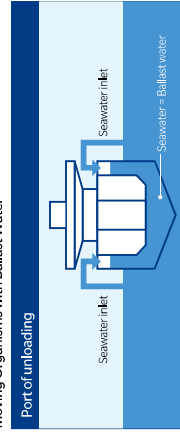
### Contributions toward Protecting Biodiversity

- **Promoting ballast water management system installation**

To prevent the cross-boundary movement of aquatic organisms affecting the marine environment, the IMO adopted the International Convention for the Control and Management of Ship's Ballast Water and Management in 2004. The Convention is scheduled to take effect in September 2017.

Anticipating the enforcement of the Convention, the Group began installing Ministry of Land, Infrastructure, Transport and Tourism-approved ballast water treatment systems in 2010. With installation procedures complete on 70 vessels as of March 31, 2017, the Group will continue to equip owned vessels by NYK, with the systems.

#### Moving Organisms with Ballast Water

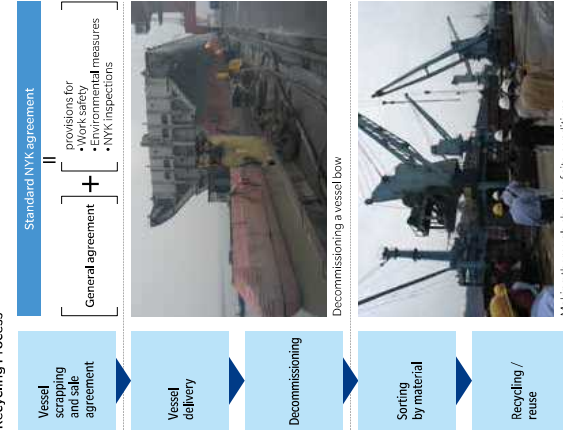


- **Environmentally Friendly Ship Scrapping (Ship Recycling)**

To prevent industrial accidents and environmental pollution that can occur during ship-decommissioning procedures, the IMO adopted a ship-recycling convention in 2009. The Convention is expected to go into effect two years after various ratification conditions are met.

As the Convention requires, the Group prepares inventory lists of the volumes and locations of hazardous materials on board and posts the lists inside its vessels. The Group has also created a scrapping policy that focuses on securing safe, stable scrapping locations, underscores the importance of scrapping vessels in an environment-conscious way, and takes the IMO Guidelines and other items into consideration. In line with this policy, the Group selects scrapping yards that not only feature environmentally friendly conditions but also emphasize work safety. Under its unique agreements pertaining to the sale of vessels for scrapping, the Group also conducts on-site inspections upon delivery as needed to confirm that the safety and environmental conditions of the corresponding locations are compliant with the provisions of the agreements.

#### Recycling Process



## Turning Environmental Challenges into Growth Opportunities

Through its business activities, the Group works to help customers solve environmental problems. The Group sees environmental challenges as growth opportunities, not risks, and strives to be an essential part of the effort to create a sustainable society.

### Initiatives by NYK Group Companies

- **Yusen Navtec Co. Ltd. applies its environmental technological capabilities to clean ship hulls**

As the need for environmental conservation continues to grow, society is becoming increasingly aware of the ecological problems that can occur when marine organisms attached to vessel hulls make their way into non-native seas. Authorities are thus enacting stricter regulations in hopes of preventing marine pollution. Yusen Navtec Co. Ltd.'s "Aqua-Shaver," an electric-powered hull-bottom cleaner, features a collection device that gathers up waste and marine organisms during the cleaning process to ensure maximum environmental performance. The company also analyzes vessel performance to plan cleaning projects at the optimal times, which helps vessels conduct energy-efficient operations.



A diver performs underwater hull cleaning

- **ULTY, NYK Trading Corporation's system for Optimizing Boiler Control**

ULTY, developed by NYK Trading Corporation, is a system that helps optimize highly variable boiler-combustion controls at power plants and factories and thereby helps stabilize plant operations. Thus far, the companies have sold over 50 ULTY systems to thermal power plants in Japan. Data shows that the ULTY system allows thermal power plants to cut boiler fuel consumption by approximately 1 to 1.5%. In hopes of making operations even more efficient, NYK Trading have also launched a new system ULTY V-plus jointly with Idemitsu Kosan Co., Ltd. that incorporates the IoT and artificial intelligence (AI) technologies. By helping ULTY V-plus find broader applications at power plants and factories both in Japan and abroad, NYK Trading and Idemitsu Kosan will continue to combat global warming and lay the groundwork for a sustainable society through the reduction of CO<sub>2</sub> emissions.



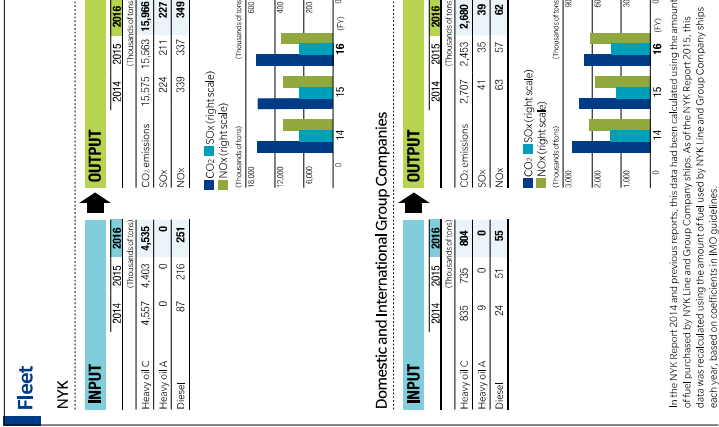
ULTY exhibit at the 2017 China-Japan Green Expo

- **UNI-X Corporation's Efforts to Reduce CO<sub>2</sub> Emissions at Port Facilities via LED Technology**

UNI-X Corporation collaborates with Stanley Electric Co. Ltd., which manufactures and sells automotive lighting, to market LED lighting for use at port facilities. In November 2016, International Car Operators (a Group company) installed 120 LED lighting devices at its RORO terminal in Zeebrugge, Belgium. The new lighting has the potential to achieve a 40% reduction in CO<sub>2</sub> emissions versus traditional lighting. Using its expertise as a terminal operator, the company also offers consulting services to help customers with measures against salt damage, lighting configurations for maximizing employee safety, and other initiatives. The company tailors its lighting designs to customer needs, working to reduce CO<sub>2</sub> emissions at port facilities. The product represents the first LED lighting for port facilities to receive ClassNK certification.



LED lighting at the RORO terminal in Belgium





NYK Group (Including Nippon Yusen Kabushiki Kaisha)

Number of employees of consolidated companies (long-term employees, employees on contracts for over 6 months)

Employee Demographics					Employee Diversity				
By region		FY2014	FY2015	FY2016	Total		FY2014	FY2015	FY2016
Total number of employees		33,520	34,276	35,935	Number of non-Japanese seafarers		22,095	21,171	19,281
Japan		8,455	8,204	8,336	Vessels under NYK Group management		9,119	9,071	7,533
Europe		5,300	5,423	5,686	Chartered vessels		12,936	12,100	11,748
South Asia		11,578	12,213	13,093	Ratio of female employees (%)		33	34	35
North America		2,747	2,769	2,779	Ratio of female managers (%) <sup>*1</sup>		20	22	22
East Asia		3,664	3,676	4,103					
Oceania		339	385	479					
Latin America		1,437	1,415	1,459					
By gender		22,409	22,673	23,753					
Male		11,111	11,603	12,182					
Female		33,091	33,068	34,708					
By job type		429	1,208	1,227					
Office workers <sup>*1</sup>		5,619	6,185	6,473					
Seafarers <sup>*2</sup>		3,919	4,234	4,267					
Total		1,700	1,951	2,206					
Male									
Female									

<sup>\*1</sup> Includes navigation officers and engineers<sup>\*</sup>, and seafarers from Group companies

<sup>\*2</sup> Excludes seafarers hired outside Japan

Nippon Yusen Kabushiki Kaisha

Employee Demographics

Total number of employees					Employee Diversity				
By gender		FY2014	FY2015	FY2016	Total		FY2014	FY2015	FY2016
Male		1,689	1,674	1,697	Number of non-Japanese seafarers		22,095	21,171	19,281
Female		319	318	323	Vessels under NYK Group management		9,119	9,071	7,533
Total		746	751	756	Chartered vessels		12,936	12,100	11,748
Male		265	267	268	Ratio of female employees (%)		33	34	35
Female		237	255	261	Ratio of female managers (%) <sup>*1</sup>		20	22	22
Total		3	5	6					
Male		297	296	298					
Female		10	9	11					
Total		41	48	51					
Male		41	37	38					
Female		7	6	8					
Total		0	0	0					
Male									
Female									

<sup>\*1</sup> Includes navigation officers and engineers<sup>\*</sup>, and seafarers from Group companies

<sup>\*2</sup> Excludes seafarers hired outside Japan

Nippon Yusen Kabushiki Kaisha

Employee Demographics

Total number of employees					Employee Diversity				
By gender		FY2014	FY2015	FY2016	Total		FY2014	FY2015	FY2016
Male		1,350	1,356	1,374	Number of non-Japanese seafarers		22,095	21,171	19,281
Female		319	318	323	Vessels under NYK Group management		9,119	9,071	7,533
Total		746	751	756	Chartered vessels		12,936	12,100	11,748
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Female									

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Nippon Yusen Kabushiki Kaisha

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Male									
Female									

<sup>\*1</sup> Includes navigation officers and engineers<sup>\*</sup>, and seafarers from Group companies

<sup>\*2</sup> Excludes seafarers hired outside Japan

Employee Diversity

Ratio of female employees (%)					Employee Diversity				
By region		FY2014	FY2015	FY2016	Total		FY2014	FY2015	FY2016
Japan		21.1	21.3	21.2	Office workers (includes navigation officers and engineers)		21.1	21.3	21.2
Europe		3.3	3.0	3.6	Seafarers		3.3	3.0	3.6
South Asia		2.3	2.3	2.3	Office workers (includes navigation officers and engineers)		2.3	2.3	2.3
North America		0	0	0	Seafarers		0	0	0
East Asia		2.6	2.5	2.5	Employment ratio of people with disabilities (%)		2.6	2.5	2.5
Oceania									
Latin America									

<sup>\*1</sup> Office workers: Managers\* means department heads or higher, and directors including outside directors

Seafarers: Managers\* means captains and chief engineers

Occupational Health and Safety

Number of occupational accidents <sup>*1</sup>					Occupational Health and Safety				
By region		FY2014	FY2015	FY2016	Total		FY2014	FY2015	FY2016
Japan		0	7	4	Number of occupational accidents <sup>*1</sup>		0	7	4
Europe		0	4	2	Office workers (includes navigation officers and engineers)		0	4	2
South Asia		0	3	2	Seafarers		0	3	2
North America		0	0	0	Total		0	0	0
East Asia		0	0	0	Number of work-related deaths		0	0	0
Oceania		0	0	0	Office workers (includes navigation officers and engineers)		0	0	0
Latin America		0	0	0	Seafarers		0	0	0
Total		0	242	77	Number of lost days caused by occupational accidents		0	182	0
Male		0	182	0	Office workers (includes navigation officers and engineers)		0	182	0
Female		0	60	77	Seafarers		0	60	77

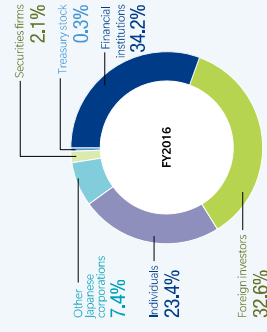
<sup>\*1</sup> Excludes commuting accidents

Employee Support System

FY2016					FY2015					FY2014				
Average number of days of paid leave taken <sup>*1</sup>														
Japan					14.3					14.1				
Europe					10					9				
South Asia					23					24				
Number of employees who used parental leave program <sup>*2</sup>														
Male					0					6				
Female					23					18				
Total					100					90				
(Number of employees who left NYK: 1)														
Ratio of employees who returned to work after taking parental leave (%)														
Japan					100					100				
Retention rate of employees who used parental leave program (%)														
Total					21					22				
Male					0					0				
Female					21					22				
Number of working mothers <sup>*3</sup>														
Total					0					1				
Male					0					1				
Female					0					0				
Ratio of employees who returned to work after taking family-care leave (%)														
Japan					NA					NA				
Retention rate of employees who used family-care leave program (%)														
Total					NA					NA				

<b>Established</b>	September 29, 1885
<b>Paid-in Capital</b>	¥144,319,833,730
<b>Employees</b>	<p><b>Consolidated:</b> 35,935 (NYK and consolidated subsidiaries)</p> <p><b>Non-consolidated*:</b> 1,697 [1,113 office workers (excluding navigation officers and engineers); 267 seafarers currently working at the office (navigation officers and engineers); 317 seafarers]</p> <p>* The non-consolidated number of employees includes employees currently assigned to domestic and overseas group companies.</p>
<b>Headquarters</b>	<p>3-2, Marunouchi 2-chome Chiyoda-ku, Tokyo 100-0005, Japan Telephone: +81-3-3284-5151 Website: <a href="http://www.nyk.com/english/">http://www.nyk.com/english/</a></p>
<b>Common Stock</b>	<p><b>Number of authorised shares:</b> 2,983,550,000 shares</p> <p><b>Number of issued and outstanding shares:</b> 1,695,851,370 shares (excluding treasury stock: 4,699,618)</p>
<b>Stock Exchange Listings</b>	First Section of the Tokyo Stock Exchange and the Nagoya Stock Exchange
<b>Share Registrar and Special Management of Accounts</b>	<p>Mitsubishi UFJ Trust and Banking Corporation  <b>Head office:</b> 4-5, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8212, Japan  <b>Contact Information:</b> Transfer Agency Department, 10-11, Higashisuna 7-chome Koto-ku, Tokyo 137-8081, Japan  Telephone: +81-3-6701-5000</p>
<b>Method of Public Notice</b>	<p>The Company's public notices are available through electronic distribution.  <b>Website:</b> <a href="http://www.nyk.com/koukoku/">http://www.nyk.com/koukoku/</a>  However, in the event that electronic distribution is impossible, due to an accident or other unavoidable circumstances, the Company's public notices will appear in the Nihon Keizai Shimbun</p>
<b>American Depositary Receipts (ADR)</b>	<p><b>Symbol:</b> NPNYY  <b>CUSIP:</b> 654633304  <b>Exchange:</b> OTC  <b>Ratio (ADR: shares of common stock):</b> 1:2  <b>Depository:</b> The Bank of New York Mellon Corporation  101 Barclay Street, New York, NY 10286, U.S.  <b>Toll-Free:</b> Within the U.S. : +1-888-BNY-ADRS  (+1-888-269-2377)  <b>From overseas:</b> +1-201-650-6825  <b>Website:</b> <a href="http://www.adrbnymellon.com">http://www.adrbnymellon.com</a></p>

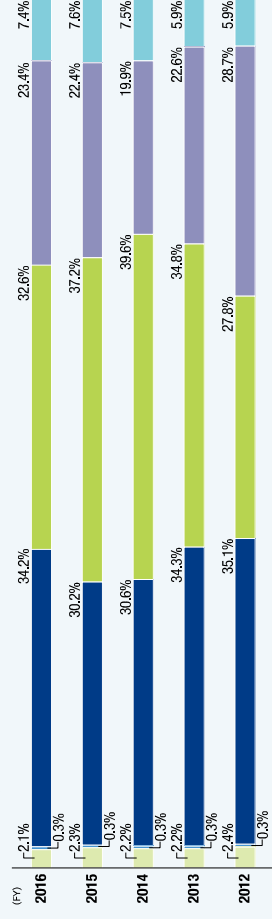
## Shareholder Composition



## Principal Shareholders

Name	Number of shares held
Japan Trustee Services Bank, Ltd. (Trust Accounts)	125,252,000
The Master Trust Bank of Japan, Ltd. (Trust Accounts)	96,901,000
Japan Trustee Services Bank, Ltd. (Trust Accounts 9)	48,683,000
Mitsubishi Heavy Industries, Ltd.	41,038,312
Meiji Yasuda Life Insurance Company	34,473,267
Japan Trustee Services Bank, Ltd. (Trust Accounts 5)	31,039,000
Tokio Marine and Nichido Fire Insurance Co., Ltd.	28,945,788
Japan Trustee Services Bank, Ltd. (Trust Accounts 7)	23,275,000
State Street Bank West Client - Treaty 505234	23,110,901
Japan Trustee Services Bank, Ltd. (Trust Accounts 1)	23,106,000

## Shareholder Composition



## Stock Price Range and Trading Volume

