Five things to know about MOL

1. Full-line marine transport company ➔ P5
2. Total 830 operating vessels ➔ P6
3. Resilient business model with controlled market exposure ➔ P7
4. Accumulated stable profits of 56.0 billion yen ➔ P9
5. Offshore business as a focused investment area ➔ P10

(INVESTOR GUIDEBOOK 2019)

(Mitsui O.S.K. Lines)

(June 2019)
MOL Group Corporate Principles

As a multi-modal transport group, we will:

• actively contribute to global economic growth and development, anticipating the needs of our customers and the challenges of this new era

• strive to maximize corporate value through creativity, operating efficiency and promotion of ethical and transparent management

• nurture and protect the natural environment by maintaining the highest standards of operational safety and navigation

Long-term Vision

To develop the MOL Group into an excellent and resilient organization that leads the world shipping industry

Sustainability Issues (Materiality)

• Value-added transportation services

• Marine and global environmental conservation

• Innovation for advancements in marine technology

• Community growth and human resource development

• Governance and compliance as the foundation of businesses
<table>
<thead>
<tr>
<th>Section</th>
<th>Subsections</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOL at a Glance</td>
<td>①Highlights of Business Performance 03 ②Strategically Balanced Business Portfolio 05 ③Innovation of Business Model 07 ④Market Position 08</td>
</tr>
<tr>
<td>Management Plan</td>
<td>&quot;Rolling Plan 2019&quot;</td>
</tr>
<tr>
<td>Primary Market Data</td>
<td></td>
</tr>
<tr>
<td>Segment Information</td>
<td>①Overall View 13 ②Dry Bulkers 15 ③Energy Transport Business 18 ④Product Transport Business 26 ⑤Associated Businesses 33</td>
</tr>
<tr>
<td>Management Foundation</td>
<td>①Corporate Governance / Compliance 34 ②Safe Operation 35 ③Environment 36 ④Social Responsibility 37 ⑤Global Network 38</td>
</tr>
<tr>
<td>Financial Data</td>
<td>①Profitability &amp; Efficiency Indices 41 ②Stability Indices 42 ③Cash Flow Indices 43 ④Performance Indices 44 ⑤Financial Statements(Consolidated) 45</td>
</tr>
<tr>
<td>General Information</td>
<td></td>
</tr>
</tbody>
</table>
MOL at a Glance

1. Highlights of Business Performance

P/L

- **Ordinary profit/loss**
- **Profit/loss attributable to owners of parent**
- **Revenue**

Exchange Rate & Bunker Price (Fiscal year average)

**FX Sensitivity**(¥bn/$)
- 1.6
- 2.5
- 2.2
- 3.3
- 3.8
- 1.7
- 2
- 2
- 1.9
- 2
- 2.1
- 1.8
- 1
- 0.7
- 0.8

**Bunker Price Sensitivity**(¥bn/$/MT)
- 0.3
- 0.3
- 0.3
- 0.3
- 0.3
- 0.2
- 0.2
- 0.2
- 0.2
- 0.17
- 0.17
- 0.24
- 0.19
- 0.17
- 0.17
- 0.18

**Effect to Ordinary profit/loss**(¥bn)
- Maximum estimation
- **“Effect to Ordinary profit/loss”** is the estimated financial impact compared to the previous fiscal year.
Note: "Shareholders' Equity" refers to:
- To FY2005: Shareholders' equity on the consolidated Balance Sheet
- From FY2006: Owners' equity plus accumulated gains/losses from valuation and translation adjustments

【Dividend Policy】

- The company recognizes the importance of increasing corporate value through aggressive business investment and returning profits directly to the shareholders through dividends.
- We are seeking to increase our corporate value per share while utilizing internally reserved funds and solidifying our financial position.
- In consideration of the above issues, the company will use 20% as a guideline for the dividend payout ratio over the coming terms, and pay dividends in conjunction with consolidated performance. However, MOL will address the need to increase the ratio under its mid-and long-term management policies.
MOL at a Glance

Revenue by Segment (Consolidated)

Dry Bulk Business 24%

Energy Transport Business 23%

Product Transport Business 44%

Containerships (incl. Terminal/Logistics) 22%

LNG Carriers/Offshore Business 7%

Steaming Coal Carriers 3%

Tankers 8%

Ferries/Coastal/RoRo Ships 4%

Associated Businesses 8%

Associated

Businesses/ Others 9%

Car Carriers 18%

Product

Business

Ordinary profit by Segment (Consolidated)


-57 67 13 -30 57 54 55 39 19 14

22 21 -11 -25 -15 -24 -30 -33 -6 -12

-80 -60 -40 -20 0 20 40 60 80 100 120 140

Other 3 segments + Adjustments (until FY2016): Associated Businesses, Ferries & Coastal Ships

Associated Business/Others + Adjustments (from FY2017)

Bulkships (until FY2016): Dry Bulkers, Tankers, LNG Carriers/Offshore Business, Car Carriers

Energy Transport Business (from FY2017):
- Tankers, LNG Carriers/Offshore Business, Steaming Coal Carriers
- Dry Bulk Business (from FY2017):
- Dry Bulkers (excl. Steaming Coal Carriers)
- Product Transport Business (from FY2017):
- Car Carriers, Containerships, Ferries & Coastal RoRo Ships

Refer to P27 for the revenues of ONE, the Containership Joint Company (equity method affiliated company for MOL)
**Fleet Composition**

(Excluding Offshore business)

<table>
<thead>
<tr>
<th>Vessel Type</th>
<th>Market Exposure %</th>
<th>DWT (k)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capesize</td>
<td>21%</td>
<td>94</td>
</tr>
<tr>
<td>Mid-and small-size bulkers</td>
<td>9%</td>
<td>103</td>
</tr>
<tr>
<td>VLCC</td>
<td>21%</td>
<td>34</td>
</tr>
<tr>
<td>Product Tanker</td>
<td>81%</td>
<td>21</td>
</tr>
<tr>
<td>LPG Tanker</td>
<td>13%</td>
<td>8</td>
</tr>
<tr>
<td>Coastal ships(excl. Coastal RoRo ships)</td>
<td>96</td>
<td>31</td>
</tr>
</tbody>
</table>

**Energy Transport Business Unit**

<table>
<thead>
<tr>
<th>Vessel Type</th>
<th>Market Exposure %</th>
<th>DWT (k)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car carriers</td>
<td>20%</td>
<td>113</td>
</tr>
<tr>
<td>Ferries/Coastal RoRo ships</td>
<td>79</td>
<td>16</td>
</tr>
<tr>
<td>Others</td>
<td>13%</td>
<td>2</td>
</tr>
</tbody>
</table>

**Product Transport Business Unit**

<table>
<thead>
<tr>
<th>Vessel Type</th>
<th>Market Exposure %</th>
<th>DWT (k)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Containerships*</td>
<td>74%</td>
<td>65</td>
</tr>
</tbody>
</table>

*Containerships are operated by ONE after Apr, 2018

**Market Exposure % by Vessel type**

(Excluding Passenger ship, ferries and tugs)

<table>
<thead>
<tr>
<th>Vessel Type</th>
<th>Total number of Fleet</th>
<th>Market Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capesize</td>
<td>94</td>
<td>21%</td>
</tr>
<tr>
<td>Mid-and small-size bulkers</td>
<td>103</td>
<td>9%</td>
</tr>
<tr>
<td>VLCC</td>
<td>34</td>
<td>21%</td>
</tr>
<tr>
<td>Product Tanker</td>
<td>21</td>
<td>81%</td>
</tr>
<tr>
<td>LPG Tanker</td>
<td>8</td>
<td>13%</td>
</tr>
</tbody>
</table>

“Market Exposure”

Vessels operating under contracts less than two years, which are owned or mid- and long-term chartered vessels. (Includes vessels that combine multiple customers’ cargoes.)

**Global Major Carriers’ Fleet Composition**

(by DWT)

<table>
<thead>
<tr>
<th>Vessel Type</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Bulker</td>
<td>54%</td>
</tr>
<tr>
<td>Tanker</td>
<td>27%</td>
</tr>
<tr>
<td>LNG Carrier</td>
<td>5%</td>
</tr>
<tr>
<td>Car Carrier</td>
<td>3%</td>
</tr>
<tr>
<td>Containership</td>
<td>16%</td>
</tr>
</tbody>
</table>

Source: ①World seaborne trade = MOL estimates based on Clarkson data and others ②Fleet composition = MOL estimates based on each company’s published data and Clarkson/Alphaliner (Excluding Passenger ship, ferries and tugs)
**Innovation of the Dry Bulker Business** – Dramatically reduced market exposure by implementing the Business Structural Reforms

<table>
<thead>
<tr>
<th>Year</th>
<th>Market Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 31, 2015</td>
<td>43%</td>
</tr>
<tr>
<td>Mar 31, 2016</td>
<td>27%</td>
</tr>
<tr>
<td>Mar 31, 2017</td>
<td>21%</td>
</tr>
<tr>
<td>Mar 31, 2018</td>
<td>20%</td>
</tr>
</tbody>
</table>

**Integration of Containership Business** – Scale Expansion and Strengthening Competitive Advantage

- **Shareholders/Contribution ratio**: MOL: 31%, NYK: 38%, K-Line: 31%
- **Amount of Contribution**: Total US$3.0 billion (Paid all in cash)
- **Business Domain**: Container Shipping Business (including terminal operating business excluding Japan)
- **Schedule**: Establishment of JV: July 7th, 2017, Service Start: April 1st, 2018

**As of Apr. 2015 (existing capacity only)**

<table>
<thead>
<tr>
<th>Line</th>
<th>Capacity (1,000TEU)</th>
<th>MOL</th>
<th>NYK</th>
<th>K-Line</th>
<th>CMA CGM</th>
<th>COSCO</th>
<th>Evergreen</th>
<th>Hapag-Lloyd</th>
<th>CGL</th>
<th>Hanjin</th>
<th>MOL</th>
<th>Hambury</th>
<th>SPL</th>
<th>APL</th>
<th>OOCL</th>
<th>N.K.</th>
<th>Yang Ming</th>
<th>UASC</th>
<th>K-Line</th>
<th>Hyundai</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mediterranean</td>
<td>2,956</td>
<td>2,546</td>
<td>1,724</td>
<td>963</td>
<td>958</td>
<td>821</td>
<td>704</td>
<td>627</td>
<td>615</td>
<td>576</td>
<td>549</td>
<td>542</td>
<td>499</td>
<td>464</td>
<td>410</td>
<td>404</td>
<td>377</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Sources: Alphaliner

**As of Apr. 2019 (including orderbook)**

<table>
<thead>
<tr>
<th>Line</th>
<th>Capacity (1,000TEU)</th>
<th>MOL</th>
<th>NYK</th>
<th>K-Line</th>
<th>CMA CGM</th>
<th>COSCO</th>
<th>Evergreen</th>
<th>Hapag-Lloyd</th>
<th>CGL</th>
<th>Hanjin</th>
<th>MOL</th>
<th>Hambury</th>
<th>SPL</th>
<th>APL</th>
<th>OOCL</th>
<th>N.K.</th>
<th>Yang Ming</th>
<th>UASC</th>
<th>K-Line</th>
<th>Hyundai</th>
</tr>
</thead>
</table>
| Mediterranean | 4,132                | 3,760 | 3,108 | 2,961  | 1,668   | 1,648 | 1,553     | 880          | 833 | 3.5%   | 3.3% | 3.1%    | 2.4% | 2.1% | 2.0% | 2.0% | Sources: Alphaliner
Fleet Size of Global Major Carriers (All types of ships) (Mar. 2018)

- China COSCO
- NYK
- MOL
- Oldendorff
- APM-Maersk
- K Line
- MSC
- China Merchants
- CMA-CGM
- Fredriksen
- Hapag Lloyd
- Euronav

Source: MOL internal estimation based on each companies’ published data, Clarkson and Alphaliner

Dry Bulk (Mar. 2019)

Tankers (Mar. 2019)

LNG Carriers (Mar. 2019)

Car Carriers (Mar. 2019)

Note: The above numbers include the vessels which are owned by each company (wholly or partially) and the vessels for which vessel operation is entrusted to each company.

(Note) Excluding spot-chartered vessels
Management Plan “Rolling Plan 2019”

Management Policy

10-year Vision

Collection of Businesses Boasting the Highest Competitiveness In Their Respective Fields

- Shift to a decarbonized society
- Changes in trade patterns due to expanding protectionism
- Slowdown of global economy
- Fleet supply pressure due to high shipbuilding capabilities in China and South Korea

Difficulty in achieving appropriate and stable returns through the conventional ocean shipping business alone

Changes in external business environment

MOL’s recognition of current status

Three Core strategies to realize the vision

1. Invest resources in fields where MOL has strengths, mainly in the offshore business
   - Invest management resources in fields where MOL has the greatest strength to maintain a competitive edge and ensure solid returns

2. Provide “stress-free services” that are truly convenient for customers
   - Continue to work on the five group-wide priorities set in FY 2018, while also focusing on two newly set FY2019 focus areas

3. Develop environment and emission-free business into core businesses

Roadmap to Improving Profit (Updated from RP2018)

Ordinary Profit

Projected medium-term levels ¥80.0-100.0 billion

- ¥38.5 billion
- ¥50.0 billion

Medium- and Long-term Profit Targets (As per RP 2018)

<table>
<thead>
<tr>
<th></th>
<th>Projected Medium-term Levels</th>
<th>2027 Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary Profit</td>
<td>¥80.0-100.0 billion</td>
<td>¥150.0-200.0 billion</td>
</tr>
<tr>
<td>ROE</td>
<td>8~12%</td>
<td>–</td>
</tr>
<tr>
<td>Gearing Ratio</td>
<td>2.0 or less</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Shareholder Returns

In the near term, set 20% dividend payout ratio as a guideline, while working to improve the ratio in a medium- to long-term
**Management Plan “Rolling Plan 2019”**

**Business Portfolio and Strategic Fields for Resource Allocation (Updated from RP2018)**

- Circles indicate the total assets allocated (as of September 30, 2018).
- Dotted lines show directions and scales that MOL is aiming at.

- **Dry Bulk Business**
- **Energy Transport Business**
- **Product Transport Business**
- **Associated Businesses**

**Strategic Fields for Resource Allocation—Fields where MOL has the greatest strength**

- **Offshore business:** FPSO, FSU, powerthesis business, etc., based on environmental and emerging market needs, where MOL’s knowledge and technology accumulated in LNG and energy transport can be applied.
- **LNG carriers:** High value-added, highly difficult LNG transport and handling businesses based on track records in areas such as operation of ice-breaking vessels.
- **Chemicals:** Total logistics business for chemicals, not limited to ocean transport.
- **Ferries:** Continual efforts to maintain a cutting-edge ferry fleet, capitalizing on increasing demand caused by the modal shift.

**Variable Profits**

- **Containerships**
- **Tankers**
- **Gas Carriers**
- **General Cargo Carriers**

**Stable Profits**

- **Cruise Ships**
- **Wood Chip Carriers**
- **LNG Carriers**
- **Carrage Carriers**
- **Product Tankers**
- **Rotterdam**

**Investment Cash Flows (Update from RP2018)**

1. **FY2018 Results**

- **Environment**
- **Chemicals**
- **Offshore Businessess**

\[ ¥126.2 \text{bn} \]

2. **FY2019 Outlook**

**Total of existing & new projects**

\[ ¥135.0 \text{bn} \]

- Increase investments in offshore business
- Continue to carefully select projects for investment

**Initiatives on ESG & SDGs – Promoted through Rolling Plan –**

- **MOL’s Sustainability Issues (Materiality)**
  - Value-added transportation services
  - Marine and global environmental conservation
  - Innovation for advancements in marine technology
  - Community growth and human resource development
  - Governance and compliance as the foundation of businesses

**Maximize MOL’s economic and social value**

- Refer to P.34-37 for further details.
Primary Market Data

Dry Bulker Markets
(Spot Charter Rate/TC Average) : Monthly Average

- Capesize TC average: until April 2014=4TC, in/after May 2014=5TC (new)
- BDI (Baltic Dry Index) is calculated as an arithmetic average of the drybulker markets of the four different vessel types before March 2018 and the three different vessel types except for Handy size after March 2018. Therefore, a fluctuation of BDI does not always coincide with those of the four drybulker markets.

Source: MOL internal calculation based on TDS and others.

VLCC Market (Spot Earning): Monthly Average (AG→Japan)

Source: MOL internal calculation based on Clarksons Research.

Refer to “Market Data” for the latest data available on our web site (https://www.mol.co.jp/en/ir/data/market/index.html)
Primary Market Data

Product Tanker Markets (Sport Earnings) : Monthly Average
(LR : AG→Japan, MR : Main 5 Trades)

![Graph showing Product Tanker Markets (Sport Earnings) monthly average.]
(Source: MOL internal calculation based on Clarksons Research)

(Remarks)
MR Product Tanker market is simple average of main 5 trades: Europe – US, US – Europe, Singapore – Australia, South Korea – Singapore, and India – Japan, which is available from 2011/1.

CCFI (CCFI : China Containerized Freight Index*)

![Graph showing CCFI (China Containerized Freight Index).]
(Source: SSE)

(Remarks)
(*)CCFI reflects the freight rate trend for container exports from China only, which does not always match the overall trend for container exports from Asia.

*refer to “Market Data” for the latest data available on our web site (https://www.mol.co.jp/en/ir/data/market/index.html)
World Population & Global Seaborne Traffic

Seaborne Traffic (bn t)/World Population (bn)

- CAGR estimate: 1.0%
- CAGR: 4.6%
- "Traffic Volume per capita": 1.7t (estimate @2050)
- "Traffic Volume per capita": 1.55t (@2018)
- "Traffic Volume per capita": 1.0t (@2000)
- "Traffic Volume per capita": 0.5t (@1965)

Source: World population=UN, Seaborne traffic=Fearnley/Clarksons(~2014), MOL estimation based on assumption that the trend of traffic per capita in the past continues in the future (2015~)

Seaborne Traffic estimate (2019~)

Seaborne Traffic by Commodity

Source: Clarkson
Growth of World GDP & Seaborne Traffic by Commodity

(Ref.) Ship Prices
Segment Information

MOL Dry Bulkers: Revenue Breakdown (Consolidated)

Global Seaborne Trade of Major Dry Bulk Cargoes

Crude Steel: Global Production by Area

Iron Ore: Global Seaborne Trade by Import Area
Segment Information

② Dry Bulk Business

- **Coking Coal : Global Seaborne Trade by Import Area**
  - Source: Clarkson

- **Grain : Global Seaborne Trade by Commodity**
  - Source: Clarkson

- **Wood Chip : Global Seaborne Trade by Import Area**
  - Source: MOL based on RSS data

---

**China : Dependence on Imported Iron Ore**

- Source: MOL estimation

(*) MOL internal calculation based on the premises of Fe content rates of 96% in pig iron and 62% in imported iron ore

---

**Investor Guidebook 2019**
Segment Information

Vessel Supply
(Source: MOL internal calculation based on IHS-Fairplay)

**CAPESIZE**
(Number of vessels)
(Standard DWT: 180,000t)
Main cargoes: Iron ore, Coking coal

**PANAMAX**
(Number of vessels)
(Standard DWT: 80,000t)
Main cargoes: Iron ore, Coking coal, Steaming coal, Grain

**HANDYMAX**
(Number of vessels)
(Standard DWT: 55,000t)
Main cargoes: Thermal coal, Grain, Salt, Cement, Steel

**SMALL HANDY**
(Number of vessels)
(Standard DWT: 33,000t)
Main cargoes: Steel, Cement, Grain, Ore
### Demand Forecast of Primary Energy

- **Crude Oil**
- **Coal**
- **LNG**
- **Biomass & Waste**
- **Materials**
- **Nuclear**
- **Hydro**
- **Solar, Wind & Others**

Source: MOL internal calculation based on IEA World Energy Outlook 2018

### LNG: Seaborne Trade by Export Areas (Result & Forecast)

- **US Gulf → Japan:** 9,300 miles (about 23 days)
- **East Africa → Japan:** 7,400 miles (about 17 days)
- **Middle East → Japan:** 6,700 miles (about 15 days)
- **West Australia → Japan:** 3,700 miles (about 9 days)
- **Indonesia → Japan:** 2,600 miles (about 7 days)

Source: MOL internal calculation based on Wood Mackenzie
**Segment Information**

### Japan: Import % of LNG by Nation of Origin
![Graph showing LNG import by nation of origin for Japan, with major sources being Oceania (38%), Middle East (22%), S/E Asia (25%), Russia (8%), USA (3%), and Others (2%). Source: Trade Statistics of Japan (MOF).]

### LNG: Import Forecast by Area

- **2018:**
  - Japan: 26%
  - China: 24%
  - Europe: 17%
  - Korea: 16%
  - India: 14%
  - Others: 6%

- **2025 (forecast):**
  - Japan: 19%
  - Others (forecast): 18%

**Source:** MOL internal calculation based on Wood Mackenzie

### LNG: Emerging Market of LNG Import

- **Emerging Markets:**
  - Others (Sri Lanka)
  - South America (Panama, Colombia, Jamaica & El Salvador)
  - Europe (Lithuania, Poland, Croatia, Germany & Malta)
  - Middle East (Bahrain, Jordan & Saudi Arabia)
  - South East Asia (Vietnam, Myanmar & Philippines)
  - Pakistan
  - Bangladesh

**Source:** MOL internal calculation based on Wood Mackenzie
MOL : Offshore Business in Energy Value Chain

### Energy Transport Business

**Segment Information**

- **Up Stream**
  - Exploration
    - Drill Ship / Semi-Sub Rig
  - Production, Storage, Offloading
    - Oil FPSO / FSO
    - FPSO (Floating Production, Storage and Offloading System)
    - LNG FPSO (FLNG)
  - Marine Transportation
    - Shuttle Tanker
    - Crude Oil Tanker
    - Product Tanker
    - LNG Carrier
    - CNG Carrier
    - LNG Bunkering
    - SRV
  - Storage, Logistics
    - Tank Container
    - Tank Terminal
    - FSRU / FSU
    - FSRP

### FPSO (Floating Production, Storage and Offloading System)

A floating facility for producing crude oil offshore. The crude oil is stored in tanks in the facility and directly offloaded to shuttle tankers for direct transport to the destination.

*Photo: MODEC, Inc.*

### Self-Elevating Platform Vessel

The platform is equipped with legs that rest on the seabed and move up and down. The vessel installs offshore wind power generation systems with a crane by moving the platform up to the sea surface. By raising and maintaining a level higher than the waves, the generators can operate even in rough seas. It can be used not only to install offshore wind power generation systems, but also to help maintain offshore oil and gas rigs.

### Subsea Support Vessel

Vessels designed for arrangement and technical support work during exploitation of offshore oil and gas fields.

### Shuttle Tanker

Tankers that transport crude oil from offshore oil rigs, such as FPSOs, to onshore refineries as an alternative means of pipelines. Shuttle tankers are fitted with a unique system that enables cargo to be loaded from the bow of the vessel, rather than from the side like ordinary tankers, while maintaining a certain distance from the offshore platform.
A floating facility for storing and regasification of LNG offshore, which is then pressurized and piped ashore. Plans to introduce FSRUs in regions around the world are making steady progress as they can be set up in less time and with less cost than conventional onshore receiving terminals.

**Geographical Expansion of LNG Import through FSRU**

![FSRU in operation map]

<table>
<thead>
<tr>
<th>FSRU in operation</th>
<th>FSU in operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>① U.S. NE Gateway</td>
<td>Jamaica Jamaica FSU</td>
</tr>
<tr>
<td>② Colombia SPEC</td>
<td>Malta Malta FSU</td>
</tr>
<tr>
<td>③ Egypt EGAS2</td>
<td>Bahrain Bahrain FSU</td>
</tr>
<tr>
<td>④ Israel Hadera Gateway</td>
<td>Malaysia Melaka FSU1</td>
</tr>
<tr>
<td>⑤ Jordan Aqaba</td>
<td>Malaysia Melaka FSU2</td>
</tr>
<tr>
<td>⑥ Argentina Escobar</td>
<td>Indonesia Benoa FRU/FSU</td>
</tr>
<tr>
<td>⑦ Argentina Escobar</td>
<td>① Brazil Sergipe</td>
</tr>
<tr>
<td>⑧ Colombia SPEC</td>
<td>② Egypt Port of Acu</td>
</tr>
<tr>
<td>⑨ Colombia SPEC</td>
<td>③ Ivory Coast Total/Petroci</td>
</tr>
<tr>
<td>⑩ Brazil Pecem</td>
<td>④ Ghana GNPC Tema FRU/FSU</td>
</tr>
<tr>
<td>⑪ Jordan Aqaba</td>
<td>⑤ India Swan</td>
</tr>
<tr>
<td>⑫ Egypt EGAS2</td>
<td>⑥ Indonesia Benoa FRU/FSU</td>
</tr>
<tr>
<td>⑬ Israel Hadera Gateway</td>
<td>⑦ Bangladesh Jaiagarh</td>
</tr>
<tr>
<td>⑭ Jordan Aqaba</td>
<td>⑧ Egypt Port of Acu</td>
</tr>
<tr>
<td>⑮ Kuwait Mina Al-Ahmad</td>
<td>⑨ Bangladesh Summit Maheshkhali</td>
</tr>
<tr>
<td>⑯ UAE Dubai LNG</td>
<td>⑩ China Tianjin</td>
</tr>
<tr>
<td>⑰ Jordan Aqaba</td>
<td>⑪ Indonesia Benoa FRU/FSU</td>
</tr>
<tr>
<td>⑱ Malaysia Benoa FRU/FSU</td>
<td>⑫ Indonesia Benoa FRU/FSU</td>
</tr>
<tr>
<td>⑲ Indonesia Benoa FRU/FSU</td>
<td>⑬ Indonesia Benoa FRU/FSU</td>
</tr>
<tr>
<td>⑳ China Tianjin</td>
<td>⑭ Indonesia Benoa FRU/FSU</td>
</tr>
<tr>
<td>㉑ Indonesia Benoa FRU/FSU</td>
<td>⑮ Indonesia Benoa FRU/FSU</td>
</tr>
</tbody>
</table>

**Steaming Coal: Global Seaborne Trade by Import Area**

![Steam Coal Trade chart]

Source: Clarkson
MOL Tankers: Revenue Breakdown (Consolidated)

FY2018

- 27% Crude oil tanker
- 12% Chemical tanker
- 10% Methanol tanker
- 3% Product tanker
- 48% LPG tanker

Oil: Global Demand

<table>
<thead>
<tr>
<th>Year</th>
<th>Crude Oil</th>
<th>Product Tanker</th>
<th>Naphtha</th>
<th>Kerosene</th>
<th>Jet Fuel</th>
<th>Diesel Oil</th>
<th>Residual Oil (Heavy Oil, Asphalt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>88.2</td>
<td>10.6</td>
<td>10.7</td>
<td>11.6</td>
<td>11.8</td>
<td>12.2</td>
<td>12.6</td>
</tr>
<tr>
<td>2011</td>
<td>88.9</td>
<td>10.7</td>
<td>11.6</td>
<td>11.8</td>
<td>12.2</td>
<td>12.6</td>
<td>12.7</td>
</tr>
<tr>
<td>2012</td>
<td>90.6</td>
<td>11.6</td>
<td>11.8</td>
<td>12.2</td>
<td>12.6</td>
<td>12.7</td>
<td>12.8</td>
</tr>
<tr>
<td>2013</td>
<td>91.9</td>
<td>12.2</td>
<td>12.6</td>
<td>12.7</td>
<td>12.8</td>
<td>12.7</td>
<td>12.9</td>
</tr>
<tr>
<td>2014</td>
<td>93.0</td>
<td>12.6</td>
<td>12.7</td>
<td>12.8</td>
<td>12.7</td>
<td>12.7</td>
<td>12.9</td>
</tr>
<tr>
<td>2015</td>
<td>95.0</td>
<td>12.7</td>
<td>12.8</td>
<td>12.7</td>
<td>12.7</td>
<td>12.7</td>
<td>12.9</td>
</tr>
<tr>
<td>2016</td>
<td>96.4</td>
<td>12.8</td>
<td>12.8</td>
<td>12.7</td>
<td>12.7</td>
<td>12.7</td>
<td>12.9</td>
</tr>
<tr>
<td>2017</td>
<td>98.0</td>
<td>12.8</td>
<td>12.8</td>
<td>12.7</td>
<td>12.7</td>
<td>12.7</td>
<td>12.9</td>
</tr>
<tr>
<td>2018</td>
<td>99.2</td>
<td>12.8</td>
<td>12.8</td>
<td>12.7</td>
<td>12.7</td>
<td>12.7</td>
<td>12.9</td>
</tr>
<tr>
<td>2019</td>
<td>100.6</td>
<td>12.8</td>
<td>12.8</td>
<td>12.7</td>
<td>12.7</td>
<td>12.7</td>
<td>12.9</td>
</tr>
</tbody>
</table>

Source: IEA
**Crude Oil① : Global Seaborne Trade by Import Area**

<table>
<thead>
<tr>
<th>Import Area</th>
<th>Trade Volume (mm t)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.America</td>
<td>1,096</td>
<td>219%</td>
</tr>
<tr>
<td>Europe</td>
<td>88</td>
<td>18%</td>
</tr>
<tr>
<td>Other A/P</td>
<td>121</td>
<td>25%</td>
</tr>
<tr>
<td>Japan</td>
<td>307</td>
<td>64%</td>
</tr>
<tr>
<td>China</td>
<td>103</td>
<td>21%</td>
</tr>
<tr>
<td>Others</td>
<td>273</td>
<td>56%</td>
</tr>
</tbody>
</table>

Source: Clarkson

<table>
<thead>
<tr>
<th>Region</th>
<th>Distance (miles)</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oman → Dalian</td>
<td>5,800</td>
<td>20</td>
</tr>
<tr>
<td>Angola → Dalian</td>
<td>9,800</td>
<td>35</td>
</tr>
<tr>
<td>US Gulf → Dalian</td>
<td>15,800</td>
<td>55</td>
</tr>
</tbody>
</table>

**Crude Oil② : Global Seaborne Trade from Africa/Latin America to Asia(∗)**

<table>
<thead>
<tr>
<th>Region</th>
<th>Trade Volume (mm t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>96</td>
</tr>
<tr>
<td>China</td>
<td>123</td>
</tr>
<tr>
<td>Korea</td>
<td>122</td>
</tr>
<tr>
<td>India</td>
<td>144</td>
</tr>
<tr>
<td>US Gulf</td>
<td>175</td>
</tr>
<tr>
<td>Latin America</td>
<td>182</td>
</tr>
<tr>
<td>North America</td>
<td>191</td>
</tr>
<tr>
<td>North America</td>
<td>215</td>
</tr>
<tr>
<td>Latin America</td>
<td>215</td>
</tr>
</tbody>
</table>

Source: MOL internal calculation based on MSI

**Petroleum Products : Global Seaborne Trade by Import Area**

<table>
<thead>
<tr>
<th>Region</th>
<th>Trade Volume (mm t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>1,096</td>
</tr>
<tr>
<td>N.America</td>
<td>130</td>
</tr>
<tr>
<td>Europe</td>
<td>88</td>
</tr>
<tr>
<td>Latin America</td>
<td>121</td>
</tr>
<tr>
<td>Europe</td>
<td>307</td>
</tr>
<tr>
<td>Other A/P</td>
<td>273</td>
</tr>
<tr>
<td>Japan/China/Korea</td>
<td>103</td>
</tr>
</tbody>
</table>

Source: Clarkson

**LPG : Global Seaborne Trade by Export Area**

<table>
<thead>
<tr>
<th>Export Area</th>
<th>Trade Volume (mm t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>19</td>
</tr>
<tr>
<td>Africa</td>
<td>21</td>
</tr>
<tr>
<td>Europe</td>
<td>7.2</td>
</tr>
<tr>
<td>Middle East</td>
<td>12.5</td>
</tr>
<tr>
<td>Others</td>
<td>18.6</td>
</tr>
<tr>
<td>USA</td>
<td>23.7</td>
</tr>
<tr>
<td>Africa</td>
<td>26.5</td>
</tr>
<tr>
<td>Europe</td>
<td>30.2</td>
</tr>
</tbody>
</table>

Source: Clarkson
### Chemical Products: Demand Forecast by Product

- **Ethylene glycol**
- **Dichloroethane**
- **Styrene monomer**
- **Paraxylene**
- **Toluene**
- **Benzene**

*(f)=forecast

**Source:** METI

### Vessel Supply

**VLCC**

- Deliveries
- Demolitions
- Net Additions(*)
- YoY%

*(including convert out)

**Product Tanker**

- Deliveries (Total)
- Demolitions (Total)
- Net Additions
- YoY%

**LPG Tanker**

- Deliveries
- Demolitions
- Net Additions
- YoY%

**Source:** MOL internal calculation based on IHS-Fairplay

---

**Segment Information**

**Energy Transport Business**

---

**Investor Guidebook 2019**
Global Car Seaborne Trade

Car Export from Japan

Of which, Car Export for the Middle East, Central and South America, and Africa

Car Export from Emerging Countries

Segment Information ④ Product Transport Business
### ONE FY2018 Results and FY2019 Forecasts

(Units: Million US$)

<table>
<thead>
<tr>
<th>FY2018 Results</th>
<th>FY2019 Forecasts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H1 Forecast</td>
</tr>
<tr>
<td>Q1 Result</td>
<td>Q2 Result</td>
</tr>
<tr>
<td>Revenue</td>
<td>2,066</td>
</tr>
<tr>
<td>Profit/loss for the year</td>
<td>-120</td>
</tr>
<tr>
<td>Bunker Price (US$/MT)</td>
<td>$407</td>
</tr>
</tbody>
</table>

| Revenue       | 10,880      | 6,417       | 6,306       | 12,723        |
| Profit/loss for the year | -586       | 123         | -38         | 85            |
| Bunker Price (US$/MT) | $445       | $533       | $488        |

### ONE's Action Plans for Profit Improvement

#### Group 1: Stabilization and Recovery from Testing Problems
- Utilization almost reached pre-integration levels as a result of flexibility in reducing service frequencies. Liftings, which dropped at commencement of services in FY2018, recovered throughout H2, and the level that can be achieved in FY2019, is reflected in the forecasts.

#### Group 2: Action Plans in FY2019
- Cargo Portfolio Optimization
- Product Rationalization
- Organization Optimization
- Synergistic Effects

#### Integration Synergy

From the initial integration synergy forecast of US$1,050 million, 82% of the synergistic effects emerged in the first fiscal year.

**Variable Cost Reduction**: US$430 million - Rail, Truck, Feeder, Terminal, Equipment etc...

**Overhead Cost Reduction**: US$370 million - IT cost, Rationalization for organization, Outsourcing etc...

**Operation Cost Reduction**: US$250 million - Bunker consumption, product rationalization etc...

**Sensitivity on Profit/Loss**: ±US$7 million per US$10/MT per Quarter (Bunker cost increase by MARPOL2020 implementation shall be recovered by ONE BUNKER SURCHARGE)
Integration of Containership Business

- Containerships: Major Operations/Alliance Share by TEU (Apr, 2019)

![Diagram showing container terminal locations for MOL, NYK, and K-Line (excluding Japan)]

- ONE Capacity Share by Trade

- Location of Container Terminal of MOL, NYK, and K-Line (excluding Japan)
Segment Information

ONE Liftings : Transpacific Trade (FY2018 Results)

ONE Liftings : Asia-Europe Trade (FY2018 Results)

ONE Utilization Rate (FY2018 Results)

Cargo Movements in Major Trades (Transpacific • Asia/Europe • Intra-Asia Trades)
Transpacific Trade: Cargo Movements (Outbound by Export Area)

Transpacific Trade: Cargo Movement by Commodity

Global Containership Capacity by TEU size range

Global Containership Fleet by Year of Delivery (Vessels above 7,500TEU only)
Cost Items & Structure: Comparison between Containerships and Bulkships

Containerships

- Loading expenses
  - (Terminal handling charge, etc.)

- Voyage expenses
  - (Port charge/fuel expense)

- Unloading expenses
  - (Terminal handling charge, etc.)

- Feeder expenses

- Vessel expenses
  - (Capital expense + crew wages, or charterage)

- General and administrative expenses

- Container expenses (capital)

- Container expenses (Other than capital)

Bulkships

- Voyage expenses (Port/fuel charges)

- Vessel expenses
  - (Capital expense + crew wages, or charterage)

- General and administrative expenses

MOL Group’s Logistics Network

- Number of Owned Business Sites: (Japan) 66 / (Overseas) 156 in 26 countries
- Number of Agency Offices: 216 in 51 countries
- Number of Warehouses: 114 in 21 countries

(*) The numbers include MOL Logistics, MOL Consolidation Service, MOL Worldwide Logistics, MOL(Thailand), PKT Logistics, Utoc Group, Shosen Koun, Japan Express

(As of March, 2019)
Segment Information

**MOL Group Logistics Business**

Traffic Volume by Long Course Ferry Service

*Source: MLIT "Maritime Bureau Annual Report"*

(*)Truck equivalent

Traffic Volume by Long Course Ferry Service

*Source: MOL internal calculation based on JLCFSA*

MOL Group’s Share in Long Course Ferry Market in Japan

Revenue by Segment

Revenue by Area
### Associated Businesses

<table>
<thead>
<tr>
<th>Associated Businesses</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Estate</td>
<td>Creating stable profits mainly by Daibiru Corp., the core company in the MOL’s real estate business</td>
</tr>
<tr>
<td>Cruise Ship</td>
<td>Operating cruise ship “NIPPON MARU”</td>
</tr>
<tr>
<td>Tugboat</td>
<td>Expanding businesses in foreign ports in addition to domestic ports</td>
</tr>
<tr>
<td>Trading</td>
<td>Selling fuel oil, Ship equipments (PBCF) and materials, etc.</td>
</tr>
<tr>
<td>Others</td>
<td>Travel agent, Temporary staffing, etc.</td>
</tr>
</tbody>
</table>

---

**Daibiru Corp.: Midterm Management Plan “Design100” Project Phase-Ⅱ (FY2018 to FY2022)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue (¥ bn)</th>
<th>Operating Profit (¥ bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>9.8</td>
<td>10.3</td>
</tr>
<tr>
<td>13</td>
<td>10.0</td>
<td>11.0</td>
</tr>
<tr>
<td>14</td>
<td>9.4</td>
<td>10.6</td>
</tr>
<tr>
<td>15</td>
<td>9.1</td>
<td>11.0</td>
</tr>
<tr>
<td>16</td>
<td>10.6</td>
<td>10.3</td>
</tr>
<tr>
<td>17</td>
<td>4.04</td>
<td>4.06</td>
</tr>
<tr>
<td>18</td>
<td>13.0</td>
<td>46.0</td>
</tr>
<tr>
<td>20</td>
<td>11.0</td>
<td>43.0</td>
</tr>
<tr>
<td>22</td>
<td>12.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

* Source: Daibiru Corp.

---

**Number of Cruise Passengers in Japan**

<table>
<thead>
<tr>
<th>Year</th>
<th>Overseas cruise (by Foreignship)</th>
<th>Domestic cruise (by Japanese-ship)</th>
<th>Overseas cruise (by Japanese-ship)</th>
</tr>
</thead>
<tbody>
<tr>
<td>09</td>
<td>68</td>
<td>83</td>
<td>15</td>
</tr>
<tr>
<td>10</td>
<td>87</td>
<td>85</td>
<td>85</td>
</tr>
<tr>
<td>11</td>
<td>87</td>
<td>81</td>
<td>81</td>
</tr>
<tr>
<td>12</td>
<td>101</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>13</td>
<td>123</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td>14</td>
<td>127</td>
<td>93</td>
<td>93</td>
</tr>
<tr>
<td>15</td>
<td>124</td>
<td>86</td>
<td>86</td>
</tr>
<tr>
<td>16</td>
<td>144</td>
<td>93</td>
<td>93</td>
</tr>
<tr>
<td>17</td>
<td>188</td>
<td>118</td>
<td>118</td>
</tr>
</tbody>
</table>

* Source: MLIT

---

**MOL Group Tugboat Fleet Scale**

<table>
<thead>
<tr>
<th>Year</th>
<th>Vietnam</th>
<th>Hong Kong</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>6</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>15</td>
<td>6</td>
<td>46</td>
<td>47</td>
</tr>
<tr>
<td>16</td>
<td>6</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>17</td>
<td>3</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>18(FY)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Sales Results of PBCF(*) Installed with Ships**

* As of March 2019: Total 2,771

(*)PBCF: Propeller Boss Cap Fins, jointly developed by MOL and other parties, improve propeller efficiency and produce a 4% to 5% improvement in fuel efficiency.
MOL’s Philosophy on Corporate Governance

MOL aims to maximize stakeholders’ profits through the most appropriate allocation of management resources, with higher transparency of corporate management from the shareholders’ viewpoint. This philosophy is set out in the MOL Group Corporate Principles as follows: “We will strive to maximize corporate value by always being creative, continually pursuing higher operating efficiency, and promoting an open and transparent management style that is guided by the highest ethical and social standards.”

Overview of Corporate Governance Organization (as of June 26, 2018)

MOL adopts a structure whereby the Board of Directors, with the participation of independent outside directors, supervises and encourages business operations, which are carried out by the president as chief executive officer. The company introduced an outside director system in 2000.

### Corporate Governance System

**[Corporate Governance System] (as of June 26, 2018)**

<table>
<thead>
<tr>
<th>Type of system</th>
<th>Company with the corporate auditors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of directors</td>
<td>9</td>
</tr>
<tr>
<td>Of which, number of outside directors (ratio)</td>
<td>3 (1/3)</td>
</tr>
<tr>
<td>Attendance rate of outside directors for Board Meeting</td>
<td>93% (FY2017)</td>
</tr>
<tr>
<td>Number of corporate auditors</td>
<td>4</td>
</tr>
<tr>
<td>Of which, number of outside corporate auditors (ratio)</td>
<td>2 (1/2)</td>
</tr>
<tr>
<td>Number of Independent directors/corporate auditors</td>
<td>5</td>
</tr>
<tr>
<td>Number of Board Meetings held in FY2016</td>
<td>10 times</td>
</tr>
<tr>
<td>Term of office for directors</td>
<td>1 year</td>
</tr>
<tr>
<td>Stock Option to Directors</td>
<td>Yes (excluding corporate auditors)</td>
</tr>
<tr>
<td>System of retirement benefits</td>
<td>No</td>
</tr>
<tr>
<td>Takeover defense measures</td>
<td>No</td>
</tr>
<tr>
<td>Compliance policy</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Compliance System

MOL believes compliance means not only complying with legislation and internal rules, but also observing voluntarily established internal rules (Rules of Conduct) in carrying out corporate activities, including respecting human rights, refusing to permit discrimination and harassment, and preventing corruption in accordance with social norms and corporate ethics.

**Basic Policies for Compliance**

(Compliance Rules Article 4)

1. Strive to follow the MOL Corporate Principles and make them a reality.
2. Always recognize the public mission and social responsibilities of MOL’s business, and maintain the trust of the company’s stakeholders.
3. Strictly comply with laws, regulations, and so on, and conduct fair and transparent corporate activities in the context of social norms and corporate ethics.
4. Never yield to antisocial influence, and never be a party to antisocial acts.

Since MOL conducts business globally, it aims to instill and entrench a compliance-oriented mind-set not only at Head Office, but also at Group companies in Japan and overseas. To this end, it regularly conducts E-learning and in-house training programs.

In fiscal 2012, MOL revised its guidelines on antimonopoly laws in order to further enforce compliance and notified the amendments to Group companies in Japan and overseas.
MOL has introduced objective performance indicators for measuring safety levels, and also set the following numerical targets, including the Four Zeroes.

1. Four Zeroes (an unblemished record in terms of serious marine incidents, oil pollution, fatal accidents and heavy cargo damage)
2. LTIF(*1) (Lost Time Injury Frequency) : 0.7 or below
3. Operational stoppage time(*2): 24.00 hours/ship or below
4. Operational stoppage accident rate(*3): 1.00/ship or below

Making Processes for Realizing Safe Operation Visible

MOL’s training centers and maritime academy - where excellent seafarers around the world are trained -

(*1) LTIF (Lost time injury frequency): Number of work-related accidents per one million hours worked that resulted in time lost from work of one day or more. In the scope of calculations, we originally included only workplace illnesses and injuries requiring disembarkation from the ship. The LTIF criteria was strengthened from fiscal 2015, and now includes any workplace illness or injury that prevents a worker from resuming even a reduced workload on that day, regardless of whether the illness or injury requires disembarkation.

Average for all industries (2017) was 1.66; for shipping industry, 1.14; for transportation equipment manufacturing industry, 0.43. (Source: 2017 Survey on Industrial Accidents issued by the Ministry of Health, Labour and Welfare)

(*2) Expresses the amount of ship operational stoppage time due to accidents per ship per year.

(*3) Expresses the number of accidents that result in ship operational stoppage per ship per year.
**Schedule of Environmental Regulations by IMO, etc.**

Reduce environmental impact through overall optimization and serving for global environmental protection by engaging company-wide efforts and response to diverse environmental regulations.

### Ballast Water Management Convention

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Adopted in 2004)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mandatory</td>
<td>For existing vessels: within 5 years from Sept. 2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>For new vessels: completed from Sept. 2019 onward</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A convention to prevent cross-border transfer of foreign marine organisms through vessel ballast water was adopted in 2004 and has been in effect since September 2017. Under the convention, vessels, including existing vessels, are mandated to install ballast water treatment systems by September 2024.

- **[MOL's Action]**
  - In FY2014, MOL set a company-wide policy to install ballast water management systems on our vessels before the convention took effect.
  - We have already completed installation on 142 owned vessels (as of April 2019)

### SOx Regulation

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sulfur limit 3.5%</td>
<td>Sulfur limit 0.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regulation limits the sulfur content in fuel oil to control SOx volume in exhaust emissions. The fuel sulfur content will be tightened from 3.5% or less to 0.5% or less from 2020. Ship owners/operators have to choose a method from the following:

<table>
<thead>
<tr>
<th>Methods</th>
<th>Pros</th>
<th>Cons/Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-Sulfur Fuel Oil</td>
<td>No initial costs</td>
<td>-High fuel cost</td>
</tr>
<tr>
<td>SOx Scrubber</td>
<td>Lower fuel costs</td>
<td>-High initial cost</td>
</tr>
<tr>
<td>Alternative Fuel (LNG etc.)</td>
<td>Effective for other environmental regulations</td>
<td>-High equipment cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Insufficient supply system</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Difficult modifications</td>
</tr>
</tbody>
</table>

**[MOL's Action]**

- MOL's basic policy is to use low-sulfur fuel oil while it also plans to install SOx scrubbers to about 50 vessels, mainly VLCC and capesize bulkers.
- MOL teamed up with BHP Billion, Rio Tinto, etc., on a joint research project for an LNG-fueled capesize bulker.
- MOL operates three methanol tankers equipped with dual-fuel, low-speed diesel engines that can run on methanol (world's first).
- In February 2019, a tugboat with a dual-fuel (bunker A/LNG) engine, “Ishin” was delivered to MOL.
- LNG bunkering vessels are planned to be delivered in 2020 and 2021, which will be chartered to Total and Pavilion Gas respectively.

### Others

**Tackling Global Warming**

- GHG emissions
- EEDI+1
- SEEMP+2
- Mandatory

- In April 2018, IMO adopted a climate change strategy for shipping to cut the total GHG emissions. The shipping industry is to reduce CO2 emissions per transport work, by at least 40% by 2030, pursuing efforts towards 70% by 2050 compared to 2008. Also, the shipping industry is to reduce the total annual GHG emissions by at least 50% by 2050 compared to 2008. The final goal of IMO is to phase GHG emissions out as soon as possible in this century.

**Preventing Air Pollution**

- NOx emissions
- General Sea Areas
- Tier II
- ECA+4
- Tier III

**Marine Environment Protection**

- Minimizing the transfer of invasive aquatic species by shipping +5
- Ship Recycling Convention +6

(*1) EEDI (Energy Efficiency Design Index) is a measure of a ship’s energy efficiency (g/ton-mile). The required EEDI of each Phase is as follows: Phase 0=0%, Phase 1=10%, Phase 2=20% (Applied to new ships)

(*2) SEEMP (Ship Energy Efficiency Management Plan) is required to be drawn up to show optimal measures of operation that should be adjusted to the characteristics of individual ships, and to be kept onboard a ship. (Applied to both new and existing ships)

(*3) The regulation for reduction of NOx in exhaust gases: Tier I is applied to ships laid down in 2000-2010, Tier II to ships laid down in/after 2011, and Tier III to ships laid down in/after 2016.

(*4) The existing ECAs (Emission Control Areas) are: 1. Within 200 miles off the coast of the USA and Canada (NOx/Sox) 2. The USA Caribbean Sea area (NOx/Sox) 3. The Baltic Sea and the North Sea areas (currently only SOx). (From 2021 onward, new shipbuilding will be subject to third-generation NOx regulations.)

(*5) The guideline aimed at minimizing transfer of invasive aquatic species attaching to the bottom of ships, recommending installation of the systems on vessels to keep the bottom clean of marine organisms and other measures. (It remains as a voluntary guideline during the review period.)

(*6) The convention prohibits and restricts the fitting and use of treaty-specified hazardous materials, and requires vessels to prepare, record and update inventory lists showing the quantity and location of hazardous materials on ships over a ship’s lifetime. The convention shall enter into force 24 months after the following conditions are met:
- Conditions: Ratification by not less than 15 countries representing a combined total G/T of more than 40% of the world’s merchant fleet and an annual ship recycling volume not less than 3% of the combined tonnage of the ratifying countries. (As of May 2018, 6 countries have ratified.)
Management Foundation  ■ Social Responsibility

Environmental Investments

<table>
<thead>
<tr>
<th></th>
<th>(Ybn)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2016</td>
</tr>
<tr>
<td>Environment-related R&amp;D activities</td>
<td>0.4</td>
</tr>
<tr>
<td>Utilization and expansion of existing environmental technologies</td>
<td>0.5</td>
</tr>
<tr>
<td>Response to environmental regulations</td>
<td>3.1</td>
</tr>
<tr>
<td>Initiatives to save bunker fuel</td>
<td>1.1</td>
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<tr>
<td>Initiatives of Group companies</td>
<td>0.3</td>
</tr>
<tr>
<td>Total</td>
<td>5.4</td>
</tr>
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</table>

External Recognition

General CSR Activities-Related (Including SRI)

- **CSR Rating by the Dow Jones Sustainability Indices (DJSI)**
  Since 2003, MOL has been included in the DJSI Asia Pacific, a designation reserved for companies capable of sustaining growth over the long term while maintaining excellence in environmental, social, and investor relations programs.

- **CSR Rating by the FTSE4Good Developed Index Series**
  FTSE is a global index company owned by the London Stock Exchange. Since 2003, FTSE Russell has included MOL in one of its major indices, the FTSE4Good Developed Index, which is a responsible investment index.

- **FTSE Blossom Japan**
  Since 2017, MOL has been included in the FTSE Blossom Japan Index, which was developed in 2017 by FTSE and targets Japanese companies making a superior response to environment, social, and governance (ESG) issues.

- **MSCI ESG Leaders Indexes**
  MOL has been included in the MSCI ESG Leaders Indexes for its superior efforts on measures taken for risks and opportunities related to ESG. (Since 2010; index name changed in 2017)

- **MSCI Japan ESG Select Leaders Index**
  Since 2017, MOL has been included in the Japan ESG Select Leaders Index, which was newly developed in 2017 and targets companies with a superior ESG evaluation relatively speaking for each industry.

- **MSCI Japan Empowering Women Index (WIN)**
  MOL has been included in WIN, which was newly developed in 2017 and targets companies in all industries with superior performance in promoting gender diversity.

- **S&P/JPX Carbon Efficient Index**
  MOL is included in the S&P/JPX Carbon Efficient Index, which is designed to measure the performance of companies in the Tokyo Stock Price Index, while overweighting or underweighting those companies that have lower or higher levels of carbon emissions per unit of revenue. The Government Pension Investment Fund (GPPIF) invests in this index.

- **Safe Operation (Including Recognition of Seafarer Training Program)**
  **Standard Training Courses for liquefied gas transportation certified by DNV GL AS**
  The LNG Carrier Standard Training Course and the LEG/LPG Carrier Standard Training Course implemented globally by MOL were certified by Norway’s Det Norske Veritas (DNV) GL AS in 2007 for compliance with the LNG carrier crew ability standards and in 2016 for compliance with the LEG/LPG advocated by SIGTTO(Society of International Gas Tanker and Terminal Operators Ltd.).

- **Management program for seafarer education and training acquired certification from DNV GL AS**
  MOL’s management program for seafarer education and training was recognized to be effective and certified in its tanker and LNG carrier operations by DNV GL AS in 2012 for compliance with the Competence Management System (CMS).

ISO 14001 Certification
MOL has used its own environmental management system MOL EMS21 since April 2001, and it holds ISO 14001 certification, an International standard for environmental management. (Since 2003)

ISO50001 Certification
MOL acquired ISO50001 certification for its energy management system and ISO14001 certification for its environmental management system. (2014)

MOL Investor Guidebook 2019 | 37
MOL Group Global Network

Chief Executive Representatives & Head Quarters
Chief Country/Regional Representatives

MOL Group Americas

USA - Anchorage
- Logistics
  - MOL Logistics U.S.A., Inc.
USA - Seattle
- Logistics
  - MOL Logistics U.S.A., Inc.
USA - San Francisco
- Logistics
  - MOL Logistics U.S.A., Inc.
USA - Oakland
- Terminals & Logistics
  - Terminal, LLC
USA - Los Angeles
- Terminals & Logistics
  - MOL Logistics U.S.A., Inc.
  - Terminals, LLC
  - MHTC, Inc.
  - Travel Agency
USA - Long Beach
- Car & BDRO
  - MOL (America), Ltd.
USA - Chicago
- Logistics
  - MOL Logistics U.S.A., Inc.
USA - Boston
- Logistics
  - MOL Logistics U.S.A., Inc.
USA - Woodbridge, NJ
- MOL (Americas) Holdings, Inc.
- Quinlan & BDRO
  - MOL (America), Ltd.
USA - New York
- Logistics
  - MOL Logistics U.S.A., Inc.
USA - Lexington
- Travel Agency
  - W.O. Air International, Inc.
USA - Evansville
- Travel Agency
  - W.O. Air International, Inc.
USA - Atlanta
- Logistics
  - MOL Logistics U.S.A., Inc.
USA - Dallas
- Logistics
  - MOL Logistics U.S.A., Inc.
USA - Laredo
- Logistics
  - MOL Logistics U.S.A., Inc.

Canada - Toronto
- Logistics
  - MOL Logistics (U.S.A.), Inc.
USA - Jacksonville
- Terminals & Logistics
  - Terminal, LLC
USA - Houston
- Terminals & Logistics
  - MOL (America), Ltd.
  - MOL Chemulsion Americas, Inc.
  - Logistics
USA - Monterrey
- Logistics
  - MOL Logistics (Mexico)
Mexico - Irapuato
- Logistics
  - MOL Logistics (Mexico)
Mexico - Mexico City
- MOL (Mexico), Ltd.
  - Logistics
  - MOL Logistics (Mexico)
Brazil - Rio de Janeiro
- Terminals & Logistics
  - Brazil (Barra) Ltd.
Brazil - Sao Paulo
- Terminals & Logistics
  - Brazil (Sao Paulo) Ltd.
Chile - Santiago
- Terminals & Logistics
  - Chile (Santiago) Ltd.

Investor Guidebook 2019
Financial Data

### Profitability & Efficiency Indices

#### Assets Turnover

- **Revenues (¥bn)**
- **Assets turnover (turnover(×))**

![Graph showing Assets Turnover over years](image)

#### Ordinary Profit(loss) Margin

- **Ordinary profit/loss (¥bn)**
- **Ordinary profit/loss margin (margin)**

![Graph showing Ordinary Profit(loss) Margin over years](image)

#### Net Income(loss) Margin

- **Profit/loss attributable to owners of parent (¥bn)**
- **Net income/loss margin (margin)**

![Graph showing Net Income(loss) Margin over years](image)

#### ROE ・ ROA

- **ROE(×)**
- **ROA(×)**

![Graph showing ROE ・ ROA over years](image)

---

Note: For more detailed figures, refer to P45 for figures.
Financial Data

**Interest-bearing Debt · Shareholders’ Equity · Gearing Ratio**
- Interest-bearing debt
- Shareholders’ equity
- Gearing ratio

**Net Interest-bearing Debt · Net Gearing Ratio**
- Net interest-bearing debt
- Shareholders’ equity
- Net gearing ratio

**Total Assets · Shareholders’ Equity · Equity Ratio**
- Total assets
- Shareholders’ equity
- Equity Ratio

**Cash Paid for Interest · CFs from Operating Activities · Interest Coverage Ratio**
- Cash paid for interest
- CFs from operating activities
- Interest coverage ratio

*Refer to P45 for figures*
Financial Data

CFs from Operating Activities • CFs from Investing Activities • Free CFs

Capital Expenditure • Depreciation & Amortization

CFs from Financing Activities • Cash & Cash Equivalents at term end

refer to P45 for figures

(*)CFs from operating activities+CFs from investing activities

(*') Tangible/intangible fixed assets increased - proceeds from the sale of vessels when delivered

Cash & Cash Equivalents at term end

(*)CFs from operating activities+CFs from investing activities

CFs from operating activities

CFs from investing activities

Free CFs(*)
Financial Data

EPS • Dividend per Share • BPS

Note: All the above data is recalculated based on the share consolidation effective October 1, 2017.

PER • PBR


Payout Ratio

EV • EBITDA

(*)Ordinary profit/loss + Interest expense + D/A
## Financial Statements (10-year summary)

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Total assets</strong></td>
<td>1,861,312</td>
<td>1,868,740</td>
<td>1,946,161</td>
<td>2,164,611</td>
<td>2,364,695</td>
<td>2,624,049</td>
<td>2,219,587</td>
<td>2,217,528</td>
<td>2,225,636</td>
<td>2,214,477</td>
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<td>Current assets</td>
<td>352,030</td>
<td>344,443</td>
<td>386,936</td>
<td>514,246</td>
<td>533,659</td>
<td>511,795</td>
<td>465,476</td>
<td>481,477</td>
<td>478,702</td>
<td>487,460</td>
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<tr>
<td>Tangible fixed assets</td>
<td>1,209,175</td>
<td>1,257,823</td>
<td>1,293,802</td>
<td>1,303,367</td>
<td>1,379,444</td>
<td>1,498,028</td>
<td>1,376,431</td>
<td>1,323,665</td>
<td>1,292,907</td>
<td>1,193,910</td>
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<tr>
<td><strong>Total liabilities</strong></td>
<td>1,125,609</td>
<td>1,128,493</td>
<td>1,128,252</td>
<td>1,545,118</td>
<td>1,581,146</td>
<td>1,731,614</td>
<td>1,572,662</td>
<td>1,533,907</td>
<td>1,597,591</td>
<td>1,482,870</td>
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<tr>
<td>Current liabilities</td>
<td>355,185</td>
<td>374,268</td>
<td>322,851</td>
<td>425,725</td>
<td>430,504</td>
<td>393,464</td>
<td>380,935</td>
<td>376,313</td>
<td>362,639</td>
<td>349,807</td>
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<td>Interest-bearing debt</td>
<td>775,114</td>
<td>724,259</td>
<td>869,619</td>
<td>1,046,865</td>
<td>1,094,081</td>
<td>1,183,401</td>
<td>1,044,980</td>
<td>1,122,400</td>
<td>1,118,089</td>
<td>1,105,873</td>
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<td><strong>Net financial debt</strong></td>
<td>659,508</td>
<td>660,795</td>
<td>637,422</td>
<td>795,422</td>
<td>879,552</td>
<td>982,552</td>
<td>850,951</td>
<td>917,083</td>
<td>911,242</td>
<td>925,064</td>
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<tr>
<td><strong>Owners’ equity</strong></td>
<td>719,527</td>
<td>736,380</td>
<td>732,402</td>
<td>605,768</td>
<td>635,581</td>
<td>548,412</td>
<td>529,956</td>
<td>549,227</td>
<td>540,376</td>
<td>620,870</td>
</tr>
<tr>
<td>Net income/loss -</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>182,508</td>
<td>-56,318</td>
<td>-2,471</td>
<td>143,093</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>616,736</td>
<td>664,645</td>
<td>629,667</td>
<td>447,829</td>
<td>502,833</td>
<td>533,484</td>
<td>354,179</td>
<td>355,263</td>
<td>360,642</td>
<td>329,888</td>
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<tr>
<td><strong>Free cash flows: [a]+[b]</strong></td>
<td>-40,055</td>
<td>46,970</td>
<td>-129,288</td>
<td>-25,285</td>
<td>-25,615</td>
<td>-66,656</td>
<td>182,508</td>
<td>-56,318</td>
<td>-2,471</td>
<td>143,093</td>
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<tr>
<td><strong>Change in working capital</strong></td>
<td>93,428</td>
<td>181,755</td>
<td>5,014</td>
<td>78,955</td>
<td>94,255</td>
<td>92,494</td>
<td>209,189</td>
<td>17,623</td>
<td>88,900</td>
<td>52,548</td>
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<td><strong>Cash from investing activities</strong></td>
<td>-133,483</td>
<td>-134,785</td>
<td>-134,312</td>
<td>-104,240</td>
<td>-119,870</td>
<td>-115,150</td>
<td>-26,681</td>
<td>-73,941</td>
<td>-100,851</td>
<td>-198,341</td>
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<td>Capital Expenditure</td>
<td>158,918</td>
<td>143,579</td>
<td>152,151</td>
<td>120,886</td>
<td>169,028</td>
<td>164,275</td>
<td>104,813</td>
<td>126,080</td>
<td>105,638</td>
<td>113,081</td>
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<tr>
<td>Ordinary income margin</td>
<td>1.8%</td>
<td>7.9%</td>
<td>-1.7%</td>
<td>-1.9%</td>
<td>3.2%</td>
<td>2.8%</td>
<td>2.1%</td>
<td>1.9%</td>
<td>1.7%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Return on assets(ordinary income)</td>
<td>1.3%</td>
<td>6.5%</td>
<td>-1.3%</td>
<td>-1.4%</td>
<td>2.4%</td>
<td>2.1%</td>
<td>1.5%</td>
<td>1.1%</td>
<td>1.4%</td>
<td>1.8%</td>
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<td>Assets turnover</td>
<td>0.73</td>
<td>0.83</td>
<td>0.75</td>
<td>0.73</td>
<td>0.76</td>
<td>0.73</td>
<td>0.71</td>
<td>0.68</td>
<td>0.74</td>
<td>0.57</td>
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<tr>
<td><strong>EBITDA</strong></td>
<td>126,775</td>
<td>210,437</td>
<td>72,815</td>
<td>79,137</td>
<td>151,551</td>
<td>168,643</td>
<td>131,651</td>
<td>138,515</td>
<td>150,518</td>
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<td><strong>Net income</strong></td>
<td>11,8</td>
<td>5.9</td>
<td>17.0</td>
<td>15.5</td>
<td>9.2</td>
<td>10.5</td>
<td>8.3</td>
<td>10.26</td>
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<td>8.41</td>
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<td>Interest coverage ratio</td>
<td>6.4</td>
<td>16.2</td>
<td>0.5</td>
<td>6.2</td>
<td>7.2</td>
<td>7.1</td>
<td>4.6</td>
<td>4.9</td>
<td>4.6</td>
<td>2.6</td>
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<tr>
<td>ROE</td>
<td>2.0%</td>
<td>8.8%</td>
<td>-4.0%</td>
<td>-30.5%</td>
<td>9.5%</td>
<td>5.8%</td>
<td>-25.8%</td>
<td>0.9%</td>
<td>-8.7%</td>
<td>5.2%</td>
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<tr>
<td>Gearing ratio</td>
<td>11.8%</td>
<td>110%</td>
<td>136%</td>
<td>196%</td>
<td>161%</td>
<td>151%</td>
<td>193%</td>
<td>219%</td>
<td>211%</td>
<td></td>
</tr>
<tr>
<td>Net gearing ratio</td>
<td>105%</td>
<td>100%</td>
<td>123%</td>
<td>158%</td>
<td>135%</td>
<td>164%</td>
<td>164%</td>
<td>182%</td>
<td>188%</td>
<td>188%</td>
</tr>
<tr>
<td>Equity ratio</td>
<td>35.4%</td>
<td>35.4%</td>
<td>32.8%</td>
<td>24.7%</td>
<td>28.7%</td>
<td>29.8%</td>
<td>24.4%</td>
<td>23.0%</td>
<td>24.6%</td>
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<tr>
<td>EPS(¥)</td>
<td>106,488</td>
<td>488</td>
<td>-218</td>
<td>-1,496</td>
<td>480</td>
<td>354</td>
<td>-3,425</td>
<td>44</td>
<td>-396</td>
<td>225</td>
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<tr>
<td>Number of shares issued and outstanding at year-end</td>
<td>119,540,772</td>
<td>119,604,338</td>
<td>119,605,223</td>
<td>119,607,784</td>
<td>119,595,529</td>
<td>119,611,198</td>
<td>119,607,590</td>
<td>119,604,742</td>
<td>119,595,611</td>
<td>119,595,516</td>
</tr>
</tbody>
</table>

*1 After FY2006: Owners’ equity + accumulated gains/losses from valuation and translation adjustments
*2 The actual amount calculated by deducting proceeds from the sale of vessels when delivered from tangible/intangible fixed assets increased
*3 Ordinary profit/(loss) + Interest expense + Depreciation and amortization
*4 Net income / Average shareholders’ equity at the beginning and the end of the fiscal year
*5 Ordinary profit/(loss) / Average total assets at the beginning and the end of the fiscal year
*6 Interest-bearing debt / Owners’ equity
*7 Interest-bearing debt - cash balance equivalents / Owners’ equity
*8 Excluding “Treasury shares”
*9 The company consolidated its common shares on the basis of one (1) unit for every ten (10) shares effective October 1, 2017. Accordingly, the relevant figures are calculated on the assumption that the consolidation of shares was conducted at the beginning of FY2008.
### Segment Information (10-year summary)

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<tbody>
<tr>
<td>Bulkships</td>
<td>721,725</td>
<td>700,572</td>
<td>726,011</td>
<td>731,269</td>
<td>836,408</td>
<td>857,289</td>
<td>838,893</td>
<td>744,267</td>
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<tr>
<td>Containerships</td>
<td>466,378</td>
<td>586,649</td>
<td>542,426</td>
<td>606,588</td>
<td>713,503</td>
<td>787,068</td>
<td>719,108</td>
<td>620,714</td>
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<tr>
<td>Ferries/Coastal RoRo ships</td>
<td>50,815</td>
<td>50,089</td>
<td>52,134</td>
<td>54,285</td>
<td>55,603</td>
<td>56,032</td>
<td>49,618</td>
<td>42,036</td>
<td></td>
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<tr>
<td>Others</td>
<td>9,250</td>
<td>7,901</td>
<td>7,939</td>
<td>7,401</td>
<td>7,338</td>
<td>8,290</td>
<td>7,966</td>
<td>7,310</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,347,964</td>
<td>1,543,660</td>
<td>1,435,220</td>
<td>1,509,194</td>
<td>1,729,452</td>
<td>1,817,069</td>
<td>1,712,222</td>
<td>1,504,373</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Ordinary profits/losses

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulkships</td>
<td>66,966</td>
<td>70,837</td>
<td>-6,921</td>
<td>-24,799</td>
<td>57,121</td>
<td>54,105</td>
<td>54,857</td>
<td>39,051</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Containerships</td>
<td>-56,878</td>
<td>38,853</td>
<td>-29,910</td>
<td>-11,291</td>
<td>-14,553</td>
<td>-24,146</td>
<td>-25,831</td>
<td>-32,866</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ferries/Coastal RoRo ships</td>
<td>-2,340</td>
<td>-565</td>
<td>-533</td>
<td>1,282</td>
<td>2,236</td>
<td>4,461</td>
<td>4,424</td>
<td>4,506</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associated businesses</td>
<td>9,712</td>
<td>10,676</td>
<td>9,098</td>
<td>10,745</td>
<td>11,146</td>
<td>10,925</td>
<td>10,715</td>
<td>12,337</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>1,263</td>
<td>3,461</td>
<td>4,303</td>
<td>2,449</td>
<td>4,576</td>
<td>4,183</td>
<td>3,459</td>
<td>1,818</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Adjustment</strong></td>
<td>5,490</td>
<td>-1,542</td>
<td>-356</td>
<td>-6,954</td>
<td>-5,541</td>
<td>1,802</td>
<td>-6,903</td>
<td>585</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>24,234</td>
<td>121,621</td>
<td>-24,320</td>
<td>-28,568</td>
<td>54,985</td>
<td>51,330</td>
<td>36,267</td>
<td>25,426</td>
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<td></td>
</tr>
</tbody>
</table>

### Financial Data

- **Ordinary income/losses**: 31,473 38,574
- **Net proceeds from ordinary turnover**: 1,652,393 1,234,077
- **Adjusted Ordinary income/losses during the period**: 149,195

### Quarterly Segment Information (two years)

<table>
<thead>
<tr>
<th>(Quarter)</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Full-year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Bulk Business</td>
<td>69,325</td>
<td>64,254</td>
<td>66,711</td>
<td>72,666</td>
<td>272,956</td>
</tr>
<tr>
<td>Energy Transport Business</td>
<td>64,596</td>
<td>63,506</td>
<td>67,836</td>
<td>66,307</td>
<td>262,245</td>
</tr>
<tr>
<td>Product Transport Business</td>
<td>242,359</td>
<td>261,283</td>
<td>259,270</td>
<td>247,973</td>
<td>1,010,885</td>
</tr>
<tr>
<td>Associated businesses</td>
<td>22,899</td>
<td>22,345</td>
<td>22,511</td>
<td>22,340</td>
<td>90,095</td>
</tr>
<tr>
<td>Others</td>
<td>4,103</td>
<td>4,228</td>
<td>4,432</td>
<td>3,445</td>
<td>16,208</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>403,284</td>
<td>415,617</td>
<td>420,760</td>
<td>412,732</td>
<td>1,652,393</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(Quarter)</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Full-year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Bulk Business</td>
<td>4,845</td>
<td>3,131</td>
<td>3,270</td>
<td>4,168</td>
<td>15,414</td>
</tr>
<tr>
<td>Energy Transport Business</td>
<td>3,483</td>
<td>1,504</td>
<td>4,392</td>
<td>4,254</td>
<td>13,633</td>
</tr>
<tr>
<td>Product Transport Business</td>
<td>-4,954</td>
<td>5,237</td>
<td>4,609</td>
<td>-11,220</td>
<td>-6,328</td>
</tr>
<tr>
<td>Associated businesses</td>
<td>3,785</td>
<td>2,928</td>
<td>3,576</td>
<td>2,368</td>
<td>12,657</td>
</tr>
<tr>
<td>Others</td>
<td>1,173</td>
<td>77</td>
<td>1,080</td>
<td>271</td>
<td>2,601</td>
</tr>
<tr>
<td><strong>Adjustment</strong></td>
<td>-2,449</td>
<td>-1,415</td>
<td>292</td>
<td>-9,534</td>
<td>-6,506</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5,885</td>
<td>11,462</td>
<td>17,217</td>
<td>-3,091</td>
<td>31,473</td>
</tr>
</tbody>
</table>

#### Note:
- For FY2017, the segments for disclosure are changed.
- Logisitics segment has been integrated into Containerships Segment since FY2009.
MOL General Information

1884 Osaka Shosen Kaisha (OSK Line) is founded.

1942 Mitsubishi & Co., Ltd. spins off its Shipping Department to create Mitsui Steamship Co., Ltd.

1961 World’s first automated ship, the KINKASAI MARU, with an engine room operated entirely from the bridge, is launched.

1964 The ARGENTINA MARU and BRASIL MARU are built as cargo/passenger liners on the South America route, which represent the state-of-the-art in Japanese shipbuilding at the time.

1968 Container terminal company TraPac, Inc. is founded in Los Angeles.

1969 LNG carrier, the SENSHU MARU, is launched, and MOL enters LNG transport business.

1983 LNG carrier, the SENSHU MARU, is launched, and MOL enters LNG transport business.

1990 MOL acquires a share in forwarder J.F. Hillebrand of Germany / MOL takes over the logistics company Wassing of the Netherlands.

1995 Container route service through a strategic international tie-up called The Global Alliance (TGA), begins.

1998 The New World Alliance (TNWA) is inaugurated.

2000 Corporate governance system is reformed; introduce executive officer system and invites outside directors.

2001 MOL Group Corporate Principles is issued.

2004 Mid-term management plan MOL STEP, with the main theme of “Growth” starts.

2006 Utoc Corporation becomes a consolidated subsidiary of MOL.

2007 Mid-term management plan MOL ADVANCE, with the main theme of “Growth with Enhanced Quality” starts.

2009 MOL forms a strategic tie-up with Kintetsu World Express.

2010 Mid-term management plan GEAR UP! MOL, with the main theme of “Challenge to Create New Growth” starts.

2011 G6 Alliance is inaugurated in Asia/Europe trade by TNWA and GA (Grand Alliance).

2013 Business Structural Reforms executed; Transferred sales and vessel operations of the dry bulker fleet (over 130 vessels) to Singapore.

2014 Mid-term management plan STEER FOR 2020, with the main theme of “Solid growth through innovative changes” starts.

2015 The single-year management plan “RISE 2013”, with the target of absolutely achieving profitability in FY2013.

MOL Environmental Policy Statement is established.

MOL Group Corporate Principles is issued.

Mid-term management plan MOL STEP, with the main theme of “Growth” starts.

Daibiru Corporation becomes a consolidated subsidiary of MOL.

MOL signs the first contract for a LNG carrier to transport shale gas from USA to Japan (for Tokyo Gas).

G6 Alliance expands cooperation to Transpacific (Asia/USEC) trade.

MOL signs a contract for long-term charters of LNG vessels by ExxonMobil, which are planned to be built in China.

The first participation in FPSO chartering for Petrobras, the Brazilian national oil company.

MOL wins orders for Indonesia’s 1st Coastal LNG Transport Project.

The first in the world. The world’s largest iron ore carrier, third-generation BRASIL MARU is launched.

MOL signs ship building contracts for ice class LNG carriers for Yamal (Russia) LNG project.

MOL acquires a share in forwarder J.F. Hillebrand of Germany / MOL takes over the logistics company Wassing of the Netherlands.

MOL acquires a share in Gearbulk, a Norwegian open-hatch bulker operator.

MOL forms a strategic tie-up with Kintetsu World Express.

MOL密封 long-term shipping deal with Reliance, which makes MOL to be the first shipping company to serve liquefied ethane transportation by very large ethane carriers (VLEC).

The MR product tanker pool management company “Clean Products Tankers Alliance” is founded.
Credit Ratings  (as of May 2019)

<table>
<thead>
<tr>
<th>Credit Agency</th>
<th>Type of Rating</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>JCR</td>
<td>Long-term senior debt(isuer) rating</td>
<td>A-(Stable)</td>
</tr>
<tr>
<td>R&amp;I</td>
<td>Issuer rating</td>
<td>BBB(Stable)</td>
</tr>
<tr>
<td>Moody's</td>
<td>Corporate family rating</td>
<td>Ba2(Stable)</td>
</tr>
</tbody>
</table>

Bonds  (as of May 2019)

<table>
<thead>
<tr>
<th>Date of issue</th>
<th>Years</th>
<th>Interest Rate</th>
<th>Total amount of issue</th>
<th>Outstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>May/27/2009</td>
<td>10</td>
<td>1.999%</td>
<td>JPY 20 bn</td>
<td>JPY 18.5 bn</td>
</tr>
<tr>
<td>Jun/21/2011</td>
<td>10</td>
<td>1.361%</td>
<td>JPY 20 bn</td>
<td>JPY 17.8 bn</td>
</tr>
<tr>
<td>Jul/12/2012</td>
<td>10</td>
<td>1.139%</td>
<td>JPY 10 bn</td>
<td>JPY 8.7 bn</td>
</tr>
<tr>
<td>Apr/24/2014</td>
<td>6</td>
<td>Zero coupon</td>
<td>USD 200 mm</td>
<td>USD 200 mm</td>
</tr>
<tr>
<td>Jun/19/2014</td>
<td>10</td>
<td>0.970%</td>
<td>JPY 29.6 bn</td>
<td>JPY 29.5 bn</td>
</tr>
<tr>
<td>Aug/30/2018</td>
<td>5</td>
<td>0.420%</td>
<td>JPY 5.0 bn</td>
<td>JPY 5.0 bn</td>
</tr>
<tr>
<td>Sep/10/2018</td>
<td>5</td>
<td>0.420%</td>
<td>JPY 5.0 bn</td>
<td>JPY 5.0 bn</td>
</tr>
</tbody>
</table>

(*) Conversion Price USD4.78:However, a bondholder may exercise its stock acquisition rights only if the closing price of the shares is more than 130 per cent of the conversion price for a certain period of time.

(2) The anticipated future dilution ratio would be 3.47% (which is the percentage by which the total number of issued shares as of 31 March 2014 would increase in case that the bond is fully converted into shares at the above initial conversion prices). However, the Company may give notice to the bondholders, no earlier than three months before the maturity date of each Bond, to acquire from the Bondholders all the Bonds in exchange for an amount equal to 100 per cent of the principal amount of such bonds plus the Acquisition Shares, in order to mitigate the dilutive impact of conversion.

"Acquisition Shares" means such number of Shares per Bonds calculated by dividing (i) the amount by which the Acquisition Share Value exceeds the principal amount of each Bond by (ii) the Average VWAP per share.

"Acquisition Share Value" means USD amount of the Bond calculated in accordance with the formula below:

Principle amount of the Bond/Conversion Price x Average VWAP per share

Please refer to our press release of 25/4/2014 for further information.


Non-China shipping companies.

MOL introduces "MOL CHART.

New management plan "Rolling Plan 2017" starts.

New FSU"MOL FSU Challenger" delivered - 1st FSU independently owned and operated by Japanese shipping company.

MOL’s first ice-breaking LNG Carrier "Vladimir Rusanov" for Yamal LNG Project (World’s First Ice-Breaking LNG Carrier Project) completed the first voyage

Management plan "Rolling Plan 2018" starts.

Opening of MOL Magnasyay Maritime Academy

Issuance of ‘Green’ Bonds used to raise funds for business aimed at protecting and improving the environment. (Japan’s first for individual investors as an operational company)

Management plan "Rolling Plan 2019" starts.
MOL General Information

Share Price

Note: MOL consolidated its common shares on the basis of one (1) unit for every ten (10) shares effective October 1, 2017.

All the above MOL share price data is recalculated based on the share consolidation.

Shareholder Composition

Shareholder Information (as of Mar. 2019)

- Capital: JPY 65,400,351,028
- HQ: 2-1-1, Toranomon, Minato-ku, Tokyo 105-8688, Japan
- Number of employees: 8,941 (Consolidated)
- Number of shares authorized: 315,400,000
- Number of shares issued: 120,628,611
- Trading unit: 100(*1)
- Dividend record dates: Mar.31 for Year-end dividend / Sep.30 for Interim dividend
- Number of shareholders: 8,5217
- Listed in: Tokyo(*2)
- Transfer agent: Sumitomo Mitsui Trust Bank, Limited

1-4-1, Marunouchi, Chiyoda-ku, Tokyo

(*1)The number of shares constituting one unit was changed from 1,000 shares to 100 shares, simultaneously with consolidating every 10 shares into one share on October 1, 2017.

(*2)Delisting of common stock on the Nagoya Stock Exchange was made on May 18, 2017.
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【Forward-Looking Statements】
This Investor Guidebook contains forward-looking statements concerning MOL's future plans, strategies and performance. These statements represent assumptions and beliefs based on information currently available and are not historical facts. Furthermore, forward-looking statements are subject to a number of risks and uncertainties that include, but are not limited to, economic conditions, worldwide competition in the shipping industry, customer demand, foreign currency exchange rates, price of bunker, tax laws and other regulations. MOL therefore cautions readers that actual results may differ materially from these predictions.