

Security Code

Tokyo 5020

# Daiwa Investment Conference Tokyo 2013 IR Materials

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March, 2013



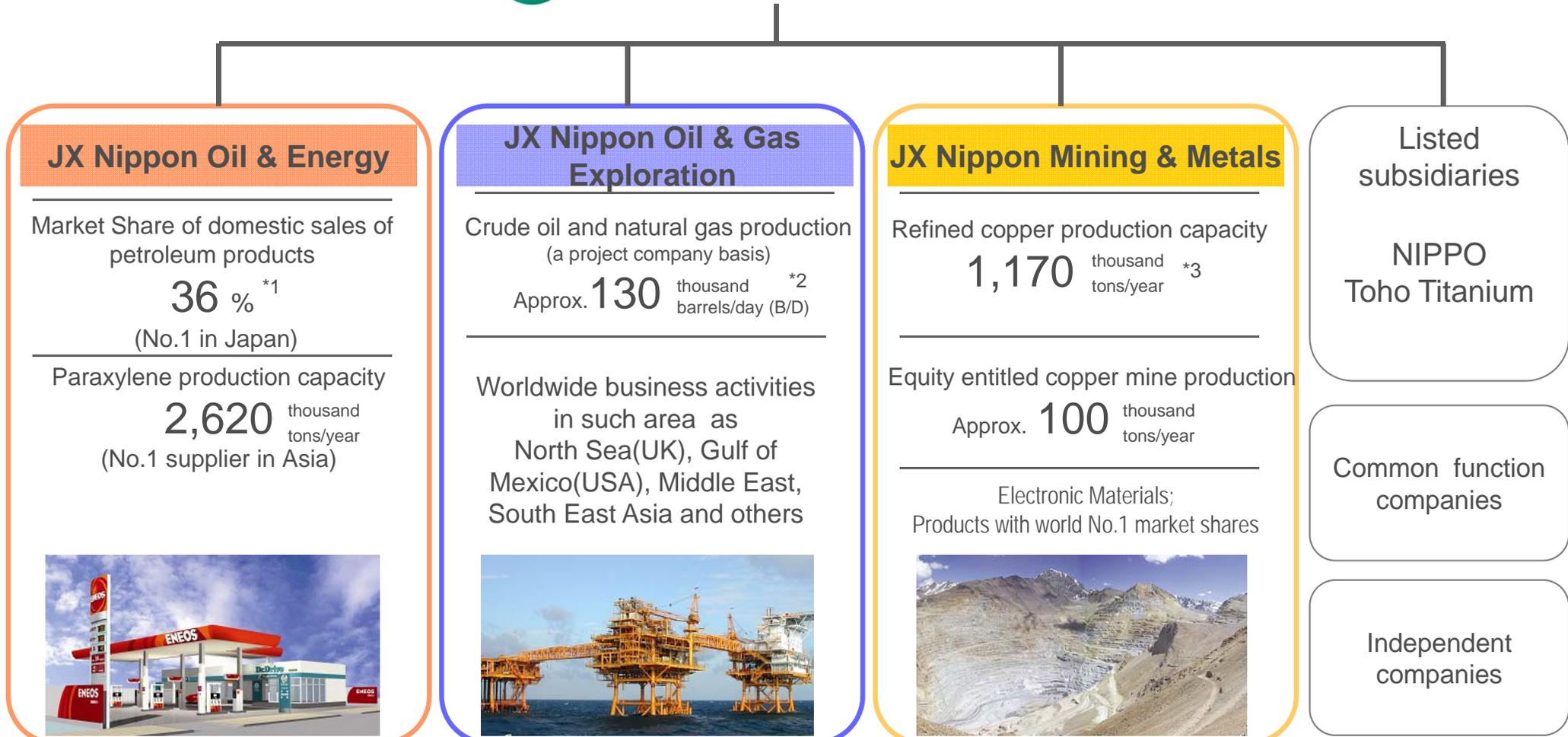
The Future of Energy, Resources and Materials

**JX Holdings, Inc.**



# Businesses of JX Group

## JX Holdings, Inc.



### JX Nippon Oil & Energy

Market Share of domestic sales of petroleum products

**36 %** \*1

(No.1 in Japan)

Paraxylene production capacity

**2,620** thousand tons/year

(No.1 supplier in Asia)



### JX Nippon Oil & Gas Exploration

Crude oil and natural gas production (a project company basis)

Approx. **130** thousand barrels/day (B/D) \*2

Worldwide business activities in such area as North Sea(UK), Gulf of Mexico(USA), Middle East, South East Asia and others



### JX Nippon Mining & Metals

Refined copper production capacity

**1,170** thousand tons/year \*3

Equity entitled copper mine production

Approx. **100** thousand tons/year

Electronic Materials; Products with world No.1 market shares



Listed subsidiaries

NIPPO  
Toho Titanium

Common function companies

Independent companies

\*1 Gasoline, Kerosene, Diesel Fuel, and Fuel Oil A

\*2 Crude Oil Equivalent (Average daily production from Jan. to Dec. 2011)

\*3 Pan Pacific Copper(66.0% equity stake) ; 610 thousand tons/year + LS-Nikko Copper(39.9% equity stake) ;560 thousand tons/year



# Dramatical Transformation of the Petroleum Refining & Marketing Business

Establish most competitive structure  
for petroleum refining and marketing  
in the domestic market



## ✓ Capacity Reduction Plan

### ➤ JX Group Capacity Reduction Plan

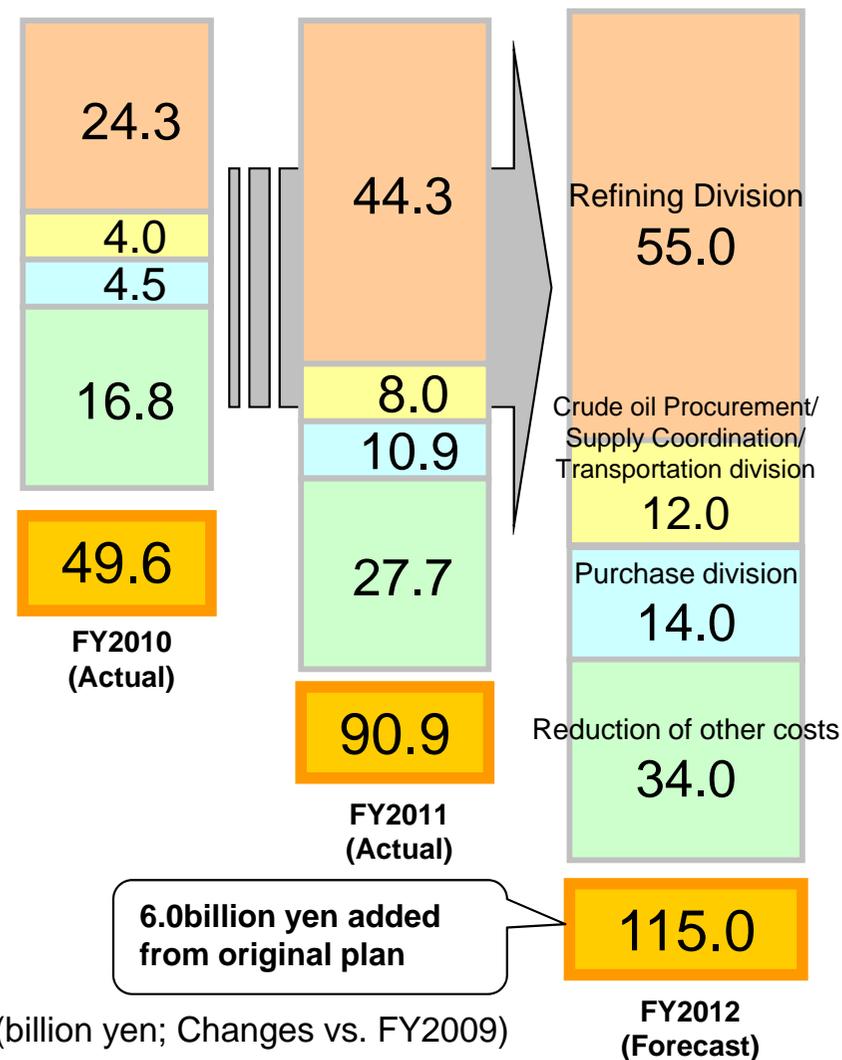
Dec. 2008 Apr. 2014  
1,790 ⇒ 1,210 thousand B/D

|       | Due Date      | Reduction Capacity | Completion   |
|-------|---------------|--------------------|--|
| STEP1 | October, 2010 | (400) thousand B/D | <input checked="" type="checkbox"/>  |
| STEP2 | March, 2014   | (180) thousand B/D | <input type="checkbox"/> Reform Murooran Refinery into petrochemical plant |

### ➤ Capacity Reduction Plans of other companies

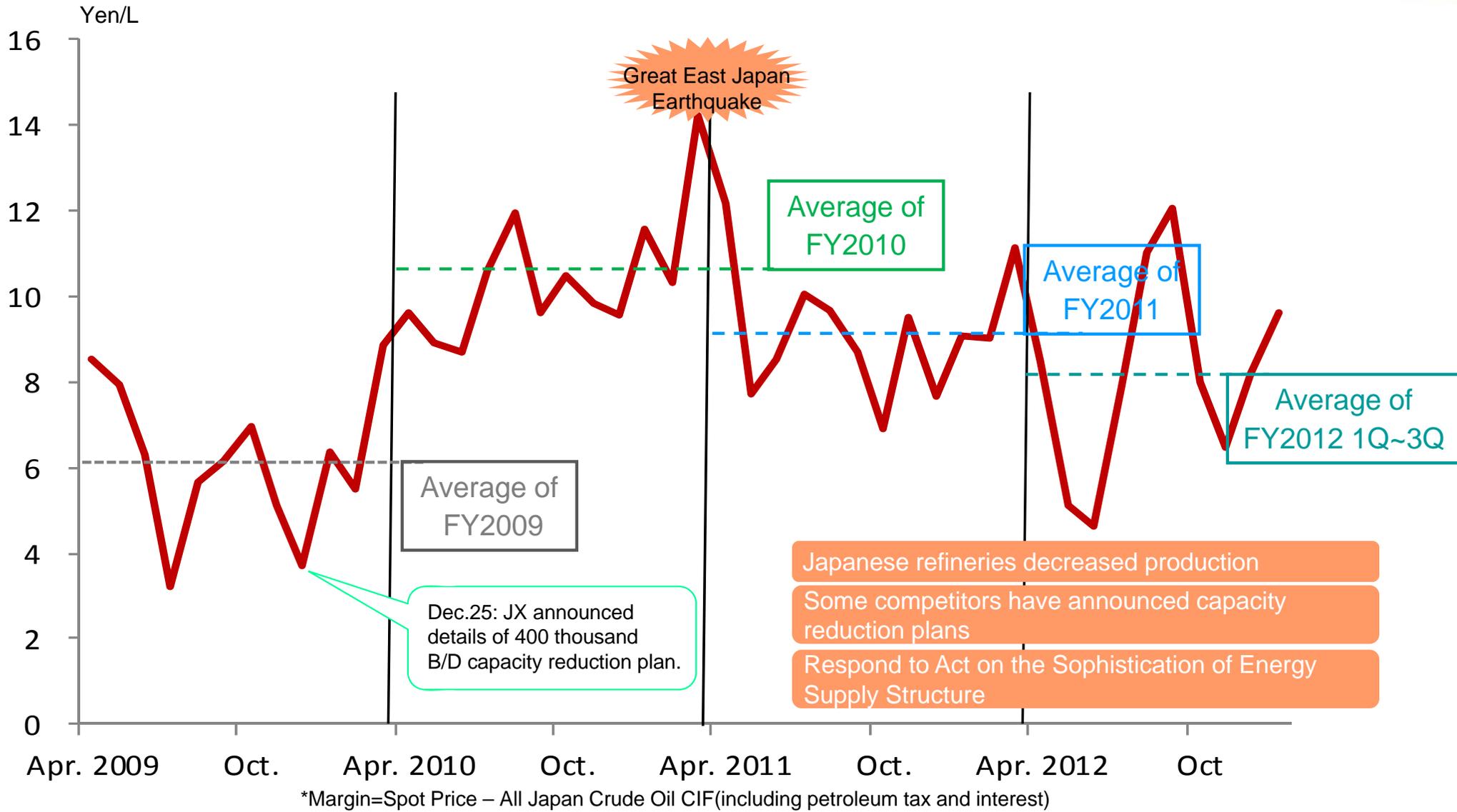
| Company       | Due Date    | Reduction Capacity | Completion                          |
|---------------|-------------|--------------------|-------------------------------------|
| Fuji Oil      | Oct. 2010   | (52) thousand B/D  | <input checked="" type="checkbox"/> |
| Showa Shell   | Sep. 2011   | (120) thousand B/D | <input checked="" type="checkbox"/> |
| Cosmo Oil     | Jul. 2013   | (140) thousand B/D | <input type="checkbox"/>            |
| Idemitsu      | Mar. 2014   | (120) thousand B/D | <input type="checkbox"/>            |
| Tonen General | ~ Mar. 2014 | (105) thousand B/D | <input type="checkbox"/>            |

## ✓ Integration Synergies and Enhanced Efficiency of Refineries



# Margins of Gasoline, Kerosene, Diesel Fuel and Fuel Oil A

Stabilization of a petroleum margins



# Forecast of Ordinary Income

Ordinary income is on the 300 billion yen level stably



|  | FY2009 *<br>(Actual) | FY2012<br>(Forecast) | FY2010-FY2012 Total<br>(Forecast basis on announcement in Feb. 2013) | FY2010-FY2012 Total<br>(Mid-Term Plan announced in May 2010) |
|--|----------------------|----------------------|--|--|
|  | (JPY billion)        | (JPY billion)        | (JPY billion)  | (JPY billion)  |
| Net Sales  | 9,008.0              | 11,190.0             |  |  |
| Operating Income                                     | 130.4                | 260.0                |  |  |
| Non-Operating Income (Expenses), Net                 | 56.9                 | 85.0                 |  |  |
| Ordinary Income                                      | 187.3                | 345.0                | 1,166.5  | 790.0  |
| -Inventory Valuation                                 | 202.6                | (45.0)               | 164.1  | 50.0   |
| <b>Ordinary Income<br/>Excl. inventory valuation</b> | <b>(15.3)</b>        | <b>300.0</b>         | <b>947.4</b>   | <b>740.0</b>   |
| Refining & Marketing                                 | (135.8)              | 133.0                | 442.3  | 291.0  |
| Oil & Natural Gas E&P                                | 49.0                 | 95.0                 | 252.0  | 189.0  |
| Metals   | 45.4                 | 45.0                 | 178.5  | 201.0  |
| Listed subsidiaries and others                       | 26.1                 | 27.0                 | 74.6   | 59.0   |
| Special Gain (Loss), Net                             | (35.3)               | (44.0)               |  |  |
| Net Income   | 73.1                 | 170.0                |  |  |



# Capital Expenditures

FY 2010-2012 Total  
(Forecast basis on  
announcement in feb. 2013)

(JPY billion)

Refining & Marketing

320.0

Oil & Natural Gas E&P

220.0

Metals

300.0

Listed Subsidiaries and Others

70.0

Capital Expenditure & Investment

910.0

Depreciation & amortization

580.0

## ◀Main contents of growth strategies▶

- ✓ Enhance overseas business to meet increasing demand in Asia (Chemicals, Lubricants, Coals)
- ✓ Enhance domestic logistics and marketing network
- ✓ Develop New business (New energy)

- ✓ Maintain and expand production Volume over the medium/long term

- ✓ Develop highly profitable business structure by increasing equity entitled copper mine production
- ✓ Improve profitability by business development satisfying high-growth market needs (Electronic Materials, Recycling & Environmental services)

# Refining & Marketing Business

Capturing foreign demand  
Development new energy business



See P.47 of Enhance Overseas Business (Paraxylene).

## ✓ Paraxylene

- Established joint venture to produce paraxylene of one million tons per year with SK Group of South Korea (Jun. 2012)



## ✓ Coal

- Acquired stocks of Indonesian company which has coal mine property (Jun. 2011)
- Acquired concessions in mining area in Canada that yield coking coal from Xstrata Group (Mar. 2012)

See P.48 of Enhance Overseas Business (Lubricants).

## ✓ Lubricants

- Established lubricants marketing company in Dubai (Jul. 2011)
- Lubricants manufacturing plant started its operation in Indonesia (Apr. 2012)
- Started joint venture business for lubricants base oil with SK Group of South Korea (Oct. 2012)

## ✓ Fuel Cell

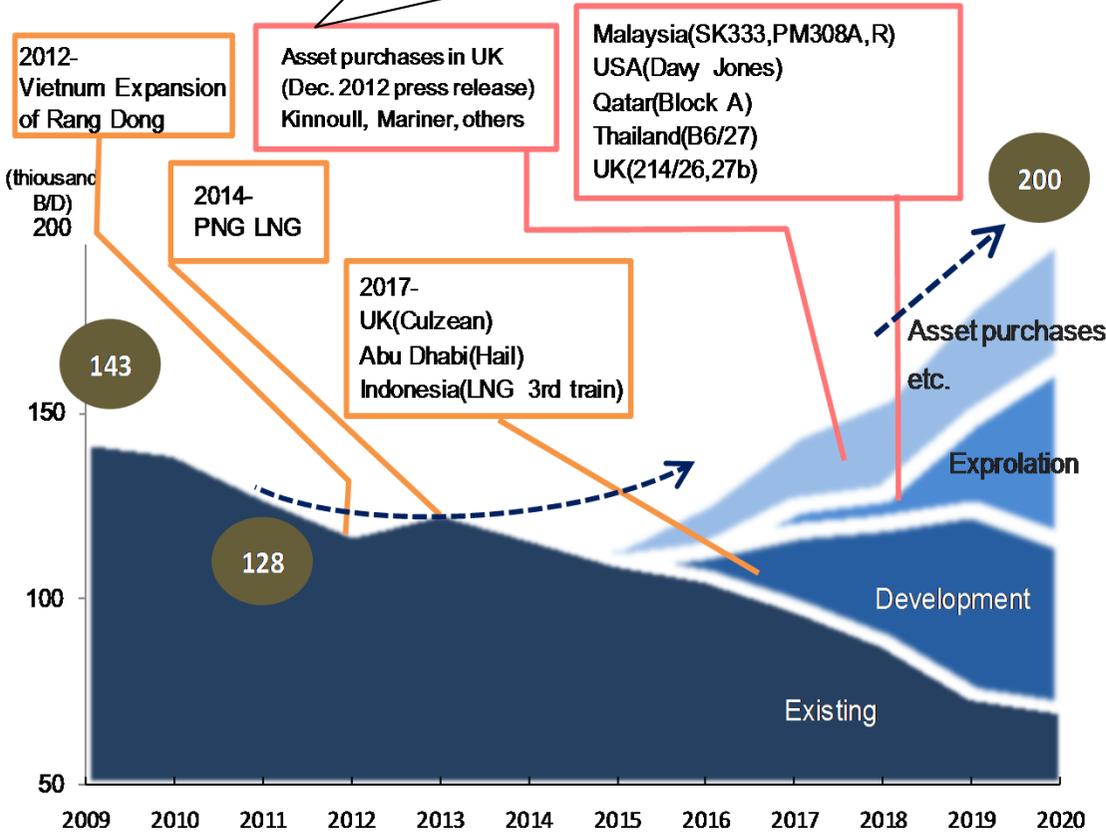
- Launched Solid Oxide Fuel Cell(SOFC) system for residential use which is smaller and has higher electrical efficiency compared to conventional one (Oct. 2011)
- Increasing sales volume by high attention to new energy after the earthquake



# Oil and Gas E&P Business

## Transition of Production Volume

See P.55 of Major Asset Acquisition  
in the UK Continental Shelf.



## Recent Results of Crude Oil and Natural Gas E&P

| Country (Block) | Type                          | Acquisition of rights     | Discovery of oil and gas strata | Extent of strata confirmed | Success of flow test | Renewed rights to oil fields in production |
|-----------------|-------------------------------|---------------------------|---------------------------------|----------------------------|----------------------|--|
| Jan. 2011       | Vietnam(16-2)                 | Natural Gas               | ●                               |                            |                      |  |
| Feb. 2011       | UAE                           | Crude oil                 | ●                               |                            |                      | ●  |
|                 | U.S.(Davy Jones)              | Natural gas               |                                 | ●                          |                      |  |
|                 | Vietnam(05-1b)                | Crude oil/<br>Natural gas | ●                               |                            |                      |  |
| Mar. 2011       | U.K.(Culzean)                 | Natural gas               |                                 | ●                          |                      |  |
| Apr. 2011       | Australia(WA-290-P)           | Natural gas               | ●                               |                            |                      |  |
|                 | Papua New Guinea(PPL219)      | Crude oil                 | ●                               |                            |                      |  |
| May 2011        | Qatar (Block A)               | Natural gas               | ●                               |                            |                      |  |
|                 | Australia(WA-191-P)           | Crude oil                 | ●                               |                            |                      |  |
|                 |                               |                           |                                 |                            |                      | Jan. 2012<br>Made decision of development  |
| Jan. 2012       | Malaysia ( Deepwater Block R) | Crude oil                 | ●                               |                            |                      |  |
| Mar. 2012       | U.S.(Davy Jones)              | Natural gas               |                                 |                            | ●                    |  |
| Sep. 2012       | Myanmar(M-11)                 | Natural gas               | ●                               |                            |                      |  |
| Oct. 2012       | Australia(WA435-P, WA437-P)   | Natural gas               | ●                               |                            |                      |  |
| Oct. 2012       | U.K.                          | Crude oil/<br>Natural gas | ●                               |                            |                      |  |



# Metals Business

## Caserones Copper Mine(Chile)



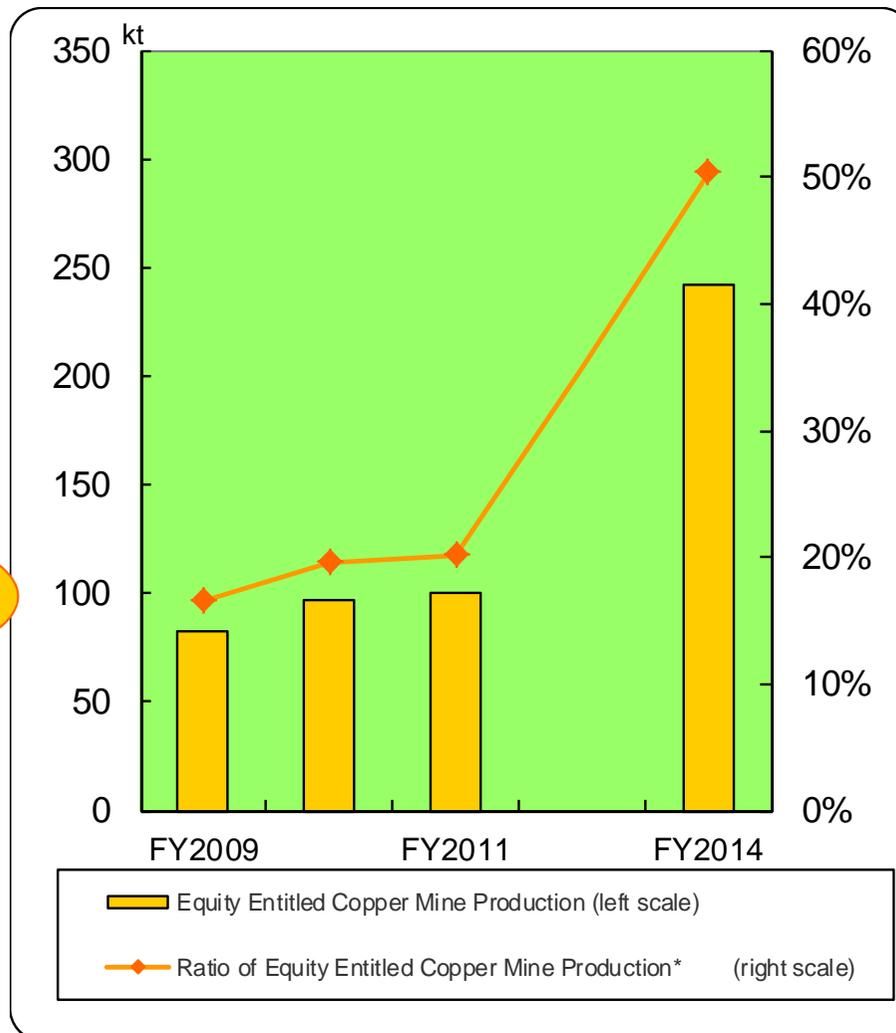
■ **Period for production** 2013 to 2040 (28 years)

■ **Production volume** 28 years total :  
3,550kt (Copper Content)

Approx. 180kt / year (for 10 years following start-up)

■ **Ownership ratio**

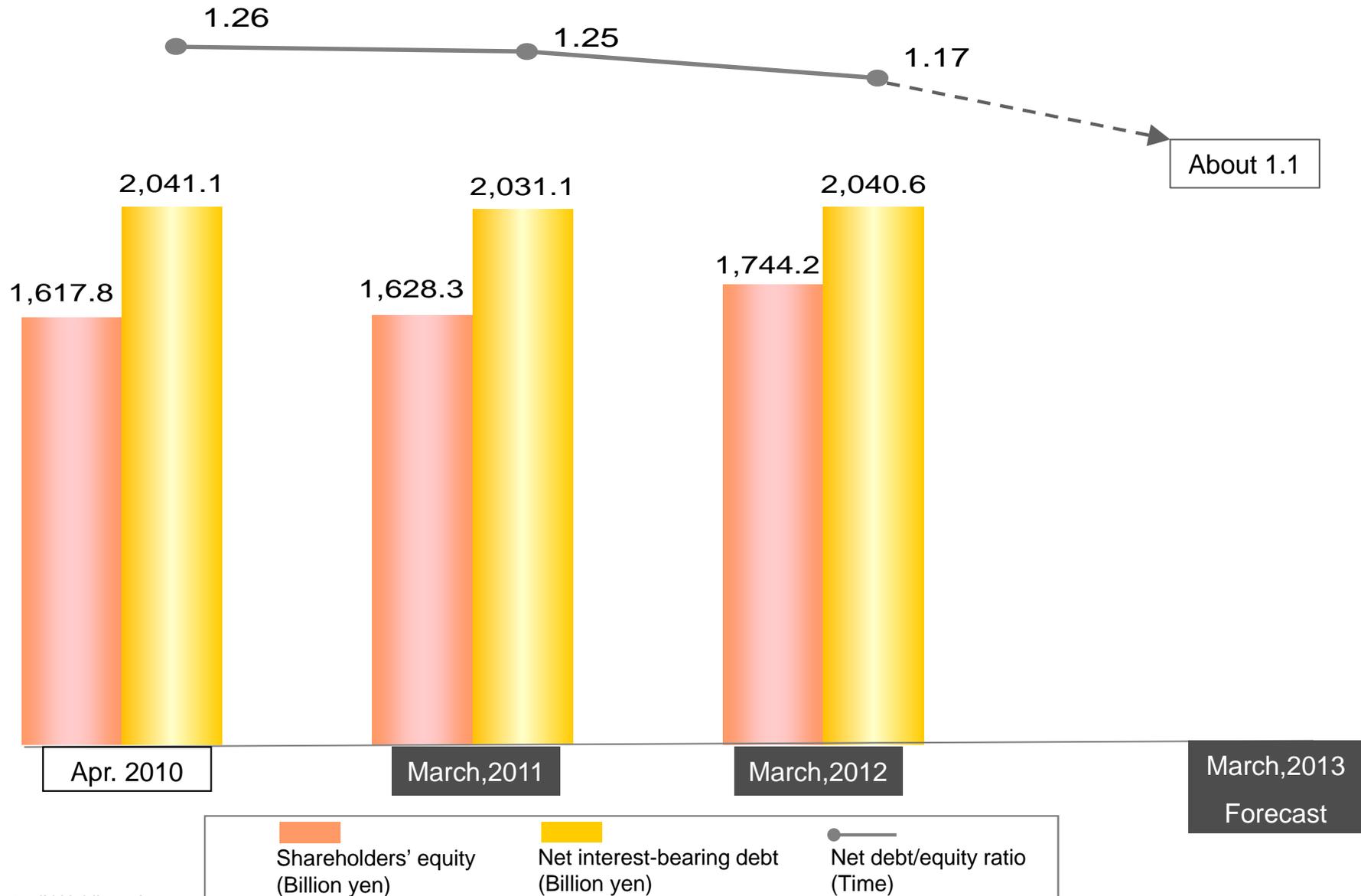
|  |     |
|--|-----|
| Pan Pacific Copper   | 75% |
| (Jointly established JX Nippon Mining & Metals (66%) and Mitsui Mining & Smelting (34%)) |     |
| Mitsui & Co., Ltd  | 25% |



\* Equity entitled copper production content in copper concentrate divided by the volume of the same necessary for the domestic smelters.

**JX Group**  
**Financial Position**

Balancing growth investment and financial condition improvement





## Basic Dividend Policy

Redistribute profits by reflecting consolidated business results while striving to maintain stable dividends

## Dividends

|        | End of 2 <sup>nd</sup> Quarter | Year-end          | Full Year          |
|--------|--------------------------------|-------------------|--------------------|
| FY2010 | 7.5                            | 8.0               | 15.5               |
| FY2011 | 8.0                            | 8.0               | 16.0               |
| FY2012 | 8.0                            | 8.0<br>(Forecast) | 16.0<br>(Forecast) |

# Summary of 1<sup>st</sup> Mid-Term Management Plan and Guideline of 2<sup>nd</sup> Mid-Term Management Plan

Apr. 2010

1<sup>st</sup> Mid-Term Management Plan  
(from FY2010 to FY2012)

Realizing management integration efficiency

- Management Integration
- Dramatical Transformation in Petroleum Refining and Marketing Business
- Allocate Management Resources to Highly Profitable Operations on a Priority Basis

Scheduled to release  
In the spring of 2013

2<sup>nd</sup> Mid-Term Management Plan  
(from FY2013 to FY2015)

Progress to new stage by creation and innovation

- Realizing Profit from several measures executed in 1<sup>st</sup> Mid-Term Management Plan
- Allocate Management Resources to Highly Profitable Operations on a Priority Basis

Maximizing Corporate Value

# Main Topics (Oct. 2012– Feb. 2013)



## JX Holdings

- Oct. “JX Report for a Sustainable Future 2012” is published.
- Dec. “The 4th series of unsecured bonds” is issued.

## JX Nippon Oil & Energy

- Oct. Agreed to jointly conduct the Feasibility Study of the new project of ENB plant in Thailand.
- Nov. Established the LNG terminal management subsidiary.
- Nov. Determined the business reconstruction of Muroran Refinery.
- Nov. Concluded the merger of JX Shipping Co.,Ltd. and JX Tanker Company Limited.
- Nov. Determined to withdraw from solar cell silicon wafer business.
- Nov. Construction of Paraxylene plant by Ulsan Aromatics Co., Ltd. is launched.
- Nov. Concluded the natural gas sales contract for Hachinohe Thermal Power Station with Tohoku Electric Power Co., Inc.
- Nov. Determined the Business integration of Service Station management subsidiary(IKKO) and Suzuyo Energy & Co.,Ltd..
- Dec. Administrative disposition about a Failure found in the safety test performed under the High Pressure Safety Act at Mizushima Refinery B Plant is received.
- Jan. Official announcement of a Service Station strategy toward future (Renewal of Dr. Drive).
- Feb. Agreed with Idemitsu Kosan Co., Ltd on reciprocal transaction of petroleum products.

## JX Nippon Oil & Gas Exploration

- Oct. Acquisition of a Participating Interest in an Exploration Permit in the North West Shelf Offshore Australia.
- Oct. Newly Awarded Exploration Blocks in the UK North Sea.
- Dec. New concession between Supreme Petroleum Council – (SPC) in UAE and Abu Dhabi Oil Co., Ltd goes into effect.
- Dec. Signed sale and purchase agreements for the acquisition from the Eni group in the UK.
- Dec. Agreed on inheritance of the stocks of the subsidiary which Arabian Oil Company Ltd establishes.

## JX Nippon Mining & Metals

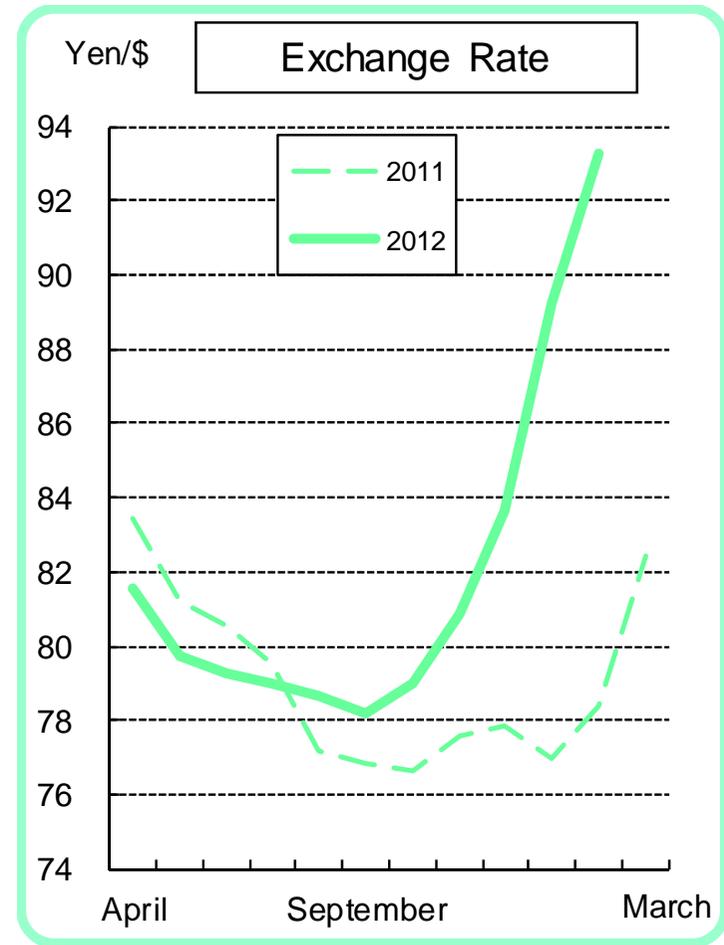
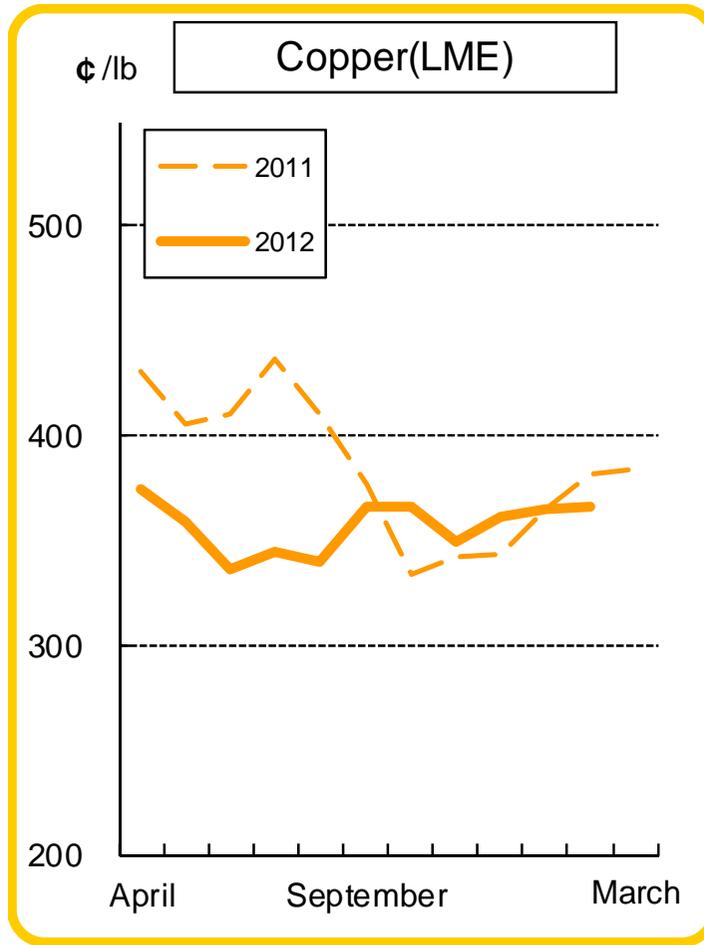
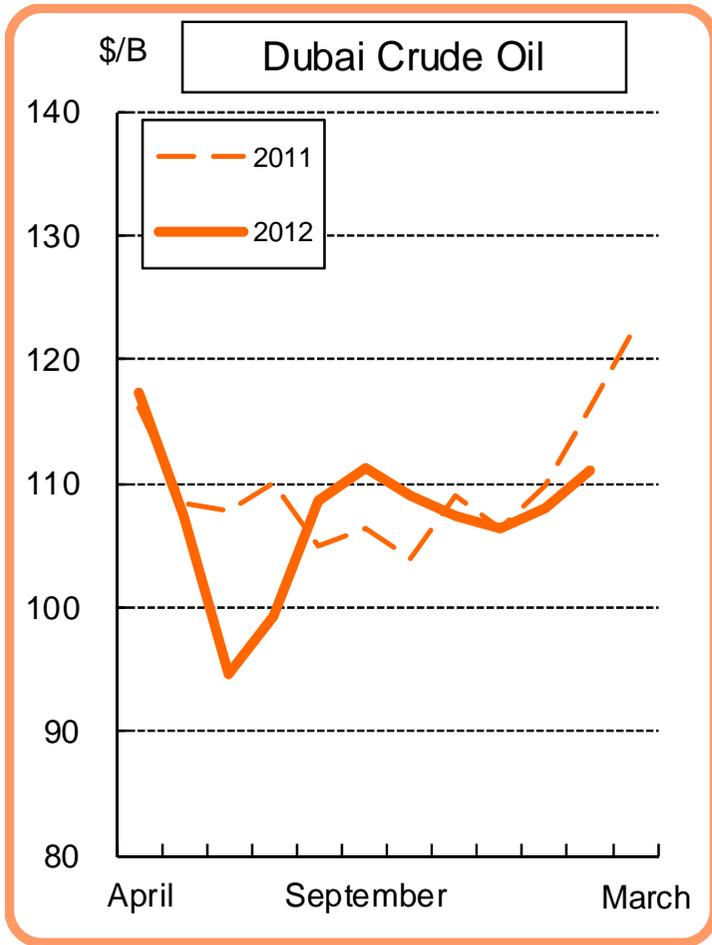
- Feb. Production of copper cathode at Caserones Copper Mine is started.
- Feb. Determined to withdraw from polysilicon business for photovoltaic power generation

## Consolidated Financial Results FY 2012 3Q

- From April 1, 2012 to December 31, 2012 -

- ✓ Inventory valuation loss occurred by decline of crude price during the term.
- ✓ Ordinary income excluding inventory valuation decreased from previous year.

# Business Environment



# FY 2012 3Q Results Outline



\* Average from Mar. to Nov. (nearly equal to arrived crude cost)

|  | FY 2011 3Q<br>( <sup>'11/4</sup> - <sup>'11/12</sup> ) | FY 2012 3Q<br>( <sup>'12/4</sup> - <sup>'12/12</sup> ) | Changes     |                |
|--|--|--|-------------|----------------|
| Crude Oil(Dubai) * (\$/B)                    | 108  | 109  | + 1         | +0.5%          |
| Copper Price (¢/lb)                          | <sup>(<sup>'11/1-9</sup>)</sup><br><420> 388           | <sup>(<sup>'12/1-9</sup>)</sup><br><361> 355           | <-59> -33   | <-14.0%> -8.5% |
| Exchange Rate (Yen/\$)                       | <sup>(<sup>'11/1-9</sup>)</sup><br><81> 79             | <sup>(<sup>'12/1-9</sup>)</sup><br><79> 80             | <-2> + 1    | <-2.5%> +1.3%  |
|  | JPY Billion  | JPY Billion  | JPY Billion |                |
| Net Sales                                    | 7,790.4  | 8,054.6  | + 264.2     | +3.4%          |
| Operating Income                             | 234.5  | 135.0  | -99.5       | -42.4%         |
| Non-operating Income(Expenses), Net          | 53.2   | 52.8   | -0.4        | -0.8%          |
| Ordinary Income                              | 287.7  | 187.8  | -99.9       | -34.7%         |
| -Inventory Valuation                         | 73.5   | (14.1)   | -87.6       | -              |
| Ordinary Income<br>Excl. Inventory Valuation | 214.2  | 201.9  | -12.3       | -5.7%          |
| Special Gain (Loss), Net                     | (12.3)   | (11.6)   | + 0.7       | -              |
| Net Income                                   | 158.8  | 91.9   | -66.9       | -42.1%         |

# FY 2011 3Q Actual vs. FY 2012 3Q Actual

## Changes in Ordinary Income (loss) by Segment

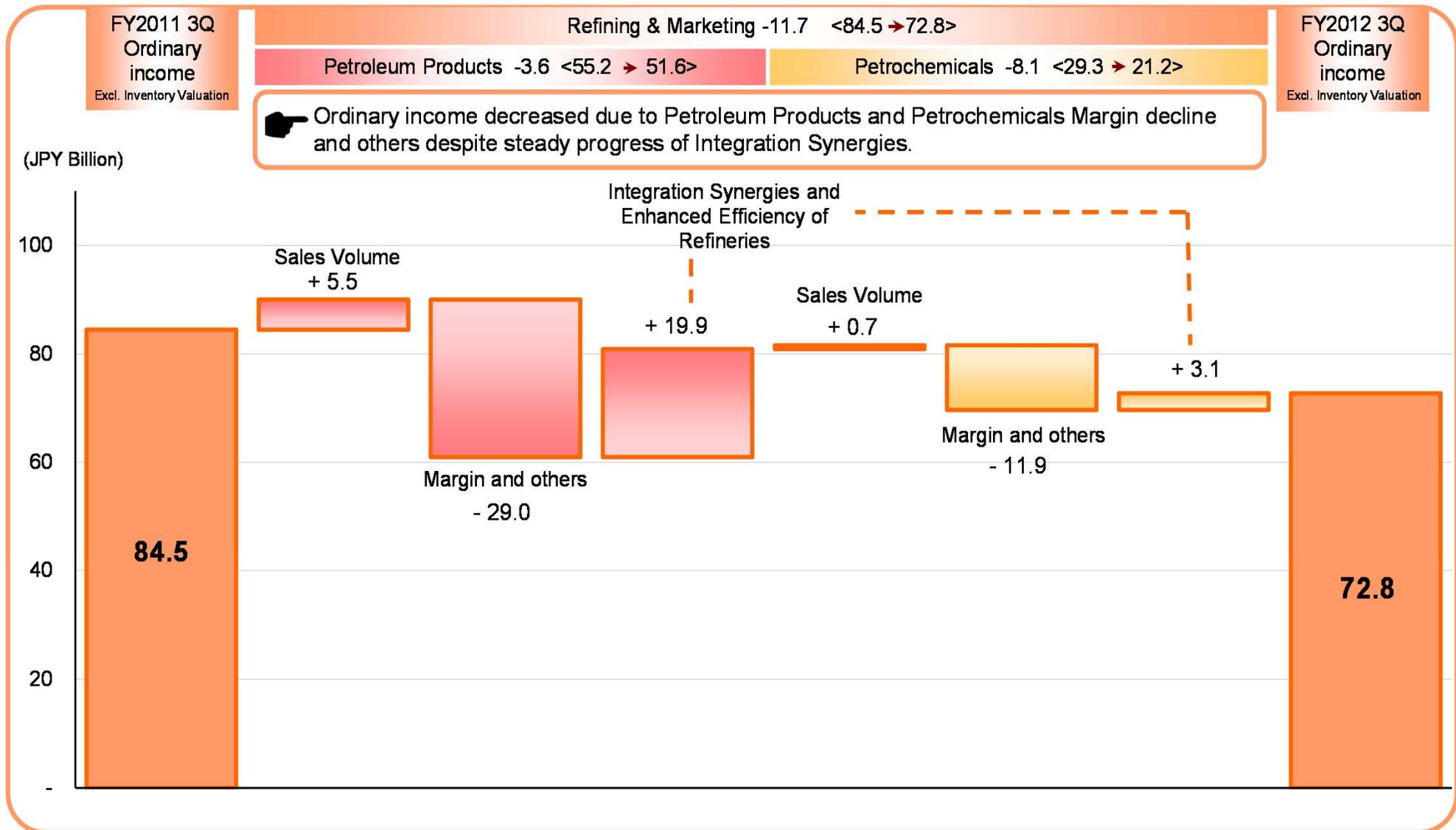


|  | FY 2011 3Q<br>( <sup>1</sup> '11/4-'11/12) | FY 2012 3Q<br>( <sup>1</sup> '12/4-'12/12) | Changes     |        |
|--|--|--|-------------|--------|
|  | JPY Billion                                | JPY Billion                                | JPY Billion | %      |
| Refining & Marketing                         | 159.2                                      | 61.0                                       | -98.2       | -61.7% |
| - Inventory Valuation                        | 74.7                                       | (11.8)                                     | -86.5       | -      |
| Excl. Inventory Valuation                    | 84.5                                       | 72.8                                       | -11.7       | -13.8% |
| - Petroleum Products                         | 55.2                                       | 51.6                                       | -3.6        | -6.5%  |
| - Petrochemicals                             | 29.3                                       | 21.2                                       | -8.1        | -27.6% |
| Oil & Natural Gas E&P                        | 75.9                                       | 74.6                                       | -1.3        | -1.7%  |
| Metals                                       | 39.4                                       | 32.5                                       | -6.9        | -17.5% |
| - Inventory Valuation                        | (1.2)                                      | (2.3)                                      | -1.1        | -      |
| Excl. Inventory Valuation                    | 40.6                                       | 34.8                                       | -5.8        | -14.3% |
| Listed subsidiaries <sup>*1</sup> and Others | 13.2                                       | 19.7                                       | + 6.5       | +49.2% |
| Total  | 287.7                                      | 187.8                                      | -99.9       | -34.7% |
| Excl. Inventory Valuation                    | 214.2                                      | 201.9                                      | -12.3       | -5.7%  |

\*1 NIPPO Corporation and Toho Titanium Co.,Ltd.

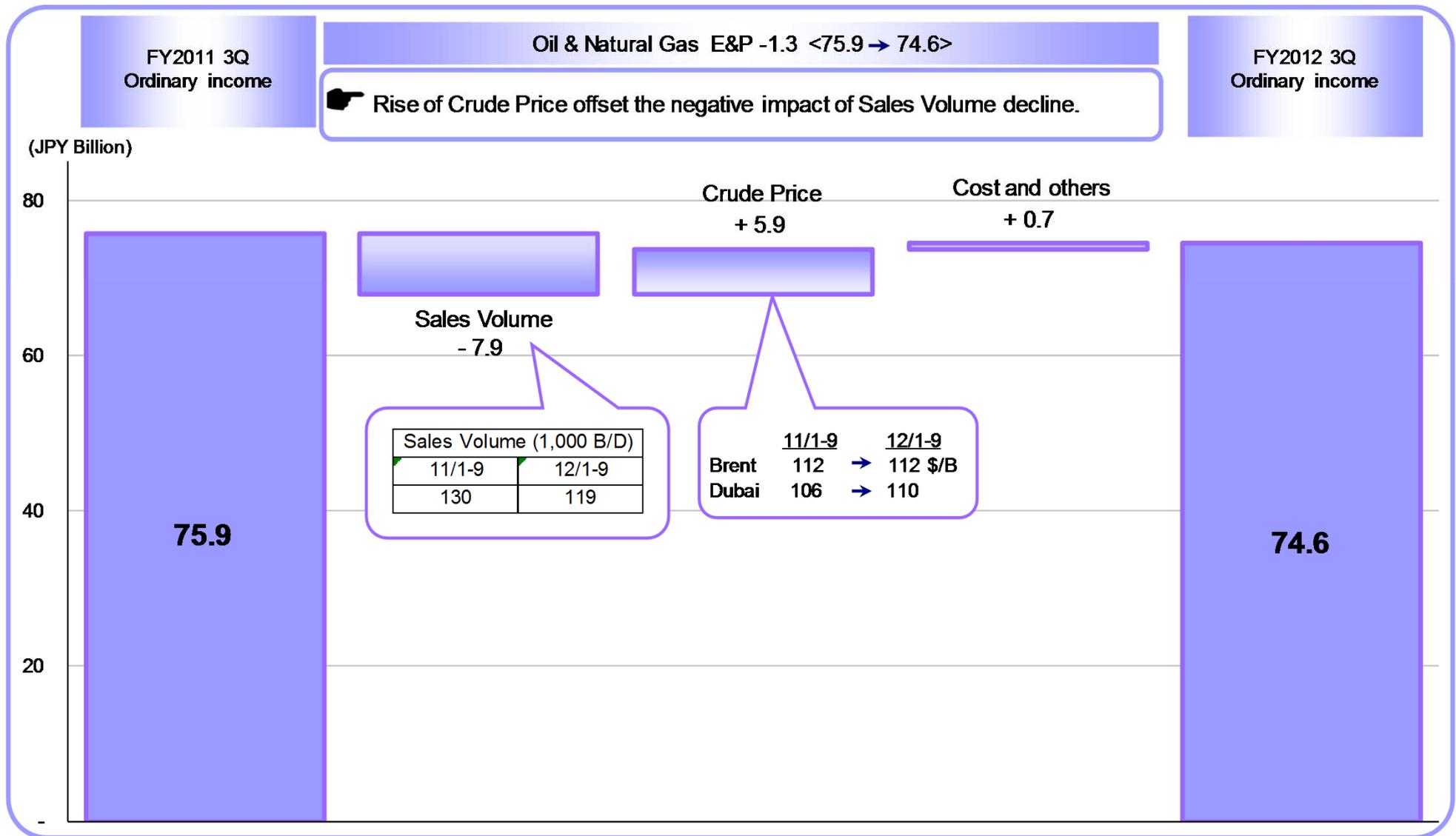
# FY 2011 3Q Actual vs. FY 2012 3Q Actual

## Changes in Ordinary Income (loss) - Refining and Marketing -



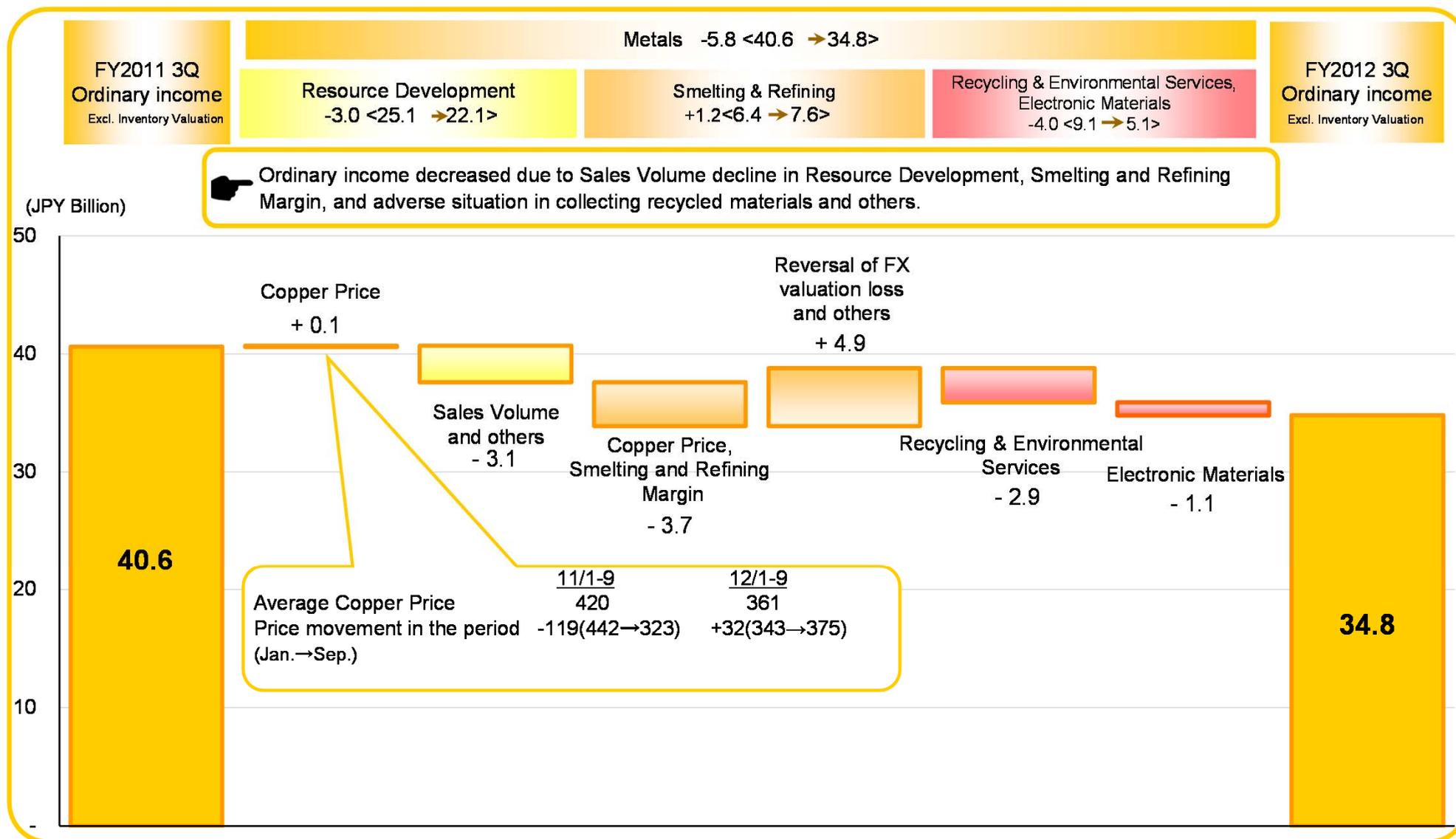
# FY 2011 3Q Actual vs. FY 2012 3Q Actual

## Changes in Ordinary Income - Oil and Natural Gas E&P -



# FY 2011 3Q Actual vs. FY 2012 3Q Actual

## Changes in Ordinary Income - Metals -



# Consolidated Balance Sheets

## Consolidated Statement of Cash Flows

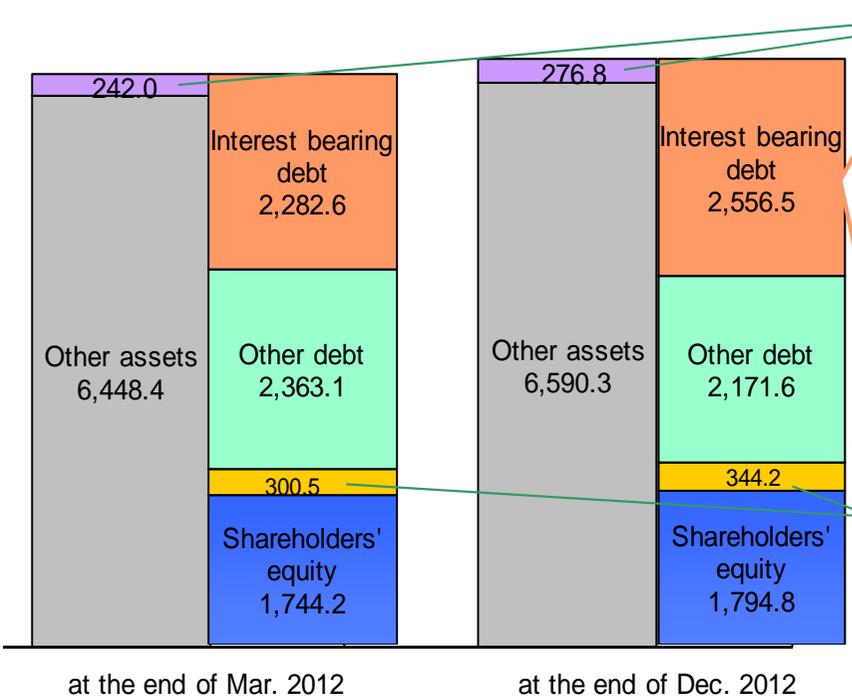


### Consolidated Balance Sheets

: JPY Billion

Total : 6,690.4

Total : 6,867.1



Cash and cash equivalents

+239.0 Net Interest bearing debt, excluding Cash and cash equivalents  
Detail:  
-Negative free cash flows (185.8 billion yen)  
-Newly consolidated subsidiaries and others

Minority Interests in consolidated subsidiaries

### Consolidated Cash Flows

2012 3Q

: JPY Billion

|   |                |
|---|----------------|
| Ordinary Income                             | 187.8          |
| Depreciation and Amortization               | 135.8          |
| Increase in Working Capital                 | (63.2)         |
| Corporate Tax and others                    | (122.3)        |
| <b>Cash flows from operating activities</b> | <b>138.1</b>   |
| <b>Cash flows from investing activities</b> | <b>(289.3)</b> |
| <b>Dividends and others</b>                 | <b>(34.6)</b>  |
| <b>Free Cash Flows</b>                      | <b>(185.8)</b> |

Working Capital is increased by seasonal reason (increase of kerosene sales volume, accumulation of inventory etc.) and others

Net D/E ratio in Mar. 2013 is forecasted to be 1.1.  
Negative free cash flows are cleared by March 2013 by seasonal reason, accumulation of profits and others.

|                            | At the end of Mar. 2012 | At the end of Dec. 2012 |
|----------------------------|-------------------------|-------------------------|
| Shareholders' equity ratio | 26.1%                   | 26.1%                   |
| Net D/E ratio              | 1.17                    | 1.27                    |

## Forecast for FY 2012

- From April 1, 2012 to March 31, 2013 -

- ✓ Ordinary income increases from last forecast announced in November due to inventory valuation profit by revised assumption of yen's depreciation. (+5 Yen/\$)
- ✓ Ordinary income excluding inventory valuation remains same as last forecast.
- ✓ Assumptions for FY2012 ('13/1-3)  
Crude Oil (Dubai) : 110\$/B Copper Price : 360¢/lb Exchange Rate : 85Yen/\$



# FY 2012 Forecast Outline

\* Average from Mar. to Feb. (nearly equal to arrived crude cost)

|  | Last Forecast<br>FY 2012<br>(Announced in November) | Revised Forecast<br>FY 2012<br>(Announced in February) | Changes   |              |
|--|---|--|-----------|--------------|
| Crude Oil(Dubai)* (\$/B)                     | 109   | 109  | -         | +0.0%        |
| Copper Price (¢/lb)                          | <sup>('12/1-12)</sup><br><361> 357                  | <sup>('12/1-12)</sup><br><361> 356                     | < - > -1  | <0.0%> -0.3% |
| Exchange Rate (Yen/\$)                       | <sup>('12/1-12)</sup><br><80> 80                    | <sup>('12/1-12)</sup><br><80> 81                       | < - > + 1 | <0.0%> +1.3% |
|  | JPY Billion   | JPY Billion  |           |              |
| Net Sales                                    | 11,110.0  | 11,190.0   | + 80.0    | +0.7%        |
| Operating Income                             | 210.0   | 260.0  | + 50.0    | +23.8%       |
| Non-operating Income(Expenses), Net          | 80.0  | 85.0   | + 5.0     | +6.3%        |
| Ordinary Income                              | 290.0   | 345.0  | + 55.0    | +19.0%       |
| -Inventory Valuation                         | (10.0)  | 45.0   | + 55.0    | -            |
| Ordinary Income<br>Excl. Inventory Valuation | 300.0   | 300.0  | -         | +0.0%        |
| Special Gain (Loss), Net                     | (29.0)  | (44.0)   | -15.0     | -            |
| Net Income                                   | 140.0   | 170.0  | + 30.0    | +21.4%       |

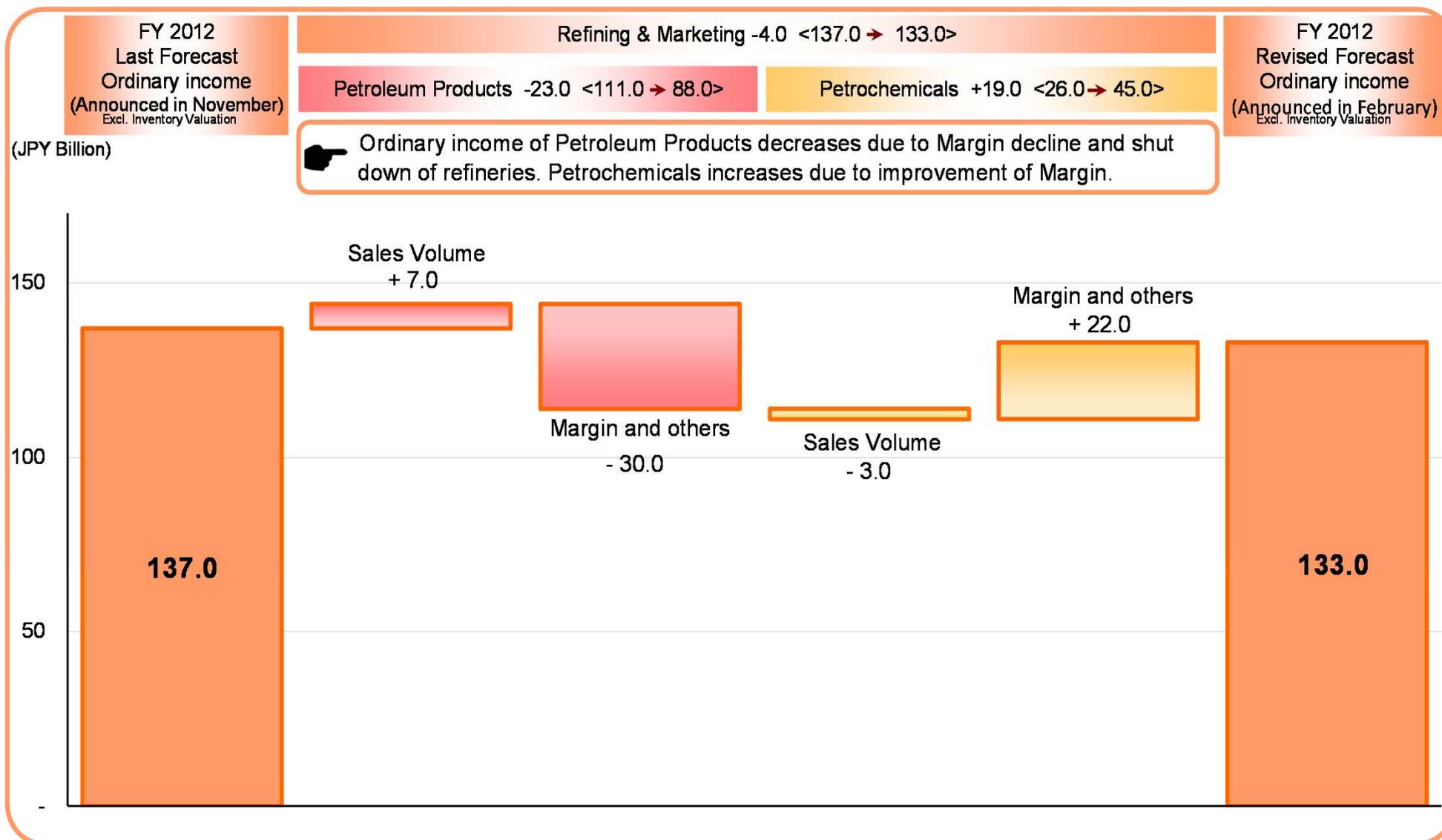
# FY 2012 Last Forecast vs. FY 2012 Revised Forecast Changes in Ordinary Income by Segment



|                                  | Last Forecast<br>FY 2012<br>(Announced in November) | Revised Forecast<br>FY 2012 | Changes       |               |
|----------------------------------|---|-----------------------------|---------------|---------------|
|                                  | JPY Billion   | JPY Billion                 | JPY Billion   | %             |
| Refining & Marketing             | 130.0   | 181.0                       | + 51.0        | +39.2%        |
| - Inventory Valuation            | (7.0)   | 48.0                        | + 55.0        | -             |
| <b>Excl. Inventory Valuation</b> | <b>137.0</b>  | <b>133.0</b>                | <b>-4.0</b>   | <b>-2.9%</b>  |
| - Petroleum Products             | 111.0   | 88.0                        | -23.0         | -20.7%        |
| - Petrochemicals                 | 26.0  | 45.0                        | + 19.0        | +73.1%        |
| Oil & Natural Gas E&P            | 90.0  | 95.0                        | + 5.0         | +5.6%         |
| Metals                           | 47.0  | 42.0                        | -5.0          | -10.6%        |
| - Inventory Valuation            | (3.0)   | (3.0)                       | -             | -             |
| <b>Excl. Inventory Valuation</b> | <b>50.0</b>   | <b>45.0</b>                 | <b>-5.0</b>   | <b>-10.0%</b> |
| Listed subsidiaries* and Others  | 23.0  | 27.0                        | + 4.0         | +17.4%        |
| <b>Total</b>                     | <b>290.0</b>  | <b>345.0</b>                | <b>+ 55.0</b> | <b>+19.0%</b> |
| <b>Excl. Inventory Valuation</b> | <b>300.0</b>  | <b>300.0</b>                | <b>-</b>      | <b>+0.0%</b>  |

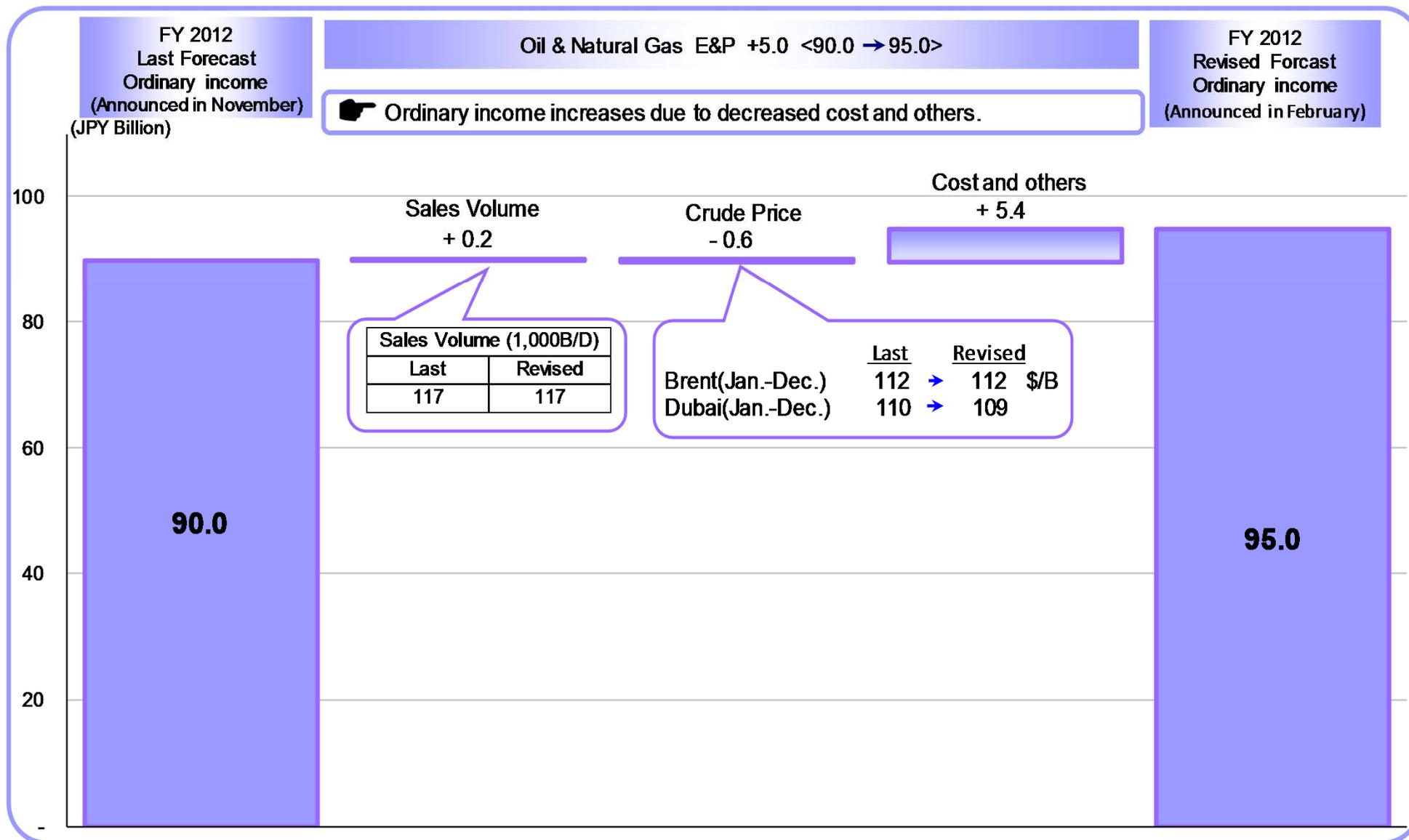
\*NIPPO Corporation and Toho Titanium Co.,Ltd.

# FY 2012 Last Forecast vs. FY 2012 Revised Forecast Changes in Ordinary Income - Refining and Marketing -

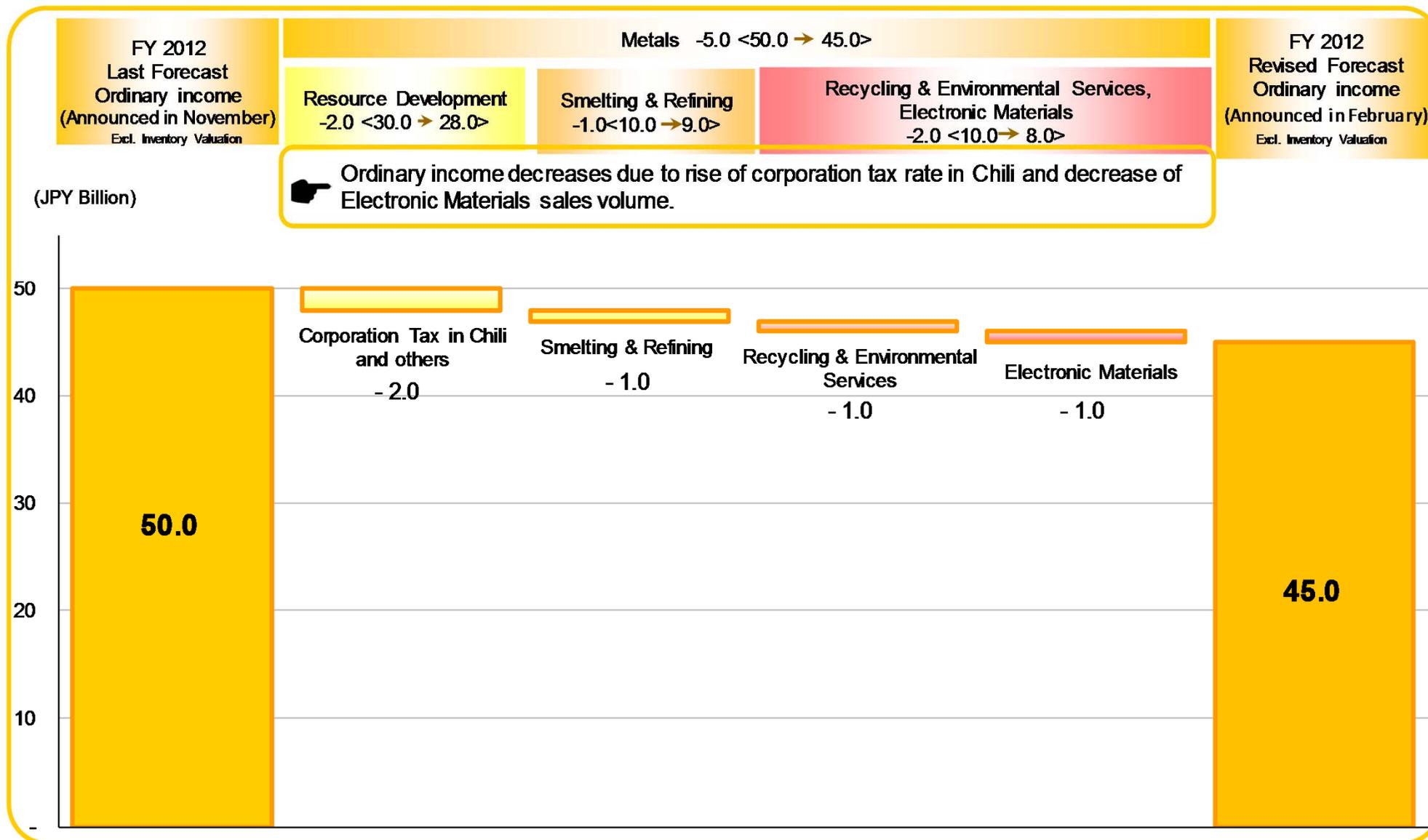


# FY 2012 Last Forecast vs. FY 2012 Forecast

## Changes in Ordinary Income - Oil and Natural Gas E&P -



# FY 2012 Last Forecast vs. FY 2012 Revised Forecast Changes in Ordinary Income - Metals -





## Supplementary Information

# Business Performance



|                                  | FY2010         | FY2011         |                   |                 | FY2012         |                   |                 |
|----------------------------------|----------------|----------------|-------------------|-----------------|----------------|-------------------|-----------------|
|                                  | Full Year      | 1H             | 3Q<br>(Apr.-Dec.) | Full Year       | 1H             | 3Q<br>(Apr.-Dec.) | Full Year       |
| (JPY billion)                    | Actual         | Actual         | Actual            | Actual          | Actual         | Actual            | Forecast        |
| <b>Net Sales</b>                 | <b>9,634.4</b> | <b>5,079.6</b> | <b>7,790.4</b>    | <b>10,723.9</b> | <b>5,189.1</b> | <b>8,054.6</b>    | <b>11,190.0</b> |
| Refining & Marketing             | 8,131.9        | 4,284.6        | 6,606.0           | 9,147.5         | 4,467.7        | 6,974.4           | 9,700.0         |
| Oil and Natural Gas E&P          | 148.8          | 95.8           | 141.7             | 187.8           | 95.5           | 135.3             | 170.0           |
| Metals                           | 940.6          | 537.0          | 783.9             | 997.2           | 448.1          | 662.9             | 900.0           |
| Listed Subsidiaries and Others*  | 413.1          | 162.2          | 258.8             | 391.4           | 177.8          | 282.0             | 420.0           |
| <b>Operating Income (Loss)</b>   | <b>334.4</b>   | <b>195.3</b>   | <b>234.5</b>      | <b>327.9</b>    | <b>37.4</b>    | <b>135.0</b>      | <b>260.0</b>    |
| Refining & Marketing             | 239.1          | 130.7          | 142.2             | 208.2           | (23.3)         | 45.2              | 151.0           |
| Oil and Natural Gas E&P          | 51.9           | 48.8           | 70.0              | 90.5            | 50.2           | 68.0              | 80.0            |
| Metals                           | 20.7           | 12.0           | 12.3              | 14.5            | 2.7            | 5.2               | 5.0             |
| Listed Subsidiaries and Others*  | 22.7           | 3.8            | 10.0              | 14.7            | 7.8            | 16.6              | 24.0            |
| <b>Ordinary Income (Loss)</b>    | <b>413.7</b>   | <b>238.7</b>   | <b>287.7</b>      | <b>407.8</b>    | <b>79.6</b>    | <b>187.8</b>      | <b>345.0</b>    |
| Refining & Marketing             | 253.7          | 142.5          | 159.2             | 232.5           | (9.6)          | 61.0              | 181.0           |
| Oil and Natural Gas E&P          | 59.5           | 51.9           | 75.9              | 97.5            | 58.2           | 74.6              | 95.0            |
| Metals                           | 70.7           | 38.8           | 39.4              | 60.0            | 21.7           | 32.5              | 42.0            |
| Listed Subsidiaries and Others*  | 29.8           | 5.5            | 13.2              | 17.8            | 9.3            | 19.7              | 27.0            |
| <b>Net Income (Loss)</b>         | <b>311.7</b>   | <b>126.7</b>   | <b>158.8</b>      | <b>170.6</b>    | <b>26.8</b>    | <b>91.9</b>       | <b>170.0</b>    |
| Refining & Marketing             |                | 79.6           | 89.2              | 105.8           | (13.4)         | 33.6              | 116.0           |
| Oil and Natural Gas E&P          |                | 27.3           | 40.0              | 53.2            | 28.3           | 34.3              | 39.0            |
| Metals                           |                | 18.0           | 24.8              | 23.8            | 10.0           | 15.4              | 21.0            |
| Listed Subsidiaries and Others * |                | 1.8            | 4.8               | (12.2)          | 1.9            | 8.6               | (6.0)           |
| Capex                            | 190.0          | 130.0          | 206.0             | 280.0           | 173.0          | 275.0             | 440.0           |
| Depreciation and Amortization    | 204.6          | 98.1           | 147.9             | 198.1           | 91.3           | 135.8             | 178.0           |

# Ordinary Income by Segment



| (JPY billion)                      | FY2010       | FY2011       |                   |              | FY2012       |                   |              |
|------------------------------------|--------------|--------------|-------------------|--------------|--------------|-------------------|--------------|
|                                    | Full Year    | 1H           | 3Q<br>(Apr.-Dec.) | Full Year    | 1H           | 3Q<br>(Apr.-Dec.) | Full Year    |
|                                    | Actual       | Actual       | Actual            | Actual       | Actual       | Actual            | Forecast     |
| <b>Ordinary Income (Loss)</b>      | <b>413.7</b> | <b>238.7</b> | <b>287.7</b>      | <b>407.8</b> | <b>79.6</b>  | <b>187.8</b>      | <b>345.0</b> |
| <b>Refining &amp; Marketing</b>    | <b>253.7</b> | <b>142.5</b> | <b>159.2</b>      | <b>232.5</b> | <b>(9.6)</b> | <b>61.0</b>       | <b>181.0</b> |
| - Equity in earnings of affiliates | 5.4          | 1.5          | 2.9               | 3.6          | 1.7          | 4.0               | 5.0          |
| Petroleum Products                 | 169.2        | 44.9         | 55.2              | 74.6         | 23.9         | 51.6              | 88.0         |
| Petrochemicals                     | 27.3         | 24.4         | 29.3              | 38.2         | 9.8          | 21.2              | 45.0         |
| Inventory Valuation                | 57.2         | 73.2         | 74.7              | 119.7        | (43.3)       | (11.8)            | 48.0         |
| <b>Oil and Natural Gas E&amp;P</b> | <b>59.5</b>  | <b>51.9</b>  | <b>75.9</b>       | <b>97.5</b>  | <b>58.2</b>  | <b>74.6</b>       | <b>95.0</b>  |
| - Equity in earnings of affiliates | 7.8          | 3.3          | 4.4               | 6.4          | 3.8          | 5.7               | 9.0          |
| <b>Metals</b>                      | <b>70.7</b>  | <b>38.8</b>  | <b>39.4</b>       | <b>60.0</b>  | <b>21.7</b>  | <b>32.5</b>       | <b>42.0</b>  |
| - Equity in earnings of affiliates | 55.8         | 29.6         | 32.3              | 51.0         | 22.1         | 31.5              | 43.0         |
| Resources Development              | 44.1         | 22.8         | 25.1              | 36.6         | 15.7         | 22.1              | 28.0         |
| Smelting & Refining                | 12.8         | 6.6          | 6.4               | 15.5         | 4.8          | 7.6               | 9.0          |
| Recycling & Environmental Services | 4.0          | 3.6          | 4.0               | 5.7          | 1.1          | 1.1               | 2.0          |
| Electronic Materials               | 9.4          | 4.2          | 5.1               | 5.4          | 2.8          | 4.0               | 6.0          |
| Inventory Valuation                | 0.4          | 1.6          | (1.2)             | (3.2)        | (2.7)        | (2.3)             | (3.0)        |
| Listed Subsidiaries and Others*    | 29.8         | 5.5          | 13.2              | 17.8         | 9.3          | 19.7              | 27.0         |

# Key Factors



|                         |  | FY2010    | FY2011 |                   |           | FY2012 |                   |           |
|-------------------------|--|-----------|--------|-------------------|-----------|--------|-------------------|-----------|
|                         |  | Full Year | 1H     | 3Q<br>(Apr.-Dec.) | Full Year | 1H     | 3Q<br>(Apr.-Dec.) | Full Year |
|                         |  | Actual    | Actual | Actual            | Actual    | Actual | Actual            | Forecast  |
| All segments            | Exchange rate [Yen/\$]   | 86        | 80     | 79                | 79        | 79     | 80                | 81        |
| Refining & Marketing    | Crude oil price [Dubai] *1 [\$/\$B]  | 82        | 109    | 108               | 109       | 108    | 109               | 109       |
|                         | Paraxylene spread [ACP] (vs. Dubai crude oil price of previous month) [\$/\$ton] | 570       | 765    | 750               | 765       | 660    | 680               | 720       |
| Oil and Natural Gas E&P | Sales volume <Crude oil equivalent> [1,000 bbl/day]                              | 140       | 136    | 130               | 128       | 121    | 119               | 117       |
|                         | Crude oil price [Brent] [Jan.-Dec.] [\$/\$B]                                     | 80        | 111    | 112               | 111       | 113    | 112               | 112       |
| Metals                  | Copper price [LME] [Jan.-Dec.] [¢/lb]  | 342       | 426    | 420               | 400       | 367    | 361               | 361       |
|                         | Equity entitled copper mine production [1,000 tons/period, year]                 | 97        | 47     | 69                | 95        | 46     | 69                | 94        |
|                         | PPC refined copper sales [1,000 tons/period, year]                               | 588       | 286    | 442               | 566       | 267    | 393               | 545       |
|                         | Gold recovery volume by Recycling & Environmental Services [tons/period, year]   | 6.5       | 3.6    | 5.1               | 7.0       | 2.9    | 4.3               | 5.8       |
|                         | TRCF*2 sales [1,000 km/month]  | 3.3       | 2.8    | 2.7               | 2.6       | 2.7    | 2.8               | 2.8       |
|                         | Precision rolled products sales [1,000 tons/month]                               | 3.8       | 3.7    | 3.6               | 3.5       | 3.5    | 3.4               | 3.3       |

\*1 Crude oil arrival basis

\*2 Treated Rolled Copper Foil



# Sensitivity Analysis (FY 2012 basis)

## ■ Key factors (From Jan. to Mar. 2013)

Exchange Rate: 85Yen/\$

Crude Oil FOB : 110\$/bbl  
(Dubai spot)

Copper Price (LME) : 360 ¢/lb

## ■ Sensitivity analysis (Only for Fiscal 2012 4Q)

| Key factors                   | Appreciation                  | Segment  | (JPY Billion)<br>Impact |
|-------------------------------|-------------------------------|--|-------------------------|
| Exchange Rate                 | +1 Yen/\$<br>yen depreciation | Refining & Marketing<br>(In-house Fuel costs rise, margin improvement in petrochemicals) | 0.1                     |
|                               |                               | Oil and Natural Gas E&P  | (0.2)                   |
|                               |                               | Metals (Margin improvement)  | 0.1                     |
|                               |                               | Subtotal   | 0.0                     |
|                               |                               | Inventory valuation gain/loss  | 6.5                     |
|                               |                               | <b>Total</b>   | <b>6.5</b>              |
| Crude Oil FOB<br>(Dubai spot) | +1\$/bbl                      | Refining & Marketing (In-house Fuel costs rise)  | (0.4)                   |
|                               |                               | Inventory valuation gain/loss  | 4.9                     |
|                               |                               | <b>Total</b>   | <b>4.5</b>              |
| Copper Price<br>(LME)         | +10¢/lb                       | Metals   | 0.0                     |
|                               |                               | <b>Total</b>   | <b>0.0</b>              |

# FY 2011 Actual vs. FY 2012 Revised Forecast

## Changes in Ordinary income (loss) by Segment



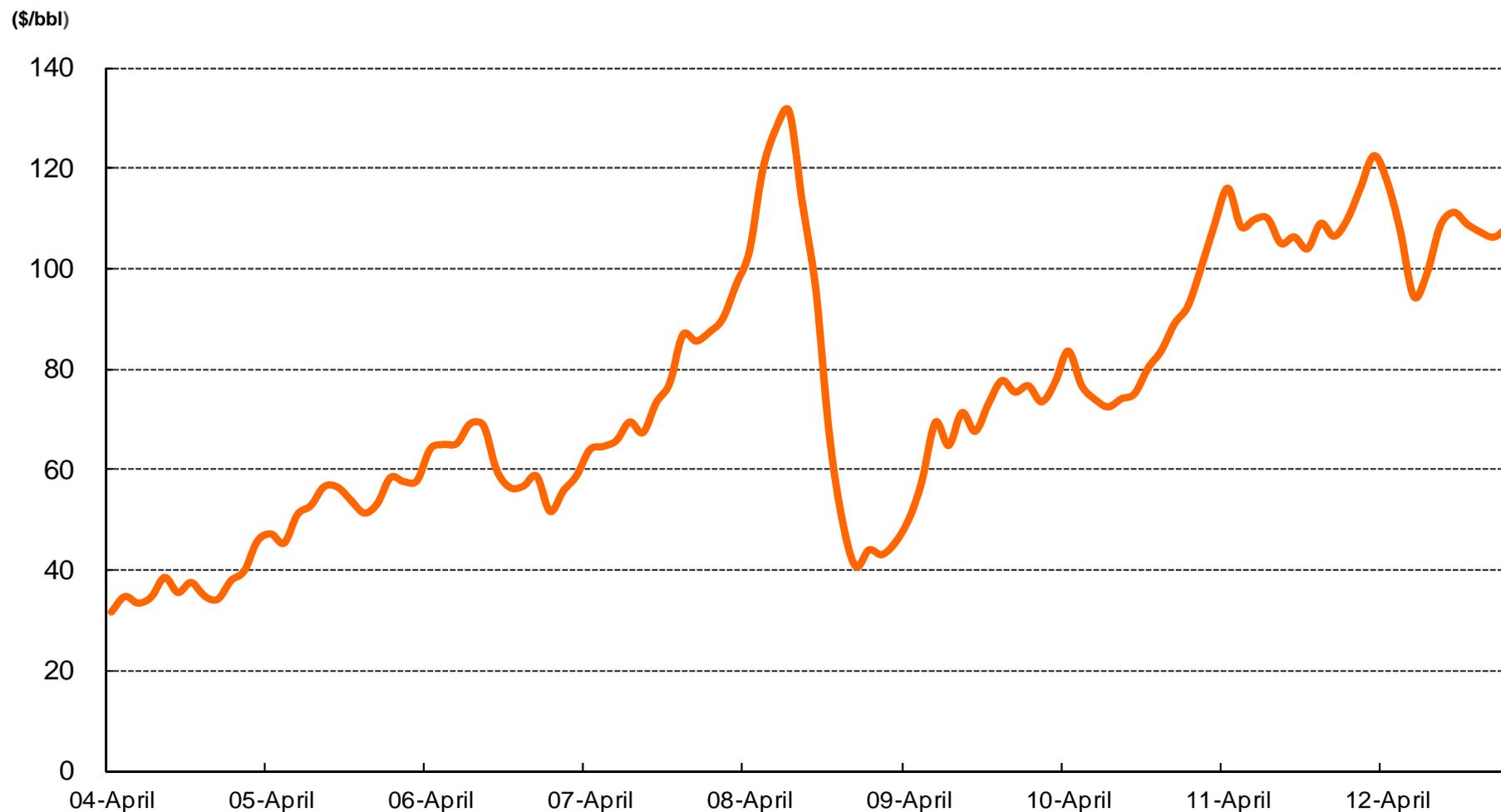
|                                 | FY2011<br>Actual | FY 2012<br>Revised Forecast | Changes     |        |
|---------------------------------|------------------|-----------------------------|-------------|--------|
|                                 | JPY Billion      | JPY Billion                 | JPY Billion |        |
| Refining & Marketing            | 232.5            | 181.0                       | -51.5       | -22.2% |
| - Inventory Valuation           | 119.7            | 48.0                        | -71.7       | -59.9% |
| Excl. Inventory Valuation       | 112.8            | 133.0                       | + 20.2      | +17.9% |
| - Petroleum Products            | 74.6             | 88.0                        | + 13.4      | +18.0% |
| - Petrochemicals                | 38.2             | 45.0                        | + 6.8       | +17.8% |
| Oil & Natural Gas E&P           | 97.5             | 95.0                        | -2.5        | -2.6%  |
| Metals                          | 60.0             | 42.0                        | -18.0       | -30.0% |
| - Inventory Valuation           | (3.2)            | (3.0)                       | + 0.2       | -      |
| Excl. Inventory Valuation       | 63.2             | 45.0                        | -18.2       | -28.8% |
| Listed subsidiaries* and Others | 17.8             | 27.0                        | + 9.2       | +51.7% |
| Total                           | 407.8            | 345.0                       | -62.8       |        |
| Excl. Inventory Valuation       | 291.3            | 300.0                       | + 8.7       | +3.0%  |



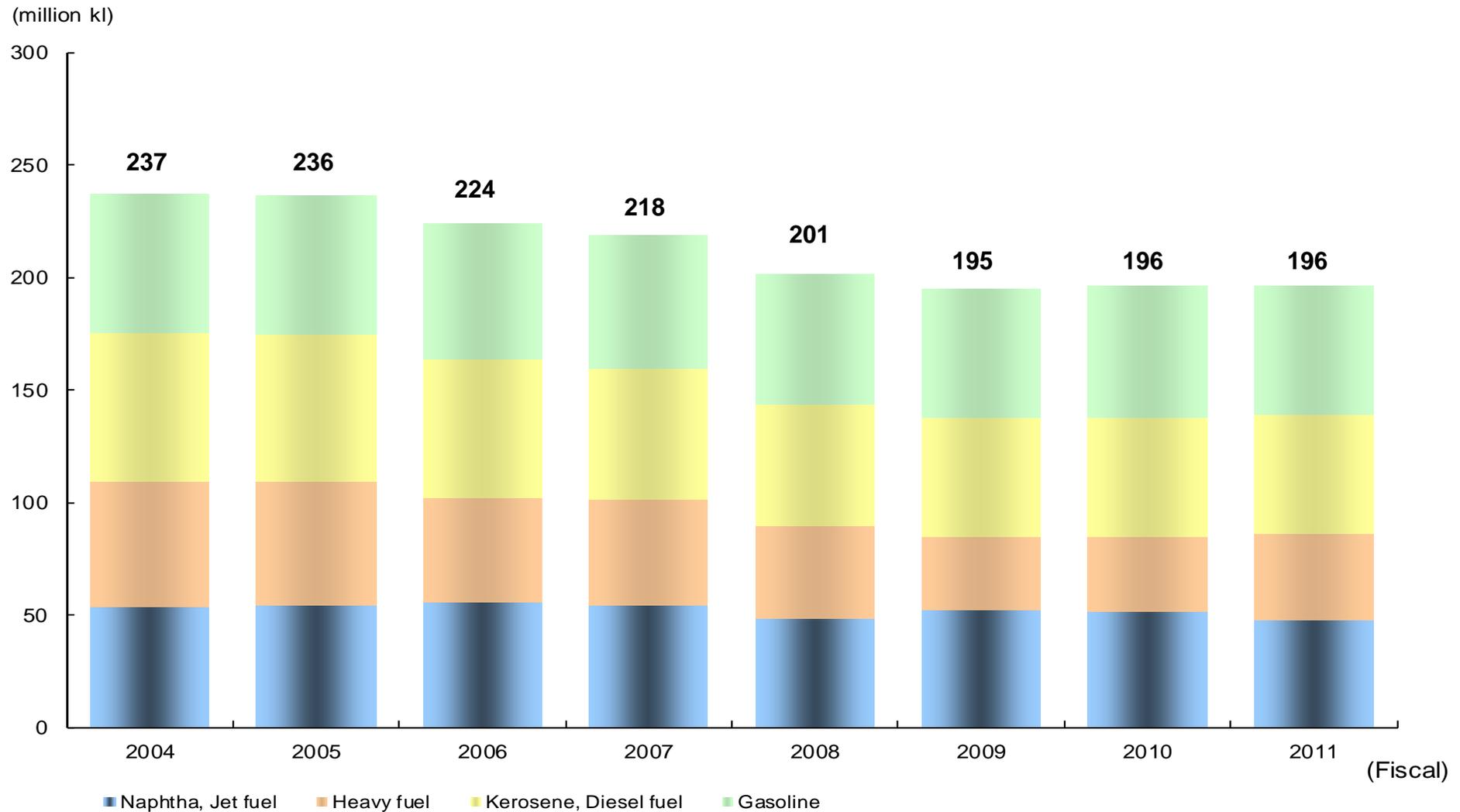
# Historical Dubai Crude Oil Price

(\$/bbl)

| Average Price   | FY04 | FY05 | FY06 | FY07 | FY08 | FY09 | FY10 | FY11 | FY12 |     |     |
|-----------------|------|------|------|------|------|------|------|------|------|-----|-----|
|                 |      |      |      |      |      |      |      |      | 1Q   | 2Q  | 3Q  |
| Dubai Crude Oil | 37   | 54   | 61   | 77   | 82   | 70   | 84   | 110  | 106  | 106 | 107 |



# Demand for Petroleum Products ( Japan )



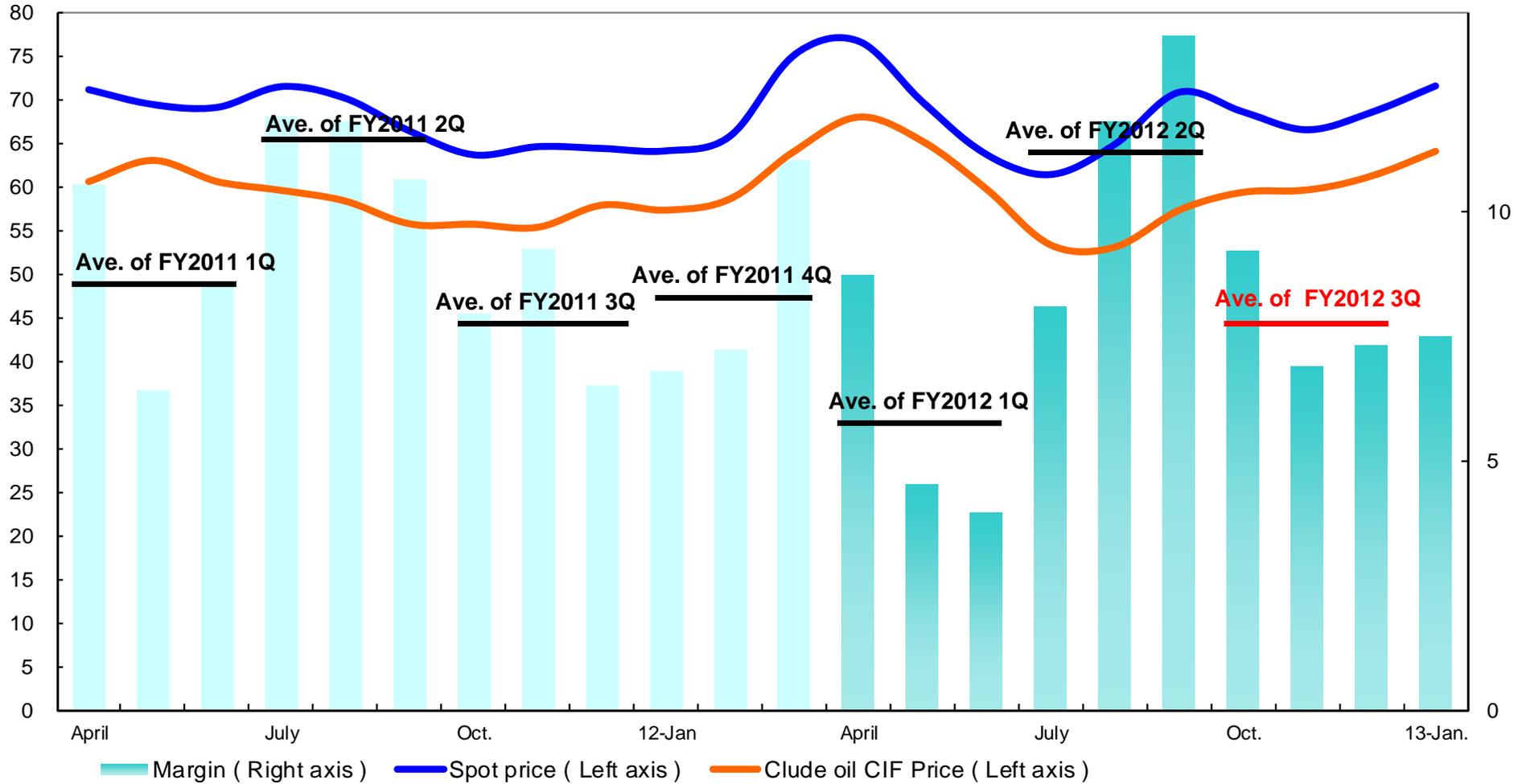
**Note: Excluding Crude Oil for electric power plants.**

**Source: Petroleum Association of Japan and Company data**



# Domestic Market Margin\* (Gasoline)

(Yen/L)

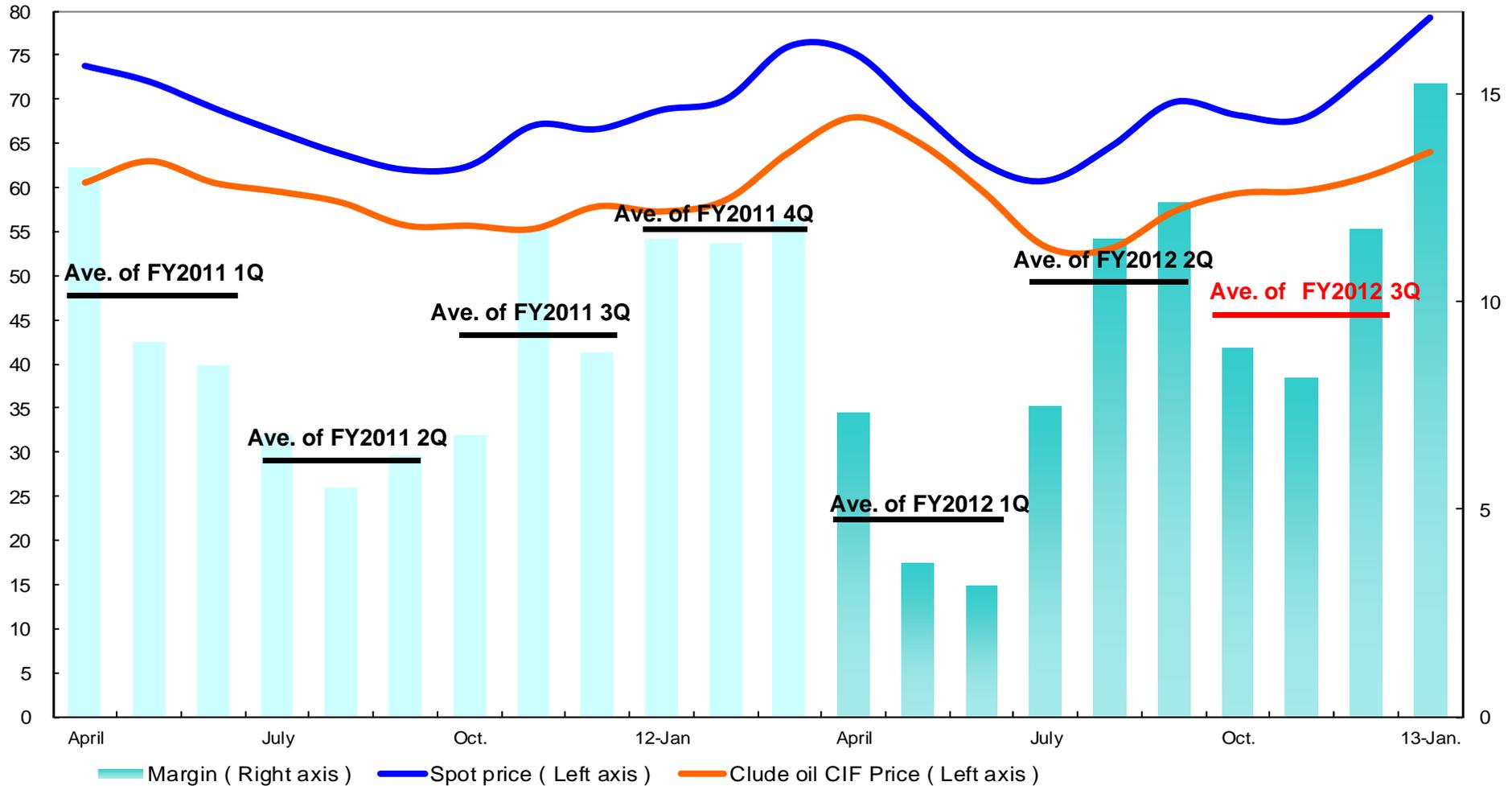


\* Margin = Spot Price – All Japan Crude Oil CIF (including petroleum tax and interest)  
 Source : Trade statistics (Ministry of Finance, Japan)



# Domestic Market Margin\* (Kerosene)

(Yen/L)



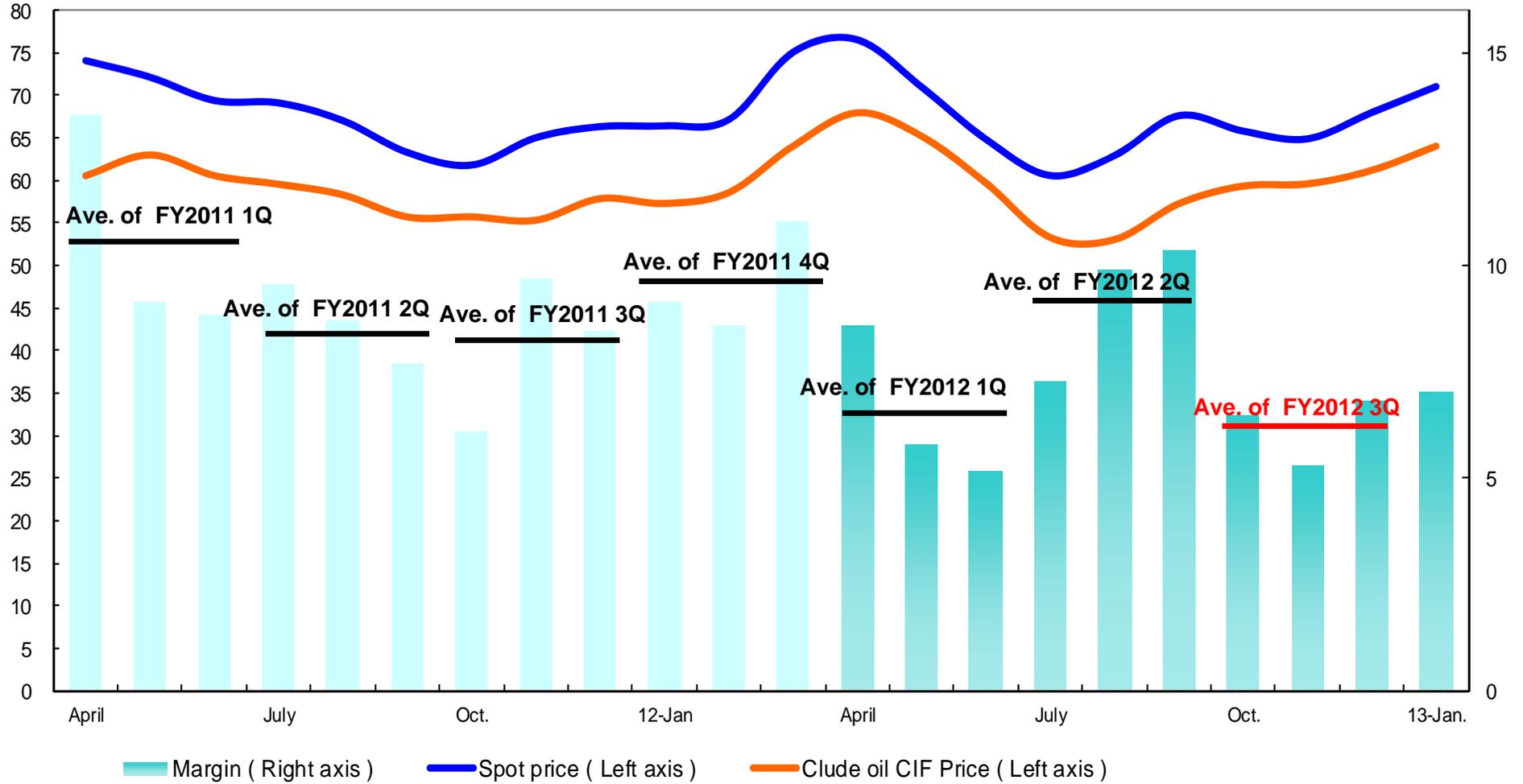
\* Margin = Spot Price – All Japan Crude Oil CIF (including petroleum tax and interest)

Source : Trade statistics (Ministry of Finance, Japan)



# Domestic Market Margin\* (Diesel Fuel)

(Yen/L)



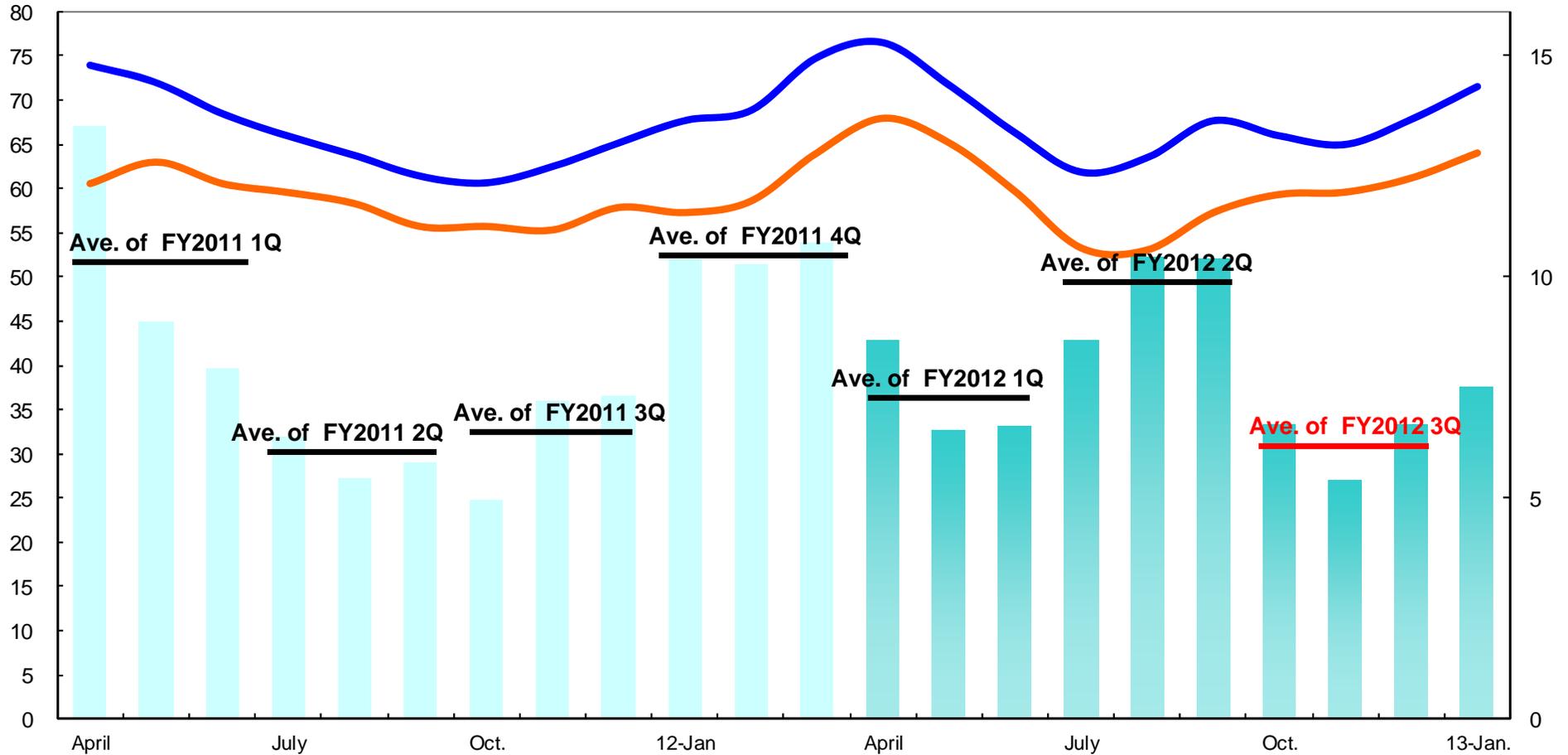
\* Margin = Spot Price – All Japan Crude Oil CIF (including petroleum tax and interest)

Source : Trade statistics (Ministry of Finance, Japan)



# Domestic Market Margin\* (Fuel Oil A)

(Yen/L)



Margin ( Right axis )   Spot price ( Left axis )   Clude oil CIF Price ( Left axis )

\* Margin = Spot Price – All Japan Crude Oil CIF (including petroleum tax and interest)

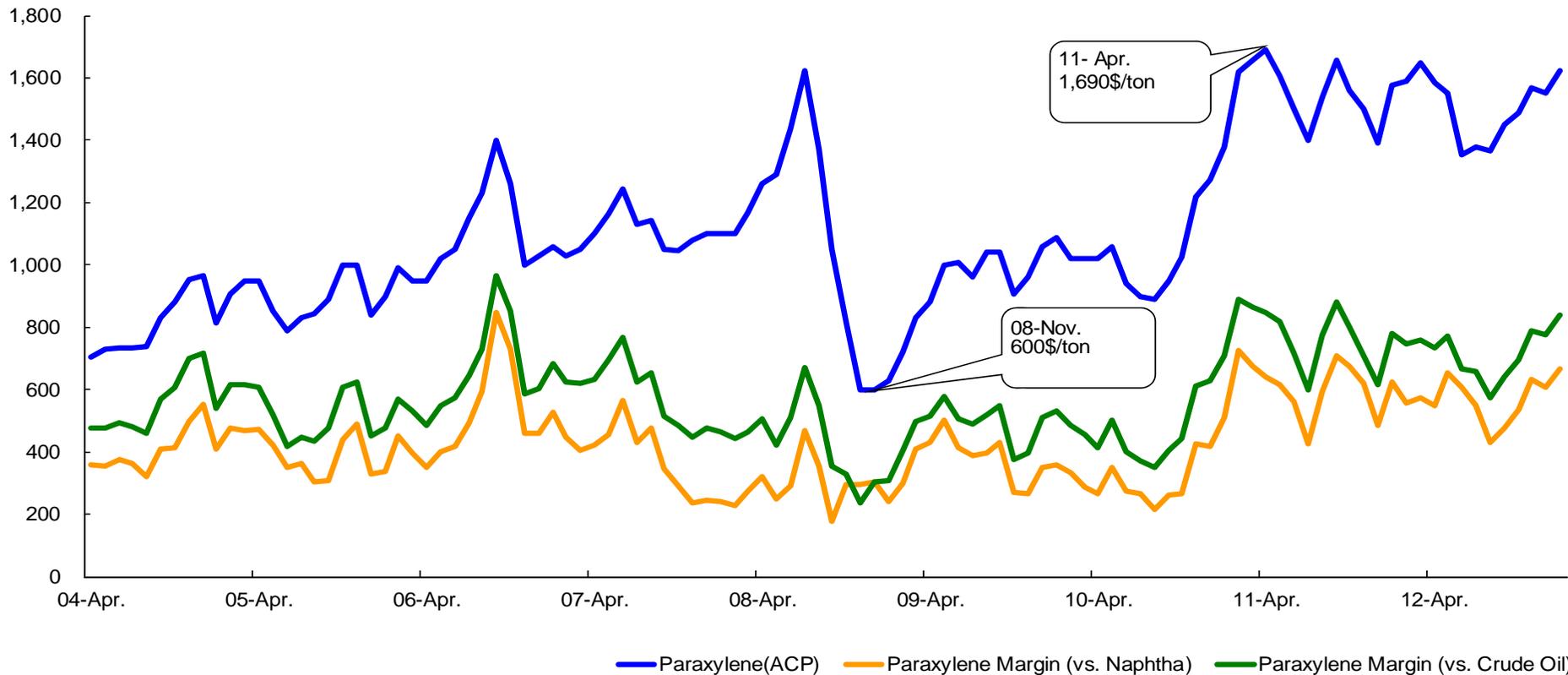
Source : Trade statistics (Ministry of Finance, Japan)



# Paraxylene Price and Margin ( vs. Crude Oil, vs. Naphtha)

| Average Price          | FY04 | FY05 | FY06  | FY07  | FY08  | FY09 | FY10  | FY11  | FY12  |       |       |
|------------------------|------|------|-------|-------|-------|------|-------|-------|-------|-------|-------|
|                        |      |      |       |       |       |      |       |       | 1Q    | 2Q    | 3Q    |
| Asian Contract Price   | 829  | 903  | 1,103 | 1,119 | 1,020 | 999  | 1,162 | 1,555 | 1,497 | 1,398 | 1,536 |
| Margin (vs. Crude Oil) | 563  | 514  | 660   | 556   | 425   | 493  | 550   | 754   | 723   | 625   | 754   |
| Margin (vs. Naphtha)   | 416  | 389  | 511   | 351   | 309   | 369  | 388   | 585   | 604   | 486   | 592   |

(\$/ton)



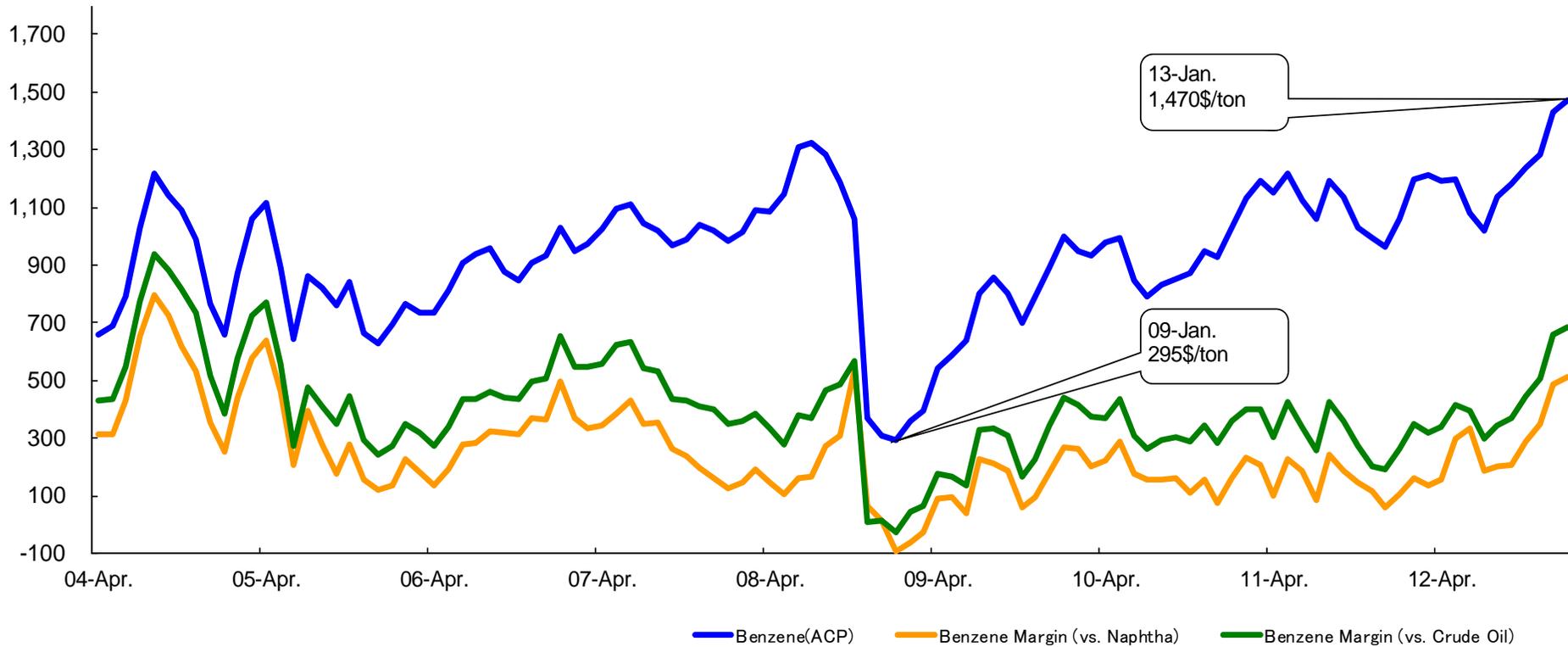
Note: In case of ACP undecided, average price of spot market is adopted.



# Benzene Price and Margin ( vs. Crude Oil, vs. Naphtha)

| Average Price          | FY04 | FY05 | FY06 | FY07  | FY08 | FY09 | FY10 | FY11  | FY12  |       |       |
|------------------------|------|------|------|-------|------|------|------|-------|-------|-------|-------|
|                        |      |      |      |       |      |      |      |       | 1Q    | 2Q    | 3Q    |
| Asian Contract Price   | 914  | 786  | 907  | 1,034 | 844  | 791  | 948  | 1,111 | 1,155 | 1,112 | 1,318 |
| Margin (vs. Crude Oil) | 648  | 397  | 464  | 471   | 249  | 285  | 336  | 310   | 382   | 338   | 537   |
| Margin (vs. Naphtha)   | 501  | 271  | 315  | 265   | 133  | 161  | 174  | 146   | 262   | 200   | 374   |

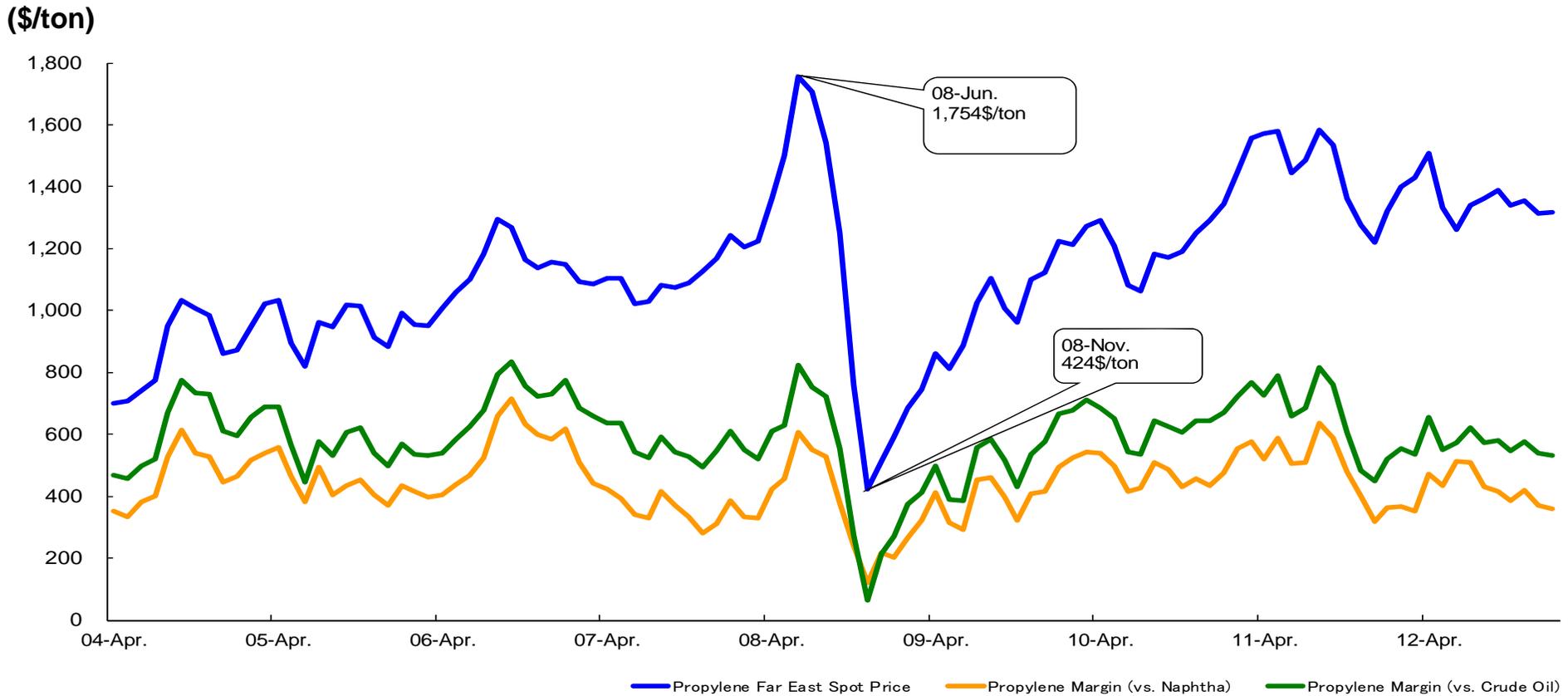
(\$/ton)





# Propylene Price and Margin ( vs. Crude Oil, vs. Naphtha)

| Average Price          | FY04 | FY05 | FY06  | FY07  | FY08  | FY09  | FY10  | FY11  | FY12  |       |       |
|------------------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                        |      |      |       |       |       |       |       |       | 1Q    | 2Q    | 3Q    |
| Far East Spot Price    | 883  | 948  | 1,138 | 1,123 | 1,070 | 1,050 | 1,258 | 1,433 | 1,367 | 1,364 | 1,336 |
| Margin (vs. Crude Oil) | 617  | 559  | 695   | 563   | 475   | 544   | 646   | 633   | 594   | 590   | 554   |
| Margin (vs. Naphtha)   | 470  | 434  | 550   | 354   | 359   | 420   | 484   | 469   | 474   | 452   | 392   |





## Sales Volume of FY 2011 3Q, FY2012 3Q

|  | FY2011 3Q    | FY2012 3Q    | Changes vs. FY 2011 |
|--|--------------|--------------|---------------------|
|  | million KL   | million KL   |                     |
| <b>Gasoline</b>                                  | <b>14.59</b> | <b>14.55</b> | <b>-0.3%</b>        |
| Premium  | 1.95         | 1.85         | -5.2%               |
| Regular  | 12.56        | 12.62        | 0.5%                |
| <b>Naphtha</b>                                   | <b>2.53</b>  | <b>2.84</b>  | <b>12.2%</b>        |
| <b>JET</b>                                       | <b>1.02</b>  | <b>1.15</b>  | <b>13.0%</b>        |
| <b>Kerosene</b>                                  | <b>4.03</b>  | <b>4.08</b>  | <b>1.2%</b>         |
| <b>Diesel Fuel</b>                               | <b>9.14</b>  | <b>9.49</b>  | <b>3.8%</b>         |
| <b>Fuel Oil A</b>                                | <b>4.42</b>  | <b>4.29</b>  | <b>-2.9%</b>        |
| <b>Heavy Fuel Oil C</b>                          | <b>6.07</b>  | <b>7.65</b>  | <b>25.9%</b>        |
| For Electric Power                               | 3.95         | 5.66         | 43.3%               |
| For General Use                                  | 2.13         | 1.98         | -7.0%               |
| <b>Total Domestic Fuel</b>                       | <b>41.81</b> | <b>44.04</b> | <b>5.3%</b>         |
| <b>Crude Oil</b>                                 | <b>2.86</b>  | <b>3.78</b>  | <b>32.2%</b>        |
| <b>Lubricants &amp; Specialities</b>             | <b>2.44</b>  | <b>2.38</b>  | <b>-2.2%</b>        |
| <b>Petrochemicals (million ton)</b>              | <b>4.01</b>  | <b>4.10</b>  | <b>2.2%</b>         |
| <b>Exported Fuel</b>                             | <b>6.66</b>  | <b>7.51</b>  | <b>12.8%</b>        |
| <b>LPG (million ton)</b>                         | <b>0.21</b>  | <b>0.21</b>  | <b>1.4%</b>         |
| <b>Coal (million ton)</b>                        | <b>4.18</b>  | <b>4.61</b>  | <b>10.5%</b>        |
| <b>Total Excluding Barter Trade &amp; Others</b> | <b>62.17</b> | <b>66.65</b> | <b>7.2%</b>         |
| <b>Barter Trade &amp; Others</b>                 | <b>15.80</b> | <b>14.26</b> | <b>-9.8%</b>        |
| <b>Total</b>                                     | <b>77.97</b> | <b>80.91</b> | <b>3.8%</b>         |



# Number of Service Stations (Fixed-Type)

(As of the end of fiscal years / period)

|                                     | FY05                     | FY06                     | FY07                     | FY08                     | FY09                     | FY10                     | FY11                     | FY12 3Q                  |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <b>JX Group</b>                     | <b>14,640</b>            | <b>14,076</b>            | <b>13,474</b>            | <b>13,318</b>            | <b>12,687</b>            | <b>12,149</b>            | <b>11,730</b>            | <b>11,516</b>            |
| <b>EMG *1</b>                       | <b>5,837</b>             | <b>5,426</b>             | <b>4,911</b>             | <b>4,489</b>             | <b>4,199</b>             | <b>3,979</b>             | <b>3,773</b>             | <b>3,556</b>             |
| <b>Idemitsu Kosan</b>               | <b>5,249</b>             | <b>5,059</b>             | <b>4,808</b>             | <b>4,598</b>             | <b>4,338</b>             | <b>4,148</b>             | <b>3,997</b>             | <b>3,910</b>             |
| <b>Showa Shell Sekiyu</b>           | <b>4,689</b>             | <b>4,560</b>             | <b>4,417</b>             | <b>4,256</b>             | <b>4,102</b>             | <b>3,922</b>             | <b>3,760</b>             | <b>3,633</b>             |
| <b>Cosmo Oil</b>                    | <b>4,552</b>             | <b>4,359</b>             | <b>4,188</b>             | <b>3,913</b>             | <b>3,768</b>             | <b>3,609</b>             | <b>3,498</b>             | <b>3,357</b>             |
| <b>Others *2</b>                    | <b>2,066</b>             | <b>2,006</b>             | <b>1,935</b>             | <b>1,257</b>             | <b>1,245</b>             | <b>1,194</b>             | <b>1,160</b>             | <b>1,156</b>             |
| <b>Oil Companies</b>                | <b>37,033</b><br>(79.8%) | <b>35,486</b><br>(79.4%) | <b>33,733</b><br>(78.4%) | <b>31,831</b><br>(77.4%) | <b>30,339</b><br>(76.8%) | <b>29,001</b><br>(76.7%) | <b>27,918</b><br>(76.7%) | <b>27,128</b><br>(76.6%) |
| <b>Private Brands and Others *3</b> | <b>9,367</b><br>(20.2%)  | <b>9,214</b><br>(20.6%)  | <b>9,267</b><br>(21.6%)  | <b>9,269</b><br>(22.6%)  | <b>9,161</b><br>(23.2%)  | <b>8,799</b><br>(23.3%)  | <b>8,482</b><br>(23.3%)  | <b>8,272</b><br>(23.4%)  |
| <b>Total *3</b>                     | <b>46,400</b>            | <b>44,700</b>            | <b>43,000</b>            | <b>41,100</b>            | <b>39,500</b>            | <b>37,800</b>            | <b>36,400</b>            | <b>35,400</b>            |

### <Number of Company-Owned Service Stations>

|          | FY09  | FY10  | FY11  | FY12 3Q |
|----------|-------|-------|-------|---------|
| JX Group | 2,893 | 2,701 | 2,573 | 2,507   |

### <Number of Self-Service Stations>

|                    | FY09  | FY10  | FY11  | FY12 3Q |
|--------------------|-------|-------|-------|---------|
| JX Group           | 2,378 | 2,385 | 2,423 | 2,515   |
| Total for Japan *4 | 6,906 | 6,935 | 7,001 | 7,130   |

Notes: \*1. Figures are total of Esso, Mobil and Tonen General Sekiyu.

\*2. Figures are total of Kyushu Oil, Taiyo Petroleum, Mitsui Oil & Gas and Kygnus Sekiyu (until FY2007). After FY2008, Figures are total of Taiyo, Mitsui and Kygnus.

\*3. Estimated by JX Holdings.

\*4. Figures include only self-service retail outlets that are affiliated to oil companies.

# JX Group's Market Share and Demand in Japan

## Historical CDU<sup>\*1</sup> Utilization Rate



### Domestic Market Share

|                                   | FY11 3Q (%) | FY12 3Q (%) |
|-----------------------------------|-------------|-------------|
| a) Gasoline                       | 33.7        | 33.7        |
| b) Kerosene                       | 40.9        | 40.3        |
| c) Diesel Fuel                    | 37.2        | 37.7        |
| d) Fuel Oil A                     | 44.3        | 44.7        |
| a+b+c+d                           | 36.7        | 36.8        |
| Total Domestic Fuel <sup>*2</sup> | 35.3        | 36.2        |

### Domestic Demand

|                                   | FY11 3Q (1,000 KL) | FY12 3Q (1,000 KL) | Changes vs. FY11 (%) |
|-----------------------------------|--------------------|--------------------|----------------------|
| a) Gasoline                       | 43,309             | 43,194             | 99.7                 |
| b) Kerosene                       | 10,630             | 10,922             | 102.7                |
| c) Diesel Fuel                    | 24,625             | 25,155             | 102.2                |
| d) Fuel Oil A                     | 9,975              | 9,583              | 96.1                 |
| a+b+c+d                           | 88,539             | 88,855             | 100.4                |
| Total Domestic Fuel <sup>*2</sup> | 140,660            | 144,440            | 102.7                |

### CDU<sup>\*1</sup> Utilization Rate (Excluding the impact of periodic repair and earthquake)

|                               | FY04          | FY05          | FY06          | FY07          | FY08          | FY09          | FY10          | FY11          | FY12 3Q        |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
|                               | ('04/4-'05/3) | ('05/4-'06/3) | ('06/4-'07/3) | ('07/4-'08/3) | ('08/4-'09/3) | ('09/4-'10/3) | ('10/4-'11/3) | ('11/4-'12/3) | ('12/4-'12/12) |
| <b>JX Group <sup>*3</sup></b> | <b>94%</b>    | <b>93%</b>    | <b>91%</b>    | <b>89%</b>    | <b>85%</b>    | <b>78%</b>    | <b>86%</b>    | <b>88%</b>    | <b>87%</b>     |

\* 1. Crude Distillation Unit

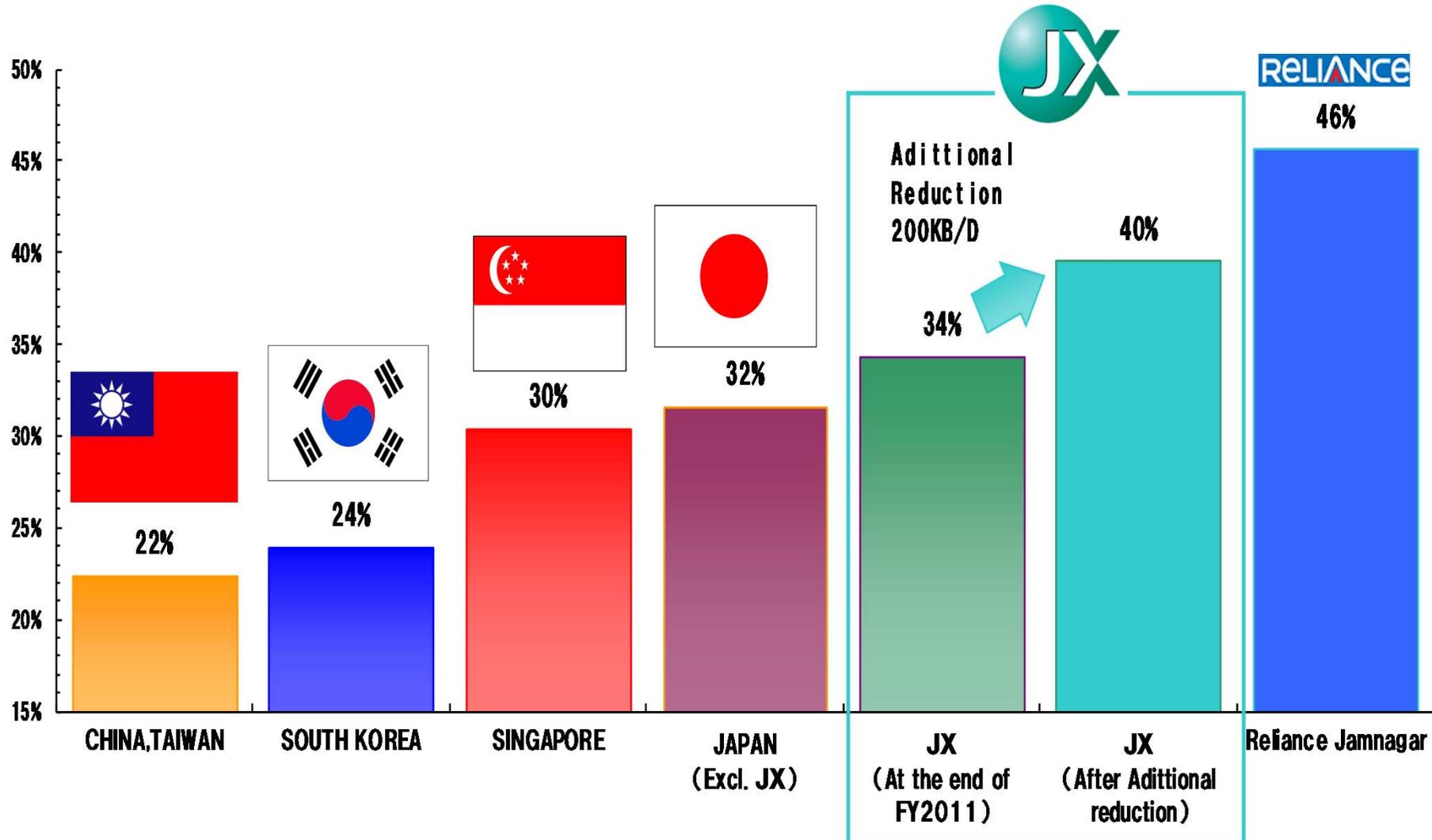
\* 2. Excluding Crude Oil for electric power plants.

\* 3. Excluding Condensate splitters of Mizushima and Kashima.

Source: Petroleum Association of Japan and Company data



# Equipment Ratio of Secondary Unit\* Against CDU



\* Catalytic cracking unit, Catalytic hydrocracking unit, Thermal operation unit, Solvent De-asphalting unit, Independent power producer unit  
 Source: Oil & Gas journal, Petroleum Association of Japan and Company data

# Enhance Overseas Business (Paraxylene)

## Main use of PX



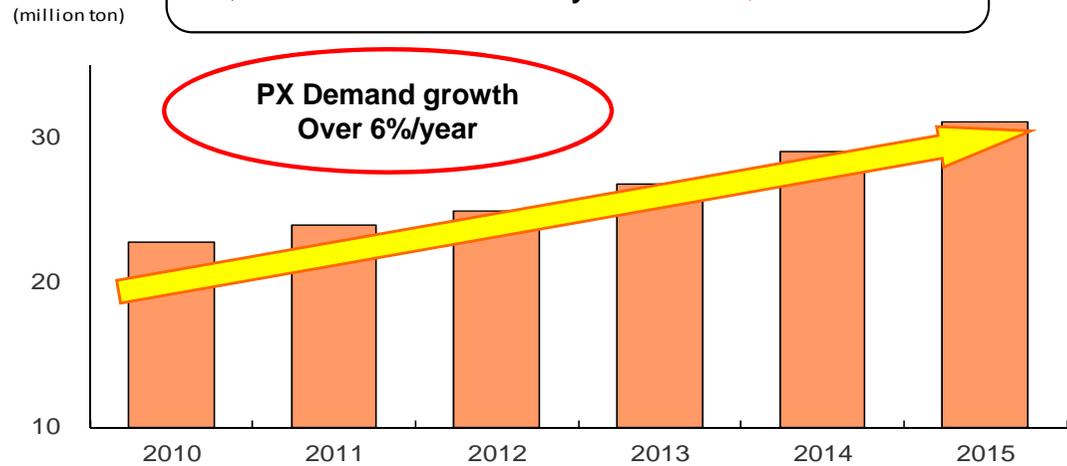
Polyester fiber



PET bottles

## Forecast of PX Demand in Asia

Group current supply capacity of PX  
2,620 thousand ton /year = **No.1 in Asia**



## Outline of PX joint venture project with SK Group of South Korea

Location : Ulsan, Korea

Capacity : 1,000 thousand ton / year One of the world's largest capacity

Production Start : 2014 (scheduled)

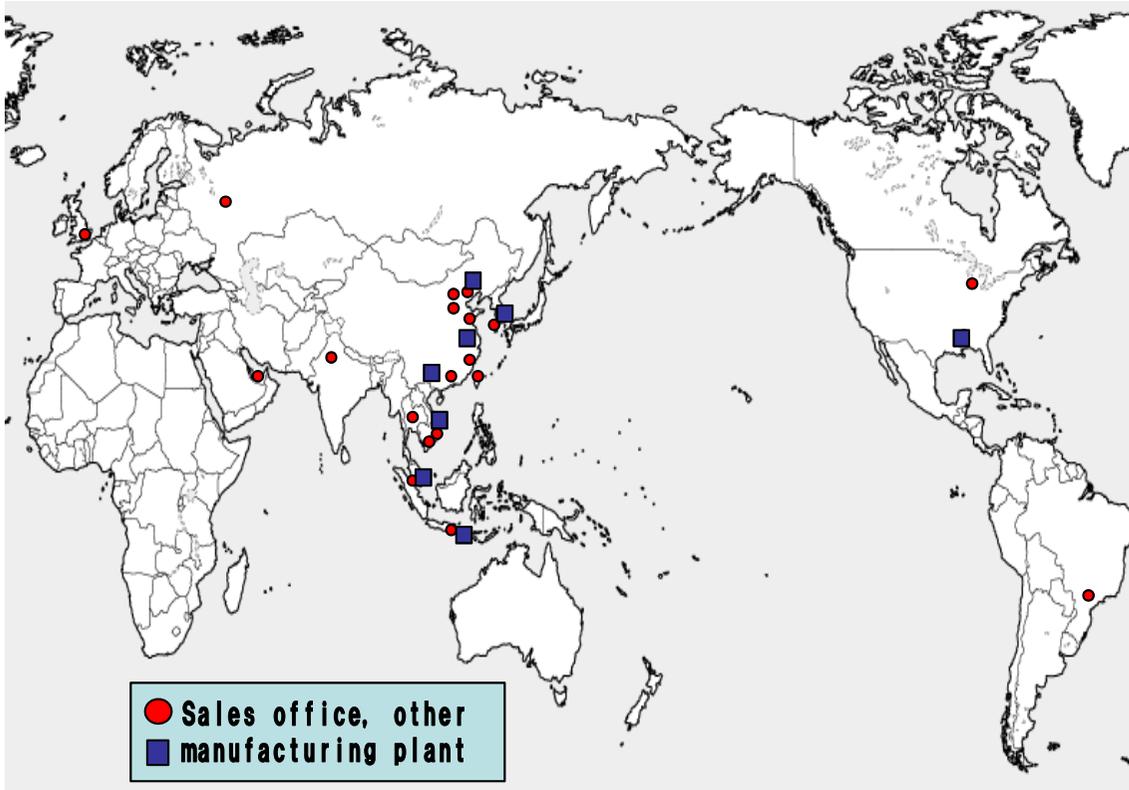
Investment : approx. 80 billion JPY

Ownership :  
 JX Nippon Oil & Energy 50% -1 share  
 SK Group 50% +1 share



# Enhance Overseas Business (Lubricants)

## ✓ Location of lubricants overseas business (as of Dec. 2012)



➤ Mainly Asia, Total 13 countries, 23 offices/plants

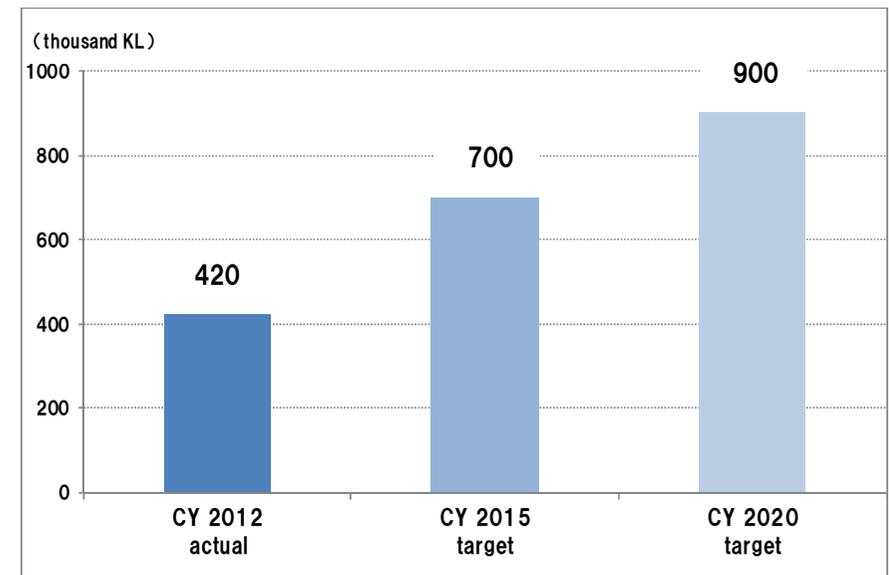
|                            |    |
|----------------------------|----|
| Sales office, other        | 15 |
| Manufacturing plant        | 3  |
| Sales / manufacturing base | 5  |



## ✓ Overseas expansion of lubricants business

- Established lubricants marketing company in Dubai (Jul. 2011)
- Lubricants manufacturing plant start its operation in Indonesia (Apr. 2012)
- Determine the establishment of lubricants manufacturing and marketing company in Vietnam (scheduled to start production in 2014)
- Started joint venture business for lubricants base oil with SK Group of South Korea (Oct. 2012)

## ✓ Middle term Target of overseas lubricants sales

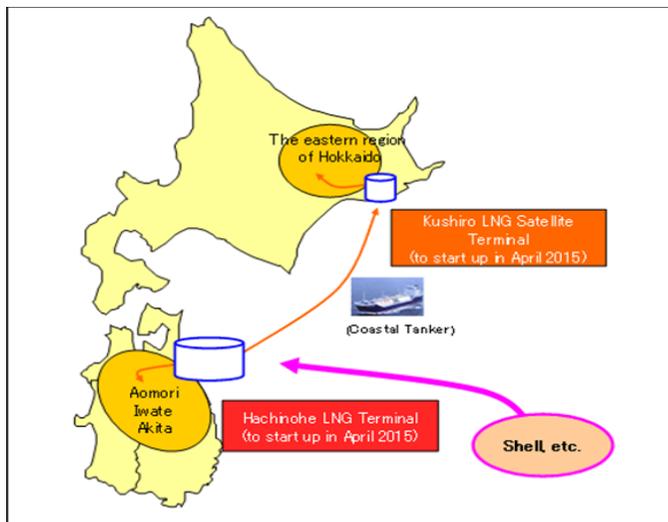


# Proceed with LNG Business in Japan (Hachinohe LNG Terminal)

## ✓ Hachinohe LNG Terminal Project

➤ Promoting construction of Hachinohe LNG Import terminal and Kushiro LNG Satellite terminal.

- Taking in the demand of city gas and industrial use in the region of northern Tohoku and eastern Hokkaido.
- Supplying natural gas to General Electric Utility.  
(For Hachinohe thermal power plant of the Tohoku Electric Power Co., Inc.)



## 【LNG supply system of JX】

### Hachinohe and Kushiro LNG terminal

|                             |                                |
|-----------------------------|--------------------------------|
| 【2013】                      | Hachinohe (Satellite terminal) |
| Operateion start            | Mar. 2007                      |
| Tank capacity (thousand KL) | 4.5 x1 tank                    |

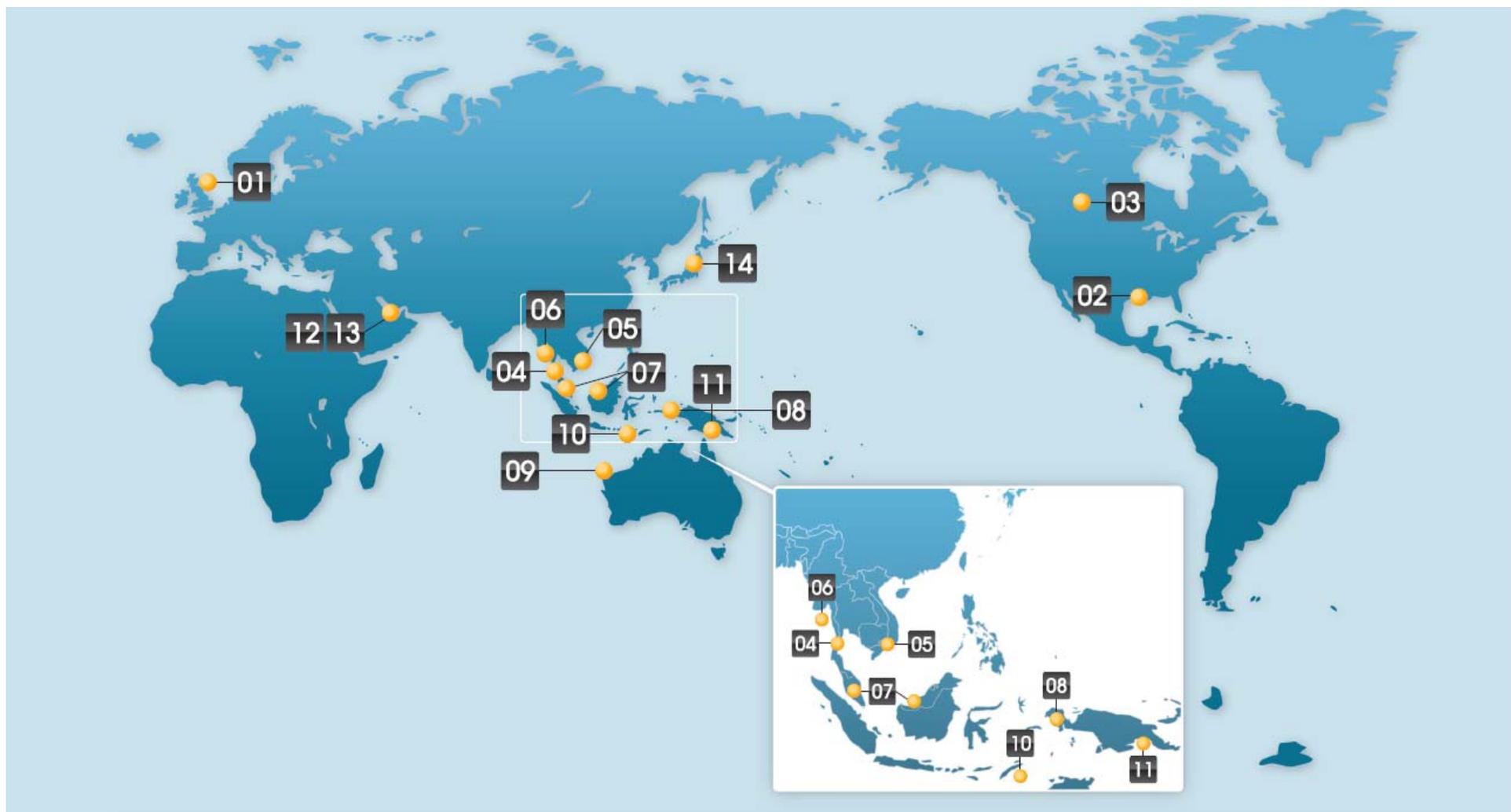


|                             |                             |                              |
|-----------------------------|-----------------------------|------------------------------|
| 【2015~】                     | Hachinohe (Import terminal) | Kushiro (Satellite terminal) |
| Operateion start            | Apr. 2015 (scheduled)       |                              |
| Tank capacity (thousand KL) | 140x2 tanks                 | 10x1 tank                    |

### Mizushima LNG Import terminal

|                             |                                     |           |
|-----------------------------|-------------------------------------|-----------|
|                             | Tank No,1                           | Tank No,2 |
| Operation start             | Apr. 2006                           | Apr. 2011 |
| Tank capacity (thousand KL) | 160                                 | 160       |
| Ownership                   | JX Nippon Oil & Energy              | 50%       |
|                             | The Chugoku Electric Power Co.,Inc. | 50%       |

# Business Area



## Business Activities



|                     |   | ▼ Project Company  | In Production | ● Under Development | ● Under Exploration | ● |
|---------------------|---|--|---------------|---------------------|---------------------|---|
| Business Activities | 01 The North Sea  | JX Nippon Exploration and Production (U.K.) Ltd.           | ●             | ●                   | ●                   | ● |
|                     | 02 The U.S. Gulf of Mexico  | JX Nippon Oil Exploration (U.S.A.) Ltd.                    | ●             | ●                   | ●                   | ● |
|                     | 03 Canada   | Japan Canada Oil Company/Mocal Energy                      | ●             | ●                   | ●                   | ● |
|                     | 04 Thailand   | JX Nippon Oil & Gas Exploration                            | ●             | ●                   | ●                   | ● |
|                     | 05 Vietnam  | Japan Vietnam Petroleum Company                            | ●             | ●                   | ●                   | ● |
|                     |   | Nippon Oil Exploration (Cuu Long)                          | ●             | ●                   | ●                   | ● |
|                     | 06 Myanmar  | Nippon Oil Exploration (Myanmar) , Ltd.                    | ●             | ●                   | ●                   | ● |
|                     |   | JX Nippon Oil & Gas Exploration (Myanmar) Ltd.             | ●             | ●                   | ●                   | ● |
|                     | 07 Malaysia   | JX Nippon Oil & Gas Exploration (Malaysia) Ltd.            | ●             | ●                   | ●                   | ● |
|                     |   | JX Nippon Oil & Gas Exploration (Sarawak) Ltd.             | ●             | ●                   | ●                   | ● |
|                     |   | JX Nippon Oil & Gas Exploration (Peninsular Malaysia) Ltd. | ●             | ●                   | ●                   | ● |
|                     |   | JX Nippon Oil & Gas Exploration (Onshore Sarawak) Ltd.     | ●             | ●                   | ●                   | ● |
|                     |   | JX Nippon Oil & Gas Exploration (Deepwater Sabah) Ltd.     | ●             | ●                   | ●                   | ● |
|                     | 08 Indonesia  | Nippon Oil Exploration (Berau) , Ltd.                      | ●             | ●                   | ●                   | ● |
| 09 Australia        | JX Nippon Oil & Gas Exploration (Australia) Pty Ltd.              | ●  | ●             | ●                   | ●                   |   |
| 10 East Timor       | JAPAN ENERGY E&P JPDA PTY LTD                                     | ●  | ●             | ●                   | ●                   |   |
| 11 Papua New Guinea | Japan Papua New Guinea Petroleum Company/Merlin Petroleum Company | ●  | ●             | ●                   | ●                   |   |
|                     | Nippon Oil Exploration (Niugini) Pty Ltd.                         | ●  | ●             | ●                   | ●                   |   |
| 12 13 UAE/Qatar     | Abu Dhabi Oil   | ●  | ●             | ●                   | ●                   |   |
|                     | United Petroleum Development                                      | ●  | ●             | ●                   | ●                   |   |
|                     | JX Nippon Oil & Gas Exploration (Qatar) Ltd.                      | ●  | ●             | ●                   | ●                   |   |
| 14 Japan            | JX Nippon Oil & Gas Exploration                                   | ●  | ●             | ●                   | ●                   |   |

# JX Group's Reserve Standards



JX Group's criteria for evaluating reserves conforms to the PRMS (Petroleum Resources management System) Standards, drafted by the SPE (Society of Petroleum Engineers), WPC (World Petroleum Congress), AAPG (American Association of Petroleum Geologists), and SPEE (Society of Petroleum Evaluation Engineers).

JX Group's reported reserves are in line with reserves as defined by the PRMS Standards. The degree of certainty of the reserve values is categorized, in order, as either Proved, Probable, or Possible. Following trends common at other industry firms, JX Group's has used Proven and Probable reserves to arrive at its total reserves.

## Definition of Proved Reserves:

Reserves judged to have a high level of certainty from analysis of geoscience and production/petroleum engineering data, based on economic conditions, operational methods and laws and regulations assumed by JX Group in light of discovered reservoirs—there is at least a 90% probability that actual recovered volume will equal or exceed estimates of oil and natural gas deposits reasonably evaluated as commercially recoverable.

## Definition of Probable Reserves:

There is at least a 50% probability that additional oil and natural gas reserves will equal or exceed actual recovered volume of the total of estimated proved and probable reserves. While these additional reserves are evaluated in the same manner as proved reserves, the probability of recoverability of probable reserves is lower than proved reserves, but higher than possible reserves.



# Outline of Oil and Natural Gas E&P Projects

|          | Project Name/Company   | Sales Volume(Jan.-Sep. 2012) (1,000BOED) *1 |     | Reserves *2<br>(million BOE) | Reserves *3<br>(million BOE) |
|----------|--|---|-----|------------------------------|------------------------------|
|          |  | Oil   | Gas |                              |                              |
| 1        | [North Sea, U.K.]<br>JX Nippon Exploration and Production (U.K). Limited   | 7   | 2   | 47                           | 20                           |
| 2        | [Gulf of Mexico(U.S.A.)]<br>JX Nippon Oil Exploration U.S.A. Limited   | 4   | 1   | 25                           | 27                           |
| 3        | [Canada]<br>Japan Canada Oil Company Limited   | 14  | 0   | 251                          | 253                          |
| 4,5      | [Vietnam and other]<br>Japan Vietnam Petroleum Company, Limited, other   | 7   | 2   |                              |                              |
| 6        | [Myanmar]<br>Nippon Oil Exploration (Myanmar) Limited  | 9   | 8   |                              |                              |
| 7        | [Malaysia]<br>JX Nippon Oil & Gas Exploration (Malaysia) Limited   | 21  | 17  |                              |                              |
|          | JX Nippon Oil & Gas Exploration (Sarawak) Limited  | 19  | 17  |                              |                              |
| 8        | [Indonesia]<br>Nippon Oil Exploration (Berau) Limited  | 20  | 19  | <Sub Total><br>259           | <Sub Total><br>319           |
| 9,10     | [Australia and other]<br>JX Nippon Oil & Gas Exploration (Australia) Pty Ltd., other                                     | 1   | 0   |                              |                              |
| 11       | [Papua New Guinea]<br>Merlin·Southern Highlands Petroleum Co., Ltd.  | 5   | 0   | <Sub Total><br>99            | <Sub Total><br>87            |
| 12,13,14 | [United Arab Emirates, Qatar and others] *4<br>Abudhabi Oil Co., Ltd., United Petroleum Development Co., Ltd. and others | 12  | 0   | 69                           | 69                           |
| Total    |  | 119   | 66  | 749                          | 775                          |

\*1 Project company basis.

\*2 Proved reserves and probable reserves as of end of Dec., 2011, including reserves from projects currently under development.

\*3 Proved reserves and probable reserves as of end of Dec., 2010, including reserves from projects currently under development.

\*4 JX Group's equity basis

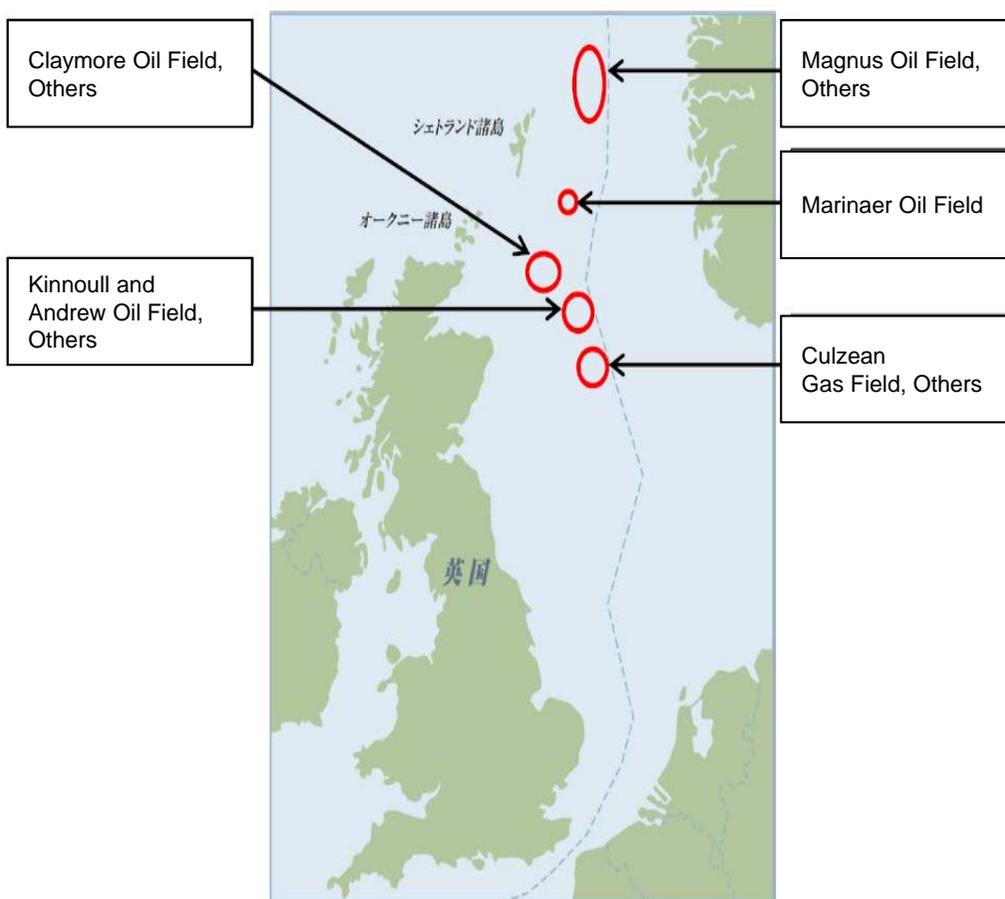




# Major Asset Acquisition in the UK Continental Shelf (Dec. 2012 press release)

- ✓ Signed sale and purchase agreements for the acquisition from the Eni group of companies ("Eni") of an extensive portfolio of non-operated oil and gas assets in the UK Continental Shelf (UKCS).

## The main features of this acquisition



| Oil or Gas Field | Kinnoull Oil Field   | Culzean Gas Filed   | Mariner Oil Field            | Claymore Oil Field            |
|------------------|--|---|------------------------------|-------------------------------|
| Blocks           | 16/23a, 16/24a   | 22/25e  | 9/11a                        | 14/19n                        |
| Partners         | BP 77.06%<br>(Operator)                                    | Maersk 49.99%<br>(Operator)                                 | Statoil 65.11%<br>(Operator) | Talisman 72.48%<br>(Operator) |
|                  | <b>JXNEPUK 22.94%</b><br>Existing 6.27%<br>Addition 16.67% | <b>JXNEPUK 34.01%</b><br>Existing 17.06%<br>Addition 16.95% | <b>JXNEPUK 28.89%</b>        | <b>JXNEPUK 20.00%</b>         |
|                  |  | BP 16.00%   | Cairn 6.00%                  | Dana 7.52%                    |

# Principal Individual E&P Project Overview ( U.K. ① )

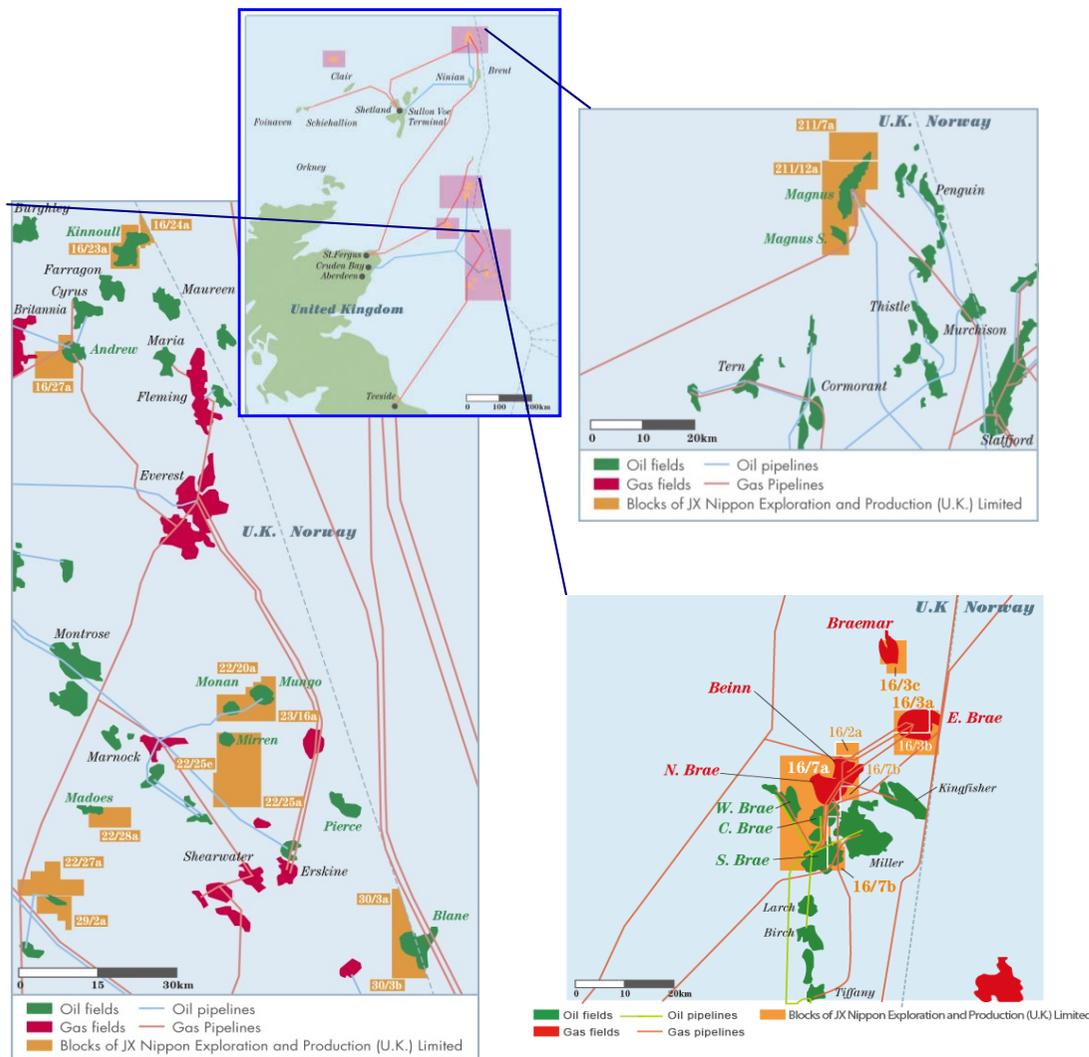


## U.K. North Sea ①

Production

Development

Exploration



|                                   |  |
|-----------------------------------|--|
|                                   | Magnus, Brae, Andrew, Blane and other fields     |
| Company Holding the Acreages      | JX Nippon Exploration and Production (U.K.) Ltd. |
| Shareholders(Holding Percentages) | JX Nippon Oil & Gas Exploration ( 100% )         |
| Project Status                    | Exploration / Development / Production           |
| Interest                          | 2.1%~85.0%                                       |
| Partners                          | BP, Shell, Marathon, Others                      |
| Sales Volume(Jan.-Sep. 2012)      | 6,500boed (oil 5,100b/d, gas 8.5mmcf/d)          |

UK (North Sea) is one of core countries with many opportunities to acquire exploration, development and production assets and the infrastructure related to them. We have over 10 fields currently producing oil and gas as well as several projects underway where development is envisaged to commence within the next few years. We are striving to acquire new acreages through open bid rounds as well as pursuing farm in and other opportunities.

**Production** Mining Area during the production  
Andrew, Mungo / Monan, Mirren / Madoes, Blane  
Magnus Oil Fields , Brae Gas Field etc

● From 1994 to 2002, acquired a working interest in individual blocks.

**Development** Mining Area during Development : Kinnoull Oil Field

● In August 2012, Acquired interest in Kinnoull Field which is under development, by exchanging interest in Pierce Field.

**Exploration** Mining Area during Exploration  
22/25a (Culzean Prospect) etc

● In March 2011, confirmed the presence of a significant hydrocarbon accumulation.

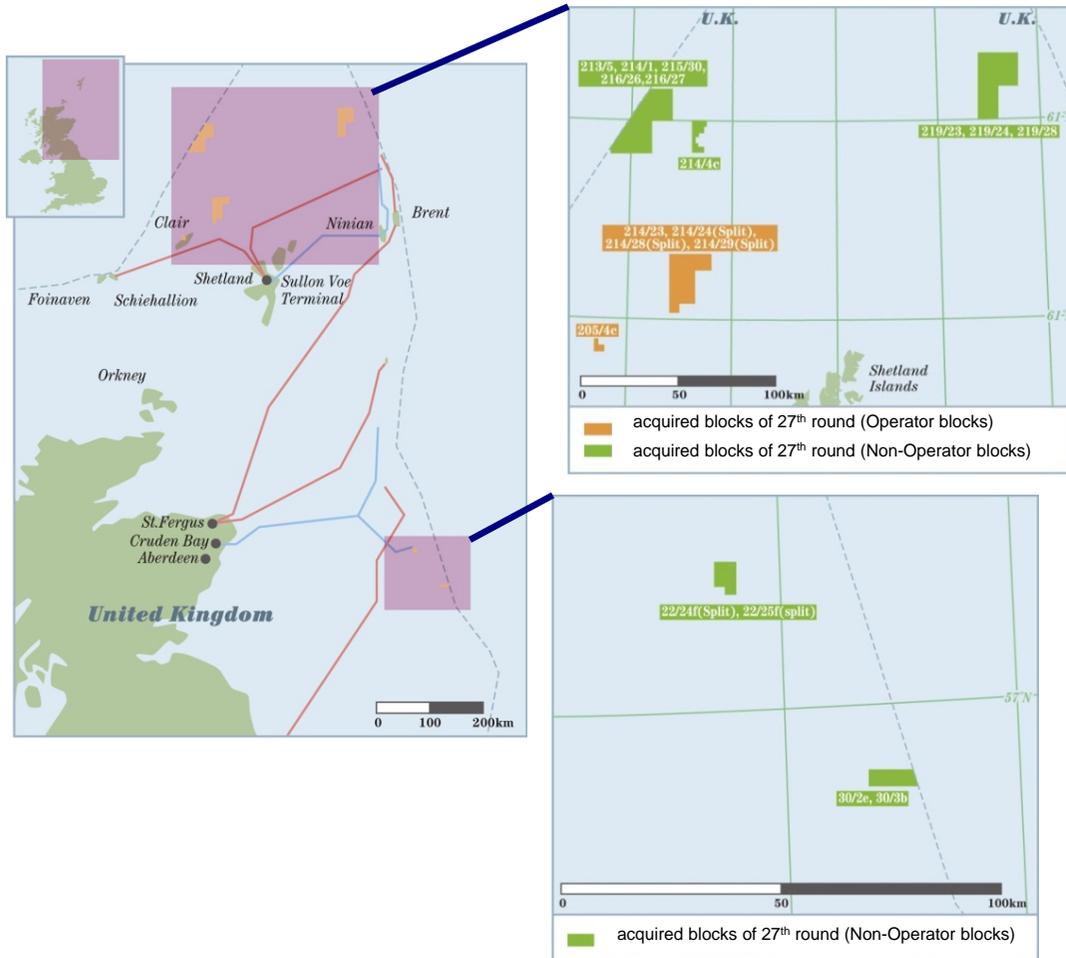
# Principal Individual E&P Project Overview (U.K. ②)



## U.K. North Sea ②

Exploration

New blocks are acquired in 2012 by 27<sup>th</sup> round of governmental open tender.



### Project Company

**JX Nippon Exploration and Production (U.K.) Ltd (100%)**

(%) = JX Group Shareholding

### Operator blocks

**West of Shetlands Area**

**205/4c**

**214/23, 214/24, 214/28, 214/29**

### Non-Operator blocks

**North Sea Northern Area**

**219/23, 219/24, 219/28**

**North Sea Central Area**

**22/24f, 22/25f**

**30/2e, 30/3b**

**West of Shetlands Area**

**213/5, 214/1, 214/4c, 215/30, 216/26, 216/27**

### Operators

**GDF Suez, OMV, Maersk**

# Principal Individual E&P Project Overview (Gulf of Mexico ①)



Gulf of Mexico

Production

Exploration



|                                   | Orchard North, K2 and other fields          | Davy Jones  |
|-----------------------------------|---|---|
| Company Holding the Acreages      | JX Nippon Oil Exploration (U.S.A.) Ltd.     | JX Nippon Oil Exploration (Gulf) Ltd.   |
| Shareholders(Holding Percentages) | JX Nippon Oil & Gas Exploration (100%)      | JX Nippon Oil Exploration (U.S.A.) Ltd.   |
| Project Status                    | Production                                  | Exploration   |
| Interest                          | 11.6%~62.5%                                 | 12.00%  |
| Partners                          | Anadarko<br>Apache<br>McMoRan<br>Others     | McMoRan Oil & Gas LLC(63.36% )<br>Energy XXI GOM, LLC(15.84%)<br>Moncrief Offshore LLC(8.80%) |
| Operator                          | Anadarko, Hilcorp Energy, Others            | McMoRan   |
| Sales Volume(Jan.-Sep. 2012)      | 3,800boed<br>(oil 2,500 b/d, gas 7.8mmcf/d) | -   |

## Principal Individual E&amp;P Project Overview (Gulf of Mexico ②)



## Orchard North, K2 and other fields

Production

Mining Area during the productionK2, Orchard North, MP140, ST179, WC265/266

We hold assets in the Gulf of Mexico in the United States, which range from the continental shelf (less than 200meters in depth) to deep water area (more than 200 meter in depth).

- In 1990, began exploration, development, and production operations at an onshore field in Texas and offshore blocks in both deep as well as shallow waters in the Gulf of Mexico.
- In addition to continuing such existing operations as those in the Orchard North Gas Field, Aconcagua Gas Field, and Virgo Gas Field, purchased interests in certain producing assets in the Gulf of Mexico from Devon in 2005 and from Anadarko in 2007.
- In September 2010, sold some assets of shallow water and deep water areas.

## Davy Jones

Exploration

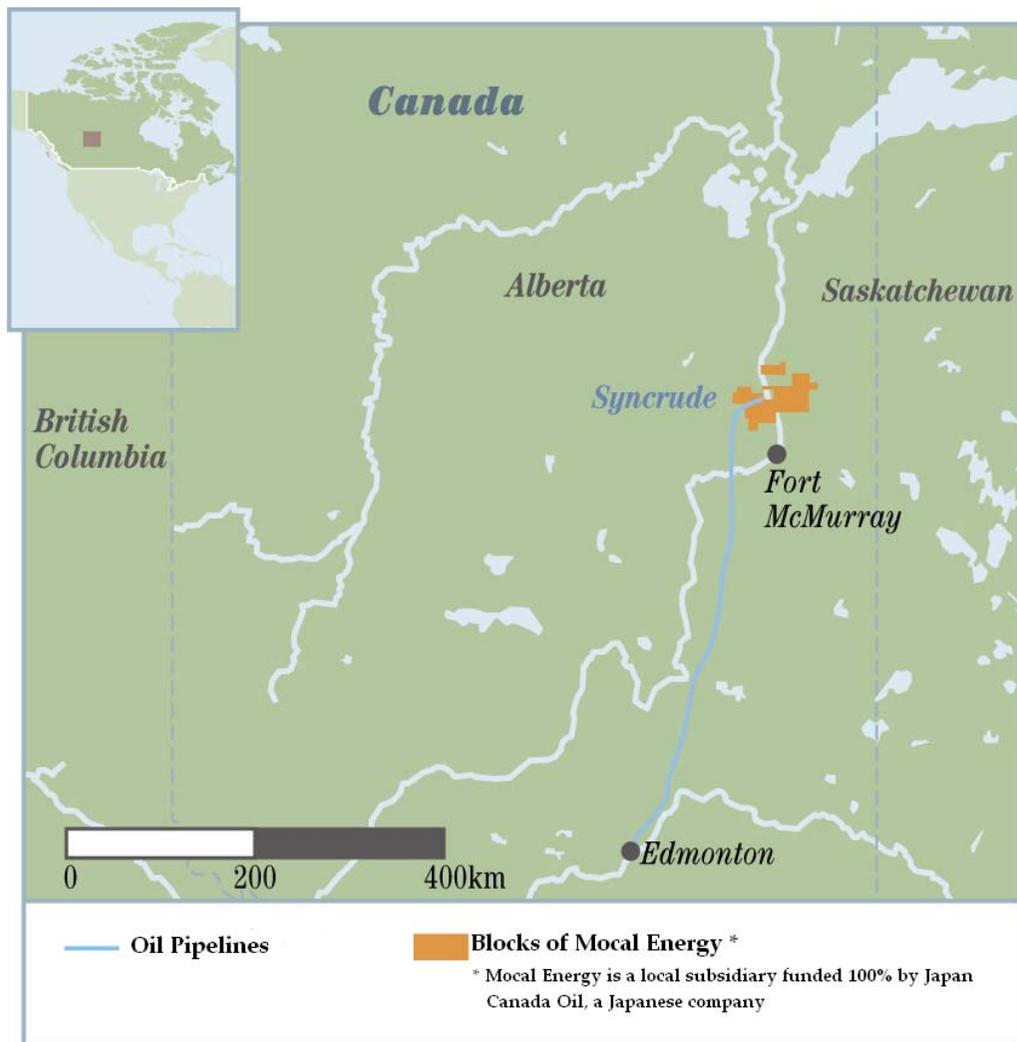
- In August 2009, commenced Exploration.
- In January 2010, discovered natural gas.
- In February 2011, confirmed the spread of hydrocarbon on Davy Jones Prospect.
- In March 2012, confirmed natural gas flow.

# Principal Individual E&P Project Overview (Canada)



Canada

Production



|                                   |  |
|-----------------------------------|--|
|                                   | Syncrude Project   |
| Company Holding the Acreages      | Japan Canada Oil/Mocal Energy  |
| Shareholders(Holding Percentages) | JX Nippon Oil & Gas Exploration (100%)   |
| Project Status                    | Development / Production   |
| Interest                          | 5.0%   |
| Partners                          | Canadian Oil Sands (36.7%)<br>Imperial Oil Resources (25.0%)<br>Suncor Energy (12.0%)<br>Sinopec (9.0%)<br>Nexen (7.2%)<br>Murphy Oil Company (5.0%) |
| Operator                          | Syncrude Canada  |
| Sales Volume(Jan.-Sep. 2012)      | 14,100boed (oil 14,100b/d)   |

We are a partner in the Syncrude Project that produces synthetic crude oil from oil sand, the sand containing bitumen, huge deposits of which are found in Canada.

Production

- In 1978, Started Shipment of Synthetic Crude Oil.
- In 1992, acquired a working interest from PetroCanada.



Next Page

Oil and Natural Gas E&P

Principal Individual E&P Project Overview (Vietnam ①)

# Principal Individual E&P Project Overview (Vietnam ①)

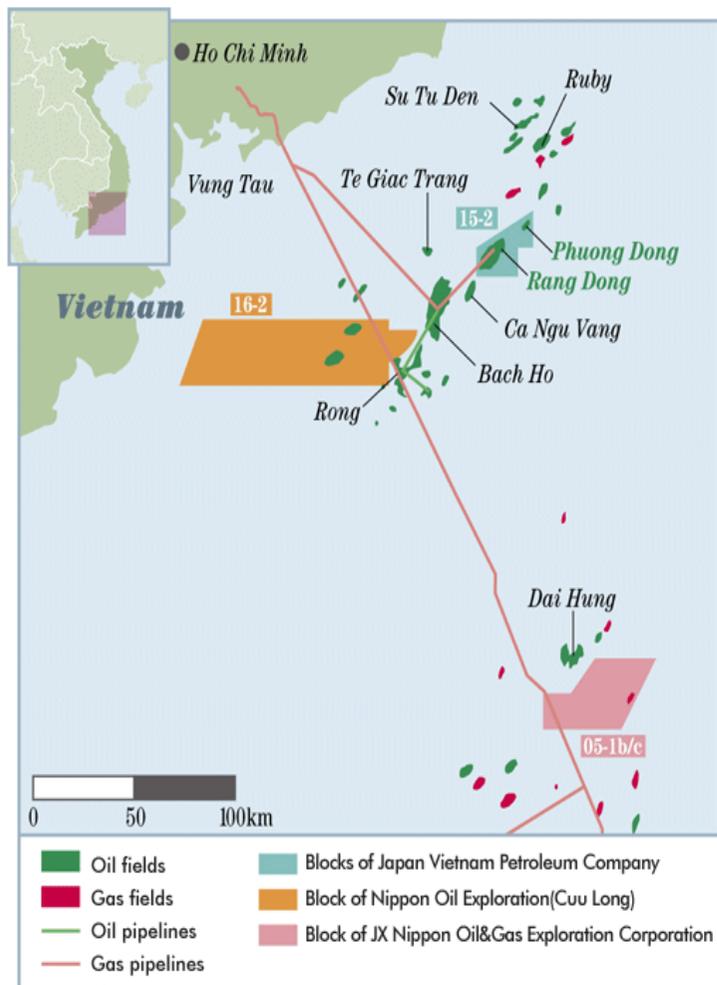


Vietnam

Production

Development

Exploration



|                                    | Block 15-2   |                       | Block 16-2  | Block 05-1b/c                               |
|------------------------------------|--|-----------------------|---|---|
|                                    | Rang Dong Oil Field  | Phuong Dong Oil Field |   |   |
| Company Holding the Acreages       | Japan Vietnam Petroleum Company  |                       | Nippon Oil Exploration (Cuu Long)                         | JX Nippon Oil & Gas Exploration (100%)      |
| Shareholders (Holding Percentages) | JX Nippon Oil & Gas Exploration (97.1%)<br>Mitsubishi Corporation (2.9%) |                       | JX Nippon Oil & Gas Exploration (29.5%)<br>JOGMEC (70.5%) | -   |
| Project Status                     | Exploration/Development/Production                                       |                       | Exploration   | Exploration                                 |
| Interest                           | 46.5%  | 64.5%                 | 40.0%   | 35.0%                                       |
| Partners                           | PVEP (17.5%)<br>Conoco Phillips (36.0%)                                  | PVEP (35.5%)          | PVEP (45.0%)<br>VSP (15.0%)                               | Idemitsu Oil & Gas (35.0%)<br>INPEX (30.0%) |
| Operator                           | Japan Vietnam Petroleum Company  |                       | PVEP  | Idemitsu Oil & Gas                          |
| Sales Volume (Jan.-Sep. 2012)      | 7,500 boed<br>(oil 5,800b/d, gas 10.0mmcf/d)                             |                       | -   | -   |



# Principal Individual E&P Project Overview (Vietnam ②)

## Block 15-2 ( Rang Dong, Phuong Dong Oil Fields)

Production

Development

Exploration

Since the acquisition in 1992, the project has been one of our key operations. JVPC, our subsidiary, act as operator in the block.

The Rang Dong Oil Field and The Phuong Dong Oil Field feature an unconventional fractured granite basement rock reservoir that is unique in the world. Our fracture evaluation technology is highly valued and receiving worldwide recognition.

As part of our corporate activities, we have been promoting social welfare activities in Vietnam to improve the lives of the people of Vietnam, furthermore, we have been implementing a CDM project aimed at reducing greenhouse gas emissions.

- In 1992, JVPC acquired a working interest in block 15-2
- In 1994, JVPC discovered the [Rang Dong Oil Field](#) within block 15-2, and it began production in that field from 1998.
- In February 2008 and April 2011, Rang Dong CDM Project received CER (Certified Emission Reductions) issuance approval under the Kyoto Protocol.
- In July 2008, Rang Dong Oil Field achieved a cumulative production volume of 150 million barrels.
- In August 2008, JVPC began production in the [Phuong Dong Field](#).

## Block 16-2

Exploration

- In November 2007, acquired a working interest in [block 16-2](#) offshore Vietnam.
- In November 2009, excavated test well No.1, and discovered gas and condensate.
- In August 2010, excavated test well No.2, and discovered gas and condensate.
- In April 2011, excavated appraisal well No1.

## Block 05-1b/c

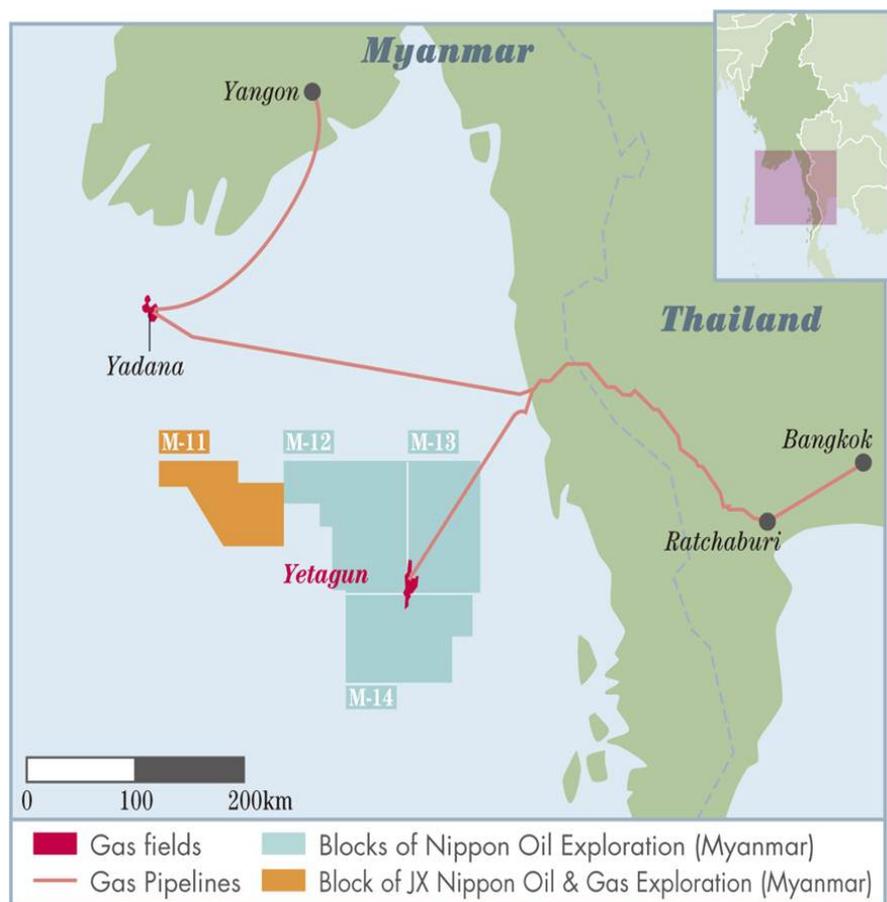
Exploration

- In October 2004, acquired a working interest in [block 05-1b/c](#) offshore Vietnam.
- In February 2007, excavated test well No.1.
- In August 2010, excavated test well No.2, and discovered gas and condensate.
- In August 2012, excavated appraisal well No.1.

# Principal Individual E&P Project Overview (Myanmar ①)



Myanmar    Production    Development    Exploration



|                                   | M-12, 13, 14  | M-11   |
|-----------------------------------|---|--|
| Company Holding the Acreages      | Nippon Oil Exploration (Myanmar)  | JX Nippon Oil & Gas Exploration (Myanmar)    |
| Shareholders(Holding Percentages) | JX Nippon Oil & Gas Exploration (50%)<br>Government of Japan (50%)      | JX Nippon Oil & Gas Exploration (100%)       |
| Project Status                    | Exploration / Development / Production                                  | Exploration                                  |
| Interest                          | 19.3%   | 15.0%  |
| Partners                          | Petronas Carigali (40.9%)<br>MOGE(20.5%)<br>PTTEP International (19.3%) | PTTEP International (45.0%)<br>TOTAL (40.0%) |
| Operator                          | Petronas Carigali   | PTTEP International                          |
| Sales Volume(Jan.-Sep. 2012)      | 8,700boed<br>(oil 800b/d, gas 47.4mmcf/d)                               | -  |



## Principal Individual E&P Project Overview (Myanmar ②)

### Block M-12,13,14

Production

Development

Exploration

We have been participating in the Yatagun project in Myanmar since exploration stage. After the appraisal activities and the construction of the production and shipping facilities, the project is now at a stable production stage.

- In 1991, NOEX Myanmar acquired a working interest in blocks M-13/14 offshore Myanmar.
- The following year, acquired a working interest in block M-12 and discovered the Yetagun Gas Field in that block.
- In 2000, production at the Yetagun Gas Field commenced, with the produced gas supplied to the Ratchaburi power plants in Thailand.

### Block M-11

Exploration

- In September 2012, acquired a working interest in blocks M-11, offshore Myanmar.  
(Waiting for the approval of the Myanmar government)
- In 2013, Scheduled to excavate test well.

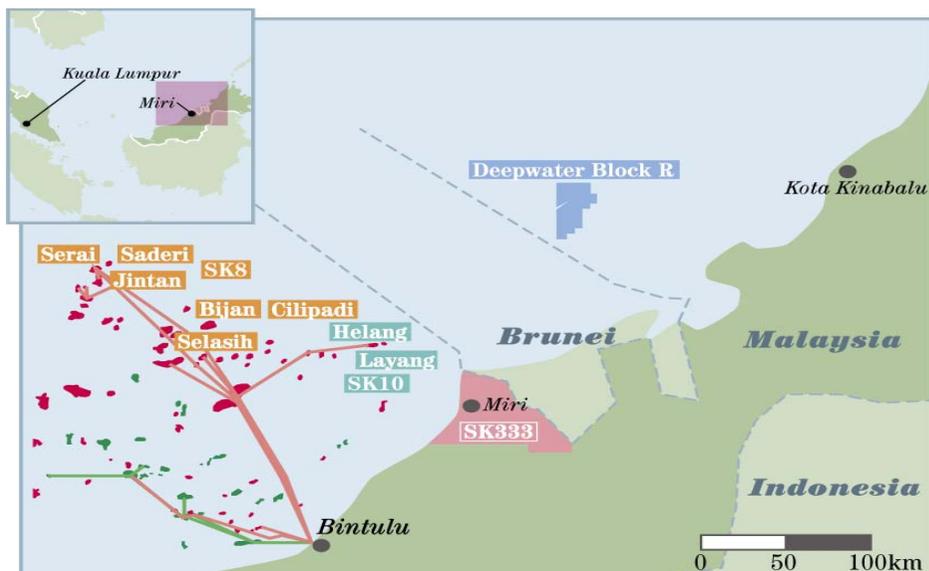
# Principal Individual E&P Project Overview (Malaysia ①)



## Malaysia

Production

Exploration



- Oil Fields
- Gas Fields
- Oil Pipelines
- Gas Pipelines
- Gas Fields of JX Nippon Oil & Gas Exploration (Malaysia)
- Gas Fields of JX Nippon Oil & Gas Exploration (Sarawak)
- Block of JX Nippon Oil & Gas Exploration (Onshore Sarawak)
- Block of JX Nippon Oil & Gas Exploration (Deepwater Sabah)



|                                   | SK10 (Helang Gas Field, Others)   | SK8 (Serai, Jintan Gas Field, Others)   |
|-----------------------------------|---|---|
| Company Holding the Acreages      | JX Nippon Oil & Gas Exploration (Malaysia)  | JX Nippon Oil & Gas Exploration (Sarawak)   |
| Shareholders(Holding Percentages) | JX Nippon Oil & Gas Exploration (78.7%)<br>INPEX (15.0%)<br>Mitsubishi Corporation (6.3%) | JX Nippon Oil & Gas Exploration (76.5%)<br>INPEX (15.0%)<br>Mitsubishi Corporation (8.5%) |
| Project Status                    | Exploration / Development / Production  | Exploration / Development / Production  |
| Interest                          | 75.0%   | 37.5%   |
| Partners                          | Petronas Carigali (25.0%)   | Shell Oil and Gas Malaysia (37.5%)<br>Petronas Carigali (25.0%)                           |
| Operator                          | JX Nippon Oil & Gas Exploration (Malaysia)  | Shell Oil and Gas Malaysia  |
| Sales Volume(Jan.-Sep. 2012)      | 21,100boed<br>(oil 3,800b/d, gas 103.9mmcf/d)   | 19,300boed<br>(oil 1,900b/d, gas 104.4mmcf/d)   |

|                                   | PM308A  | SK333   | Deepwater R   |
|-----------------------------------|---|---|---|
| Company Holding the Acreages      | JX Nippon Oil & Gas Exploration (Peninsular Malaysia)     | JX Nippon Oil & Gas Exploration (Onshore Sarawak)         | JX Nippon Oil & Gas Exploration (Deepwater Sabah)                         |
| Shareholders(Holding Percentages) | JX Nippon Oil & Gas Exploration (37.7%)<br>JOGMEC (62.3%) | JX Nippon Oil & Gas Exploration (40.5%)<br>JOGMEC (59.5%) | JX Nippon Oil & Gas Exploration (100%)                                    |
| Project Status                    | Exploration   | Exploration   | Exploration   |
| Interest                          | 40.0%   | 75.0%   | 37.5%   |
| Partners                          | Lundin Malaysia (35.0%)<br>Petronas Carigali (25.0%)      | Petronas Carigali (25.0%)                                 | INPEX Offshore South West Sabah, Ltd.(37.5%)<br>Petronas Carigali (25.0%) |
| Operator                          | Lundin Malaysia   | JX Nippon Oil & Gas Exploration (Onshore Sarawak)         | JX Nippon Oil & Gas Exploration (Deepwater Sabah)                         |



# Principal Individual E&P Project Overview (Malaysia ②)

## Block SK10 (Helang Gas Field and others)

Since the acquisition of Block SK10 in 1987, the project has been one of our key operations. We act as the operator in the block. The natural gas from the block is exported in the form of liquefied natural gas (LNG) to various countries including Japan.

### Production

#### Mining Area during the production SK10 (Helang Gas Field)

- In 1987, acquired a working interest in Block SK10 offshore Sarawak, Malaysia.
- In 1990, discovered the Helang Gas Field, where production commenced in 2003.
- In 1991, discovered the Layang Gas Field.

## Block SK8 (Serai, Jintan Gas Fields and others)

### Production

#### Mining Area during the production SK8 (Serai, Jintan, Saderi Gas Fields)

- In 1991, acquired a working interest in Block SK8 .
- From 1992 through 1994, the Jintan and other 6 gas fields were discovered in that block, and production of Jintan and Serai were commenced in 2004.
- In 2008, the Saderi Gas Field commenced production.
- In 2011, the Cilipadi Gas Field commenced production.

## Block SK333

### Exploration

- In December 2007, acquired a working interest in Block SK333 onshore Sarawak, Malaysia.

## Block PM308A

### Exploration

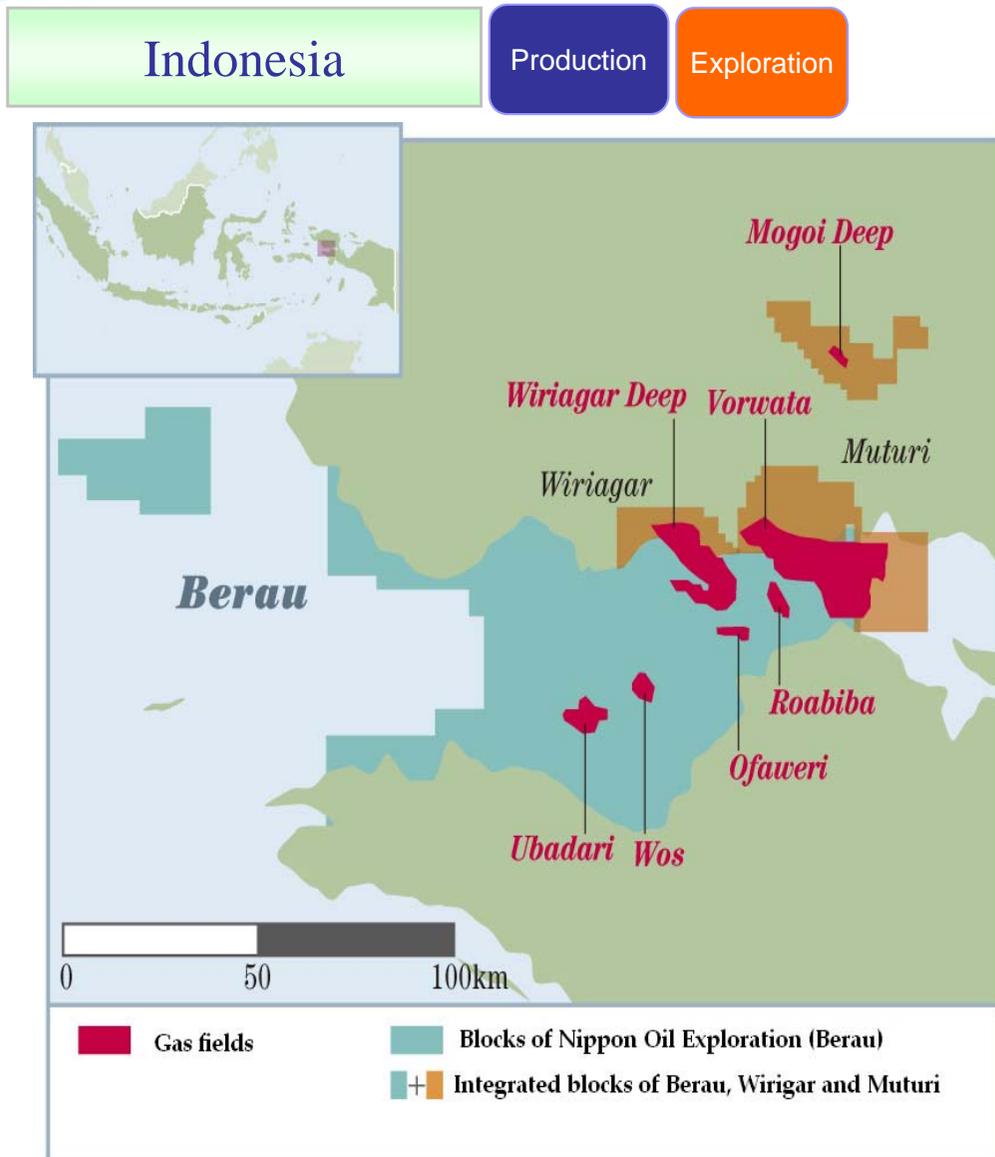
- In April 2008, acquired a working interest in Block PM308A offshore peninsular Malaysia.

## Deepwater R

### Exploration

- In January 2012, acquired a working interest in Deepwater R offshore Sabah, Malaysia.

# Principal Individual E&P Project Overview (Indonesia)



Indonesia

Production

Exploration

|                                   | Tangguh LNG Project  |  |
|-----------------------------------|--|--|
| Company Holding the Acreages      | Nippon Oil Exploration (Berau)                             | KG Berau   |
| Shareholders(Holding Percentages) | JX Nippon Oil & Gas Exploration (51.0%)<br>JOGMEC (49.0%)  | JX Nippon Oil & Gas Exploration(14.2%)<br>JOGMEC (49.2%)<br>Others   |
| Project Status                    | Exploration/Development/Production                         |  |
| Interest                          | 13.4% (Nippon Oil Exploration(Berau) 12.2%, KG Berau 1.2%) |  |
| Partners                          | BP(37.2%)<br>CNOOC(13.9%)<br>LNG Japan (7.3%)              | MI Berau(16.3%)<br>KG Berau / KG Wiriagar (10.0%)<br>Talisman (3.1%) |
| Operator                          | BP   |  |
| Sales Volume(Jan.-Sep. 2012)      | 19,700boed (oil 600b/d, gas 114.3mmcf/d)                   |  |

This is the second LNG project we have participated in, following the LNG Tiga project in Malaysia, and we are working to attain long-term and stable LNG production and revenue.

**Production** [Project during the production :  
Tangguh LNG Project](#)

- From 1990, excavated three test wells, natural gas was discovered in the area. Subsequently, discovered natural gas in the Vorwata Gas Field, Wiriagar Deep structure, and other gas field.
- From December 2002, those with interests in the Berau, Wiriagar, and Muturi blocks agreed to become partners in unitizing the blocks and undertake development work cooperatively.
- LNG production commenced in June 2009, and the first cargo was shipped in July 2009.

# Principal Individual E&P Project Overview (Australia)

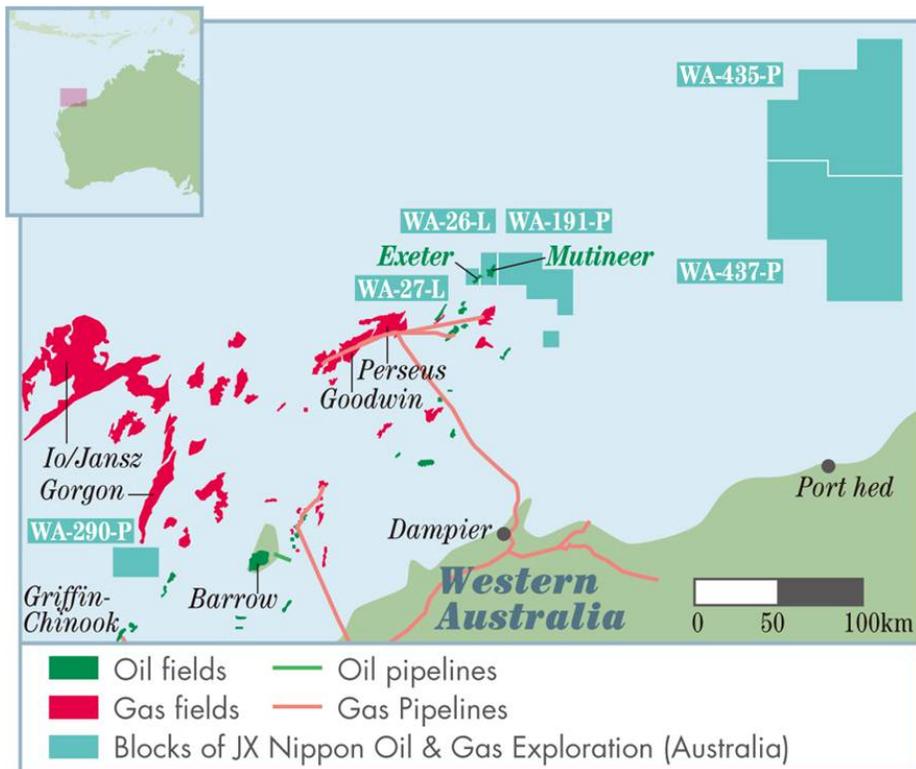


Australia

Production

Development

Exploration



|                                    | Mutineer/Exeter Oil Field                           | Finucane South Oil Field         | Block WA-290-P<br>Block WA-49-R                                   | Block WA-435-P<br>Block WA-437-P                      |
|------------------------------------|---|----------------------------------|---|---|
| Company Holding the Acreages       | JX Nippon Oil & Gas Exploration (Australia) Pty Ltd |                                  |   |   |
| Shareholders (Holding Percentages) | JX Nippon Oil & Gas Exploration (100%)              |                                  |   |   |
| Project Status                     | Production  | Development                      | Exploration   | Exploration   |
| Interest                           | 25.0%   | 25.0%                            | 15.0%   | 20.0%   |
| Partners                           | Santos (33.4%)<br>Kufpec (33.4%)<br>Woodside (8.2%) | Santos (37.5%)<br>Kufpec (37.5%) | Apache (30.25%)<br>Santos (37.5%)<br>OMV (20.00%)<br>Tap (10.00%) | Apache (40.0%)<br>Finder (20.0%)<br>Carnarvon (20.0%) |
| Operator                           | Santos  | Santos                           | Apache  | Apache  |
| Sales Volume (Jan.-Sep. 2012)      | 1,300boed<br>(oil 1,300b/d)                         | -                                | -   | -   |

We are producing high-quality low-sulfur crude oil from Mutineer / Exeter oil fields. Revenue from the sales of the crude oil is used for new exploration activities within Australia.

Production

- In 1997, acquired a working interest in **Block WA-191-P**, and discovered Mutineer and Exeter Oil Fields. Production of Mutineer and Exeter Oil Fields are commenced in 2005.

Development

- In May 2011, discovered oil in the Finucane South prospect in **Block WA-191-P**.
- In Jan 2012, Made the Final Investment Decision on the **Finucane South Field**.

Exploration

- In April 2011, excavated test well “Zola-1”, and discovered Gas in **Block WA-290-P**
- In October 2012, acquired working interests in **Block WA-435-P** and **Block WA-437-P**.  
In 2013, Scheduled to excavate test well .

# Principal Individual E&P Project Overview (Papua New Guinea ①)

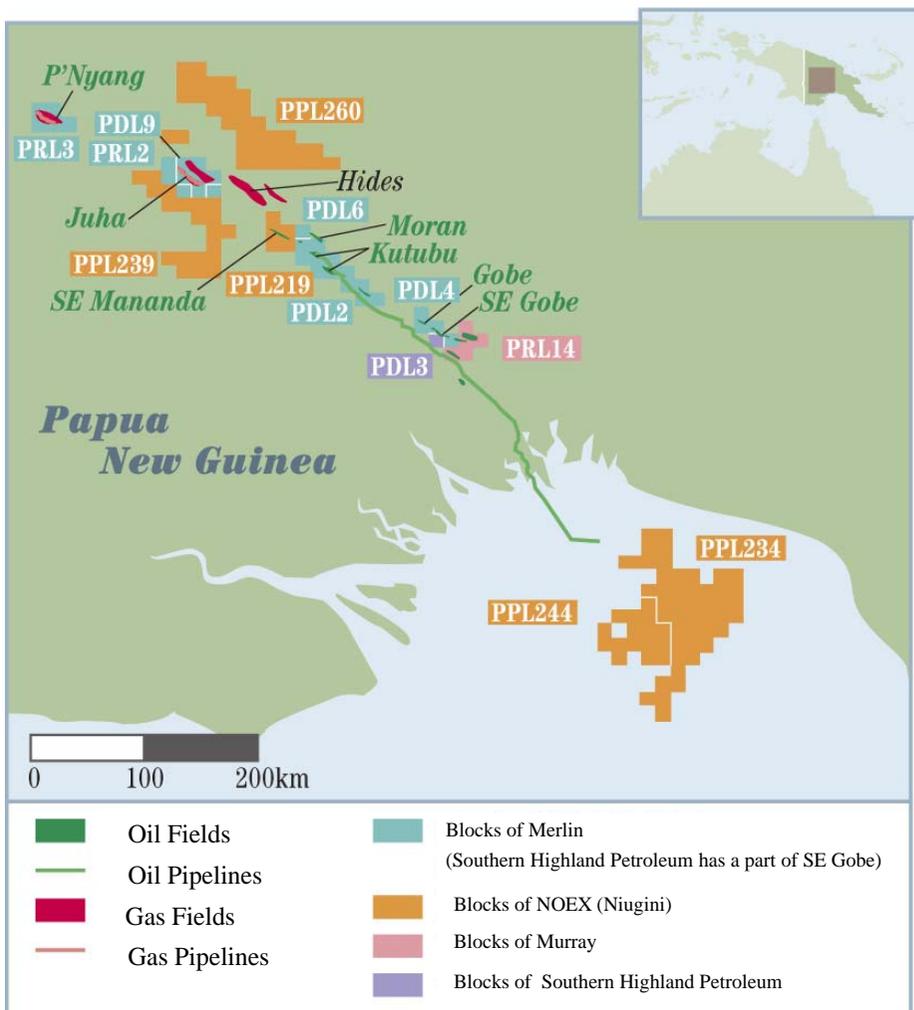


## Papua New Guinea

Production

Development

Exploration



|                              |   |   |
|------------------------------|---|---|
|                              | Kutubu, Moran, Gobe oil fields, Others  | PNG LNG Project   |
| Company Holding the Acreages | Merlin Petroleum Company (79%)<br>Nippon Oil Exploration (Niugini) Pty LTD (30.4%)<br>Southern Higjland Petroleum (80%)<br>Murray Petroleum (29.4%) | Nippon Papua New Guinea LNG LLC (79%)   |
| Project Status               | Exploration / Development / Production  | Development   |
| Interest                     | 8.6%~73.5%  | 4.68%   |
| Partners                     | Oil Search<br>ExxonMobil<br>Santos<br>Talisman<br>Others  | ExxonMobil (33.20%)<br>Oil Search (29.00%)<br>Santos(13.53%)<br>PNG Government, Landowners (19.58%) |
| Operator                     | Oil Search, ExxonMobil, Others  | ExxonMobil  |
| Sales Volume(Jan.-Sep. 2012) | 5,000boed<br>(oil 5,000b/d)   | -   |

## Principal Individual E&amp;P Project Overview (Papua New Guinea ②)



## Kutubu, Moran, Gobe oil fields and others

## Production

- In 1990, Japan Papua New Guinea Petroleum acquired Merlin and acquired original exploration rights of Merlin in Papua New Guinea. Subsequently, development, and production activities have been undertaken in the [Kutubu, Moran, Gobe, SE Gobe, and SE Mananda oil fields](#).
- In 2008, acquired additional equity of oil field from AGL Energy

## Exploration

- In April 2011, excavated test well “Mananda-5” in [Block PPL219](#), and discovered oil.

## PNG LNG Project

## Development

Project during the development  
PNG LNG Project

We have been involved in PNG LNG Project since the beginning of the project. In December 2009, we made a Final Investment Decision on the Project, and the development work is in progress with the goal of starting shipments in 2014. PNG LNG Project has the full support of the PNG government, and we expect it to contribute to our revenues in the future.

- In December 2008, acquired the PNG LNG Project equity that AGL Energy owned.
- In December 2009, PNG LNG Project was made a final investment decision to proceed with the development. Development of the project are underway to commence of production in 2014.

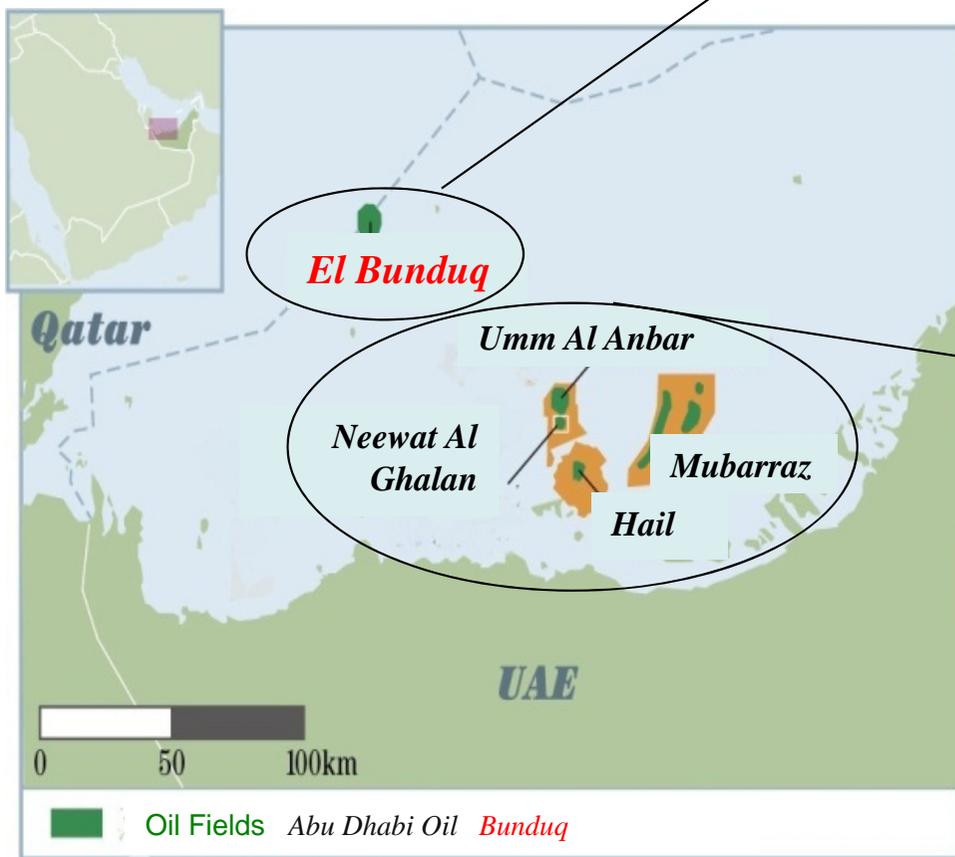
# Principal Individual E&P Project Overview (UAE, Qatar ①)



UAE, Qatar

Production

Development



|   |   |
|---|---|
| Company Holding the Acreages  | United Petroleum Development (Bunduq Company Limited)   |
| Partners  | JX Nippon Oil & Gas Exploration (45.0%)<br>Cosmo Oil Co., Ltd. (45.0%)<br>Mitsui Oil Exploration Co., Ltd (10.0%) |
| Project Status  | Exploration / Development / Production  |
| Interest  | 97.0%   |
| Partners  | BP (3%)   |
| Operator  | Bunduq Company Limited  |
| <ul style="list-style-type: none"> <li>● In 1970, United petroleum Development acquired a working interest of El Bunduque Oil Field.</li> <li>● In 1975, oil production commenced in <a href="#">El Bunduq oil field</a>.</li> <li>● In 1983, oil production was resumed by a secondary recovery scheme using water injection.</li> <li>● In 2006, El Bunduque achieved a cumulative production volume of 200 million barrels.</li> </ul> |   |

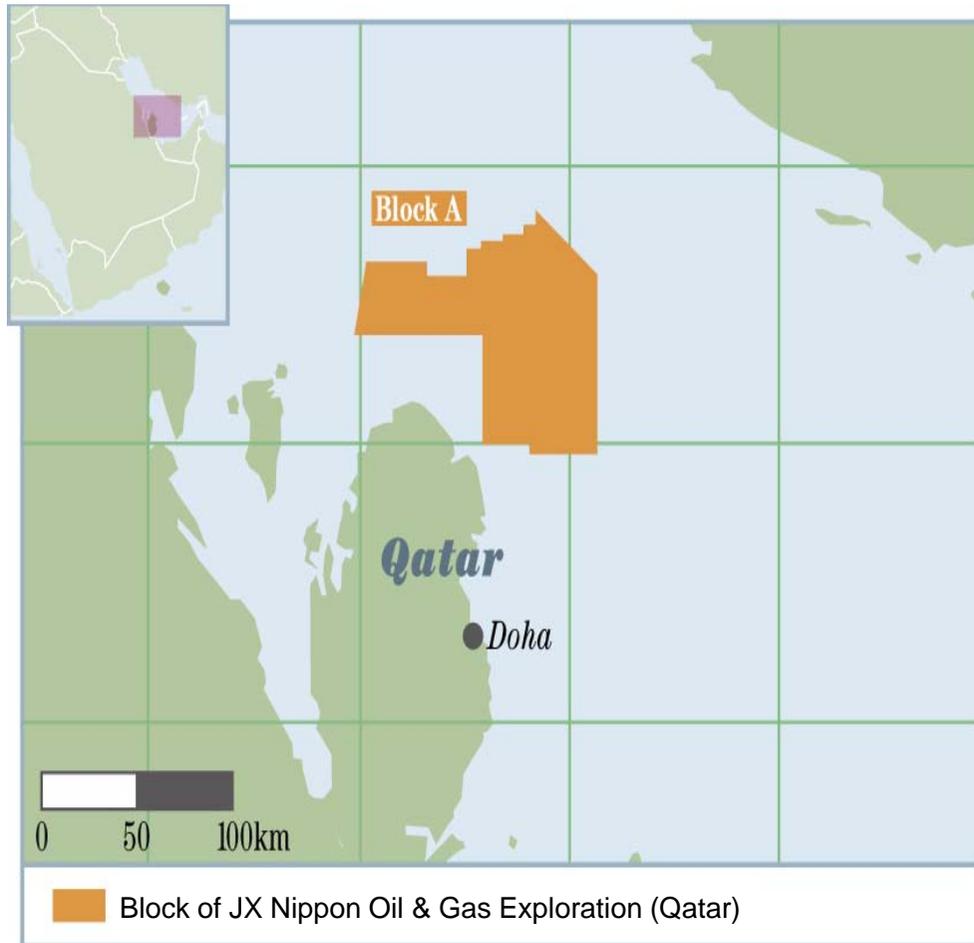
|  |  |
|--|--|
| Company Holding the Acreages   | Abu Dhabi Oil  |
| Partners   | JX Nippon Oil & Gas Exploration (31.5%)<br>Cosmo Oil Co., Ltd.(63.0%)<br>Tokyo Electric Power Co., Inc.(1.8%)<br>Chubu Electric Power Co., Inc.(1.8%)<br>Kansai Electric Power Co., Inc.(1.8%) |
| Project Status   | Exploration / Development / Production   |
| Interest   | 100.0%   |
| Operator   | Abu Dhabi Oil  |
| <ul style="list-style-type: none"> <li>● In 1967, acquired a working interest in block of Mubarraz.</li> <li>● In 1973, oil production commenced in <a href="#">Mubarraz Oil Field</a>.</li> <li>● In 1989, oil production commenced in <a href="#">Umm Al Anbar Oil Field</a>.</li> <li>● In 1995, oil production commenced in <a href="#">Neewat Al Ghalan Oil Field</a>.</li> <li>● In 2009, 3 fields achieved cumulative production volume of 300 million barrels.</li> <li>● In 2011, Sign a New Concession Agreement.</li> <li>● In 2012, Effectuation of New Concession Agreement.</li> </ul> |  |

# Principal Individual E&P Project Overview (UAE, Qatar ②)



Qatar

Exploration



### Project Company

JX Nippon Oil & Gas Exploration (Qatar) Limited (100%)  
(%) = JX Group Shareholding

### Interest in Individual Fields

100%

### Operator

JX Nippon Oil & Gas Exploration (Qatar) Limited

### Exploration

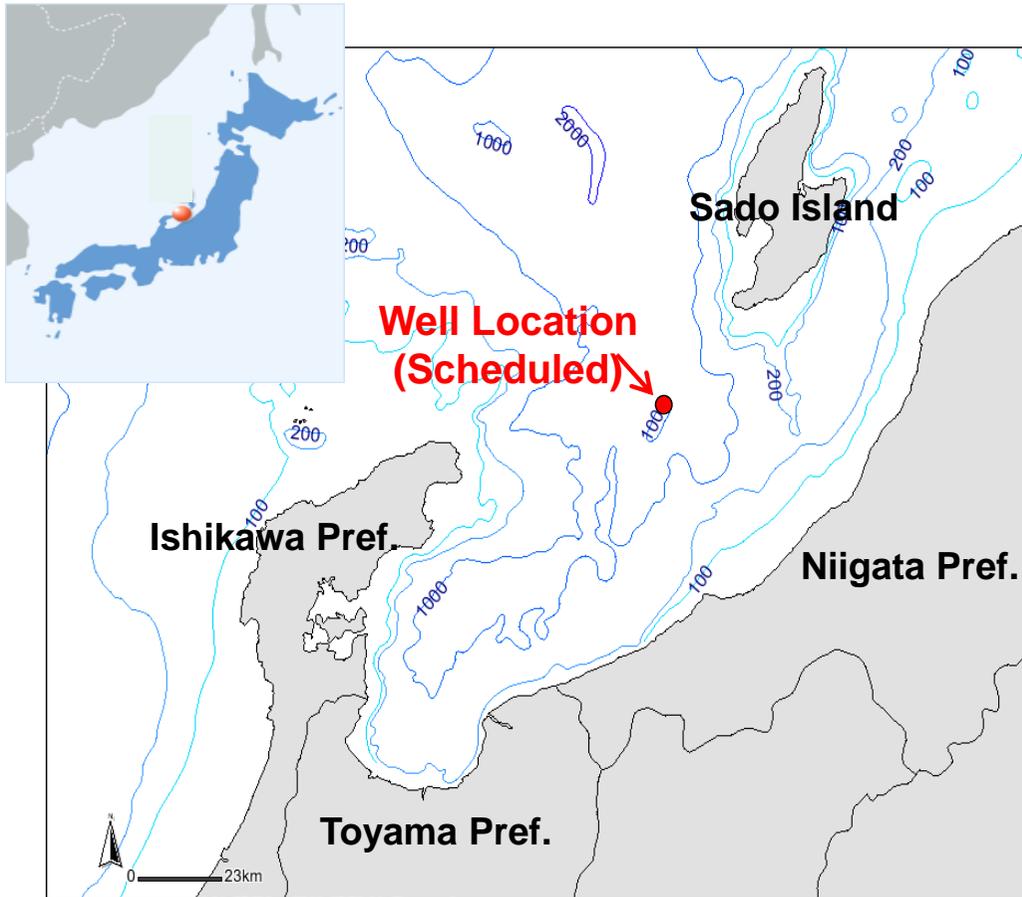
- In May 2011, acquired a working interest in **Block A** (Pre-Khuff), offshore Qatar .
- In March 2012, established interest in Block A (Pre-Khuff), offshore Qatar officially came into effect.

# Principal Individual E&P Project Overview (Japan)



Japan (Offshore Niigata)

Exploration



## Project Company

JX Nippon Oil & Gas Exploration (100%)  
(%) = JX Group Shareholding

## Interest in Individual Fields

100%

## Operator

JX Nippon Oil & Gas Exploration

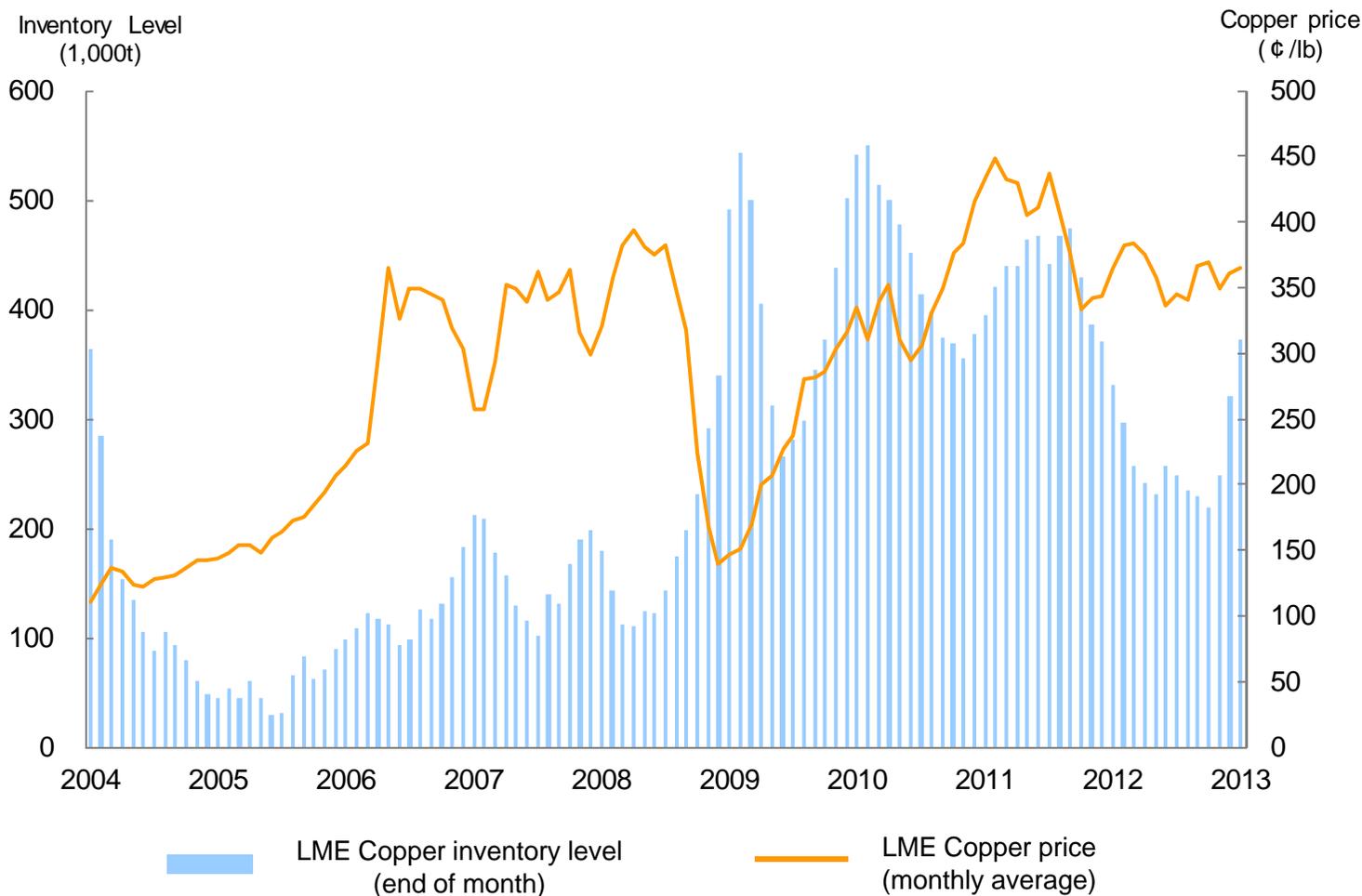
## Exploration

- In December 2011  
Signed contract with METI's Agency for Natural Resources and Energy, for oil and gas research.
- In Spring 2013  
Scheduled to drill "METI Kisoshisui" well

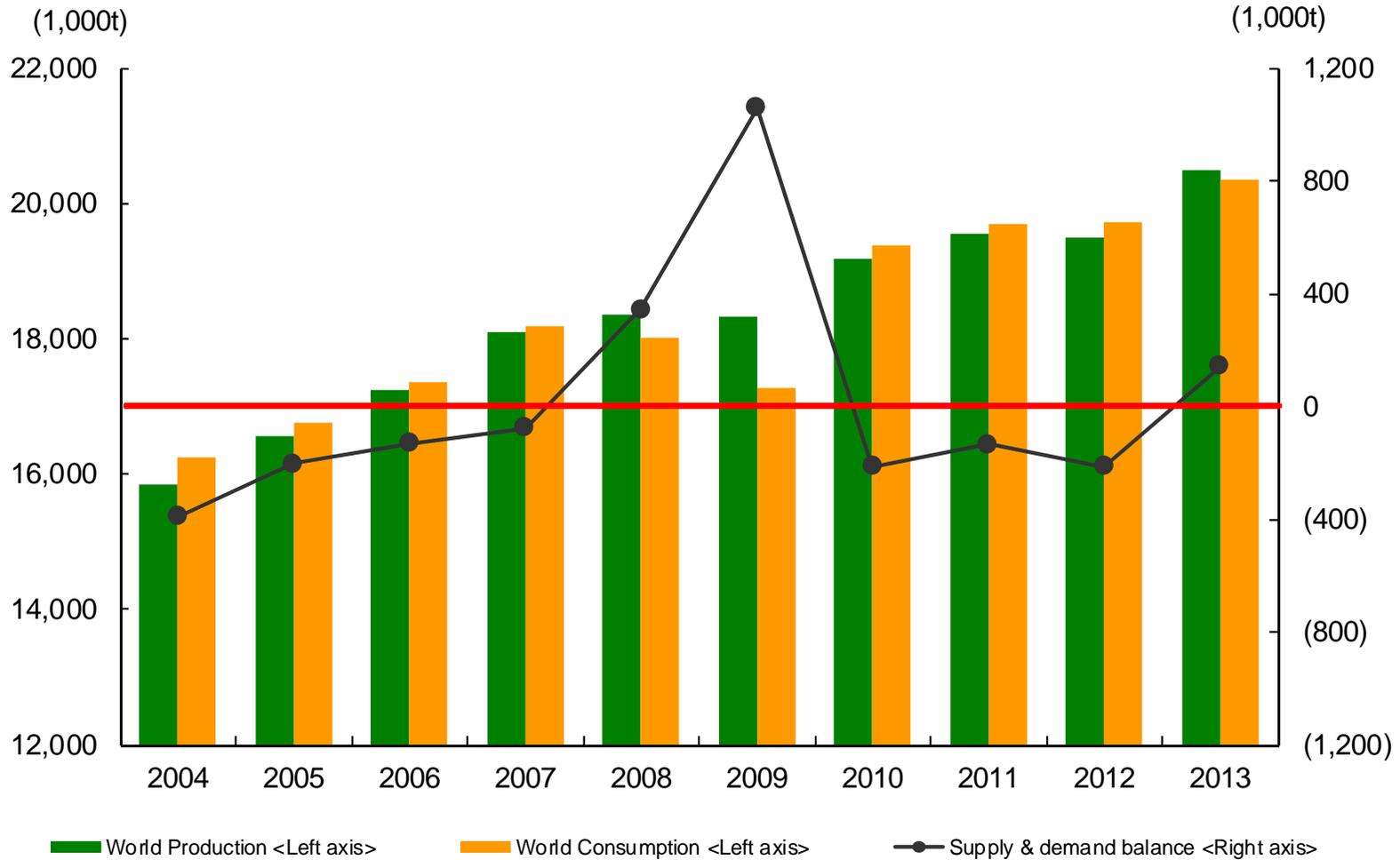
# Copper Price and Inventory Level



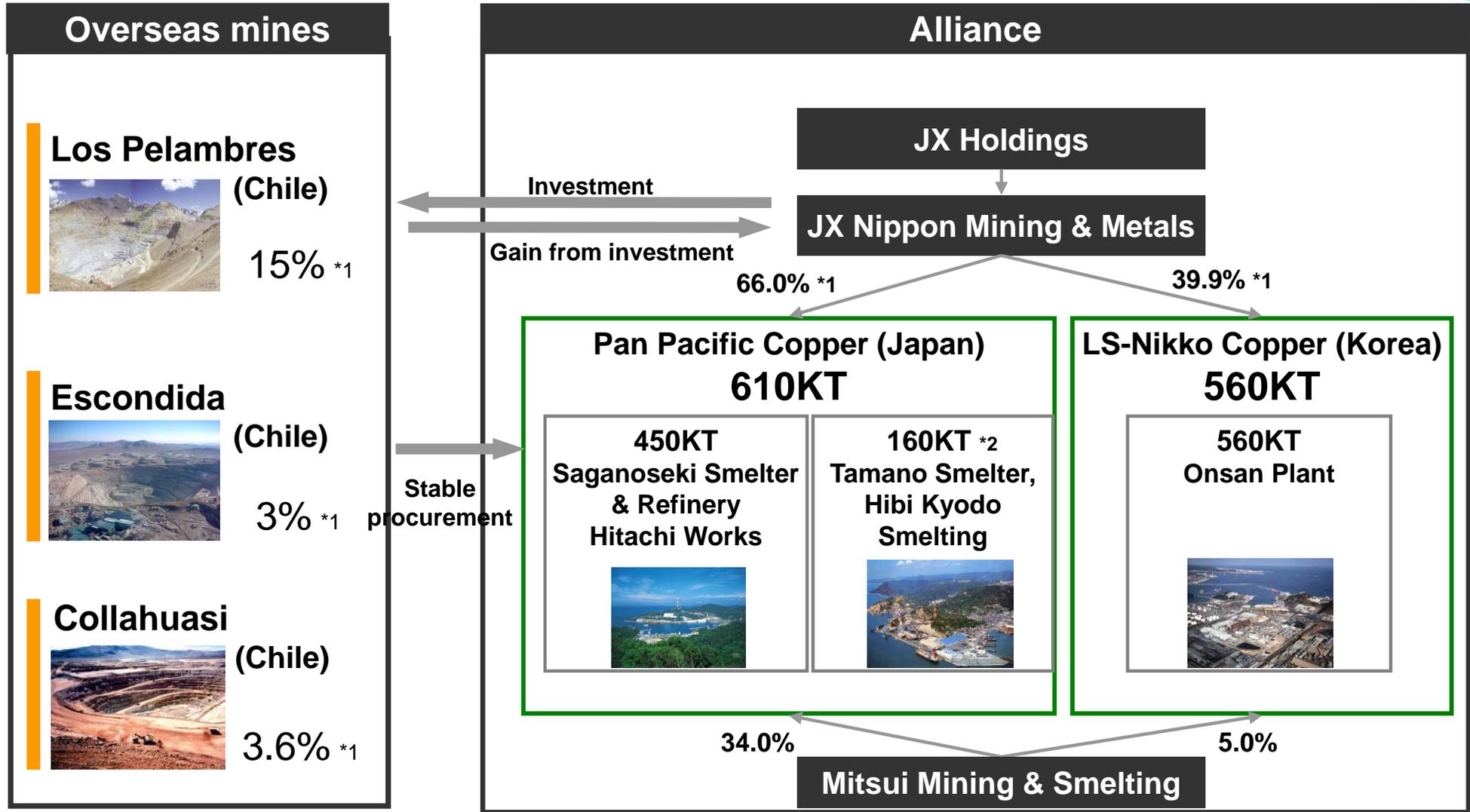
| Average Price | FY04 | FY05 | FY06 | FY07 | FY08 | FY09 | FY10 | FY11 | FY12 |     |     |
|---------------|------|------|------|------|------|------|------|------|------|-----|-----|
|               |      |      |      |      |      |      |      |      | 1Q   | 2Q  | 3Q  |
| Copper        | 136  | 186  | 316  | 344  | 266  | 277  | 369  | 385  | 357  | 350 | 350 |



# World Copper Cathodes Supply & Demand



# Copper Business



\*1. Shares held by JX Nippon Mining & Metals

\*2. Total Capacity is 260KT. PPC has 63.51% equity.

# Overseas Copper Mine Development ①



## Caserones Copper Mine (Chile)

Full-Fledged Development  
forward 2013

Acquisition date May 2006

Acquisition price \$137 million

Initial investment \$ 3.00 billion

In July 2011, Project finance(\$1.1billion) and Long-term Lone(\$0.3billion) are concluded.

### Ownership

Pan Pacific Copper (PPC) \* 75%

\* Jointly established by JX Nippon Mining & Metals (66%) and Mitsui Mining & Smelting (34%)

Mitsui & Co., Ltd. 25%

Mine life From 2013 to 2040 (28 years)

**SX-EW** Started production from Feb. 2013

Copper Concentrate From Sep. 2013

### Production Plan

|            |                                     | Initial 10 years | 28 years average | 28 years total |
|------------|-------------------------------------|------------------|------------------|----------------|
| Copper     | Copper Concentrate (copper content) | 150kt/y          | 110kt/y          | 3,140kt        |
|            | Copper Cathode (SX-EW process)      | 30kt/y           | 10kt/y           | 410kt          |
|            | Total                               | 180kt/y          | 120kt/y          | 3,550kt        |
| Molybdenum |                                     | 3kt/y            | 3kt/y            | 87kt           |



## Overseas Copper Mine Development ②



## Frontera Area (Chile/Argentina)

Acquired Exploration rights  
in Sep. 2012

## Ownership

NGEx Resources Inc. (Canada) : 60%

Pan Pacific Copper (PPC) : 40%

\*PPC is Jointly established by JX Nippon Mining (66%) and Mistui Mining &amp; Smelting (34%)

PPC acquired the exploration rights in  
Sep.2012 from JOGMEC (Japan Oil, Gas  
and Metals National Corporation)

## Exploration results

Drilled exploring holes at Los  
Helados between 2004 and PPC's  
acquisition and confirmed existence  
of copper-gold deposit.

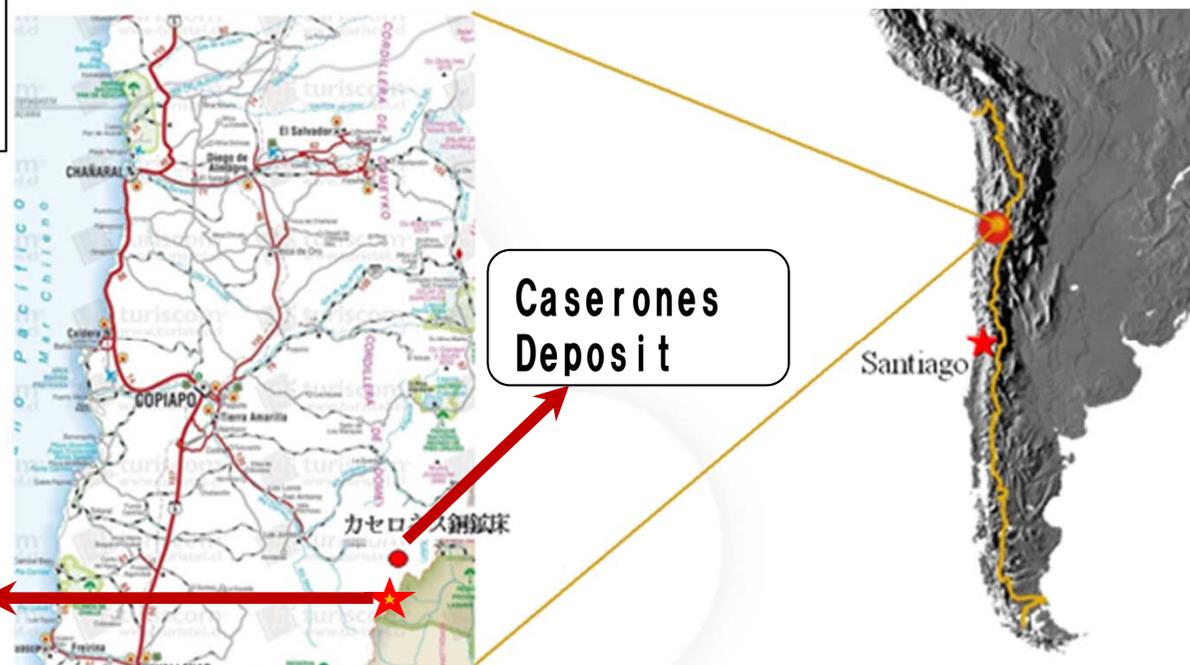
## Frontera Area

Dimension : 24,000ha  
Altitude : 4,400-4,900m

## Main Exploring Areas

Los Helados (Chile, 20km south of the Caserones deposit)

Filo del Sol (Argentina)



# Nikko-Chloride Process (N-Chlo Process)

## N-Chlo Process

The N-Chlo Process is a new hydro-metallurgical process that we have uniquely developed.

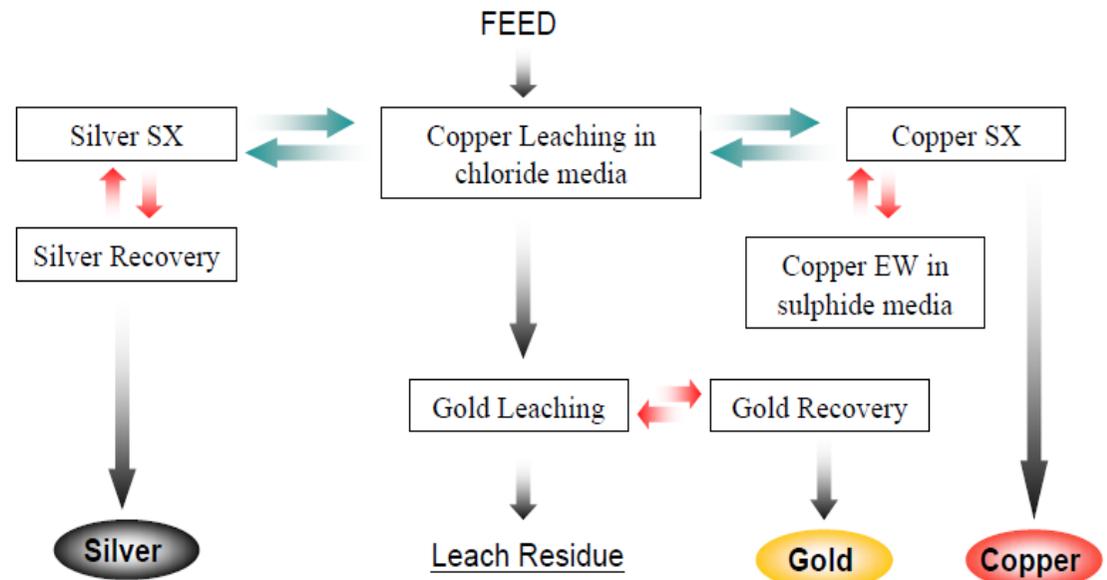
The process enables the effective recovery of not only copper from low-grade copper concentrate, but also such precious metals as gold and silver.

We constructed a pilot plant in Australia and have been conducting demonstration test since latter half of 2009, and we got a good result about copper and gold recovery. After FY 2011, we will proceed facility design for test operation on commercial basis for feasibility study.

Pilot plant in Perth, Australia (About 100t/y Cu recovery)



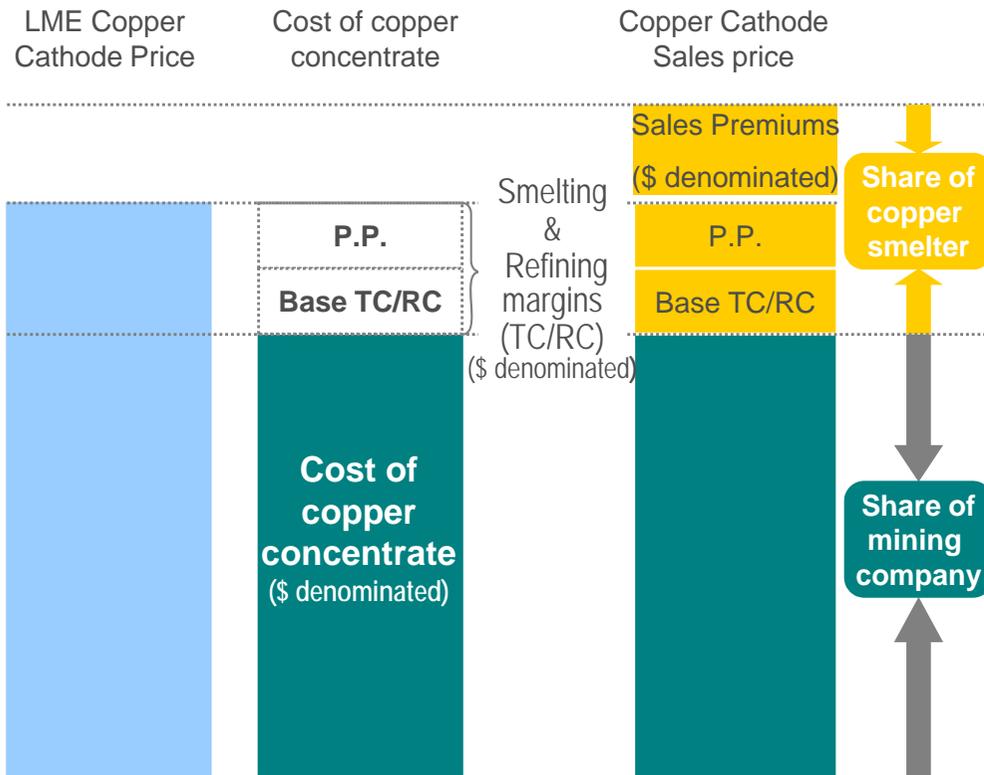
## Structure of N-Chlo Process



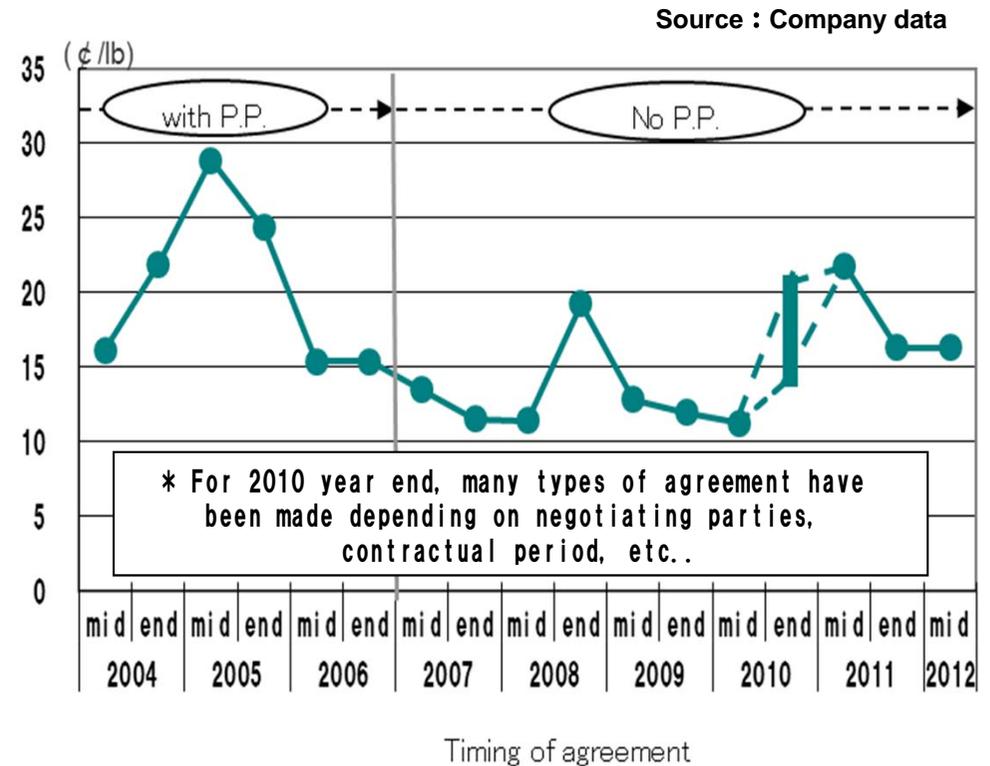


# Earnings Structure of Copper Smelter & Refinery / Trends of Base TC/RC

## Earnings Structure of Copper Smelter & Refinery



## Trends of Base TC/RC



**Cost of copper concentrate :** The price of copper concentrate, which custom smelters pay to mining companies, is LME copper cathode price less TC/RC, which is smelting & refining margins.

**TC (Treatment charge) + RC (Refining charge) :** Consisting of "Base TC/RC" and "P.P."

**P.P. (Price participation) :** The system under which mines and smelters share margins when LME copper price exceeds benchmark price.

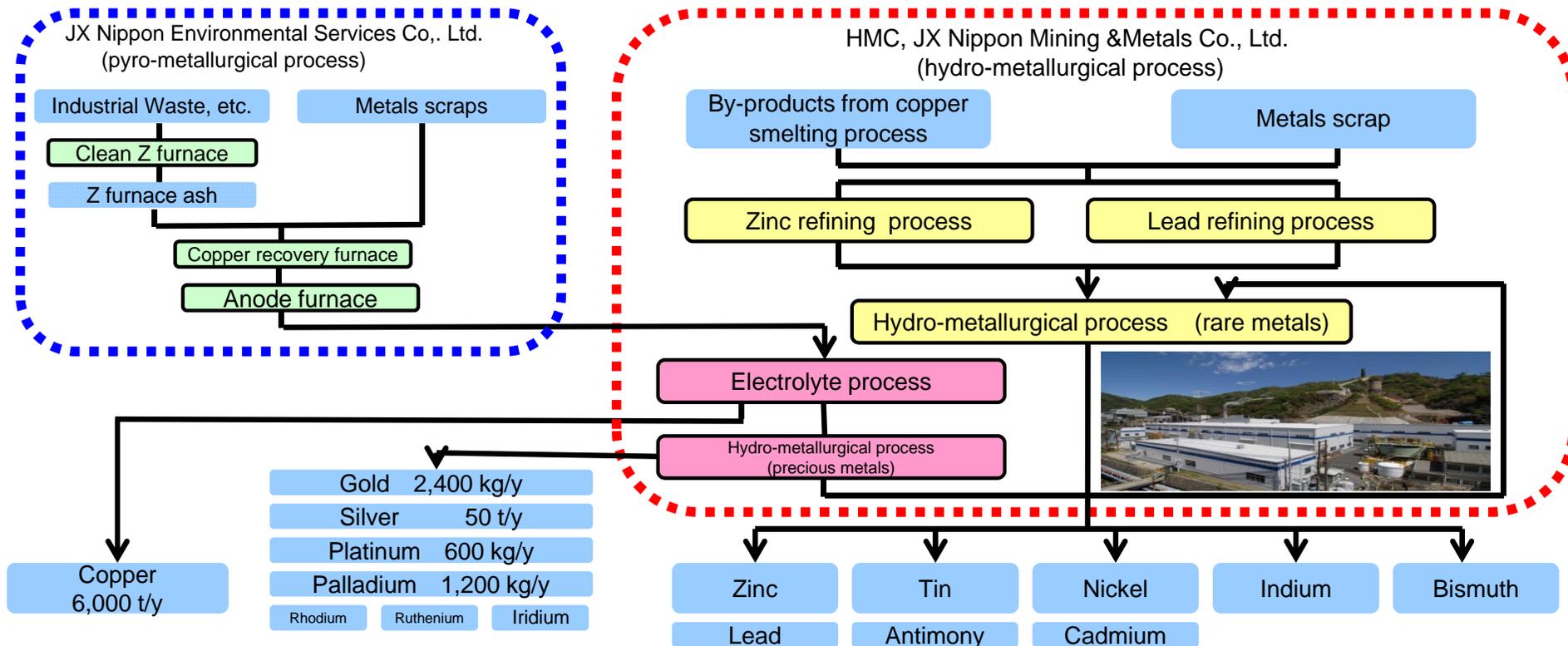
**Sales price :** LME price plus sales premiums, which is established by reference to various factors including importation costs, import tariffs, and others

# Recycling and Environmental Services Business



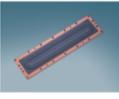
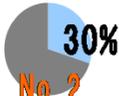
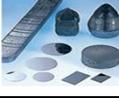
## Hitachi Metal Recycling Complex

- Recovering 16 kinds of metals efficiently by hydro-metallurgical process
- An original zero emission process that combines with pyro-metallurgical process of JX Nippon Environmental Services Co., Ltd. at adjacent site
- Favorable location adjacent to the metropolitan area – the biggest urban mine in Japan
- The role as a raw material (indium, nickel, etc.) supplier to Electronic Materials Business



## Electronic Materials



| Main IT-related products  | Global market share   | Primary applications                           | End-use applications |                              |              |               |              |
|---|---|--|----------------------|------------------------------|--------------|---------------|--------------|
|   |   |  | PCs                  | Mobile phones / Smart phones | Digital, Avs | Telecom infra | Auto mobiles |
|  <b>Treated rolled copper foil</b>     |    | Flexible printed circuit boards                | ○                    | ◎                            | ◎            |               |              |
|  <b>Semiconductor targets</b>          |    | CPUs, memory chips, etc.                       | ◎                    | ○                            | ◎            | ○             | ○            |
|  <b>ITO targets for FPDs *1</b>        |    | Transparent electrodes                         | ◎                    | ○                            | ◎            |               |              |
|  <b>HD media targets</b>               |    | HDD (Hard disk drives), etc.                   | ◎                    | ○                            |              |               |              |
|  <b>Phosphor bronze</b>               |   | Connectors                                     | ◎                    | ○                            | ○            |               | ○            |
|  <b>Corson alloy (C7025)</b>         |  | Lead frames, Connectors                        | ◎                    | ○                            | ○            |               | ○            |
|  <b>Titanium copper alloy</b>        |  | High-class connectors, etc.                    | ○                    | ◎                            | ○            |               |              |
|  <b>In-P compound semiconductors</b> |  | Optical communication devices<br>High-speed IC |                      |                              | ○            | ◎             | ○            |



## Cautionary Statement Regarding Forward-Looking Statements

This notice contains certain forward-looking statements, however, actual results may differ materially from those reflected in any forward-looking statement, due to various factors, including but not limited to, the following:

- (1) macroeconomic conditions and changes in the competitive environment in the energy, resources and materials industries;
- (2) changes in laws and regulations; and
- (3) risks related to litigation and other legal proceedings.