

Fiscal 2016 - Apr 1, 2016 to Mar 31, 2017-

# Presentation for IR Meeting



**Tokuyama Corporation** 

**April 28, 2017** 

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- 1 Financial Results for FY2016
  - 1. Financial Highlights
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# 1. Financial Highlights Consolidated (year-on-year change)

(Billions of yen)

|  | FY2015   | FY2016 | Differe | ence |
|--|----------|--------|---------|------|
|  | F12013   | F12010 | Amount  | %    |
| Net sales                                      | 307.1    | 299.1  | (8.0)   | (3)  |
| Operating income                               | 23.0     | 39.7   | +16.6   | +72  |
| Ordinary income                                | 17.7     | 33.9   | +16.2   | +92  |
| Profit (loss) attributable to owners of parent | (100.5)  | 52.1   | +152.7  | -    |
| Basic earnings per share (yen)                 | (289.10) | 147.78 |         |      |
| Exchange rate (¥/\$)                           | 120      | 108    | l .     |      |
| Domestic naphtha price (¥/kl)                  | 42,800   | 34,700 | l       |      |

### Qualitative information

(Net sales) ¥299.1 billion, down 3%

Plus: increased sales volume of polycrystalline silicon for both semiconductor and solar-cells

Minus: weak selling prices of petro chemicals on the back of downturn in domestic naphtha prices

(Operating income) ¥39.7 billion, up 72%

Pluses: operating rate improvement and decreased depreciation expenses at Tokuyama Malaysia;

downturn in production costs as a result of the drop in raw material and fuel prices

## 1. Financial Highlights Consolidated (year-on-year change)

(Billions of yen)

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| Domestic naphtha price (¥/kl)                  | 42,800   | 34,700 | l       |           |  |

### Qualitative information

(Ordinary income) ¥33.9 billion, up 92%

Plus: increased operating income

Minus: increased trial production expenses at Tokuyama Malaysia

(Profit attributable to owners of parent) ¥52.1 billion (back into the black)

Pluses: increased ordinary income;

improved extraordinary income//losses;

decreased income taxes owing to the decision on the business transfer of Tokuyama Malaysia

## 1. Financial Highlights Consolidated (compared with the previous fiscal year-end)

(Billions of yen, except Shareholders' equity ratio and D/E ratio)

|                            | \                  | mone or join, oncept enemented | /        |
|----------------------------|--------------------|--------------------------------|----------|
|                            | As of Mar 31, 2016 | As of Mar 31, 2017             | Changes  |
| Total assets               | 401.3              | 424.4                          | +23.0    |
| Shareholders' equity       | 51.4               | 127.0                          | +75.5    |
| Shareholders' equity ratio | 12.8%              | 29.9%                          | +17.1Pts |
| Interest-bearing debt      | 244.1              | 213.9                          | (30.1)   |
| D/E ratio                  | 4.74               | 1.68                           | (3.06)   |
| Net D/E ratio*             | 2.38               | 0.73                           | (1.66)   |
| Net assets per share (yen) | 147.98             | 305.49                         |          |

### Qualitative information

\*Net D/E ratio: (Interest-bearing debt – Cash and deposits, Cash equivalents, Money in trust)/Shareholders' equity

(Total assets)

Increase factors: increase in deferred tax assets, notes and accounts receivable – trade, and investment securities

(Shareholders' equity)

Increase factors: increase in shareholders' equity as a result of issuance of class shares;

increase in retained earnings as a result of posting profit attributable to owners of parent

(Interest-bearing debt)

Decrease factors: decrease in bonds, long-term loans payable and short-term loans payable

# 2. Net Sales/Operating Income by Business Segment

(Year-on-year change) (Billions of yen)

|  | FY2015    |                  | FY2       | FY2016           |           | Difference |                  |      |  |
|--|-----------|------------------|-----------|------------------|-----------|------------|------------------|------|--|
|  | Net sales | Operating income | Net sales | Operating income | Net sales | %          | Operating income | %    |  |
| Chemicals  | 87.8      | 8.9              | 83.3      | 13.1             | (4.4)     | (5)        | +4.2             | +48  |  |
| Specialty Products                                     | 60.9      | (1.1)            | 67.7      | 9.6              | +6.8      | +11        | +10.8            | -    |  |
| Cement   | 85.4      | 5.8              | 82.9      | 7.8              | (2.4)     | (3)        | +2.0             | +35  |  |
| Life & Amenity   | 57.6      | 6.5              | 50.7      | 5.6              | (6.9)     | (12)       | (0.9)            | (15) |  |
| Others   | 53.6      | 5.6              | 52.1      | 5.9              | (1.5)     | (3)        | +0.2             | +5   |  |
| Total  | 345.5     | 25.8             | 336.9     | 42.3             | (8.5)     | (2)        | +16.4            | +64  |  |
| Inter-segment eliminations and corporate-wide expenses | (38.4)    | (2.7)            | (37.8)    | (2.5)            | +0.5      | ı          | +0.1             | -    |  |
| Consolidated results                                   | 307.1     | 23.0             | 299.1     | 39.7             | (8.0)     | (3)        | +16.6            | +72  |  |

(Note) Sales and operating income in each segment shown above include inter-segment transactions.

(Reference)

| Tokuyama Malaysia 8.8 ( | 0.2) 13.9 (1.6) | +5.0 +57 | +8.6 - |
|-------------------------|-----------------|----------|--------|
|-------------------------|-----------------|----------|--------|





- Performance Forecasts for FY2017
  - 1. Future Business Environment and Countermeasures
  - 2. Performance Forecasts
  - 3. Performance Forecasts by Business Segment

2 Performance Forecasts for FY2017

## 1. Future Business Environment and Countermeasures

#### Chemicals

- Earnings are expected to remain volatile for an extended period. This largely reflects the upward trend in petrochemical product as well as other raw material and fuel costs due to increases in the market prices of crude oil and coal.
  - Tokuyama will endeavor to adjusting product prices and strengthen its cost competitiveness, thereby securing stable earnings.

### **Specialty Products**

- ◆ Demand for semiconductors for use in electronics equipment is forecast to remain robust. With the growing trend toward miniaturization, customers' requirements for higher quality and stable supply are also increasing.
  - In working to expand earnings, Tokuyama will work diligently to reduce costs while ramping up efforts to establish a production structure that is capable of meeting these calls for higher quality and demand for semiconductor-related products including semiconductor-grade polycrystalline silicon. At the same time, we will look to expand earnings by increasing sales of high-value-added products.

#### Cement

- Private-sector demand in Japan is expected to exhibit signs of a modest recovery. This largely reflects Olympic-related construction in the Tokyo area. In contrast, public-sector demand appears to be declining as a result of such factors as the downturn in public investment and lengthening of construction periods. Based on the aforementioned, total demand in Japan is forecast to edge up slightly year on year.
  - We will strive to secure earnings through a variety of initiatives including efforts to expand the volume of exports, accept a higher volume of waste, and thoroughly reduce manufacturing costs.

### Life & Amenity

- ◆ The domestic market is expected to remain on a modest recovery path. Turning to overseas markets, however, uncertainty surrounding the international situation as well as the trade policies of each country is increasing. There are also concerns of an economic slowdown in emerging nations.
  - Tokuyama will work to boost earnings by focusing on developing and marketing products that meet customer needs and changes in the market.

### Performance Forecasts for FY2017

## 2. Performance Forecasts

# Consolidated (Year-on-year change based on FY2017 forecasts)

(Billions of yen)

|   | FY2016 Results | FY2017 Forecasts |
|---|----------------|------------------|
| Net sales                               | 299.1          | 300.0            |
| Operating income                        | 39.7           | 36.0             |
| Ordinary income                         | 33.9           | 32.0             |
| Profit attributable to owners of parent | 52.1           | 13.0             |

| Difference |      |  |  |  |  |
|------------|------|--|--|--|--|
| Amount     | %    |  |  |  |  |
| +0.8       | +0   |  |  |  |  |
| (3.7)      | (9)  |  |  |  |  |
| (1.9)      | (6)  |  |  |  |  |
| (39.1)     | (75) |  |  |  |  |

| Basic earnings per share (yen) | 147.78 | 36.72  |
|--------------------------------|--------|--------|
| Exchange rate (¥/\$)           | 108    | 105    |
| Domestic naphtha price (¥/kl)  | 34,700 | 40,000 |

### Qualitative information

(Net sales)

Pluses: increased sales volumes of VCM and cement;

price revision of petrochemicals

(Operating income)

Plus: increased sales volumes

Minus: increase in fuel and raw material cost,

maintenance cost and other costs

(Ordinary income)

Minus: decrease in operating income

(Profit attributable to owners of parent)

Minuses posting extraordinary loss in connection with the

business transfer of Tokuyama Malaysia;

increased tax expenses due to absence of the

deferred tax asset posted in the previous fiscal year

# 3. Performance Forecasts by Business Segment

(Year-on-year change based on FY2017 forecasts)

(Billions of yen)

|  | FY2016 Results |                  | FY2017 Forecasts |                  | Difference |      |                  |      |
|--|----------------|------------------|------------------|------------------|------------|------|------------------|------|
|  | Net sales      | Operating income | Net sales        | Operating income | Net sales  | %    | Operating income | %    |
| Chemicals  | 83.3           | 13.1             | 89.0             | 13.0             | +5.6       | +7   | (0.1)            | (1)  |
| Specialty Products                                     | 67.7           | 9.6              | 56.0             | 9.5              | (11.7)     | (17) | (0.1)            | (2)  |
| Cement   | 82.9           | 7.8              | 86.0             | 5.5              | +3.0       | +4   | (2.3)            | (30) |
| Life & Amenity   | 50.7           | 5.6              | 54.0             | 4.0              | +3.2       | +6   | (1.6)            | (29) |
| Others   | 52.1           | 5.9              | 52.0             | 5.5              | (0.1)      | (0)  | (0.4)            | (8)  |
| Total  | 336.9          | 42.3             | 337.0            | 37.5             | +0.0       | +0   | (4.8)            | (11) |
| Inter-segment eliminations and corporate-wide expenses | (37.8)         | (2.5)            | (37.0)           | (1.5)            | +0.8       | -    | +1.0             | -    |
| Consolidated Results                                   | (299.1)        | 39.7             | 300.0            | 36.0             | +0.8       | +0   | (3.7)            | (9)  |

(Note) Sales and operating income in each segment shown above include inter-segment transactions.

(Reference)

| Tokuyama Malaysia | 13.9 | (1.6) | 1.7 | (0.5) | (12.2) | (88) | +1.0 | 1 |
|-------------------|------|-------|-----|-------|--------|------|------|---|
|-------------------|------|-------|-----|-------|--------|------|------|---|

(Note) FY2017 forecast for Tokuyama Malaysia factors in profit and loss for two months until business transfer scheduled on end of May





- 3 Progress under the Medium-Term Management Plan
- 1. Progress in Achieving Numerical Targets
- 2. Transfer of Tokuyama Malaysia
- 3. Redemption of Preferred Stock and Resumption of dividends
- 4. Results after Addressing Priority Issues and Future Measures

## 1. Progress in Achieving Numerical Targets

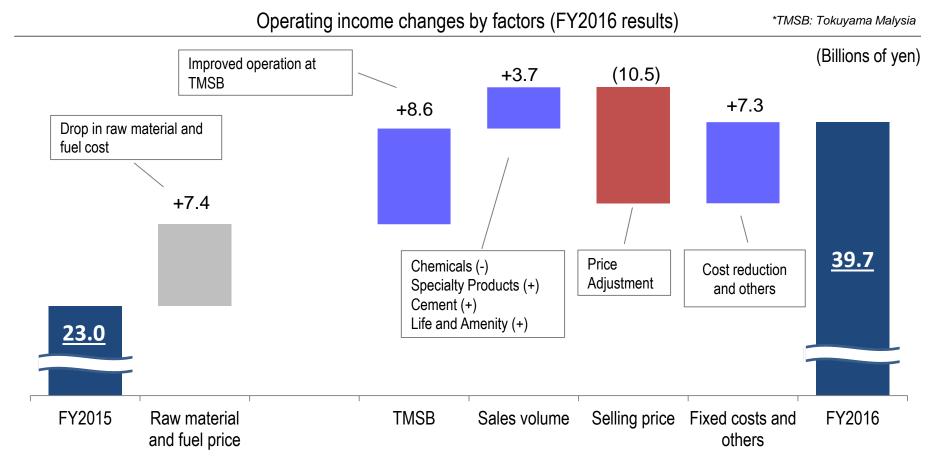
Substantial increase in profit in FY2016 due to an improvement in earnings from Tokuyama Malaysia. While the transfer of Tokuyama Malaysia will have a certain impact on each indicator from FY2017, we will work toward an improvement in excess of numerical targets through the reallocation of management resources.

|                               | FY2015                          |               | FY2016                         | <u>FY2020</u><br>Target | Comments (FY2016 results)   |
|-------------------------------|---------------------------------|---------------|--------------------------------|-------------------------|---|
|                               | Net sales ¥307.1 billion ¥299.1 |               | ¥299.1 billion                 | ¥335.0 billion          | Increase in sales volume on the back of a recovery in economic conditions                     |
| Оре                           | erating income                  | ¥23.0 billion | on ¥39.7 billion ¥36.0 billion |                         | Decrease in net sales owing mainly to a drop in unit selling prices in line with the downturn |
| ROA                           |                                 | 5.7%          | 9.4%                           | 10%                     | in raw material costs and the strong yen  Increase in earnings as a result of improvement     |
|                               | Operating margin                | 7.5%          | 13.3%                          | 10%                     | in Tokuyama Malaysia and drop in raw material and fuel costs                                  |
|                               | Total asset<br>turnover         | 0.77 times    | 0.70 times                     | 1.0 times               | ROA was increased due to improved operating margin  |
| Financial                     | ccc                             | 69 days       | 68 days                        | 55 days                 | CCC was improved owing to reduce inventories  |
| Financial indicators          | D/E ratio                       | 4.7           | 1.7                            | 1.0                     | D/E ratio was improved by building up profits and issuing preferred stock                     |
| Excl                          | nange rate (¥/US\$)             | 120           | 108                            | 110                     |   |
| Domestic naphtha price (¥/kl) |                                 | 42,800        | 34,700                         | 58,000                  |   |



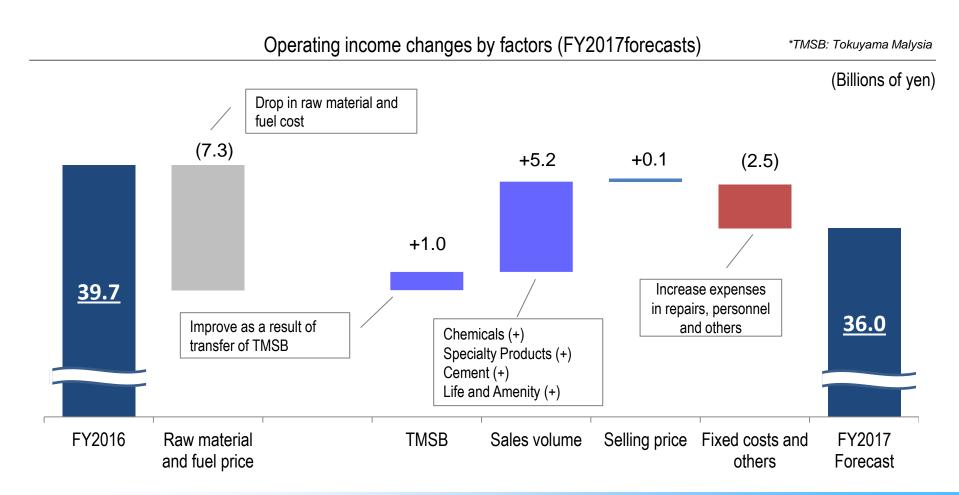
# 1. Progress in Achieving Numerical Targets

Achieved an increase in earnings that exceeded the Medium-Term Management Plan's final fiscal year target. Amid the ongoing positive flow-on effects of cutbacks in raw material and fuel costs attributable to the drop in resource prices, this was largely due to continued progress in improving TMSB\* earnings, rationalizing the soda ash business, and implementing various other Medium-Term Management Plan measures.



# 1. Progress in Achieving Numerical Targets

Offset the increase in costs attributable to the upswing resource prices and increased repair costs through such measures as an increase in sales volume to maintain Medium-Term Plan final fiscal year profit target levels.



# 2. Transfer of Tokuyama Malaysia

Received the necessary approvals from the competition authorities of each country in connection with the transfer of Tokuyama Malaysia shares. The transfer of all shares to OCI Company Ltd. is scheduled to take place on May 31, 2017 (revised from the initial transfer date of March 31, 2017).

### Progress of transfer

|             | FY2016 (17/3)   | FY2017 (18/3)   |
|-------------|---|---|
| Results and | Sep 28 Resolution relating to the transfer of shares to OCI                       | ➤ Apr 26 Formal resolution by OCI to acquire the shares of Tokuyama Malaysia by way of transfer |
| Plans       | Oct 7 Third-party allotment (First allotment) (Tokuyama's equity interest: 83.5%) | May 31 Third-party allotment (Second allotment) (Planned) Transfer of all shares to OCI         |

## 3. Redemption of Preferred Stock and Resumption of dividends

### **About the redemption of preferred stock**

Tokuyama has obtained the necessary approvals to transfer shares in Tokuyama Malaysia from the relevant agencies and authorities. At the same time, the Company is confident in its ability to secure not only a recovery, but also growth in its net assets based on results for the fiscal year under review and forecasts for the following fiscal year. Taking each of the aforementioned into consideration, Tokuyama has decided to acquire (the consideration for which is cash) and cancel all of the preferred stock (total paid-in amount: 20 billion yen) issued to Japan Industrial Solutions.

### Dividends on common shares (plan)

Tokuyama plans to resume the payment of dividends in fiscal 2017. In specific terms, the Company is projecting the payment of an interim and period-end dividend of ¥2 per share each. This takes into account that profit will progress in line with the medium-term management plan on and after the fiscal year ending March 31, 2018.

## 4. Results after Addressing Priority Issues and Future Measures

## **Current Understanding of Condition**

### **External Environment**

- Increase in demand for materials generally on the back of a recovery in worldwide economic conditions
- Control of a surge in raw material and fuel prices thanks largely to the growing acceptance of shale gas /oil
- Increase in demand for cutting-edge electronic components in line with efforts aimed at promoting the widespread use of next-generation ICT encompassing high-speed, large-capacity communication
- Increase in demand for high-performance medical equipment amid advances in medical treatment and prevention as well as growing awareness toward the importance of improved health

### **Internal Requirements**

- Need to bolster the Company's financial platform which has suffered under the weight of impairment losses in Malaysia
- Vital that Company creates a new driving force that is capable of generating profit growth
- Issues pending include a review and upgrade of the Company's corporate governance structure and systems

## 4. Results after Addressing Priority Issues and Future Measures

# (1) Change the Group's organizational culture and structure

### [FY2016 Results]

- Implemented activities aimed at increasing awareness toward and acceptance of the Company's vision (president's caravan, etc.)
- Revised personnel systems for key positions
- Nurtured human resources using lectures conducted by outside experts
- Review personnel evaluation systems
  - Exchange of human resources between Group companies
  - Vigorous introduction of outside personnel

- Continue to implement activities aimed at increasing awareness toward and acceptance of the Company's vision
- Revise comprehensive personnel systems
- Reform human resource development systems; actively recruit outside personnel



## 4. Results after Addressing Priority Issues and Future Measures

# (2) Rebuild the Group's business strategies

**■** Growth Businesses

Become a global leader in advanced materials

Thoroughly understand customers' needs, and meet requirements through unique technologies

Traditional Businesses

Become a leader in Japan through strengthening competitiveness

Become an entity that maintains a thirst for increased efficiency to overcome competition in the general-purpose products market

#### (FY2016 Results)

- Operations recommenced at a semiconductor-grade polysilicon plant; increase in production of aluminum nitride
- Sale of interest in the solar-grade polysilicon and gas sensor businesses
- Positive steps to rationalize the soda ash and vinyl chloride businesses; improvement in profitability on the back of full electrolysis operations
- Improvement in operating rates as a result of the upswing in exports of cement
- Launched the BRIGHT-II initiative at Tokuyama factory in an effort to reduce major costs across all divisions
- Adhered strictly to a policy of PDCA control in connection with financial indicators and priority issues

- Take steps to increase production of unique, high quality products in line with growing semiconductor-grade polycrystalline miniaturization
- Expand capacity of high-purity liquid chemicals for electronics manufacturing (IPA, developer)
- Expand the lineup of heat dissipation material products and increase capacity
- Accelerate the pace of healthcare-related product overseas business development
- Strengthen the Group's competitive advantage through alliances and M&As
- Expand business domains by rebuilding the research and development structure and promoting open innovation
- Enhance business and plant operating efficiency through the use of IoT and AI
- Review existing investment criteria; optimize the allocation of management resources by introducing withdrawal standards



## 4. Results after Addressing Priority Issues and Future Measures

# (3) Strengthen Group management

■ Business Subsidiaries:

Contribute to the

Group's growth strategies

•Strong support from a human resource perspective

- Flexible capital policy
- Functional Subsidiaries:
  Contribute to the Group
  through the reduction of costs

•Cost reduction activities in unison with Tokuyama Factory

### [FY2016 Results]

- Reverified positioning and significance within each business
- Sold shares of Figaro Engineering Inc.
- Resolved to transfer Tokuyama Malaysia
- Implemented a scrap and build approach at Sun Tox Co., Ltd.; expanded plant facilities at A&T Corporation

- Promote integrated management with business subsidiaries (capital, human resources)
- Improve profitability at the two microporous film companies and China as well as Excel Shanon Corporation
- ■Complete the transfer of Tokuyama Malaysia



## 4. Results after Addressing Priority Issues and Future Measures

# (4) Improve the Company's financial position

Restore shareholders' equity through the accumulation of profits

Quickly stabilize the Company's financial platform

Take the necessary preparatory steps to ensure that the Company is well positioned to capitalize on M&A and other opportunities with a view to accelerating future growth

### [FY2016 Results]

- Strengthened the Company's financial platform through the issuance of preferred stock
- Reduced interest-bearing debt 30.1 billion yen; improved the D/E ratio 3.06 percentage points

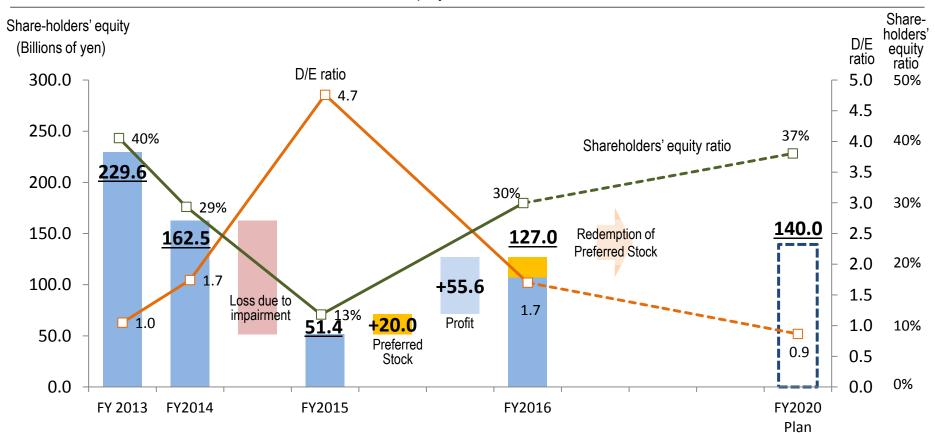
- Further reduce interest-bearing debt; decrease the Company's interest burden
- Increase capital through the accumulation of business earnings
- Redeem preferred stock in line with a review of Medium-Term Management Plan performance



## 4. Results after Addressing Priority Issues and Future Measures

Tokuyama decided to undertake the redemption of preferred stock totaling ¥20 billion yen in fiscal 2017 and is endeavoring to achieve its financial targets by accumulating profits.

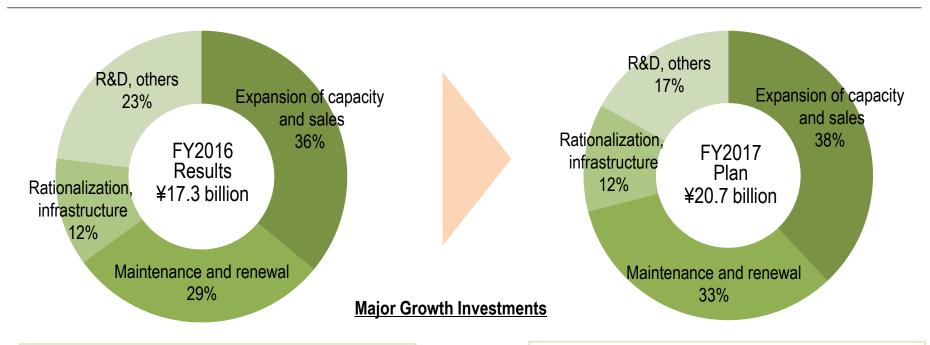
Shareholders' Equity and Financial Index Trend



## 4. Results after Addressing Priority Issues and Future Measures

**CAPEX** 

### Breakdown of CAPEX



Introduced the latest polyolefin film facilities (Sun • Tox)

Investments aimed at increasing the quality of semiconductor-related materials

Increase production of aluminum nitride powder

Introduce the latest polyolefin film facilities (Sun - Tox)

Expand A&T Corporation's Esashi Factory (A&T)

Expansion of the yard (Shunan Bulk Terminal)

# 4. Results after Addressing Priority Issues and Future Measures

R&D

Research and Development Activity Results and Plans

### FY2016 Results (¥7.5 billion)

### FY2017 Plan (¥9.0 billion)

### **New Businesses**

### Deep ultraviolet LED

Transfer related technologies and facilities to Stanley Electric Co., Ltd.

⇒ Focus on the development and improvement of single crystal aluminum nitride substrate materials

#### Scintillator for use in the detection of neutrons

Undertake the evaluation of customers and improve manufacturing processes

# Growth Businesses

Specialty Products
Life & Amenity

- •Develop boron nitride and other new heat dissipation materials using enhanced reduction-nitridation processes
- •Develop organic and inorganic hybrid products (electronic materials and the healthcare field)

# **Traditional** Businesses

Chemicals Cement

- •Improve existing product processes; develop various grades
- Develop waste gypsum board and other recycling technologies
- Develop a variety of infrastructure reinforcement and maintenance materials







- 4 Business Strategies
  - 1. Chemicals Segment
  - 2. Specialty Products Segment
  - 3. Cement Segment
  - 4. Life & Amenity Segment
  - 5. Tokuyama Factory

# 1. Chemicals Segment

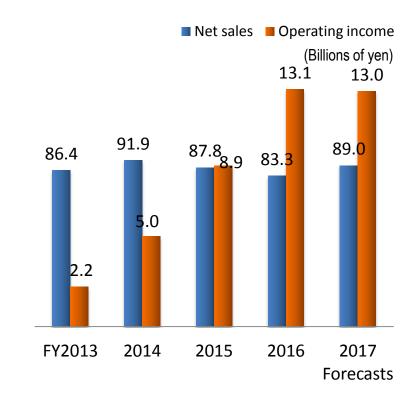
## **Basic Policy**

 Contribute to the development of customers' businesses by delivering high-quality, cost competitive basic chemical materials and services that accurately reflect customers' needs while helping to ensure the Company's stable and continuous earnings growth as a core business segment

### Measures

<Soda Ash and Calcium Chloride Business>

- Ensure stable supply and maintain quality as a single domestic manufacturer
- Increase production of granular calcium chloride for use in the melting of snow
- <Chlor-Alkali and Vinyl Chloride Business>
- Strengthen the competitiveness of in-house power generation and electrolytic chlor-alkali production with the aim of further reducing the cost of caustic soda and chlorine
- Expand VCM exports and maintain plant operations at full capacity
- Strengthen profitability in the chlorine derivatives business (vinyl chloride, propylene oxide, chloromethane, etc.)
- Increase the value of hydrogen by expanding liquid hydrogen plant capacity



# 1. Chemicals Segment

## Activities aimed at restructuring businesses and reinforcing competitiveness



# Integrating the soda ash and calcium chloride businesses

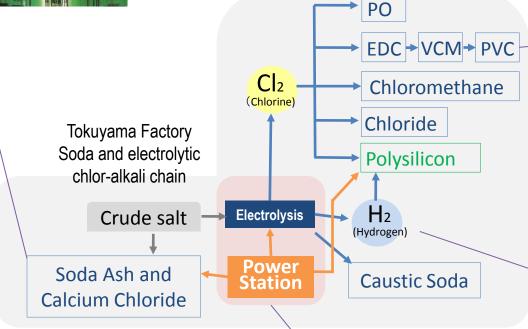
Ensure stable supply, maintain quality, and establish an optimal distribution structure as a single domestic manufacturer

Increase production of granular calcium chloride



Consolidate PVC production

Expand VCM exports



Strengthening the competitiveness of in-house power generation and electrolytic chlor-alkali production



Expand the production capacity of liquid hydrogen to twofold

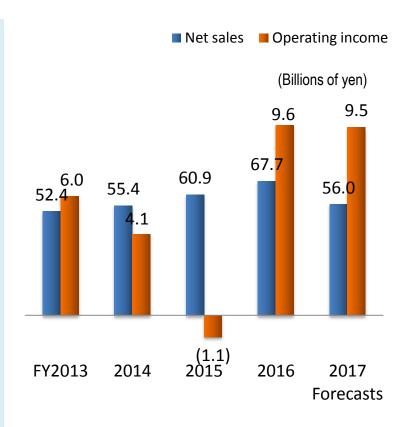
# 2. Specialty Products Segment

## **Basic Policy**

Expand business activities and earnings by supplying products and putting forward development product
 proposals that are consistently preferred by customers

### Measures

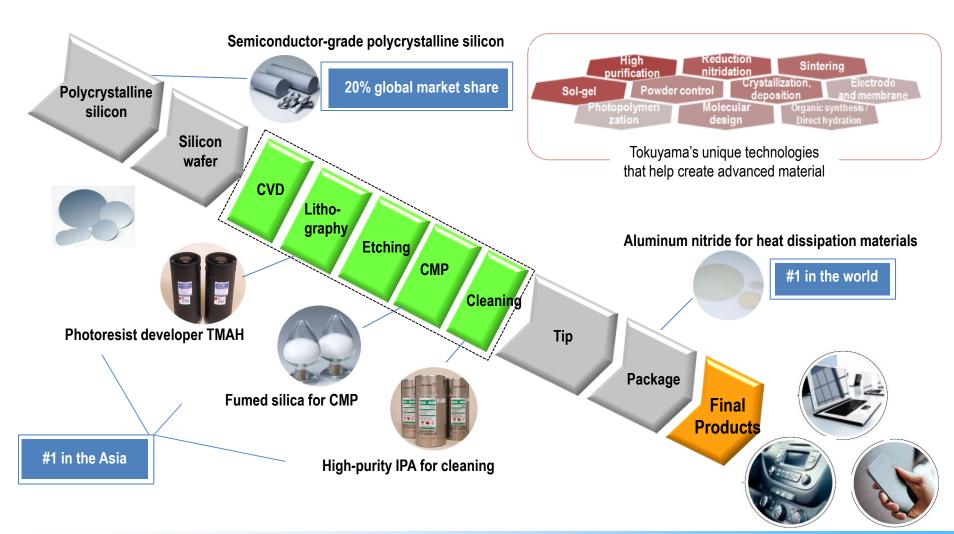
- <Semiconductor-grade Polycrystalline Silicon Business>
- Accurately grasp the quality requirements of customers beginning with the latest products; realize world-leading quality while minimizing costs
- <Fumed Silica Business>
- On top of silicone- and CMP-related products, upgrade and expand highly functional products
- Promote cost reductions and high added value at Tokuyama Chemicals (Zhejiang) Co., Ltd.
- <IC Chemicals Business>
- Pursue increased quality and expand sales of products that target the advanced semiconductor field
- <Thermal Management Material Business>
- Increase aluminum nitride powder production capacity (480→600 tons/year; operation to commence in April 2018)
- Commercialize boron nitride and aluminum nitride filler activities





# 2. Specialty Products Segment

Tokuyama's Semiconductor-Related Products that Underpin Advances in ICT



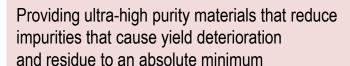


# 2. Specialty Products Segment

Tokuyama's Semiconductor-Related Products that Underpin Advances in ICT

Advances in the miniaturization and 3D application of semiconductors in line with the growing trend toward increased capacity and compact devices





- Semiconductor-grade high-purity polycrystalline silicon
- High-purity chemicals for electronic manufacturing (high-purity IPA and TMAH)

Surge in demand for heat dissipation materials on the back of the growing shift toward high output, compact automotive, industrial machinery, and electric railway power devices







Providing heat dissipation materials with impurities that exhibit extremely low high thermal conductivity using the Company's proprietary reduction-nitridation process

- Aluminum nitride powder and fillers
- Aluminum nitride ceramics
- Boron nitride



# 3. Cement Segment

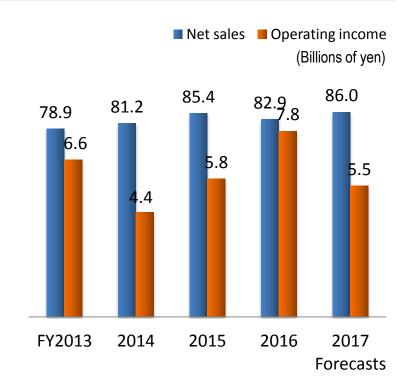
## **Basic Policy**

 Upgrade and build optimal production, sales, and distribution systems that are capable of flexibly addressing changes in the business environment, while maximizing waste disposal earnings by increasing exports and working to strengthen competitive advantage by reducing costs

### Measures

<Cement Business>

- Improve production efficiency as well as unit consumption while reducing costs focusing mainly on efforts to increase the use/intake of waste
- Secure earnings by expanding exports that maximize the use of the No.4 kiln
- Upgrade and expand the infrastructure maintenance and reinforcement business through Tokuyama Mtech Corp.
- <Recycling and Environment Business>
- Optimize the application of raw materials and promote the use of combustible waste and optimize the fuel plant business
- Promote stable operations in existing recycling businesses including the recycling of waste gypsum boards; create new recycling businesses



# 3. Cement Segment

### **Expand Cement Clinker Exports**

Acquired in June 2013, Tokuyama Nouvelle Calédonie S.A. is in the process of recording substantial profits with four consecutive fiscal periods of operating income and cash flow growth; also, contributing to improvements in earnings in the Cement Segment as an importer of cement clinker

Unable to avoid contraction in domestic demand owing to the decline in the population over the medium to long term; consider and promote the development of overseas pulverization plants in addition to Tokuyama Nouvelle Calédonie in a bid to maintain operating rates at cement factories by securing stable export destinations



Clinker ship loader (Tokuyama Factory)



Tokuyama Nouvelle Calédonie S.A.

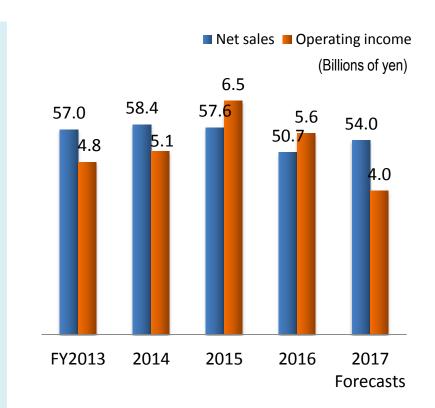
# 4. Life & Amenity Segment

## **Basic Policy**

 Secure a position of advantage in markets both in Japan and overseas, pursue business expansion, and contribute to improving people's quality of life by establishing and strengthening a customer-oriented development, manufacturing, and sales structure

### Measures

- <Microporous Film Business>
- Rebuild the China business
- <Fine Chemicals Business>
- Expand the Company's share of photochromic dye materials market; cultivate new applications
- <Dental Materials Business (Tokuyama Dental Corporation)>
- Accelerate the pace of overseas business development focusing mainly on aesthetic filling materials (composite resins)
- <Medical Diagnosis System Business (A&T Corporation)>
- Strengthen the production structure and systems by expanding the Esashi Factory (from September 2017)
- Polyolefin Film Business (Sun Tox Co., Ltd.)> Improve productivity by implementing a scrap and build approach toward manufacturing facilities (Oct 2017~)
- <lon Exchange Membranes Business (ASTOM Corp.)</pre>
- Push forward measures aimed at large-scale overseas projects
- <Plastic Sash Business (Excel Shanon Corp.)
- Expand Zero Energy House-related sales

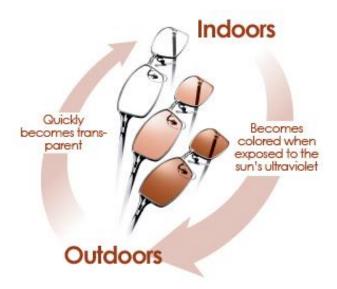


# 4. Life & Amenity Segment

### Photochromic Dye Materials

In addition to applications in the sportswear and drive-wear fields, use of photochromic materials is increasing. Amid growing awareness toward the dangers of ultraviolet rays, applications are expanding into the seniors' market as a result of the growing incidence of glaucoma and related afflictions

- •Work to increase market share by fine-tuning the Company's response to customers' requirements regarding product specification, and upgrading and expanding the product lineup
- •Cultivate new applications that harness the unique features of photochromic materials including visibility improvement and UV-shielding



#### Photochromatic lens

### Photochromic Dye Materials

Photochromic dye materials are clear resins that change color to either gray or brown when exposed to the sun's ultraviolet rays, and return to their colorless state when no longer exposed

### Features of Our Products

- Offers a number of color variations and can be colored with the three primary colors of red, blue, and yellow
- Quickly changes between transparent and colored
- Allows users to see fully vivid colors even on hot summer
- Highly durable
- Blocks over 99% of ultraviolet rays



#### 4 Business Strategies

### 5. Tokuyama Factory

#### Progress in Reducing Costs

Numerical Targets under the Medium-Term Management Plan Compared with FY2015

#### FY2016 results

(compared with FY2015)

Expansion of port facilities

Reduce coal stock expenses through an increase in the amount of coal handled as a result of large-scale expansion

¥1.1 billion

Commence work to expand the capacity of shipping facilities Increase in expenses in line with investments

(¥0.1) billion

Repair efficiency

Put in place a project team and promote activities that utilize external expertise

¥1.0 billion

Utilize external expertise, review operating flows, and look to visualize repairs and maintenance expenses

¥0.8 billion

Unit material consumption reduction

Also consider undertaking strategic renewal investments, continue to improve the unit consumption of raw materials and fuels

¥0.6 billion

Continuously improve unit material consumption by plant Continue to consider a cross-departmental approach ¥0.4 billion

Distribution cost saving

Strengthen efforts aimed at optimizing the logistics function as a whole, spearheaded by the Tokuyama Factory general manager

¥0.5 billion

Commence the construction of warehouse facilities on idle land within sites, work toward reducing storage expenses, and continue to evaluate appropriate inventory levels

¥0.1 billion

Others

Increase the selling of electric power by shortening the periods of periodic maintenance and reduce other costs

¥0.8 billion

Shorten the periods of periodic maintenance, increase the sale of electric power by actively promoting the use of LED lighting, and reduce other costs

¥1.1 billion

**Total** 

Target amount of Group-wide cost reduction in fiscal 2020

¥4.0 billion

Amount of cost reduction and profit improvement in FY2016

¥2.3 billion



- 1. Consolidated Financial Statements
- 2. Cash Flows
- 3. Changes in Operating Income
- 4. Non-Operating Income/Expenses
- 5. Extraordinary Gains/Losses
- 6. Net Sales/Operating Income by Business Segment
- 7. Principal Indicators
- 8. Performance Trend
- 9. Price Trend of Main Raw Material and Fuel
- 10. CAPEX and Depreciation Trend
- 11. Interest-bearing Debts Trend
- 12. Free Cash Flow Trend
- 13. Polysilicon Market
- 14. Scheme for Transferring Tokuyama Malaysia Shares

# 1. Consolidated Financial Statements Income Statements (Billions of yen)

|  | EV2015  | EV2016 | Difference |     |  |
|--|---------|--------|------------|-----|--|
|  | FY2015  | FY2016 | Amount     | %   |  |
| Net sales                                    | 307.1   | 299.1  | (8.0)      | (3) |  |
| Cost of sales                                | 220.6   | 201.3  | (19.3)     | (9) |  |
| Selling, general and administrative expenses | 63.4    | 58.0   | (5.3)      | (8) |  |
| Operating income                             | 23.0    | 39.7   | +16.6      | +72 |  |
| Non-operating income/expenses                | (5.3)   | (5.7)  | (0.3)      | -   |  |
| Ordinary income                              | 17.7    | 33.9   | +16.2      | +92 |  |
| Extraordinary income/expenses                | (104.2) | 4.5    | +108.7     | -   |  |
| Income/loss before income taxes              | (86.5)  | 38.5   | +125.0     | -   |  |
| Income taxes                                 | 13.0    | (14.8) | (27.8)     | -   |  |
| Non-controlling interests                    | 1.0     | 1.2    | +0.1       | +18 |  |
| Profit attributable to owners of parent      | (100.5) | 52.1   | +152.7     | -   |  |

### 1. Consolidated Financial Statements Balance Sheets

|                         | 3/31/2016 | 3/31/2017 | Changes |      |  |
|-------------------------|-----------|-----------|---------|------|--|
|                         | 0/01/2010 | 0/01/2017 | Amount  | %    |  |
| Total assets            | 401.3     | 424.4     | +23.0   | +6   |  |
| Current assets          | 243.7     | 246.6     | +2.8    | +1   |  |
| Tangible fixed assets   | 119.7     | 119.2     | (0.5)   | +0   |  |
| Intangible fixed assets | 6.3       | 4.7       | (1.6)   | (25) |  |
| Investments and other   | 31.4      | 53.7      | +22.3   | +71  |  |

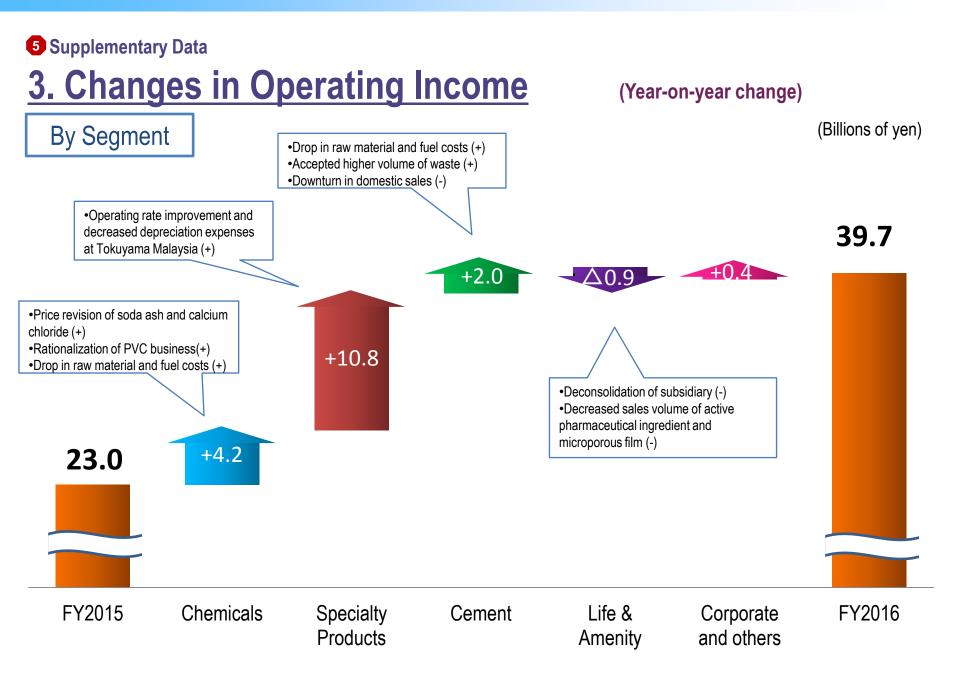
|                       | 3/31/2016 | 3/31/2017 | Changes |      |  |
|-----------------------|-----------|-----------|---------|------|--|
|                       | 0/01/2010 | 0/01/2017 | Amount  | %    |  |
| Total liabilities     | 341.1     | 288.4     | (52.6)  | (15) |  |
| Current liabilities   | 113.2     | 79.1      | (34.0)  | (30) |  |
| Long-term liabilities | 227.9     | 209.3     | (18.6)  | (8)  |  |
| Total net assets      | 60.2      | 135.9     | +75.7   | +59  |  |



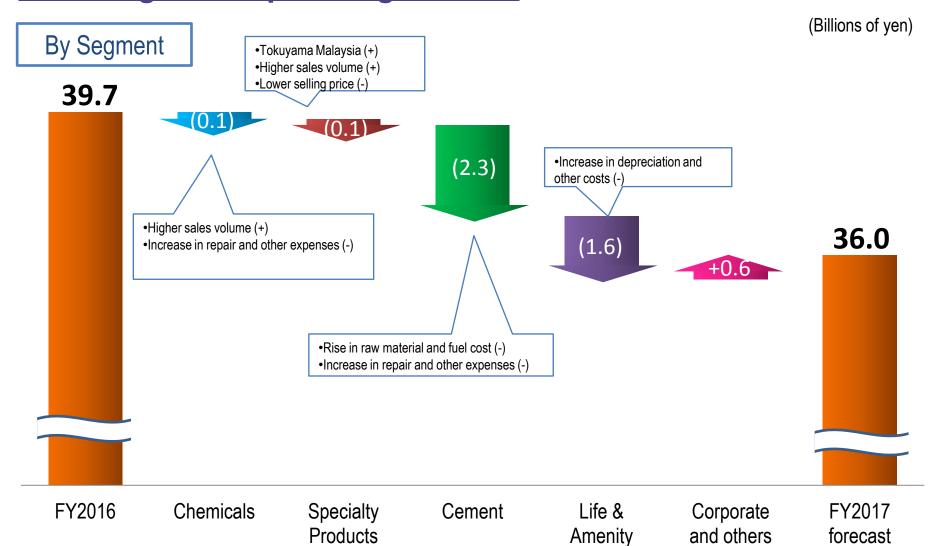
### 2. Cash Flows

#### Consolidated (year-on-year change)

|  | FY2015 | FY2016 |
|--|--------|--------|
| Cash flows from operating activities (1)   | 30.0   | 20.0   |
| Cash flows from investing activities (2)   | 13.4   | (10.0) |
| Free cash flows (3) ((1)+(2))  | 43.4   | 9.9    |
| Cash flows from financing activities (4)   | (37.6) | (11.9) |
| Effect of exchange rate changes on cash and cash equivalents (5)   | (0.7)  | (0.3)  |
| Net increase (decrease) in cash and cash equivalents (6) ((3)+(4)+(5))   | 5.0    | (2.3)  |
| Cash and cash equivalents at beginning of the year (7)   | 116.1  | 121.1  |
| Increase (decrease) in cash and cash equivalents due to changes of scope of consolidation and change in fiscal period of consolidated subsidiaries (8) | 0.0    | -      |
| Cash and cash equivalents at end of the year (9) ((6)+(7)+(8))   | 121.1  | 118.8  |



### 3. Changes in Operating Income (Year-on-year change based on FY2016 forecasts)



### 4. Non-Operating Income/Expenses Consolidated (year-on-year change)

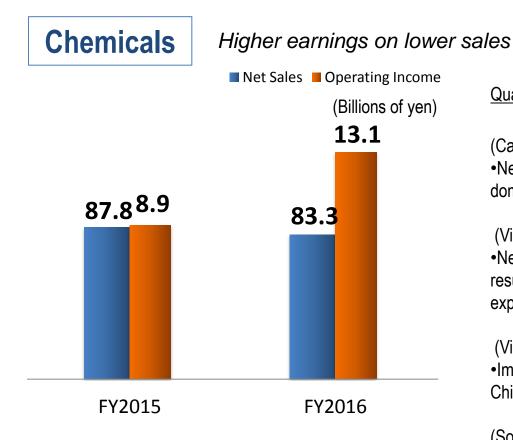
|                        |                              | FY2015 | FY2016 | Changes | Notes  |
|------------------------|------------------------------|--------|--------|---------|--|
| Non-op                 | Interest and dividend income | 0.5    | 0.3    | (0.2)   |  |
| Non-operating income   | Other income                 | 2.7    | 2.8    | +0.0    |  |
| ncome                  | Total                        | 3.3    | 3.1    | (0.1)   |  |
| Nor                    | Interest expenses            | 4.6    | 4.2    | +0.4    |  |
| Non-operating expenses | Other expenses               | 4.0    | 4.6    | (0.6)   | Increased trial production expense (1.2) Decreased borrowing cost +0.3 |
| ng                     | Total                        | 8.6    | 8.8    | (0.1)   |  |
| Non-                   | operating income/expenses    | (5.3)  | (5.7)  | (0.3)   |  |

### 5. Extraordinary Gains/Losses

#### **Consolidated (year-on-year change)**

|                            | FY2015  | FY2016 | Changes | Notes  |
|----------------------------|---------|--------|---------|--|
| Extraordinary gains        | 21.4    | 7.3    | (14.1)  | Decreased gain on non-current assets (14.1)  Decreased gain on sales of investment securities (6.1)  Subsidy income +2.2  Gain on sales of shares of subsidiaries  and associates +1.9 |
| Extraordinary losses       | 125.7   | 2.7    | +122.9  | Decreased impairment loss +123.0   |
| Extraordinary gains/losses | (104.2) | 4.5    | +108.7  |  |

(Year-on-year change)



#### **Qualitative information**

(Caustic soda)

•Net sales decreased due to weak trends in selling prices, while domestic sales volumes were steady

(Vinyl chloride monomer (VCM))

•Net sales were down due to weak trends in selling prices as a result of the drop in domestic naphtha prices, despite increased export volume for Asian market

(Vinyl chloride resin)

•Improved earnings due to the suspension of operations at the Chiba factory

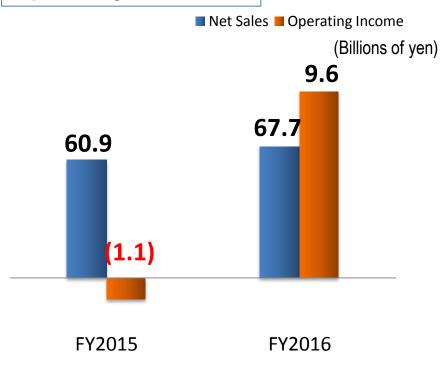
(Soda ash and calcium chloride)

•Net sales were flat owing to the fact that the efforts to revise selling price were offset by decreased sales volume

(Year-on-year change)

**Specialty Products** 

Higher earnings on higher sales



#### **Qualitative information**

(Semiconductor-grade polycrystalline silicon)

•Increased sales volume, reflecting the growing trend to highly functional mobile devices including smartphones

(Solar-grade polycrystalline silicon)

•Higher sales volume, reflecting the operating rate improvement at Tokuyama Malaysia

(Fumed silica)

Higher sales volume to of such applications as a polishing material for semiconductors

(High-purity chemicals for electronics manufacturing)

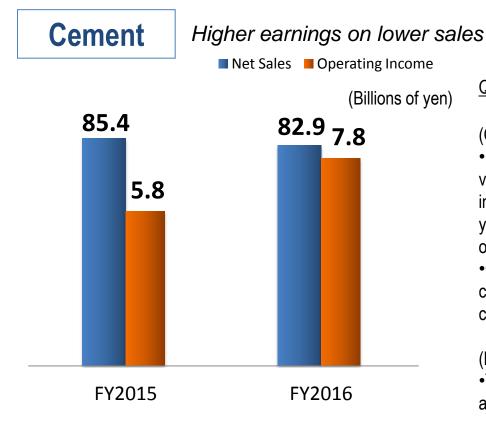
•Net sales were down due to appreciated yen, despite of robust sales volume of product used for semiconductor manufacturing

(Aluminum nitride)

•Higher sales volume of such applications used for semiconductor manufacturing equipment



(Year-on-year change)



#### **Qualitative information**

#### (Cement)

- •Net sales were down due to downturn in domestic sales volumes attributable to weak public- and private-sector demand in Japan and weak trends in export prices as a result of weaker yen, despite of an increase in the volume of exports on the back of robust demand in the Asia region
- •Consolidated subsidiary net sales declined, reflecting corrections to robust shipping targeting large-scale projects in the corresponding period of the previous fiscal year

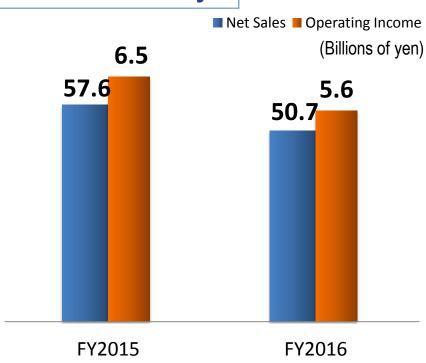
(Recycling and environment-related business)

•The Company accepted higher volume of waste including coal ash

(Year-on-year change)



#### Lower earnings on lower sales



#### Qualitative information

(Active pharmaceutical ingredient)

•Decreased sales volume, reflecting corrections to favorable shipments in the corresponding period of the previous fiscal year

(Plastic lens-related materials)

Net sales increased on the back of steady sales volume

(Microporous film)

•Lower sales volume of products mainly for disposable at oversea consolidated subsidiaries

(Polyolefin film)

- •Increased sales volume of products mainly for convenience stores
- •Weak trends in selling price on the back of the decline in domestic naphtha price

(Dental materials and equipment)

•Net sales increased due to higher sales volumes of new products and increased export volume

(Medical diagnosis system)

Increase sales volume of products for blood testing

(Gas sensor)

•Deconsolidation of Figaro Engineering Inc. from Q2 FY2016 due to the sales of shares in the company



### 7. Principal Indicators

#### Consolidated

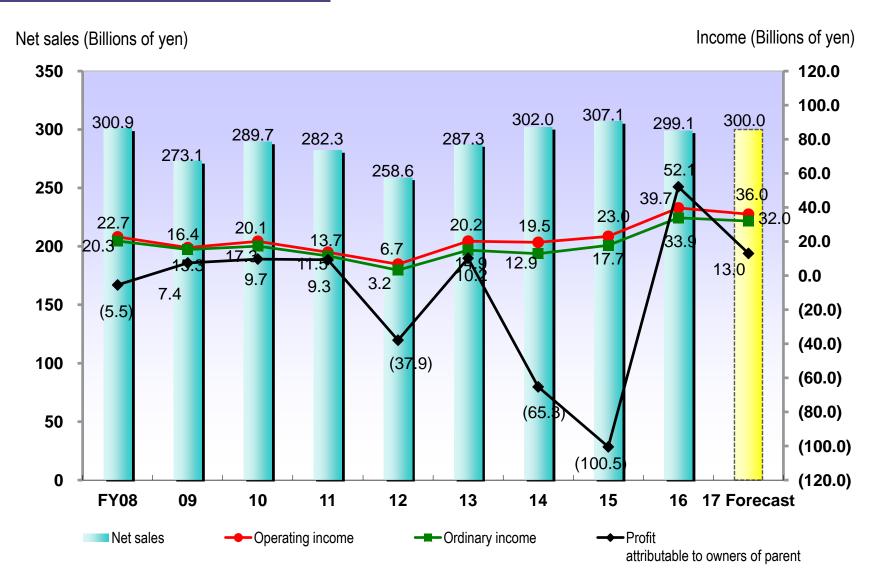
| (year-on-year change)         |                 | FY2015 | FY2016 | Changes |
|-------------------------------|-----------------|--------|--------|---------|
| Capital expenditures          | Billions of yen | 13.9   | 17.3   | +3.4    |
| Depreciation and amortization | Billions of yen | 20.0   | 14.2   | (5.8)   |
| R&D expenses                  | Billions of yen | 8.5    | 7.5    | (1.0)   |
| Financial income and expenses | Billions of yen | (4.1)  | (3.9)  | +0.1    |

| (compared with the previous fiscal year-en | d)              | 3/31/2016 | 3/31/2017 | Changes |
|--|-----------------|-----------|-----------|---------|
| Interest-bearing debts                     | Billions of yen | 244.1     | 213.9     | (30.1)  |
| Number of employees                        | Persons         | 5,759     | 5,464     | (295)   |

| (year-on-year change<br>based on FY17 forecasts | s)              | FY2016 Results | FY2017 Forecast | Changes |
|---|-----------------|----------------|-----------------|---------|
| Capital expenditures                            | Billions of yen | 17.3           | 20.7            | +3.4    |
| Depreciation and amortization                   | Billions of yen | 14.2           | 14.6            | +0.4    |
| R&D expenses                                    | Billions of yen | 7.5            | 9.0             | +1.4    |

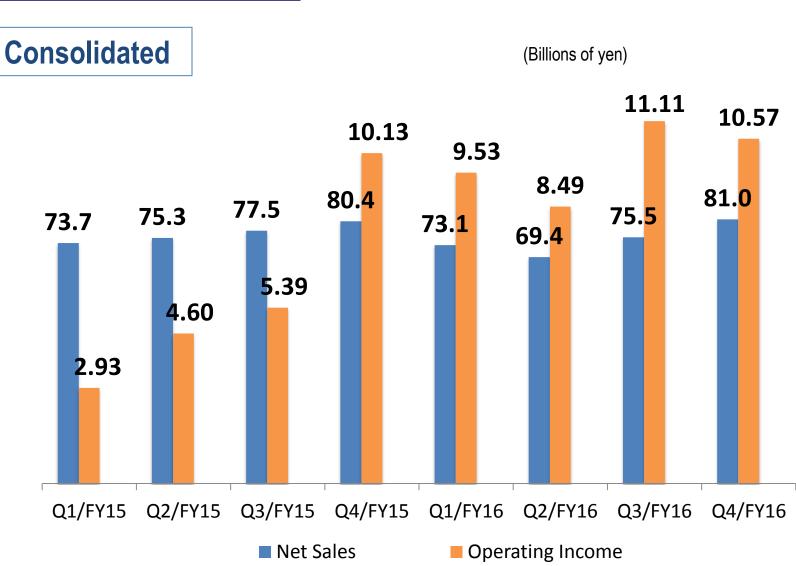
#### 8. Performance Trend

#### **Consolidated (Annual)**



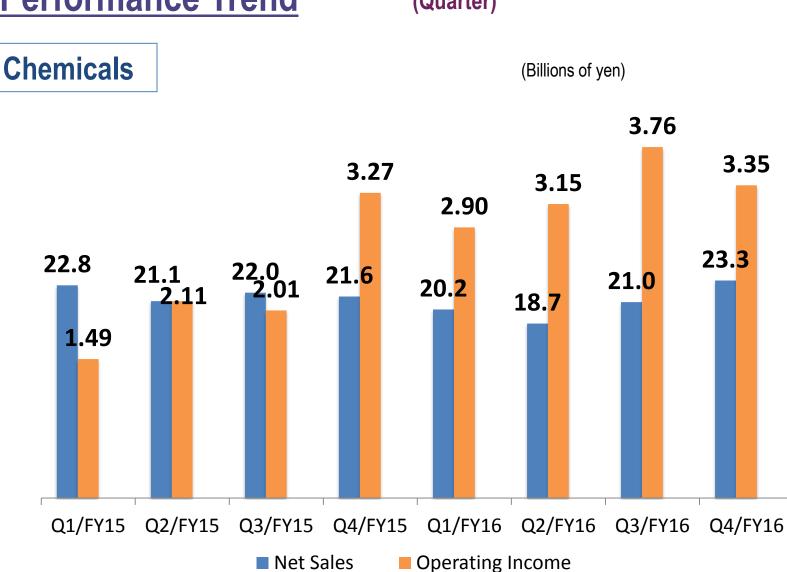
### 8. Performance Trend

(Quarter)



### 8. Performance Trend

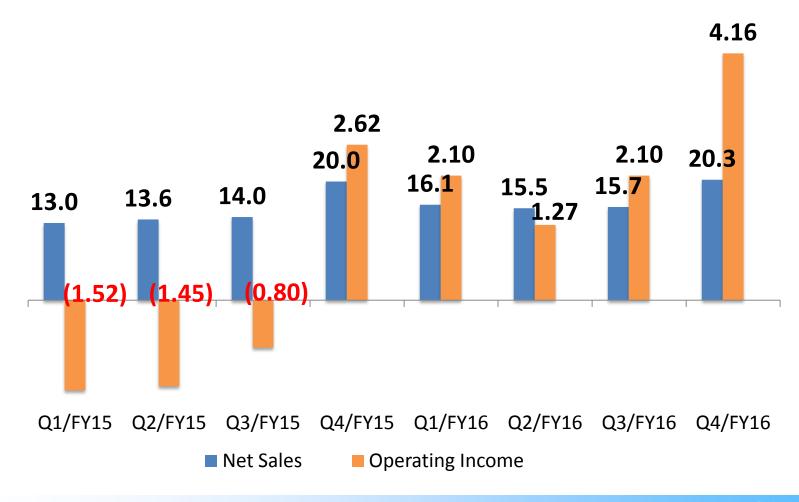
(Quarter)

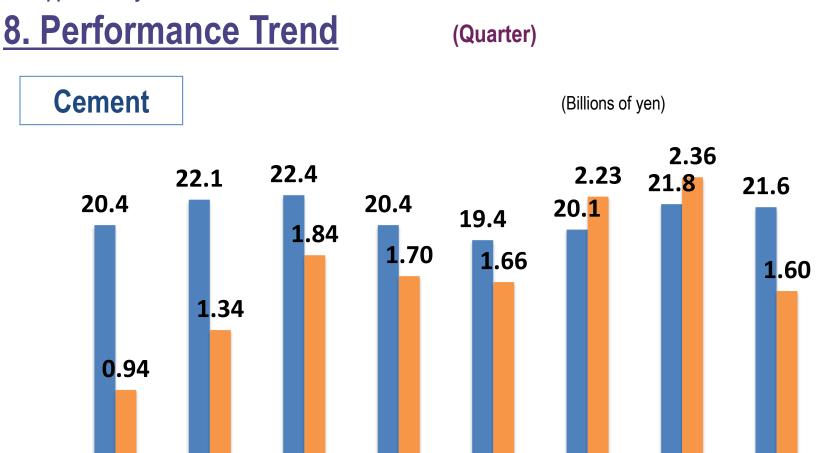


### 8. Performance Trend

(Quarter)

**Specialty Products** 





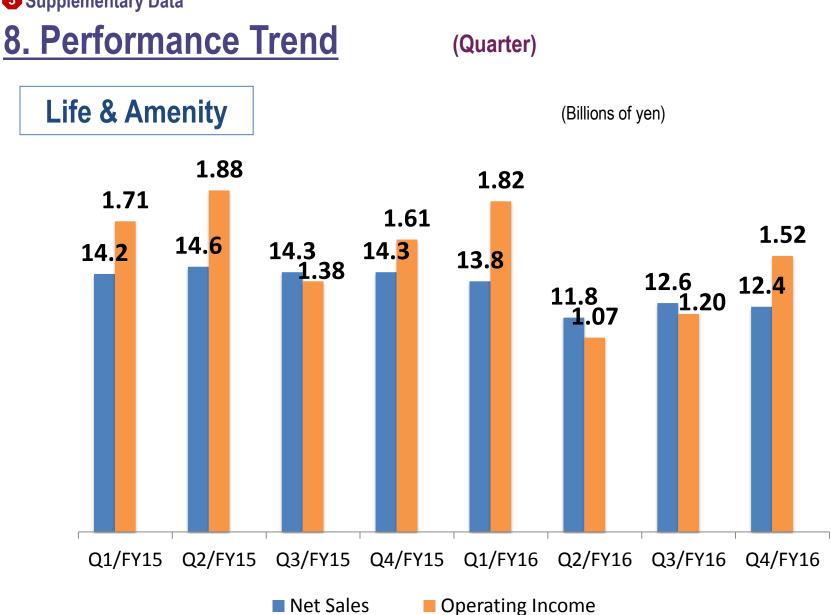
Q3/FY15 Q4/FY15 Q1/FY16 Q2/FY16 Q3/FY16

Operating Income

Q1/FY15

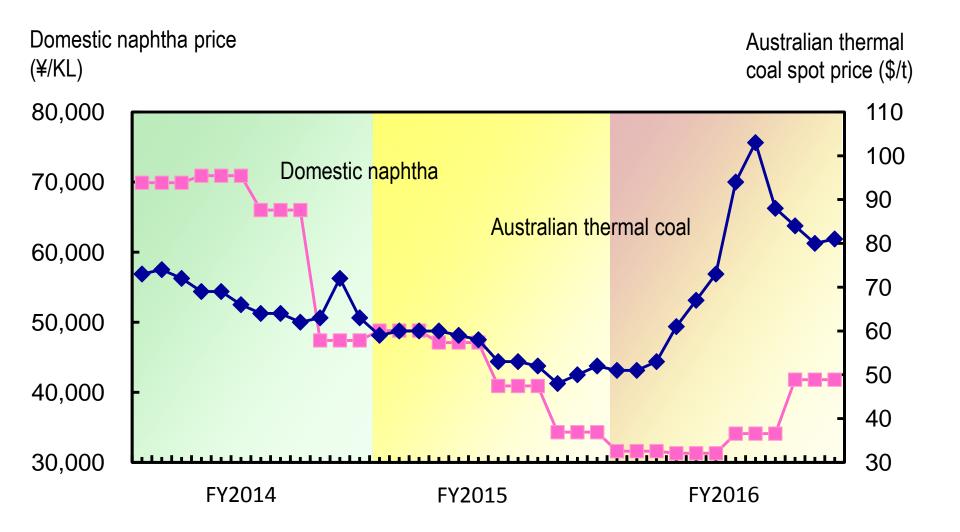
Q2/FY15

Net Sales





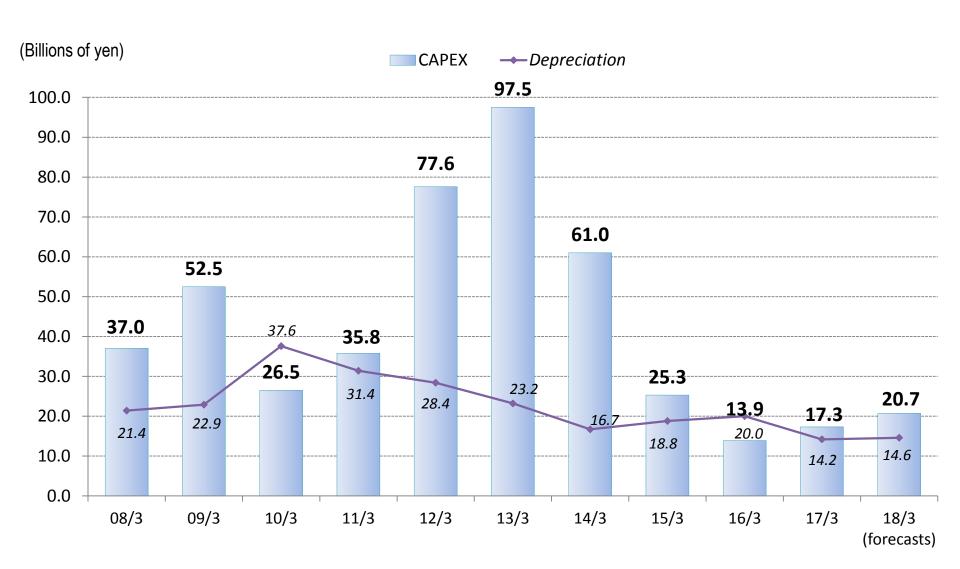
### 9. Price Trend of Main Raw Material and Fuel



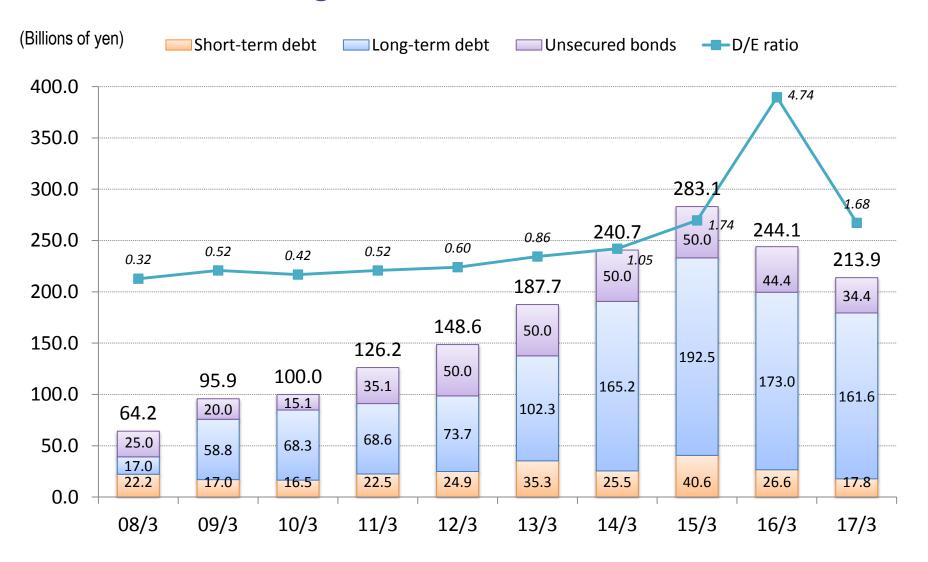


### 10. CAPEX and Depreciation Trend

#### Consolidated

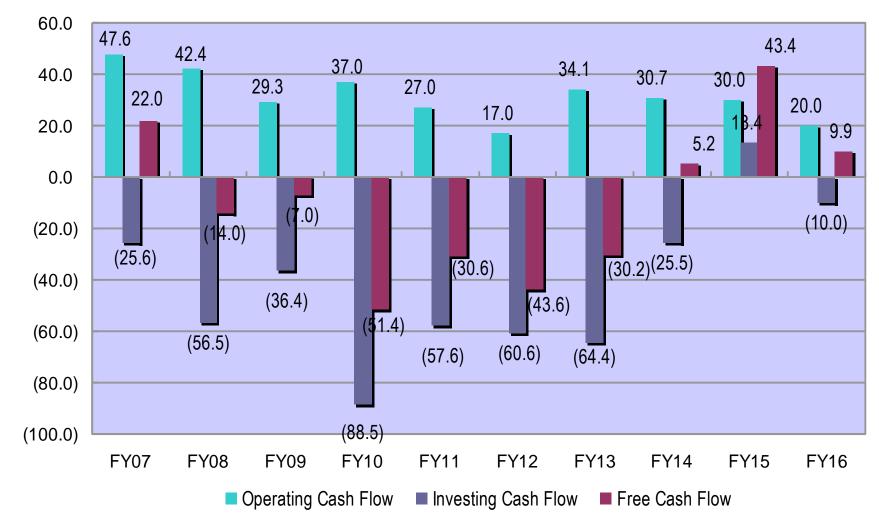


### 11. Interest-Bearing Debts Trend consolidated

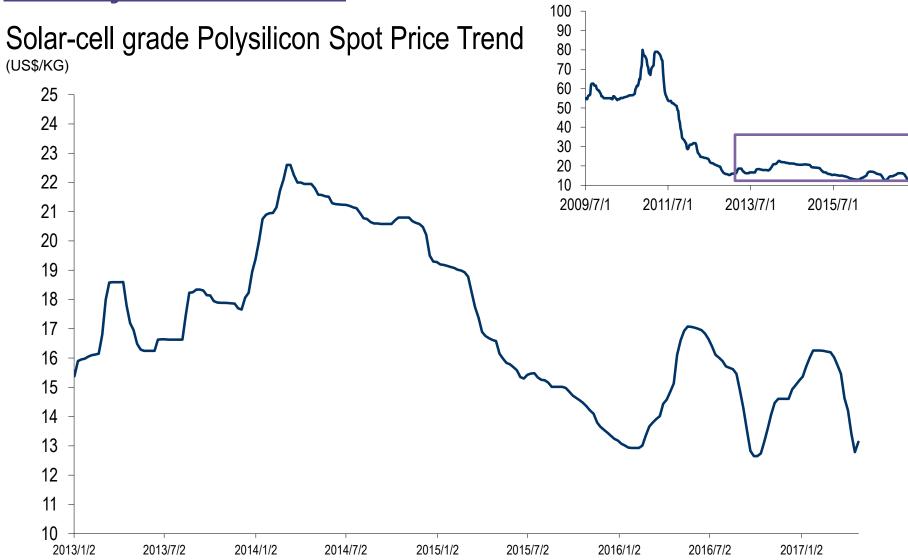




### 12. Free Cash Flow Trend

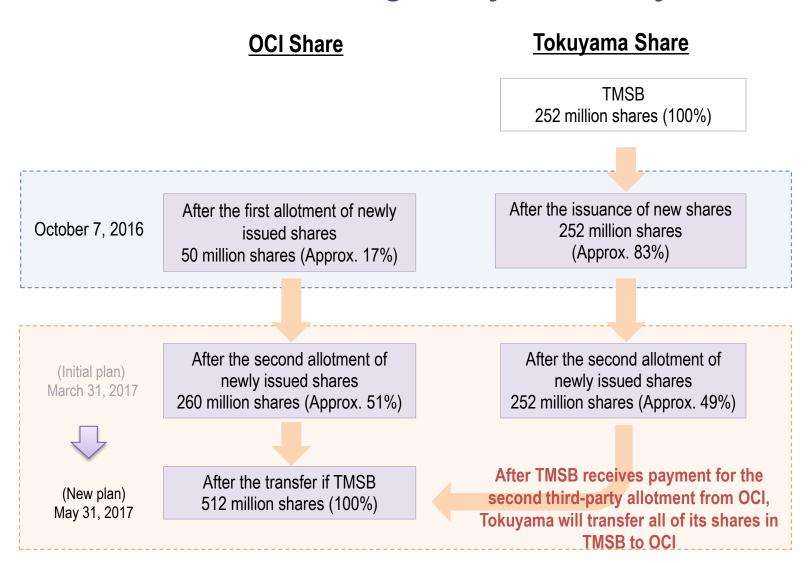


### 13. Polysilicon Market



Source: PV insights

### 14. Scheme for Transferring Tokuyama Malaysia Shares



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