



Financial Results for 2Q FY2017

August 8, 2017

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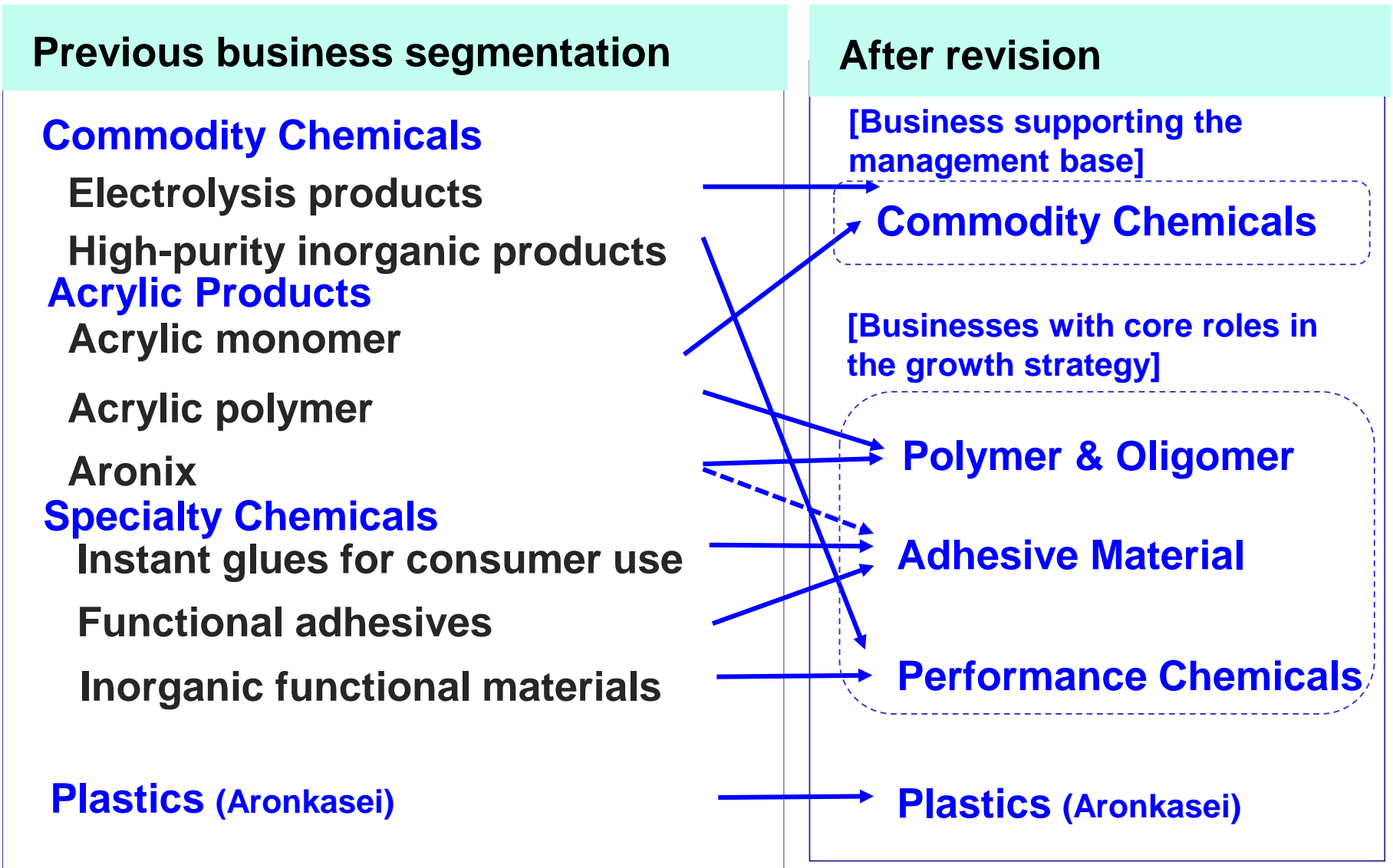
Scope of consolidation

Number of consolidated subsidiaries: 20 (increase of 1 from FY2016:

Toagosei (Thailand) established in August 2016)

Number of equity-method affiliates: 2 (no change)

| | | 2016 2Q | 2017 2Q | Change | |
|---|-------------------|-------------|-------------|-----------|-------|
| Net sales | (Millions of yen) | 66,871 | 70,743 | 3,872 | 5.8% |
| Operating income | (Millions of yen) | 7,273 | 8,793 | 1,519 | 20.9% |
| Operating income ratio | | 10.9% | 12.4% | 1.5% | — |
| Ordinary income | (Millions of yen) | 7,592 | 9,381 | 1,789 | 23.6% |
| Net income attributable to owners of parent | (Millions of yen) | 4,947 | 6,584 | 1,637 | 33.1% |
| Net income per share | (Yen) | 37.58 | 50.02 | 12.44 | — |
| Interim dividend [annual dividend] | (Yen) | 13.0 [26.0] | 13.0 [26.0] | 0.0 [0.0] | |



Consolidated Results (by Segment)

Net sales (by consolidated segment)

(Millions of yen)

| | 2016 2Q | 2017 2Q | Changes in net sales | | |
|-----------------------|---------------|---------------|----------------------|------------|--------------|
| | | | Volume | Unit price | Change |
| Commodity Chemicals | 30,197 | 32,684 | 1,273 | 1,215 | 2,487 |
| Polymer & Oligomer | 13,120 | 13,850 | 1,065 | -335 | 729 |
| Adhesive Material | 5,763 | 5,938 | 176 | -3 | 174 |
| Performance Chemicals | 3,381 | 3,773 | 447 | -55 | 391 |
| Plastics | 12,859 | 12,838 | 191 | -212 | -21 |
| Other | 1,548 | 1,658 | 109 | 0 | 109 |
| Total | 66,871 | 70,743 | 3,265 | 607 | 3,872 |

Operating income (by consolidated segment)

(Millions of yen)

| | 2016 2Q | | 2017 2Q | | Change |
|-----------------------|------------------|------------------------|------------------|------------------------|--------------|
| | Operating income | Operating income ratio | Operating income | Operating income ratio | |
| Commodity Chemicals | 1,805 | 6.0% | 2,985 | 9.1% | 1,180 |
| Polymer & Oligomer | 2,158 | 16.5% | 2,302 | 16.6% | 143 |
| Adhesive Material | 1,438 | 25.0% | 1,400 | 23.6% | -37 |
| Performance Chemicals | 884 | 26.2% | 1,188 | 31.5% | 304 |
| Plastics | 864 | 6.7% | 791 | 6.2% | -72 |
| Other/adjustments | 121 | — | 122 | — | 1 |
| Total | 7,273 | 10.9% | 8,793 | 12.4% | 1,519 |

Other Income/Expenses and Extraordinary Income/Loss (Consolidated)

[Other income/expenses]

(Millions of yen)

| | 2016 2Q | 2017 2Q | Change |
|-----------------------------------|------------|------------|------------|
| Interest and dividend income | 507 | 480 | -27 |
| Equity in earnings of affiliates | 237 | 208 | -28 |
| Foreign currency exchange loss | (284) | (89) | 195 |
| Rent income on non-current assets | 61 | 48 | -12 |
| Miscellaneous income | 47 | 104 | 57 |
| Interest expense | (51) | (48) | 3 |
| Environment readiness fee | (70) | (53) | 17 |
| Cost of idle assets | (49) | (34) | 15 |
| Miscellaneous expenses | (77) | (27) | 50 |
| Total | 318 | 588 | 270 |

•Equity in earnings of affiliates

(Millions of yen)

| | 2016 2Q | 2017 2Q | Difference |
|---------------------|------------|------------|------------|
| Elmer's & Toagosei | 209 | 183 | -26 |
| Chubu Liquid Oxygen | 27 | 25 | -2 |
| Total | 237 | 208 | -28 |

[Extraordinary income/loss]

(Millions of yen)

| | 2016 2Q | 2017 2Q | Change |
|--|--------------|------------|------------|
| Gain on sales of non-current assets | - | 369 | 369 |
| Gain on sales of investment securities | - | 6 | 6 |
| Subsidy income | 10 | 35 | 25 |
| Loss on disposal of non-current assets | (176) | (184) | -7 |
| Loss on valuation of investment securities | (5) | - | 5 |
| Total | (171) | 227 | 399 |

•Gain on sales of non-current assets

Toagosei: Sales of idle land in Nagoya

•Exchange rate (Yen/USD)

| Jun. 30, 2016 | Dec. 31, 2016 | Jun. 30, 2017 |
|---------------|---------------|---------------|
| 102.91 | 116.49 | 112.00 |

(Millions of yen)

| | 2016.12 | 2017.6 | Change |
|---|----------------|----------------|--------------|
| Cash and deposits | 28,966 | 29,228 | 262 |
| Notes and accounts receivable | 40,302 | 39,675 | -626 |
| Securities ① | 44,000 | 47,000 | 3,000 |
| Inventories | 14,162 | 15,383 | 1,221 |
| Other current assets | 1,679 | 1,754 | 75 |
| Non-current assets | 60,454 | 60,193 | -260 |
| Investment securities ② | 26,983 | 29,959 | 2,975 |
| Other non-current assets | 2,971 | 3,080 | 108 |
| Total assets | 219,520 | 226,275 | 6,755 |
| Notes and accounts payable | 13,729 | 14,399 | 669 |
| Bank loans and debt | 12,307 | 12,228 | -79 |
| Accrued income taxes | 4,142 | 2,301 | -1,840 |
| Other liabilities | 16,337 | 18,298 | 1,960 |
| Total liabilities | 46,517 | 47,228 | 711 |
| Total net assets ③ | 173,003 | 179,047 | 6,044 |
| Total liabilities and net assets | 219,520 | 226,275 | 6,755 |

[Balance Sheet]

①Part of internal reserve is held as securities.

②③Market value of investment securities increased because of recovery of the stock market

③Retained earnings increased by 4,873 million yen

Cash Flows

(Millions of yen)

| | 2016 2Q | 2017 2Q | Change |
|--------------------------------------|----------|---------|--------|
| Cash flows from operating activities | 12,744 | 9,568 | -3,175 |
| Cash flows from investing activities | (13,371) | (7,147) | 6,224 |
| Free cash flow | (627) | 2,421 | 3,048 |

Cash flows from investing activities:
Owing to a decrease in the amount invested for time deposits and negotiable certificates of deposits with maturities of over three months compared with 2016 2Q 5

Overview of Consolidated Subsidiaries (Results for 2nd Quarter of FY2017)

(Millions of yen)

| Company name | Segment | Ownership (%) | Net sales | | Operating income (loss) | | Net income (loss) attributable to owners of parent | |
|---------------------------------|---------------------|---------------|-----------|---------|-------------------------|---------|--|---------|
| | | | 2016 2Q | 2017 2Q | 2016 2Q | 2017 2Q | 2016 2Q | 2017 2Q |
| 1 Toa Techno-Gas | Commodity Chemicals | 100 | 2,224 | 2,252 | 266 | 245 | 187 | 179 |
| 2 (Oita Chemical) | ↓ | 91.15 | 4,913 | 5,653 | 91 | (9) | (43) | (28) |
| 3 Toagosei Singapore | ↓ | 100 | 3,387 | 3,924 | (70) | 356 | (24) | 383 |
| 4 (MT Ethylene Carbonate) | ↓ | 90 | 234 | 240 | 1 | 1 | 1 | 1 |
| 5 MT AquaPolymer | Polymer & Oligomer | 51 | 4,948 | 5,126 | 547 | 476 | 363 | 337 |
| 6 Taiwan Toagosei | ↓ | 100 | 420 | 505 | 31 | 57 | 21 | 46 |
| 7 Toa-Jet Chemical | ↓ | 51 | 543 | 546 | 45 | 13 | 45 | 11 |
| 8 TOA-DIC Zhangjiagang Chemical | ↓ | 60 | 759 | 794 | 67 | 38 | 61 | 39 |
| 9 Toagosei (Thailand) | ↓ | 100 | - | - | - | (31) | - | (31) |
| 10 Toagosei America | Adhesive Material | 100 | 1,508 | 1,119 | 212 | 147 | 201 | 149 |
| 11 (Aron Packaging) | ↓ | 100 | 128 | 129 | (8) | (2) | (8) | (1) |
| 12 Toagosei Hong Kong | ↓ | 100 | 158 | 174 | 27 | 25 | 22 | 115 |
| 13 Toagosei (Zhuhai) | ↓ | 100 | 176 | 173 | 32 | 28 | 23 | 17 |
| 14 Aronkasei | Plastics | 100 | 12,860 | 12,842 | 942 | 792 | 549 | 576 |
| 15 TOA Kogyo | Other | 100 | 527 | 520 | (3) | 5 | 0 | 5 |
| 16 Toa Business Associe | ↓ | 100 | 512 | 552 | 24 | 40 | 16 | 28 |
| 17 TG Corporation | ↓ | 100 | 5,797 | 6,007 | 167 | 185 | 112 | 128 |
| 18 (Toa Logistics) | ↓ | 100 | 2,469 | 2,501 | 27 | 10 | 14 | 7 |
| 19 (Shikoku Toa Logistics) | ↓ | 70 | 528 | 586 | 1 | 7 | 1 | 5 |
| 20 (Hokuriku Toa Logistics) | ↓ | 90 | 112 | 117 | 1 | 0 | 1 | 0 |
| Simple aggregation | | | 42,203 | 43,760 | 2,400 | 2,383 | 1,542 | 1,966 |

Company names in parentheses indicate that almost all of their transactions are with the Company.

Consolidated Results Forecast for FY2017

(Millions of yen)

| | FY2016 (A) | FY2017 1H (results) | FY2017 2H (forecast) | FY2017 forecast (B) | Change (B-A) |
|--|------------|------------------------|-------------------------|------------------------|-----------------|
| Net sales | 135,382 | 70,743 | 71,257 | 142,000 | 6,618 |
| Operating income | 16,147 | 8,793 | 9,207 | 18,000 | 1,853 |
| Operating income ratio | 11.9% | 12.4% | 12.9% | 12.7% | 0.8% |
| Other income/expenses | 787 | 588 | 112 | 700 | -87 |
| Ordinary income | 16,935 | 9,381 | 9,319 | 18,700 | 1,765 |
| Extraordinary income (loss) | 3,761 | 227 | (128) | 100 | -3,661 |
| Income before income taxes (a) | 20,696 | 9,609 | 9,190 | 18,800 | -1,896 |
| Income taxes (b) | 6,473 | 2,836 | 3,063 | 5,900 | -573 |
| Tax rate (b)/(a) | 31.3% | | | 31.4% | 0.1% |
| Net income attributable to non-controlling interests | 421 | 188 | 212 | 400 | -21 |
| Net income attributable to owners of parent | 13,801 | 6,584 | 5,915 | 12,500 | -1,301 |
| <Reference> | | | | | |
| Average exchange rate (Yen/USD) | ¥109.12 | ¥113.69 | ¥115.00 | | |
| Naphtha price (Yen/kl) | ¥32,800 | ¥40,500 | ¥37,000 | | |

Note: Change of 1,000 yen in naphtha price per kl will have an impact of ±300 million yen on the Company's performance.

Depreciation of yen by 1 yen/USD will have an impact of -20 million yen on the Company's performance.

Consolidated Results Forecast for FY2017 (by Segment)

Net sales

(Millions of yen)

| | FY2016 results | FY2017 forecast | Change | Factors for change |
|-----------------------|----------------|-----------------|--------------|---|
| Commodity Chemicals | 60,707 | 64,300 | 3,593 | [Increase] Acrylic monomer, caustic soda, hydrochloric acid |
| Polymer & Oligomer | 26,715 | 27,800 | 1,085 | [Increase] Acrylic polymer, UV-curable resin [Decrease] Flocculants |
| Adhesive Material | 11,648 | 12,400 | 752 | [Increase] Functional adhesives, instant glues |
| Performance Chemicals | 6,706 | 7,600 | 894 | [Increase] Liquefied hydrogen chloride, inorganic functional materials (IXE, Novaron) |
| Plastics | 26,447 | 26,700 | 253 | [Increase] Nursing care products, elastomer compounds [Decrease] Piping equipment |
| Other | 3,157 | 3,200 | 43 | |
| Total | 135,382 | 142,000 | 6,618 | |

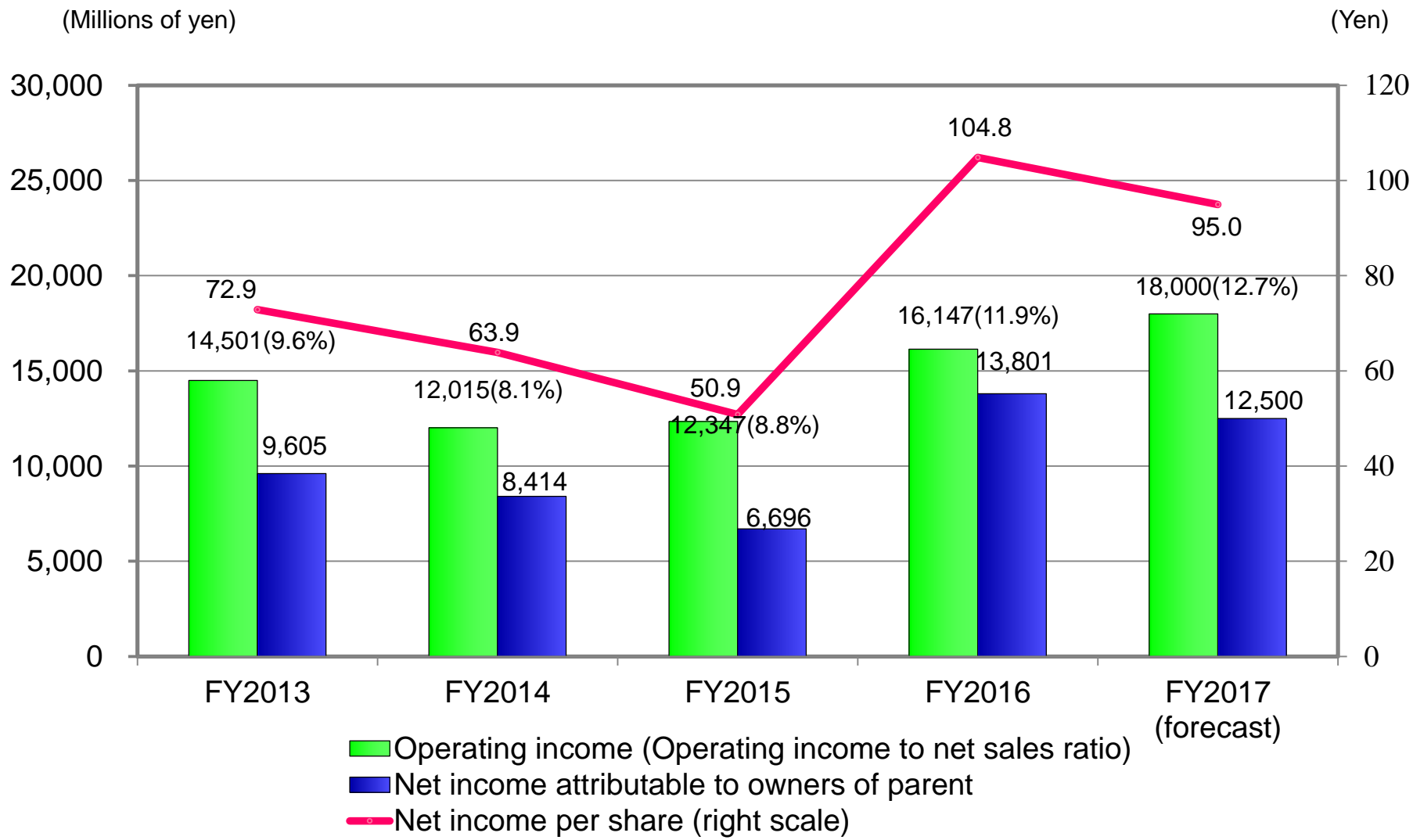
Operating income

Figures in square brackets are operating income ratios.

(Millions of yen)

| | FY2016 results | FY2017 forecast | Change | Factors for change |
|-----------------------|-----------------------|-----------------------|--------------|---|
| Commodity Chemicals | 4,652 [7.7%] | 5,900 [9.2%] | 1,248 | [Increase] Acrylic monomer, hydrochloric acid |
| Polymer & Oligomer | 4,595 [17.2%] | 4,800 [17.3%] | 205 | [Increase] Acrylic polymer, UV-curable resin [Decrease] Flocculants |
| Adhesive Material | 2,852 [24.0%] | 3,000 [24.1%] | 148 | [Increase] Functional adhesives [Decrease] Instant glues |
| Performance Chemicals | 1,784 [27.7%] | 2,300 [30.3%] | 516 | [Increase] Liquefied hydrogen chloride, inorganic functional materials (IXE, Novaron) |
| Plastics | 2,038 [7.7%] | 1,900 [7.1%] | -138 | [Increase] Nursing care products [Decrease] Piping equipment |
| Other | 224 - | 100 - | -124 | |
| Total | 16,147 [11.9%] | 18,000 [12.7%] | 1,853 | |

Historical Consolidated Results

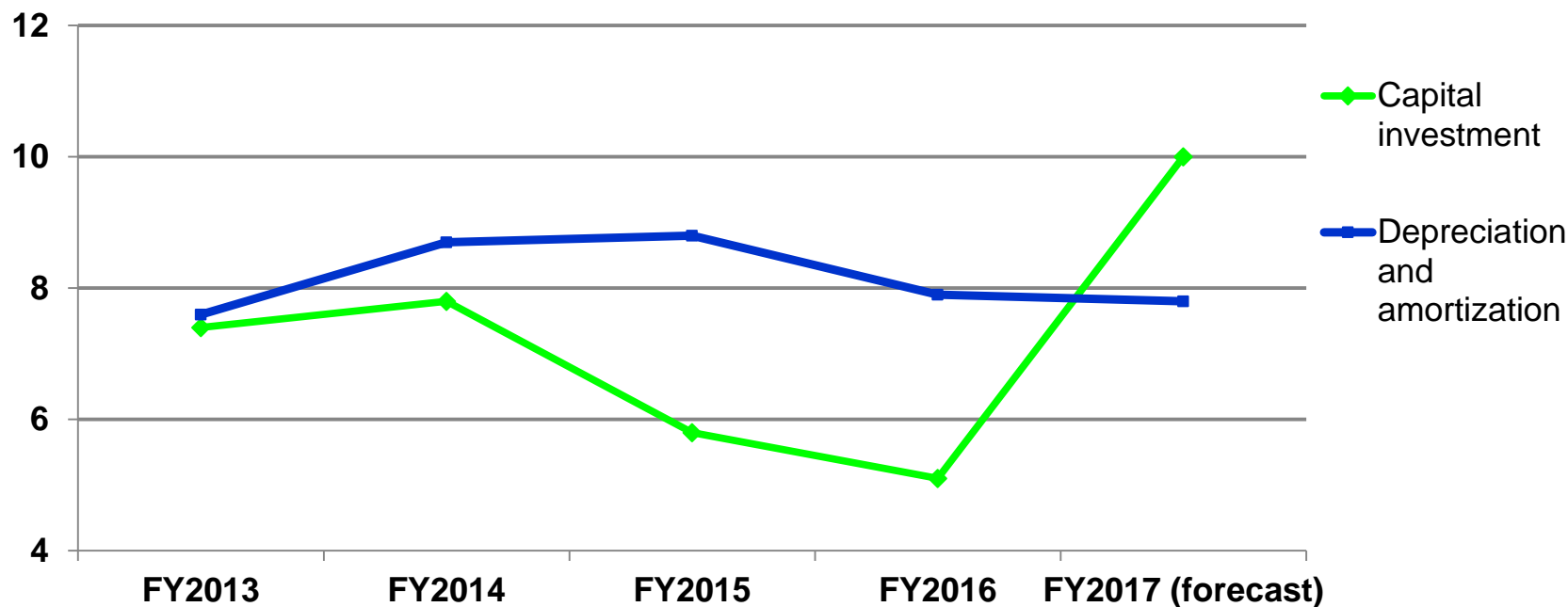


* Net income per share for FY2013 through FY2015 is calculated based on the assumption that the stock consolidation was conducted at the beginning of FY2013.

(Billions of yen)

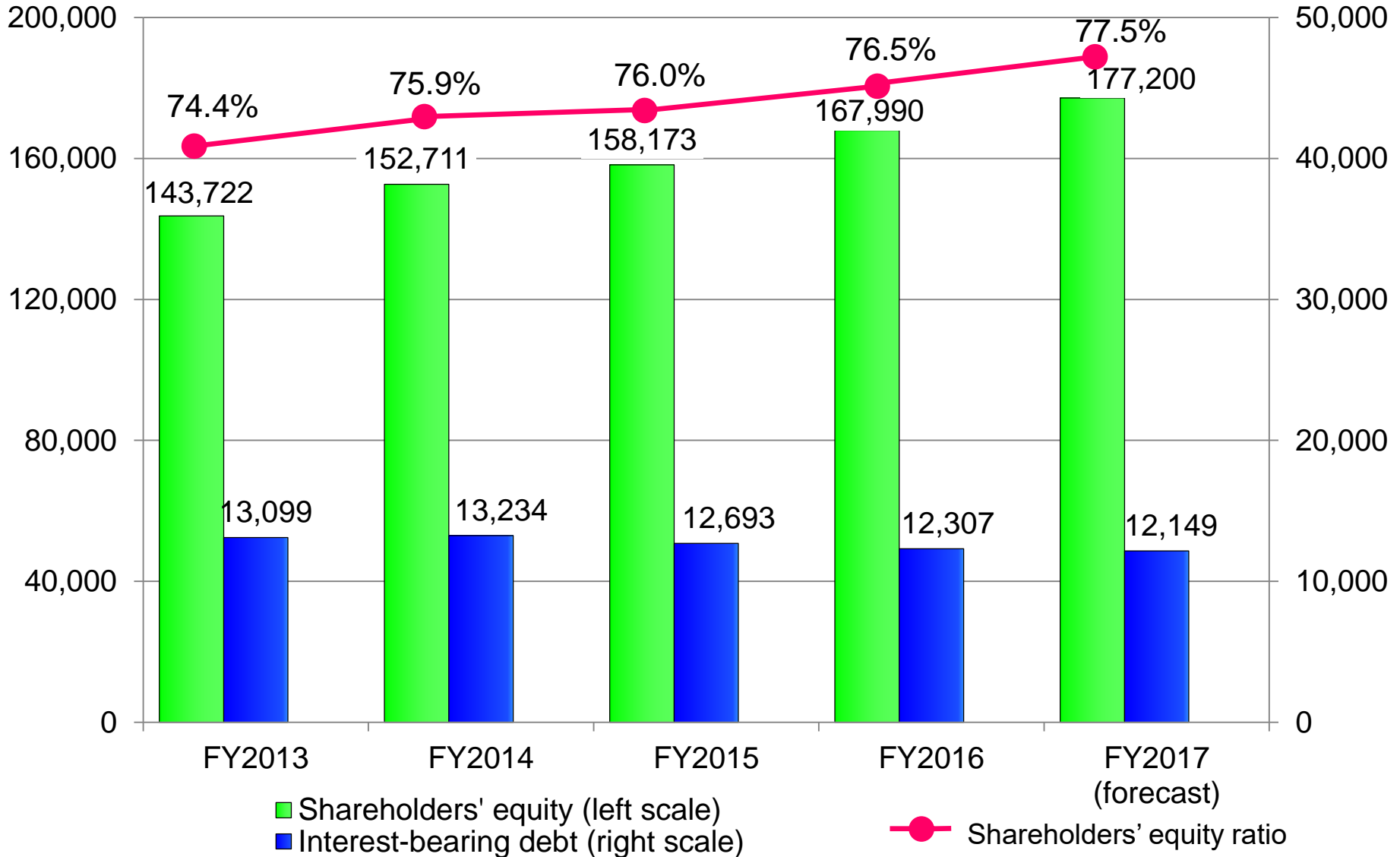
| | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 forecast |
|-----------------------------------|--------|--------|--------|--------|-----------------|
| Depreciation and amortization | 7.6 | 8.6 | 8.8 | 7.9 | 7.8 |
| Capital investment | 7.4 | 7.8 | 5.8 | 5.1 | 10.0 |
| Research and development expenses | 3.8 | 3.9 | 3.7 | 3.6 | 3.7 |
| Overseas sales | 23.8 | 24.8 | 23.1 | 21.6 | 23.0 |
| Interest-bearing debt | 13.1 | 13.2 | 12.6 | 12.3 | 12.1 |

(Billions of yen)

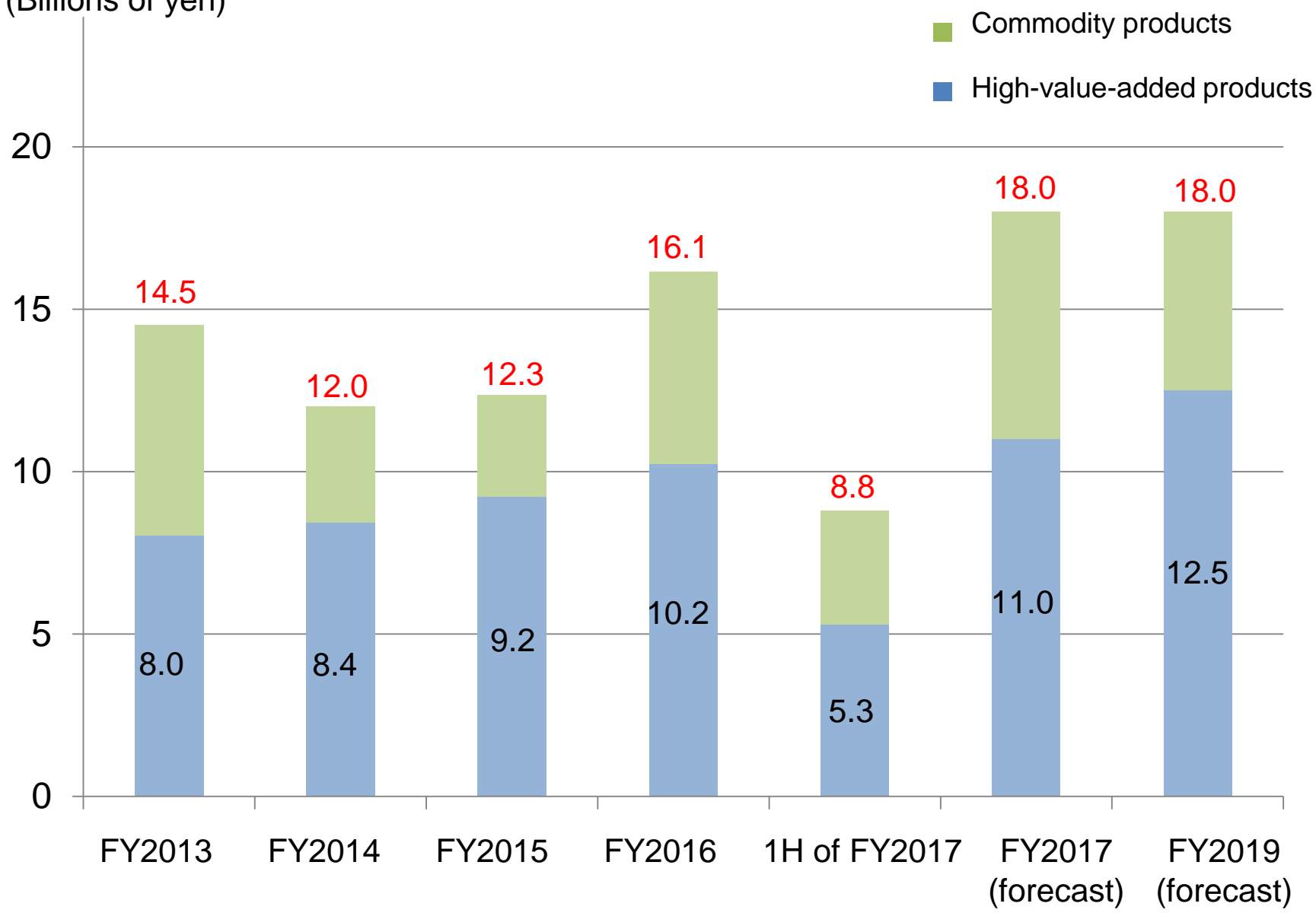


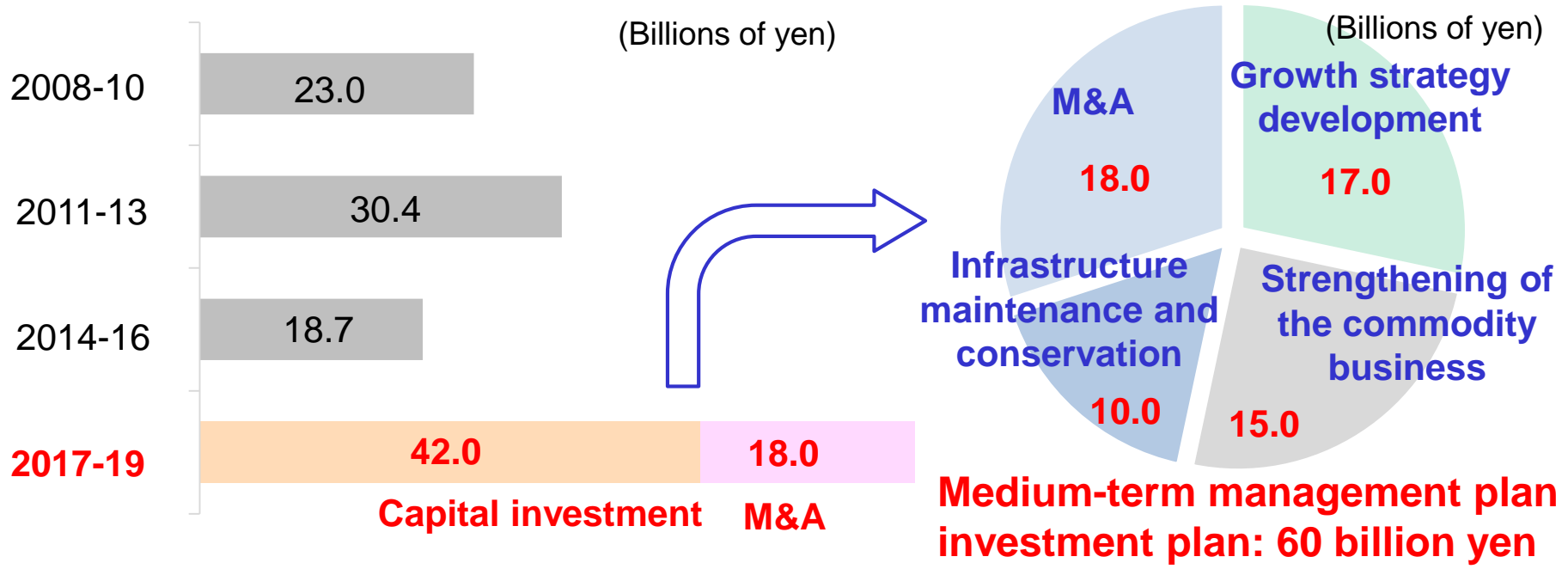
(Millions of yen)

(Millions of yen)



(Billions of yen)





[Major investment projects]

- Construction of an acrylic polymer plant (Phase 1 of Toagosei (Thailand) business plan)
- Upgrading of electrolysis facilities for caustic soda and potash (Nagoya Plant)
- Restructuring of the production system of the piping equipment business (Aronkasei)
- Expansion of facilities for high-value-added products and enhancement of the business (Downstream acrylic products, adhesive materials, high-purity inorganic products)
- Infrastructure improvement, seismic countermeasures (Takaoka Plant, Kawaski Plant, etc.)



Aronkasei Nagoya Plant
Construction of a new building for injection molding-blending

Toagosei (Thailand) Co., Ltd.

Business line: Manufacturing and sales of acrylic polymer

Location: Hemaraj Eastern Seaboard Industrial Estate 2, Chonburi Province, Thailand

Start of construction: June 2017

Start of operation: June 2018 (plan)

Investment: Approx. 3 billion yen (Phase 1)



Business plan in Thailand

Phase 1: 2017 onward

Sales expansion of acrylic polymer in Southeast Asia

⇒ **Early construction of the plant and enhancement of the facility utilization rate**

Phase 2: 2019 onward

Business development for functional adhesives, elastomers, etc.

⇒ **Strengthening of local marketing**



Groundbreaking ceremony of Toagosei (Thailand): May 31, 2017

Succeeded in mass production of new acrylate using the originally developed catalyst

① Glycerol triacrylate

Low viscosity and high hardness (scratch resistance), excellent adherent properties to various substrates

② High-hydroxyl-value pentaerythritol triacrylate (PETA)

Greater flexibility and excellent adherent properties for end-product design, compared with previous products

③ Low-viscosity dipentaerythritol penta & hexa-acrylate (DPHA)

Viscosity halved compared with previous products

(Improved workability and productivity by dispensing with solvent dilution)

[Expected application fields]

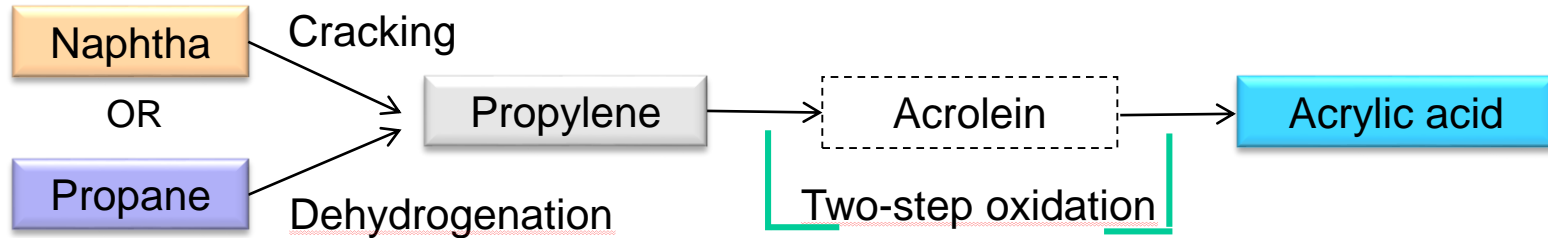
- Hard coating (hard coating for optical films for displays and various electronic materials)
- Resist materials (dry film resist) • UV ink • Adhesives
- Decorative films • Automotive parts



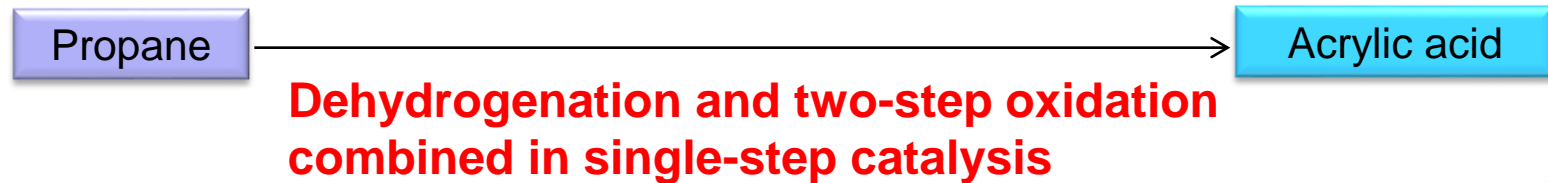
⇒ **Strengthen market competitiveness through differentiation by highly functional products and wider product lineup**

Demonstration by pilot testing (using a full-scale single-tube reactor)

① Current process (multi-step process)



② New process using propane oxidation catalyst (single-step reaction)



[Expected impact]

- Manufacturing cost reduction (Conversion to low-cost raw materials, effective utilization of unconventional resources)
- Environmental impact reduction (Energy-saving, CO₂ reduction, pollutant reduction)

(*) Possible to reduce CO₂ emissions intensity by 32% compared with the conventional method (estimate)

⇒ Received the Incentive Award of the 16th Green and Sustainable Chemistry Award of the Japan Association for Chemical Innovation



Pilot test facility
(Oita Chemical)