

# A Statement of Accounts For the Fiscal Year Ended March 31, 2018 Fiscal Year 2017 (FY2017)

# SANYO CHEMICAL INDUSTRIES, LTD. Takao Ando, President & CEO

https//:www.sanyo-chemical.co.jp/ Code: 4471





#### <<u>Notice</u>> Yen amounts described in this presentation material are rounded down. Ratios described in this presentation material are rounded off.

#### <<u>Cautionary Statement with Respect to Forward-Looking Statement></u> This presentation material contains projections based on the assumptions, forward-looking statements and plans about the future of SANYO CHEMICAL INDUSTRIES, LTD. as of May 21, 2018. Actual performance results may vary significantly due to a variety of factors affecting the sphere of business that include but are not limited to: the world economy, competitive position, and fluctuations in the exchange rate, raw material costs, and others.

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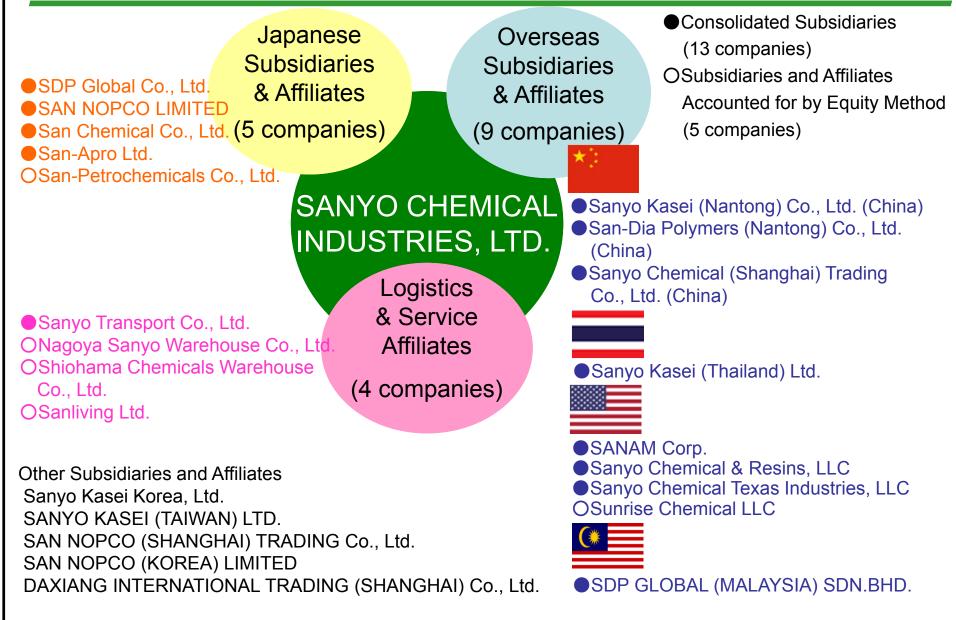
## Corporate Data



Date of Establishment: November 1, 1949 Head Office: Higashiyama-ku, Kyoto Capital: ¥13,051 million Domestic Sales & Marketing Offices: Tokyo, Osaka, Nagoya, Hiroshima, Fukuoka, Toyama **Domestic Factories:** Nagoya, Kinuura, Kashima, Kyoto, Kawasaki (San Chemical) Consolidated Number of Employees: 2,053 (as of March. 31, 2018) Line of Business: Manufacture & sales of approx. 3,000 types of performance chemicals

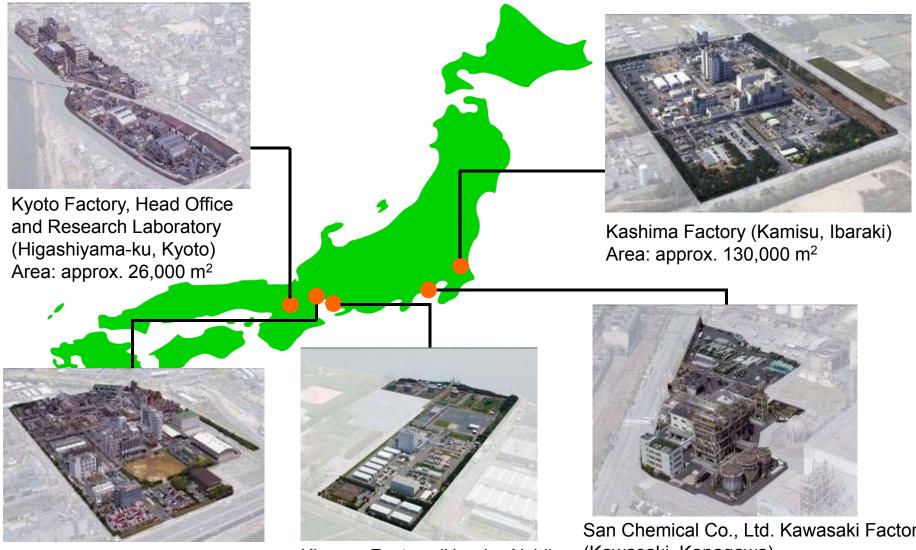
## Sanyo Chemical Group





#### **Domestic Production Bases**





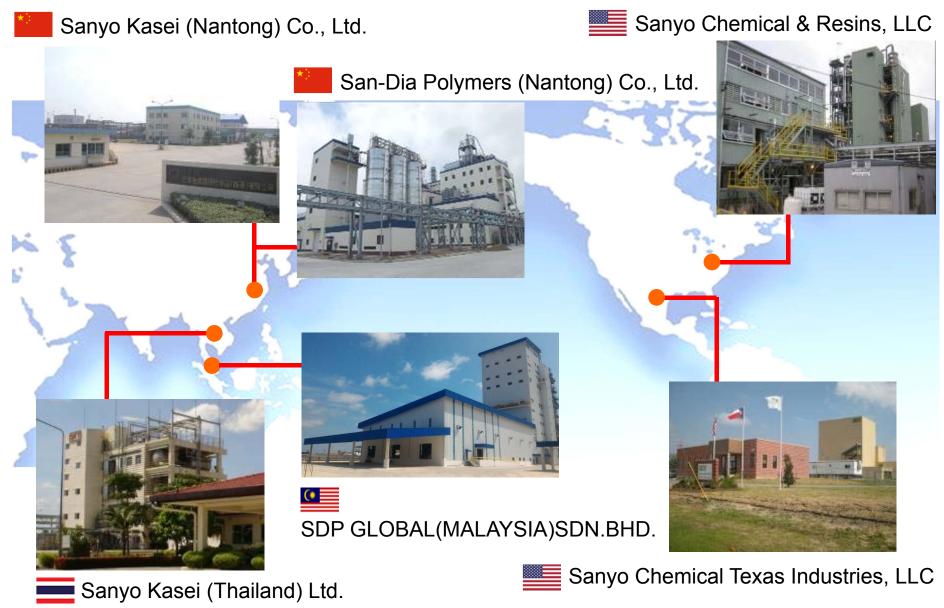
Nagoya Factory (Tokai, Aichi) Area: approx. 100,000 m<sup>2</sup>

Kinuura Factory (Handa, Aichi) Area: approx. 140,000 m<sup>2</sup>

San Chemical Co., Ltd. Kawasaki Factory (Kawasaki, Kanagawa) Area: approx. 11,000 m<sup>2</sup>

# **Overseas Production Bases**





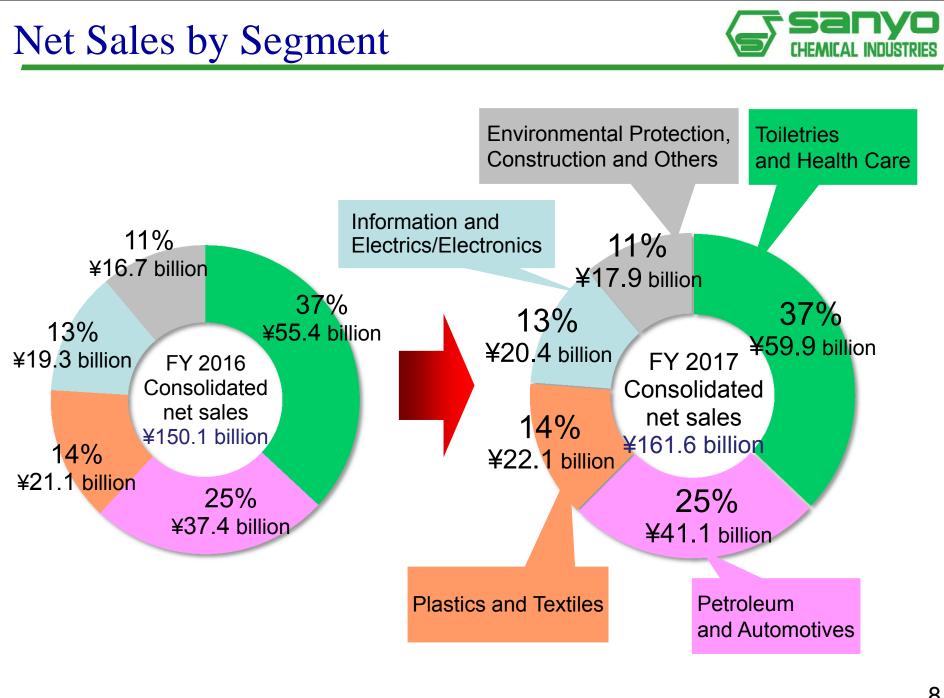
#### **Overseas Sales Office**





# Principal Products by Product Group (Segment)

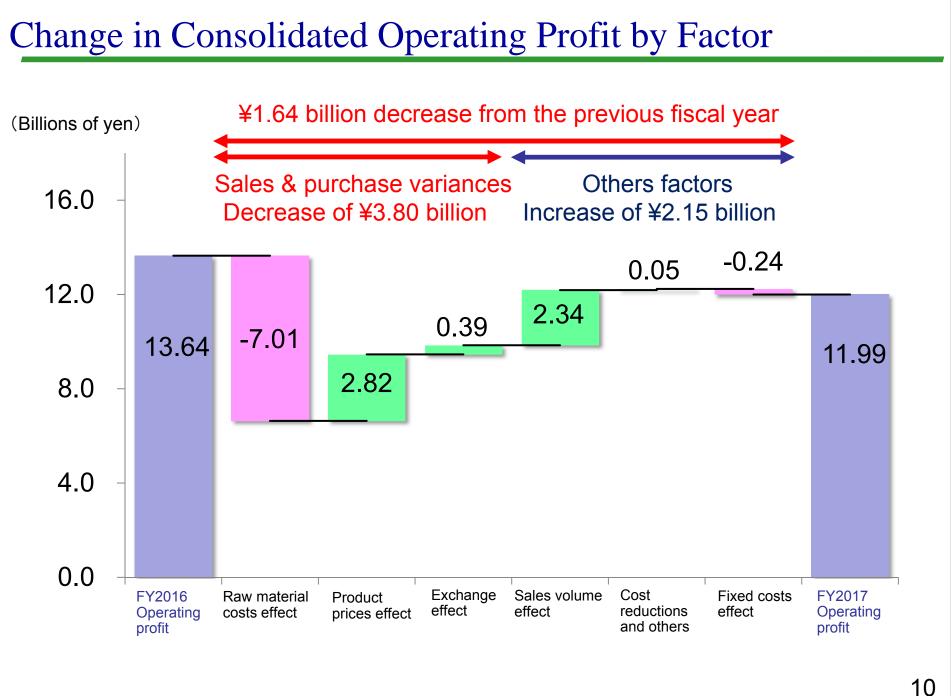
Seg	ment	Principal Products				
Toiletries	Toiletries	Surfactants for Detergents, Surfactants for Hair Care Products, Agents for Papermaking				
and Health Care	Health Care	Superabsorbent Polymers (SAP), Base Materials for Pharmaceuticals, Germicides/Disinfectants, Surgical Hemostatic Agent, Enzyme immunoassay (EIA) Diagnostic Reagents, Potting Resins for Artificial Kidneys				
Petroleum and Automotives		Thermoplastic Polyurethane Beads for the Interior Parts of Automobiles (TUB), Raw Materials for Polyurethane Foams (PPG), Lubricating Oil Additives, Additives for Fuel Oil, Water-Soluble Cutting Fluids, Halogen-Free Cleaning Agents, Base Materials for Synthetic Lubricants, Paste Resins for Design Models, Resins for Automobile Paints				
Plastics and	Plastics	Permanent Antistatic Agents, Pigment Dispersants, Resin Modifiers, Paint Resins, Defoaming Agent, Base Materials for Polyurethane Elastomers, Chemical Boards for Models				
Textiles	Textiles	Agents for Textile Manufacturing, Chemicals for Carbon Fibers, Agents for Fiberglass, Polyurethane Resins for Synthetic Leather				
Information	Information	Polyester Beads (PEB) Used as a Core Component of Polymerization Toners, Toner Resins				
and Electrics /Electronics	Electrics /Electronics	Electrolytes for Aluminum Electrolytic Capacitors, Electrolytes for Electric Double- Layer Capacitors, Adhesive for Electronic Parts, Agents for Use in Electronic Parts Manufacturing, UV/EB Curing Resins				
Environmental Protection, Construction and Others		Polymer Flocculants for Wastewater Treatment, Cationic Monomer, PPG for Furniture and Heat Insulating Materials, Slurry Agents, Reactive Hot-Melt Adhesives, Raw materials for Building Sealants, Cement Agents				
		7				



## Results of Operations for FY2017



Capacilidated	FY2016	FY2017	Year on Year Change		
Consolidated	F12010	F12017	Amount	Ratio (%)	
Net sales	150.16	161.69	11.52	8	
Operating profit	13.64	11.99	(1.64)	(12)	
Ordinary profit	15.34	13.86	(1.47)	(10)	
Profit attributable to owners of parent	10.19	9.27	(0.92)	(9)	
Comprehensive income	11.19	11.35	0.15	1	



Change in Consolidated Net Income						
(Billions of						
	FY2016	FY2017	Year on Year Change			
Operating profit	13.64	11.99	(1.64)			
Share of profit of entities accounted for using equity method	1.19	0.83	(0.35)			
Gain or loss on foreign exchange	(0.14)	0.22	0.36			
Other non-operating income and loss	0.64	0.81	0.16			
Ordinary profit	15.34	13.86	(1.47)			
Gain and Loss on disposal/sales of property, plant and equipment	(0.68)	(1.04)	0.35			
Impairment loss	(0.83)		0.83			
Loss on closing of factory		(0.76)	(0.76)			
Other extraordinary income or loss	0.03	0.08	0.05			
Profit before income taxes	13.85	12.14	(1.70)			
Income taxes paid, etc.	(3.02)	(2.77)	0.24			
Profit attributable to non-controlling interests	(0.64)	(0.09)	0.54			
Profit attributable to owners of parent	10.19	9.27	(0.92)			
			11			

# **Consolidated Balance Sheet**



	Mar. 31 2017	Mar. 31 2018	Year on Year Change	Main Change Factor
Current assets	85.3	90.1	4.7	Cash and deposits: (5.7), Notes and accounts receivable-trade, Electronically recorded monetary claims-operating: 7.5, Inventories: 2.3
Non-current assets	101.5	110.0	8.4	Property, plant and equipment: 6.3, Investment securities: 1.2
Total assets	186.8	200.1	13.2	
Current liabilities	44.4	50.1	5.7	Accounts payable-trade, Electronically recorded obligations-operating: 8.2, Short-term loans: (3.0)
Non- current liabilities	14.7	13.6	(1.0)	Long-term debt: (2.2), Deferred tax liabilities: 0.3
Total liabilities	59.2	63.8	4.6	
Shareholder's equity	108.1	115.0	6.8	Profit attributable to owners of parent: 9.2, Cash dividends paid: (2.4)
Accumulated other comprehensive income	13.4	15.0	1.6	Valuation difference on available-for-sale securities : 0.8, Foreign currency translation adjustment: 0.7
Non-controlling	6.0	6.1	0.1	
Total net assets	127.6	136.2	8.6	
Total liabilities and net assets	186.8	200.1	13.2	
				12

## **Consolidated Cash Flows**



8 ) (0 (1 ) (3 ) (3 ) (14 ) (14	2.1 3.3 0.8) 1.5) 3.1) 0.6 .1) .5	(4.7) (1.7) 0.8 0.3 (2.8) (0.0) (1.2) 0.0 (4.7)	Purchase of non-current assets FY2016: (13.3), FY2017: (13.0)
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-		(4.7)	
) (7	<b>)</b>		
) (7.	.3)	(6.2)	Loans, Repayment FY2016: 1.2, FY2017: (4.5)
) 0.	0.0	0.8	
(5.	.7)	(10.1)	
23	3.1	3.8	
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## Forecast for FY2018



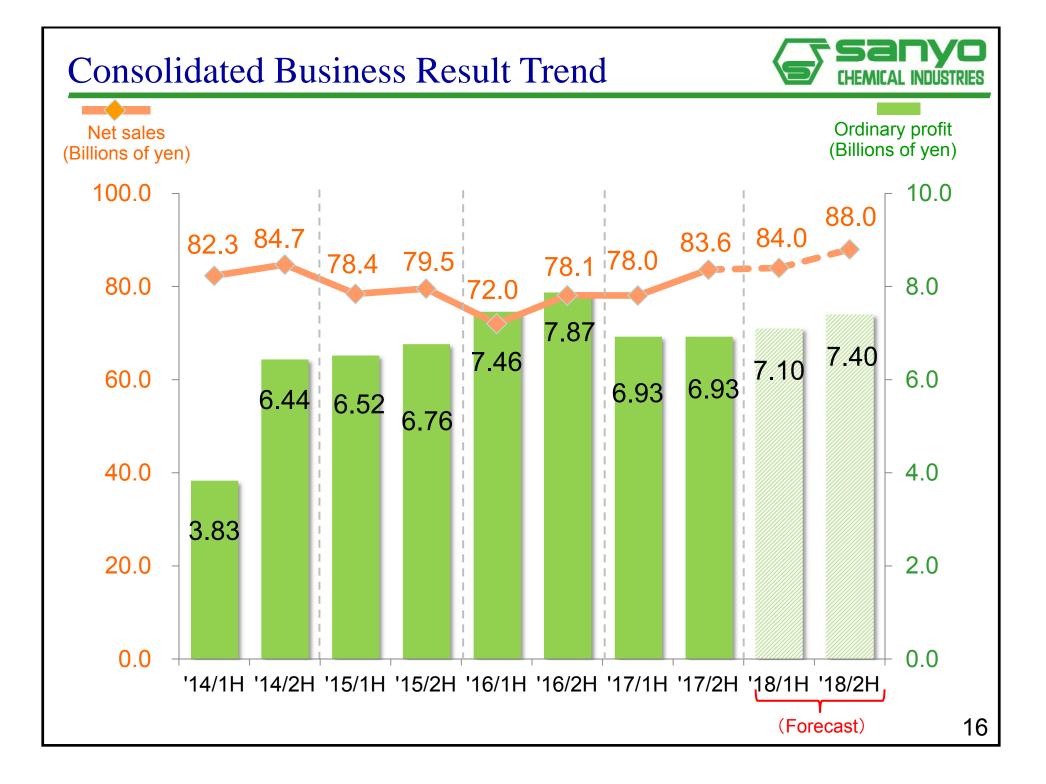
<Precondition for the forecast> Price of naphtha produced in Japan: 47 thousand of Yen/kl, Exchange rate: 110 Yen/US\$

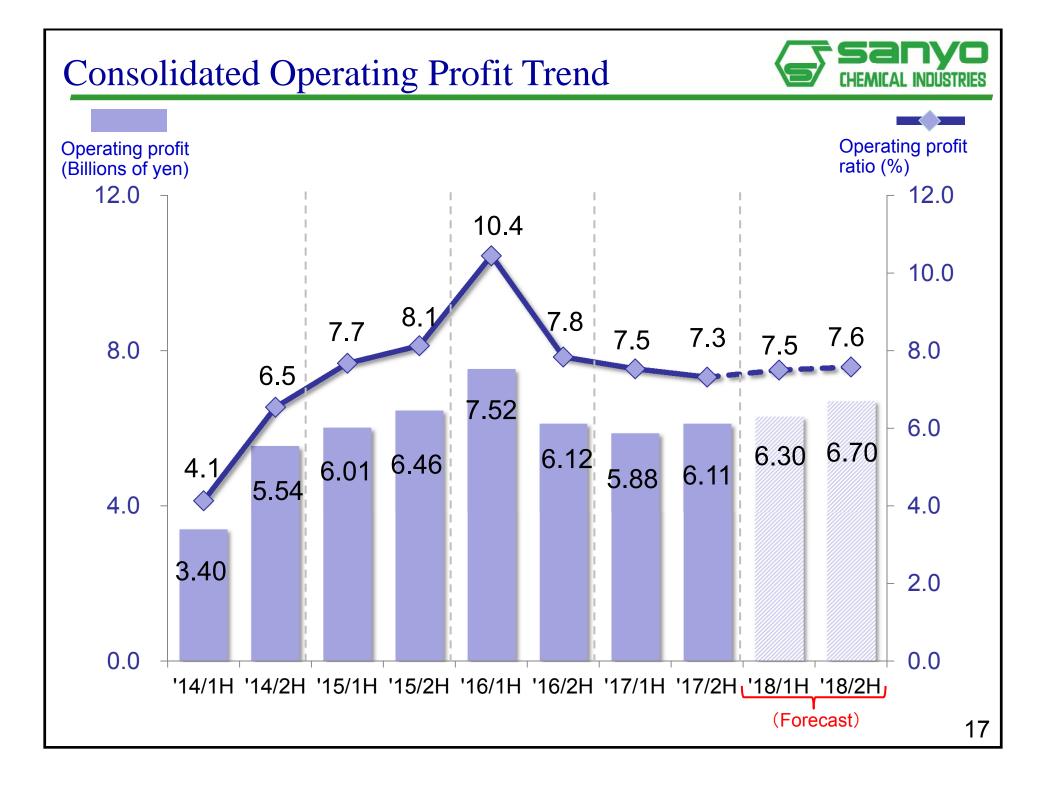
		Annual		1H: April-September			
Consolidated	FY2018 forecast	FY2017	Rate of change(%)	FY2018 forecast	FY2017	Rate of change(%)	
Net sales	172.0	161.6	6	84.0	78.0	7	
Operating profit	13.0	11.9	8	6.3	5.8	8	
Ordinary profit	14.5	13.8	5	7.1	6.9	2	
Profit attributable to owners of parent	10.0	9.2	8	4.9	4.7	3	
ROE	7.5	7.4	+0.1pt				

# Financial Highlights



	Unit	FY2016	FY2017	Year on Year Change
Total assets	Billions of yen	186.8	200.1	13.2
Total assets ordinary profit ratio	%	8.5	7.2	(1.3pt)
Shareholder's equity	Billions of yen	121.6	130.0	8.4
Shareholder's equity ratio	%	65.1	65.0	(0.1pt)
Return on equity	%	8.7	7.4	(1.3pt)
Interest-bearing debt	Billions of yen	15.2	10.5	(4.6)
Debt/equity ratio	Times	0.13	0.08	(0.05)

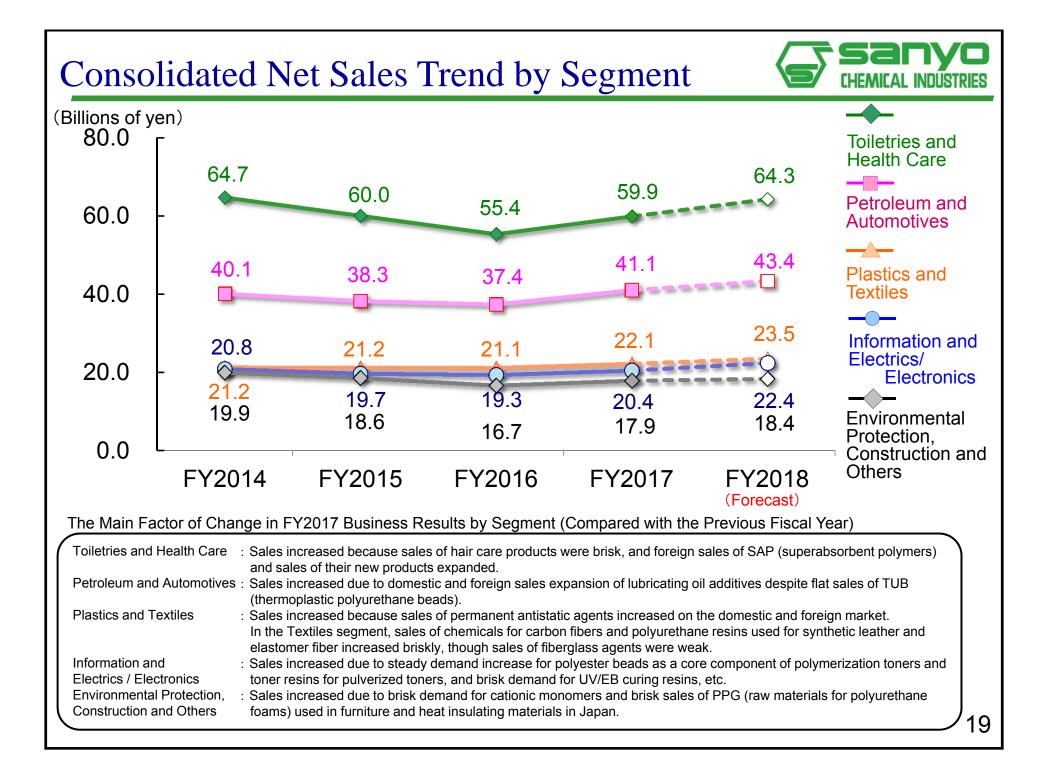


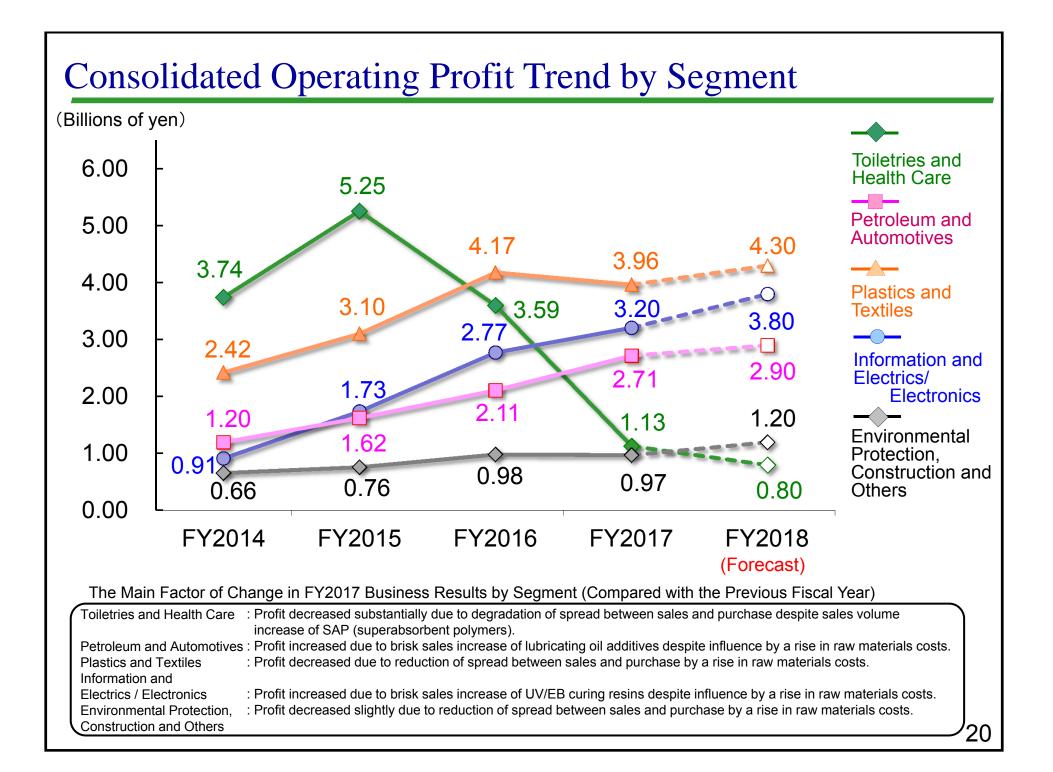


## Business Results by Segment

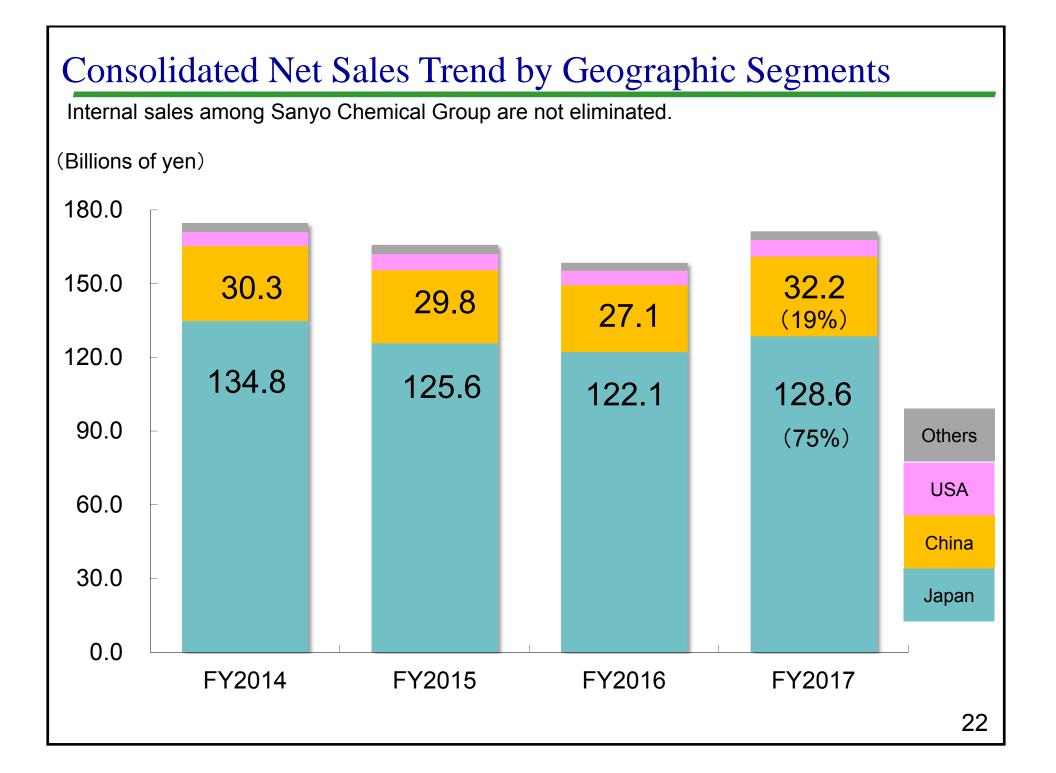


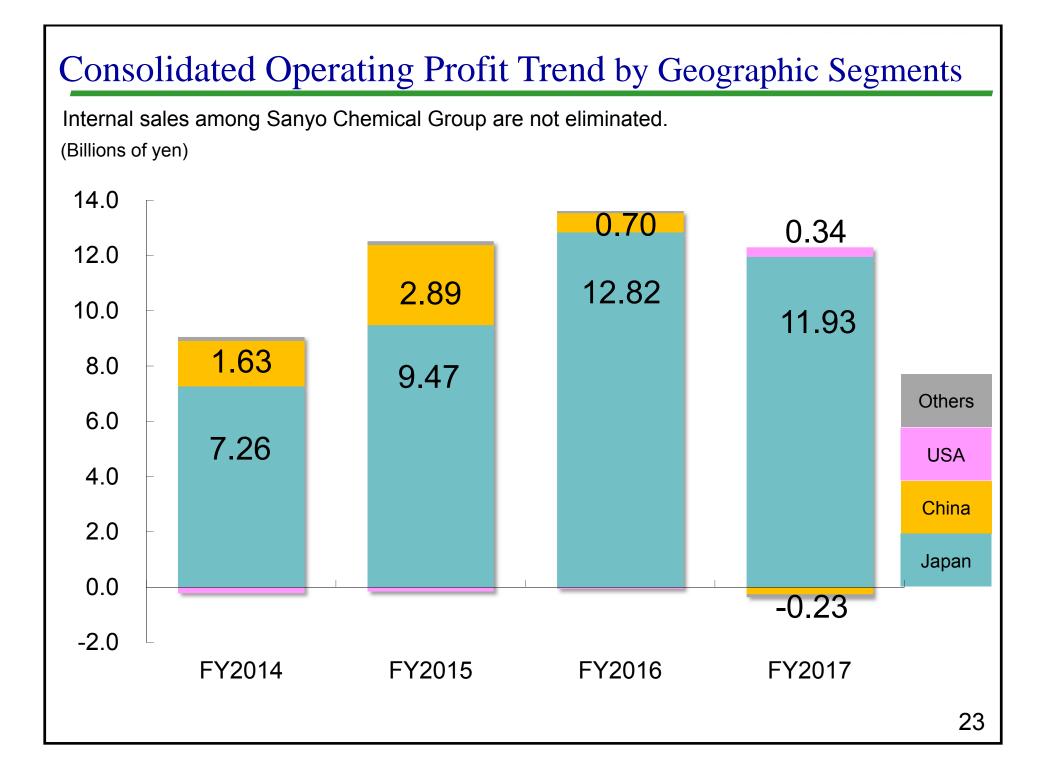
Net Sales Operating Profit						
				Operating Profit		
Segment			Year on			Year on
Coginon	FY2016	FY2017	Year	FY2016	FY2017	Year
			Change			Change
Toiletries and Health Care	55.44	59.95	4.50	3.59	1.13	(2.46)
Toiletries	12.94	13.23	0.29			
Health Care	42.50	46.71	4.21			
Petroleum and Automotives	37.49	41.11	3.61	2.11	2.71	0.60
Plastics and Textiles	21.15	22.19	1.03	4.17	3.96	(0.21)
Plastics	14.20	15.12	0.91			
Textiles	6.94	7.06	0.11			
Information and Electrics/Electronics	19.36	20.48	1.11	2.77	3.20	0.43
Information	12.84	13.44	0.59			
Electrics/Electronics	6.51	7.04	0.52			
Environmental Protection,						
Construction and Others	16.70	17.94	1.24	0.98	0.97	(0.01)
Total	150.16	161.69	11.52	13.64	11.99	(1.64)
						18

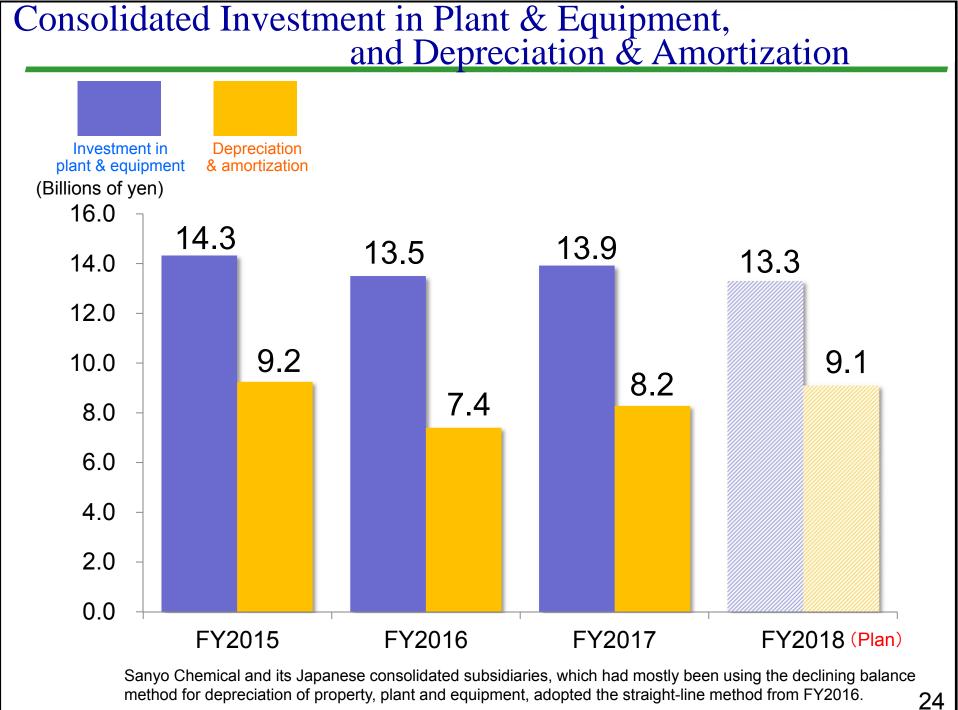




#### **Consolidated Overseas Sales Trend CHEMICAL INDUSTRIES** Average exchange rate (Yen/US\$) 120.1 120 109.8 110.9 108.4 110.0 $-\Lambda$ Overseas sales ratio (%) 100 **~** Overseas production ratio (%) -----80 50.0 42.0 40.7 41.4 40.5 39.8 Overseas sales $-\diamondsuit$ 40.0 (Billions of yen) 25.4 30.0 24.1 23.4 23.0 22.0 100.0 Total -0 20.0 80.0 Others 71.2 67.9 67.9 10.0 63.9 59.8 60.0 Americas 0.0 9.0 10.6 11.4 7.9 40.0 China 28.2 26.7 24.1 25.3 20.0 Asia 20.5 18.2 17.2 17.4 (except China) 0.0 FY2014 FY2015 FY2016 FY2017 FY2018 (Forecast) 21

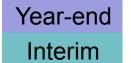




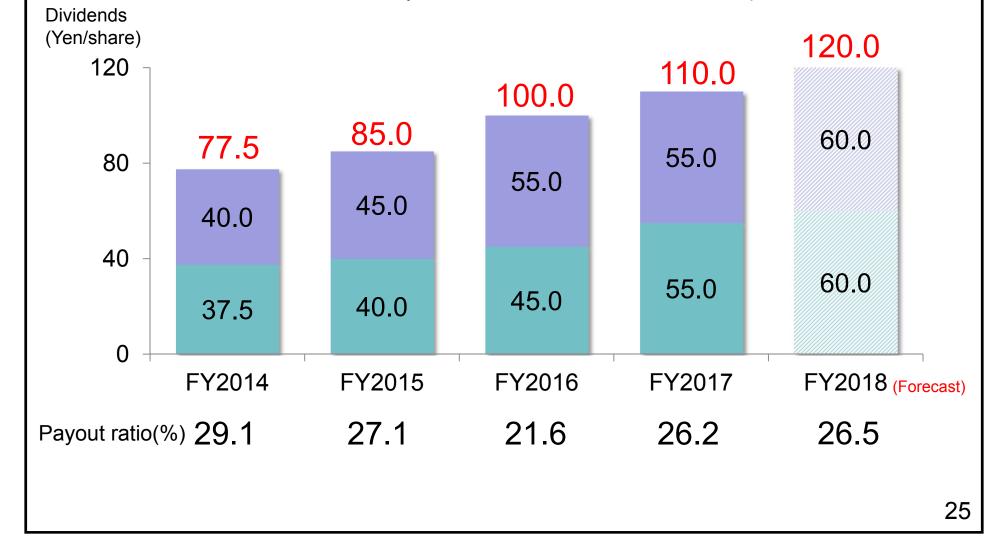


# Consolidated Dividends per Share & Payout Ratio Trend

#### Total



Sanyo Chemical conducted a reverse stock split at a ratio of one share for every five shares on October 1, 2016. The figures above for consolidated dividends per share are converted after Sanyo Chemical conducts the reverse stock split.



# The Tenth Medium-Term Management Plan

# New Sanyo for 2027

#### May 22, 2018 SANYO CHEMICAL INDUSTRIES, LTD.



# 1. Company Motto

# 2. Recalling the Ninth Medium-Term Management Plan

- 3. Vision of Sanyo Chemical
- 4. New Sanyo for 2027





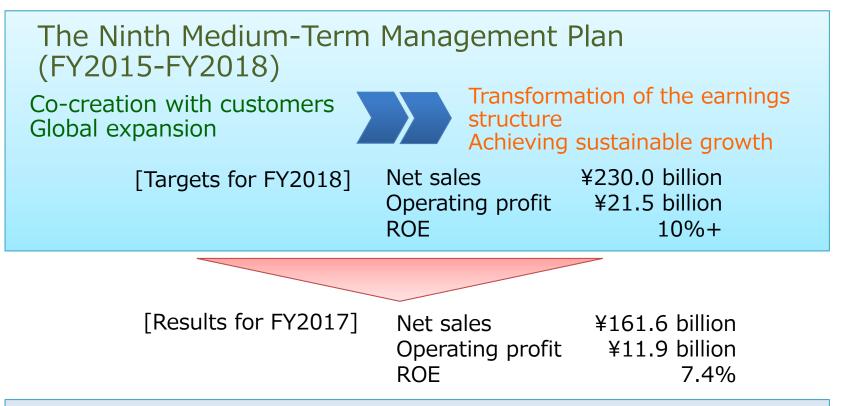
Company Motto (Management Philosophy)

Let us contribute to building a better society through our corporate activities.



#### 2. Recalling the Ninth Medium-Term Management Plan





Along with major changes in the business environment, such as fluctuations in crude oil prices and intensified competition in SAP (superabsorbent polymers) business, the management system also underwent major changes, including the introduction of the divisional organization system and the launch of a project in collaboration with other company. Although it is the final year of the Ninth Medium-Term Management Plan, we have started a new medium-term management plan.

# 3. Vision of Sanyo Chemical



Re-allocate management resources aiming at our Vision in ten years.

# Vision of Sanyo Chemical

We have grown to be a unique, global, and highly profitable company, where all our employees proud themselves, find meaning in their work, and contribute to society.

The Tenth Medium-Term Management Plan: Concrete measures for the next three years (FY2018 to FY2020), looking ten years ahead.

New Sanyo for 2027



Vision

our

at

Aiming

FY202

# New Sanyo for 2027

#### Period: FY2018-FY2020 Slogan: *"KAERU"*

"Each employee will personally commit to , changing our corporate culture."

# Change ourselves for next 3 years to realize our vision

FY2020(Goa (Consolidated, bill		
Net sales	180 billion	
Operating profit	18 billion	
Operating profit ratio	10%	
ROE	10%	

# FY2027 (Vision)<br/>(Consolidated, billion yen)Net sales250 billionOperating profit35 billionOperating profit ratio14%ROE12%

#### Going Beyond "KAERU"

# The tenth plan is the first step to the next ten years.

We have grown to be a unique, global, and highly profitable company, where all employees proud themselves, find meaning in their work, and contribute to society.

# [Guiding Principles] A unique global company that contributes to society through performance chemicals that play an active role in various surfaces.

New Sanyo for 2027

**FY2020** 

From FY2021 onwards

# 4. The Tenth Medium-Term Management Plan

# New Sanyo for 2027

In order to realize our Vision, we will change from within for the first three years.



New Sanyo for 2027

Committed to Change

- Shift to high-value-added products
- Eliminate "Waste, Impracticality and Inconsistency"
- Create an open corporate climate

- Accelerate business from the customer perspective
- Encourage flexible and diverse work styles and approaches

# 4-1. New Sanyo for 2027



#### **Guiding Principles**

A unique global company that contributes to society through performance chemicals that play an active role in various surfaces

#### **Source of Strengths**

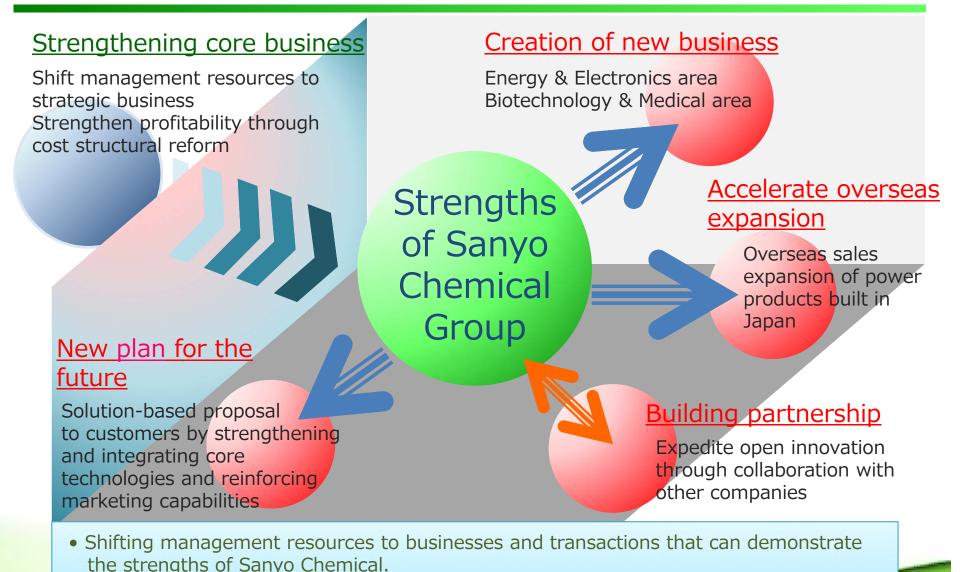
- Extensive technical knowledge centered on surface activity control technology
- Fast translation of the customer's values and needs to functions, from functions to physical properties, and from physical properties to composition and synthesis process
- Timely solution-based proposal through customer experience
- A corporate culture that encourages challenges
- A reliable company that fulfills social responsibility

#### **Business Areas**

- Performance chemicals business that play an active role in various surfaces
- New business will be developed in the "Energy & Electronics" area and "Biotechnology & Medical" area.

# 4-2. Management Strategy



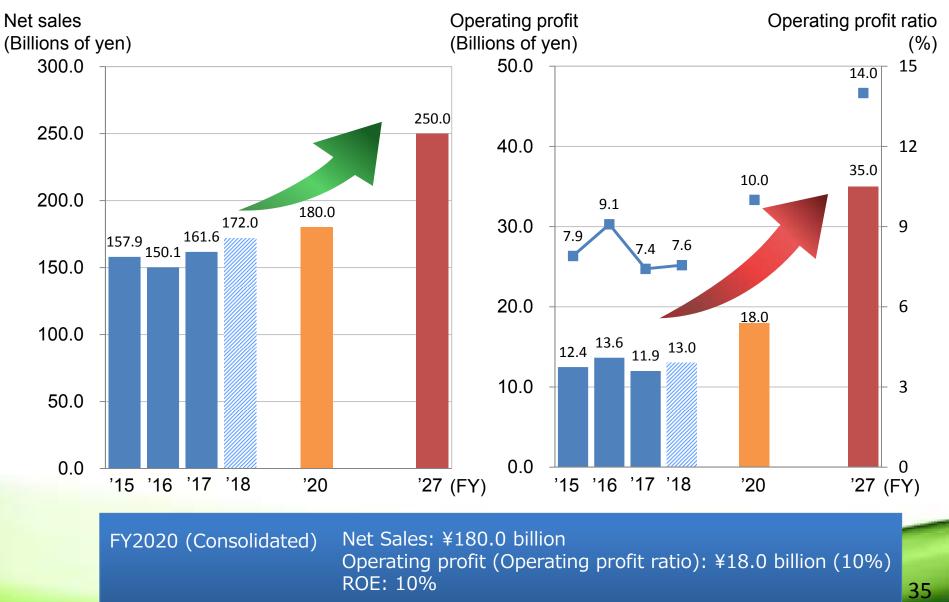


• Deepen core competence centering on surface activity control technology. Provide customers with valuable performances and solutions unique to Sanyo Chemical.

# 4-3. Numerical Goal



<Precondition for the forecast> Price of naphtha produced in Japan: 47 thousand of Yen/kl, Exchange rate: 110 Yen/US\$

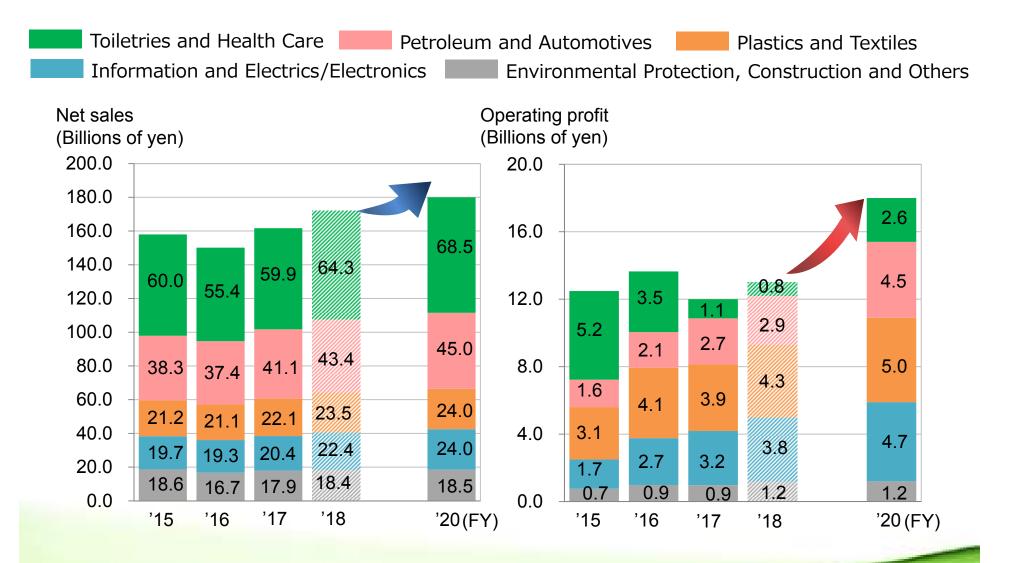


# 4-3. Numerical Goal < by Segment(>

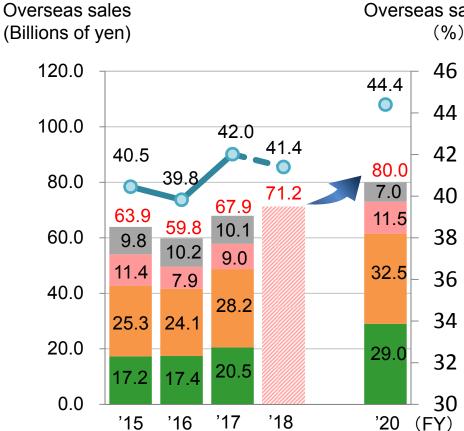
(Billion of yen)

PY2017         PY2020         amount         PY2017         PY2020         amount           Toiletries and Health Care         59.9         68.5         +8.5         1.1         2.6         +1.4           Petroleum and Automotives         41.1         45.0         +3.8         2.7         4.5         +1.1           Plastics and Textiles         22.1         24.0         +1.8         3.9         5.0         +1.4           Information and Electrics/Electronics         20.4         24.0         +3.5         3.2         4.7         +1.4           Environmental Protection, Construction and         17.9         18.5         +0.5         0.9         1.2         +0.5		Net sales			Operating profit			
Health Care       59.9       68.5       +8.5       1.1       2.6       +1.4         Petroleum and Automotives       41.1       45.0       +3.8       2.7       4.5       +1.4         Plastics and Textiles       22.1       24.0       +1.8       3.9       5.0       +1.4         Information and Electrics/Electronics       20.4       24.0       +3.5       3.2       4.7       +1.4         Environmental Protection, Construction and       17.9       18.5       +0.5       0.9       1.2       +0.5		FY2017	FY2020	_	FY2017	FY2020	Changed amount	
Automotives       41.1       45.0       +3.8       2.7       4.5       +1.         Plastics and Textiles       22.1       24.0       +1.8       3.9       5.0       +1.0         Information and Electrics/Electronics       20.4       24.0       +3.5       3.2       4.7       +1.0         Environmental Protection, Construction and       17.9       18.5       +0.5       0.9       1.2       +0.3		59.9	68.5	+8.5	1.1	2.6	+1.4	
Textiles       22.1       24.0       +1.8       3.9       5.0       +1.0         Information and Electrics/Electronics       20.4       24.0       +3.5       3.2       4.7       +1.4         Environmental Protection, Construction and       17.9       18.5       +0.5       0.9       1.2       +0.2		41.1	45.0	+3.8	2.7	4.5	+1.7	
Electrics/Electronics20.424.0+3.53.24.7+1.4Environmental Protection, Construction and17.918.5+0.50.91.2+0.2		22.1	24.0	+1.8	3.9	5.0	+1.0	
Protection, Construction and         17.9         18.5         +0.5         0.9         1.2         +0.2		20.4	24.0	+3.5	3.2	4.7	+1.4	
Others	Protection,	17.9	18.5	+0.5	0.9	1.2	+0.2	
	Total	161.6	180.0	+18.3	11.9	18.0	+6.0	

# 4-3. Numerical Goal <br/> by Segments>

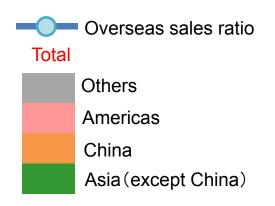


# 4-3. Numerical Goal <Overseas Sales>



#### Overseas sales ratio

- •Strengthen global business
- •Execution of alliance strategy
- •Right production in the right place
- ·Global personnel development



# 4-4. Investment Plan and Dividend Policy Sanyo

#### **R&D** investment

R&D investment of approximately 18 billion yen to strengthen the core business and create new business

#### Capital investment

Capital investment (cumulative): A total of 35 billion yen is planned.

- Invest in business that can demonstrate our strengths, such as lubricating oil additives and permanent antistatic agents
- Along with changes in product mix, efficient utilization of existing facilities

#### **Dividend policy**

The main management task is to increase the return on profits to our shareholders while improving the earning capacity of the Group by reinforcing the corporate infrastructure into the future. Dividends are paid on a stable basis, with the consolidated payout ratio by 30% or more.

# 4-5. Business Strategy

We will boldly shift management resources to the business and transactions that can further demonstrate our strengths, as well as aggressively invest in new business for the future.

### [Existing business]

(1) Business where new actions are taken for further growth

- (Surfactants, lubricating oil additives, resin additives, etc.)
- Positioning with a view to the whole markets
- Formulation of development themes derived from solution-based proposal
- Execution of development combining core technologies
- Facility design linked with research stage gate
- Global expansion utilizing local agents and overseas technical laboratories
- (2) Business changed with a sense of speed in line with changes in management environment

PPG (raw materials for polyurethane foams) business:

- Shift to high-value-added products
- Downsize business

• Launch GC Polyol (promotion of right production in the right place on global platform) SAP (superabsorbent polymers) business:

Looking forward ten years ahead, consider all possibilities in this three years

# 4-5. Business Strategy

[New business]

Aggressively invest management resources into items expected to form new markets in the near future.

- (1) Energy & Electronics business
  - New type of lithium ion rechargeable battery
  - Automotive electronics materials, etc.
- (2) Biotechnology & Medical business
  - New drug related materials (DDS: drug delivery system)
  - Silk-elastin, etc.
- (3) Other businesses
  - Development of cosmetic materials for skin care
  - Development of a comprehensive platform in Agriculture & Nutrition areas





New

Corporate

partnership

Global

Infrastructure

expansion reinforcement business

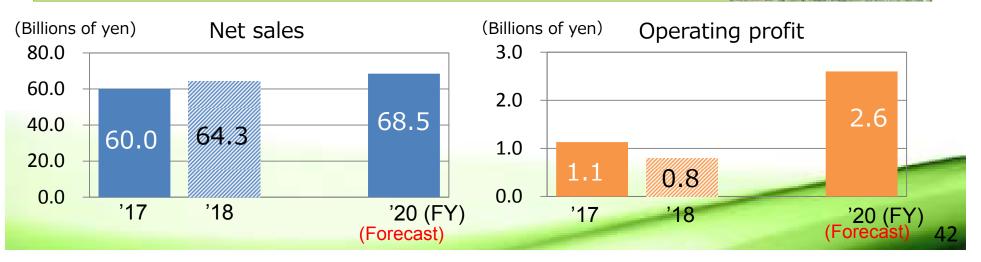
## Toiletries & Health Care Segments

#### Toiletries Segment

- Global expansion by surfactant-related technology developed in domestic markets
- Taking new actions to reinforce infrastructure in the skin care markets

#### Health Care Segment

- In the SAP (superabsorbent polymers) business, profitability improvement through reallocation of resources, process improvement, and thorough cost reduction
- In biotechnology business, taking new actions for the future, such as development of new drug related materials







New

Corporate

## Petroleum & Automotive Segments

#### Lubricating oil additive business

- Preparation period to accelerate overseas business expansion
- Establish business infrastructure through capital investment by FY2020



Global

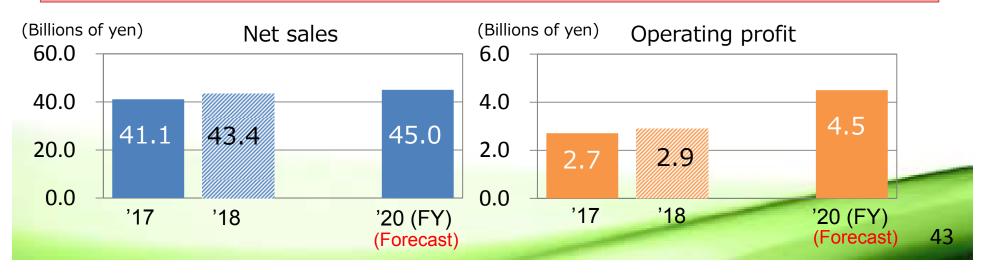
Infrastructure

#### PPG (raw materials for polyurethane foams) business

- Shift to high-value-added products and downsize business by reallocation of resources
- Launch GC Polyol to promote the right production in the right place on global platform

#### TUB (thermoplastic polyurethane beads) business

Further sales expansion and promotion of cost reduction





New

Global

Infrastructure

### Plastics & Textile Segments

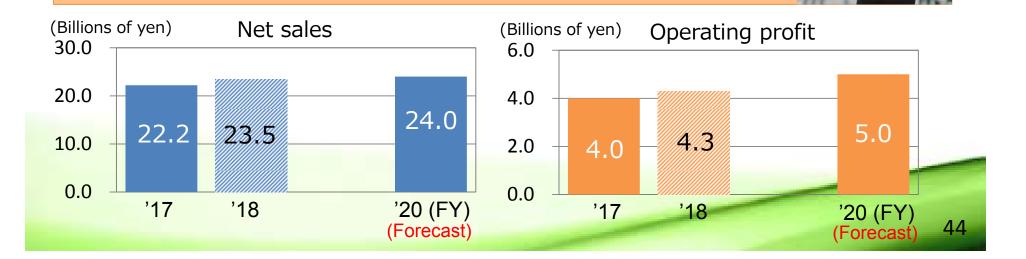
#### **Plastics Segment**

- Customer-oriented product development and expansion of global business
- Promote steady business expansion in the niche markets

#### **Textile Segment**

- Accelerate global expansion
- Expansion to peripheral applications by solution-based proposal







# Information & Electrics/Electronics Segments

#### Information Segment

- Deepen trust through customer experience
- Strengthen cost competitiveness

#### Electrics/Electronics Segment

- Promote new market development through customer experience
- Focus resources on new items in the Energy & Electronics Segments to accelerate development



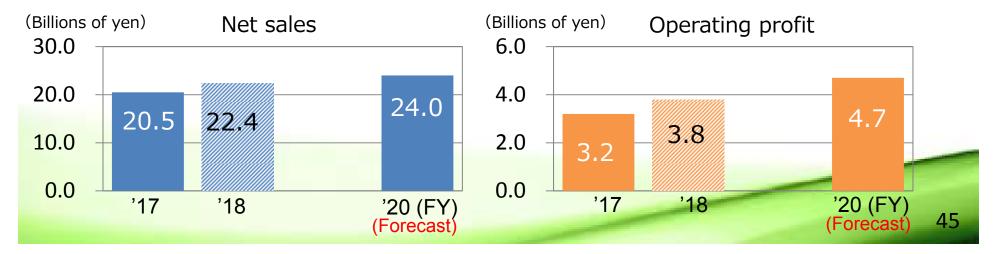
New

Corporate

Infrastructure

Global







New

Corporate

partnership

Infrastructure

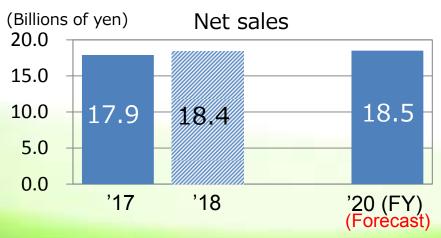
expansion reinforcement business

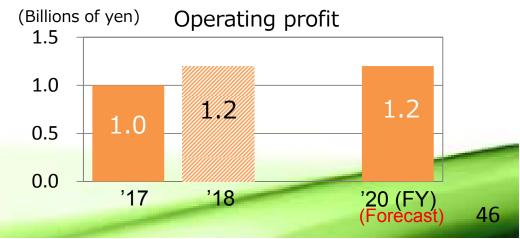
# Environmental Protection, Construction & Other Segments

#### **Environmental Protection & Construction Segments**

- Development of a comprehensive platform in Agriculture & Nutrition area
- In the PPG (raw materials for polyurethane foams) business, shift to high-value-added products and downsize business by reallocation of resources
- Launch GC Polyol to promote right production in the right place on global platform







Global

# 4-7. Structural Reform for Execution of Business Strategy

# (1) Establish a mechanism for developing highly profitable new products

- Strengthen marketing capabilities that seamlessly integrate Sales and Research
- Strengthen solution-based proposal capability combining multiple core technologies

(2) Strengthen production technology capabilities

- Linkage with research stage gate
- Planned development and optimal placement of human resources
- (3) Personnel system reform to promote reallocation of management resources
  - Strengthen human development through rotation and formulation of career-path system

### (4) Promotion of globalization

- Strengthen planning and execution capabilities of alliance and global strategies
- Improve earning capacity in overseas business
- Development of Group staff

## 4-7. Structural Reform for Execution of Business Strategy

### (5) Deepening Individual-based management

- Work-style reform
- Promotion of diversity

Individual-based management: A management system designed to encourage employees to take on challenges by utilizing the company's programs and tools, so that each and every person can grow with the Company, and ensure their job satisfaction and well-being)

### (6) Establish companywide projects

- Establish a work-style reform project and further promote the reform
- With the surfactant agent project, achieve more profits in the surfactant agent business
- With the global procurement project, realize optimal raw material procurement based on global information



# Aiming to better for "more"

Sanyo Chemical Group will **"KAERU"**\* its work style and the corporate culture in order to reach our goals in ten years (FY2027) to meet the diverse needs of people who aspire for a safe, secure, and prosperous society.

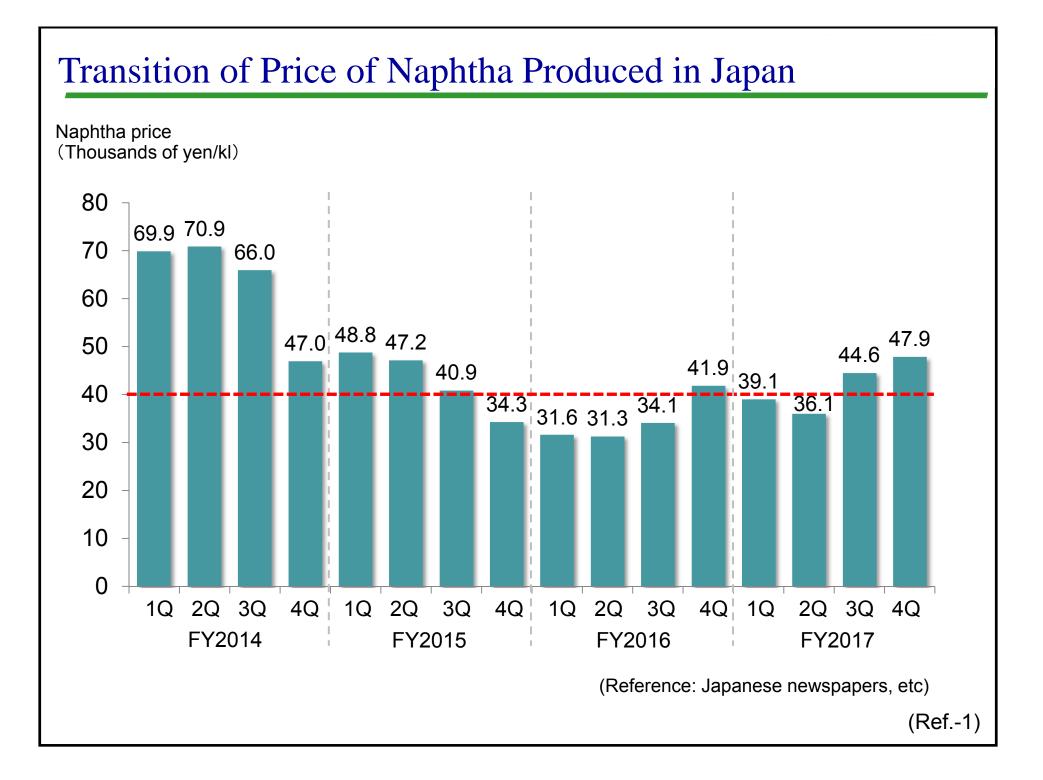
By **"KAERU"** our Company to a place where each and every employee feels proud and finds meaning in working in our Company and where the employee can grow with the Company, we shall seek to improve for "*more*" and contribute to society.

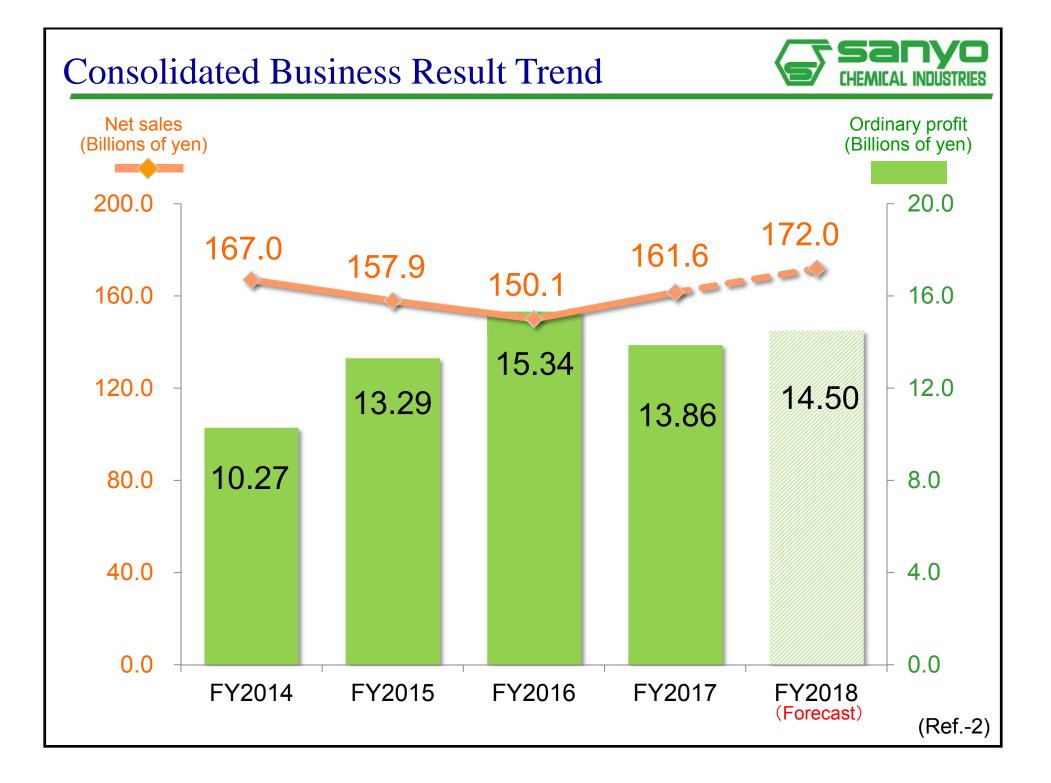
\*"KAERU": "Each employee will personally commit to changing our corporate culture."

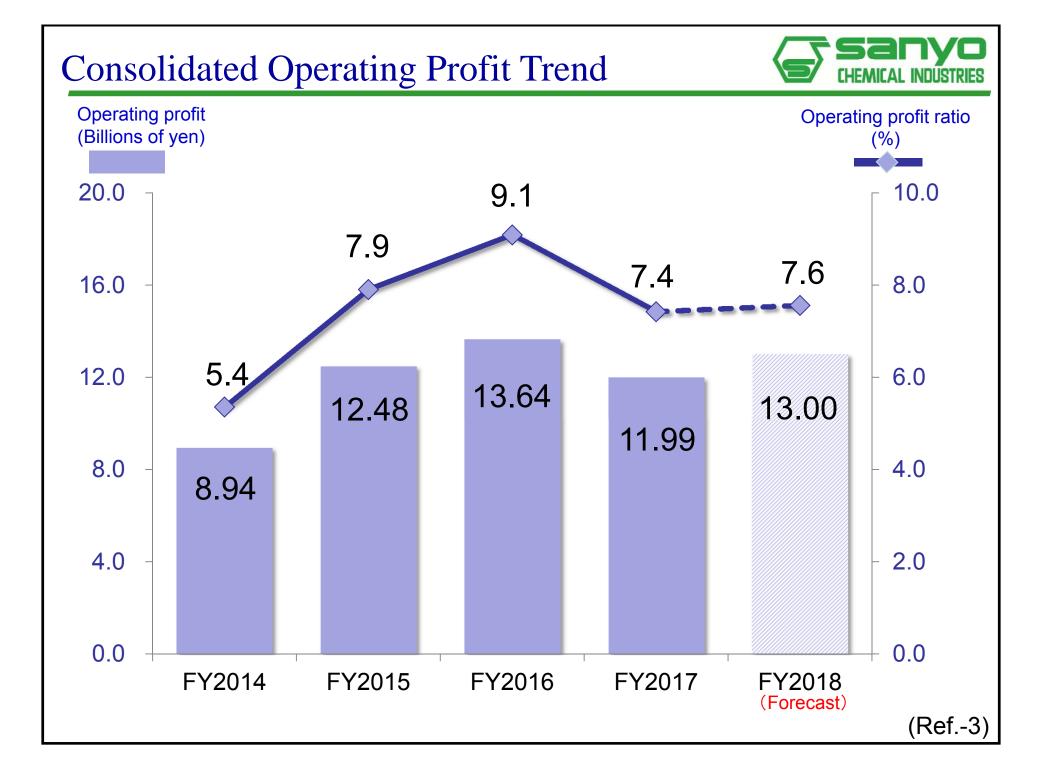
To be a truly unique and excellent corporate group that operates on a Global Scale

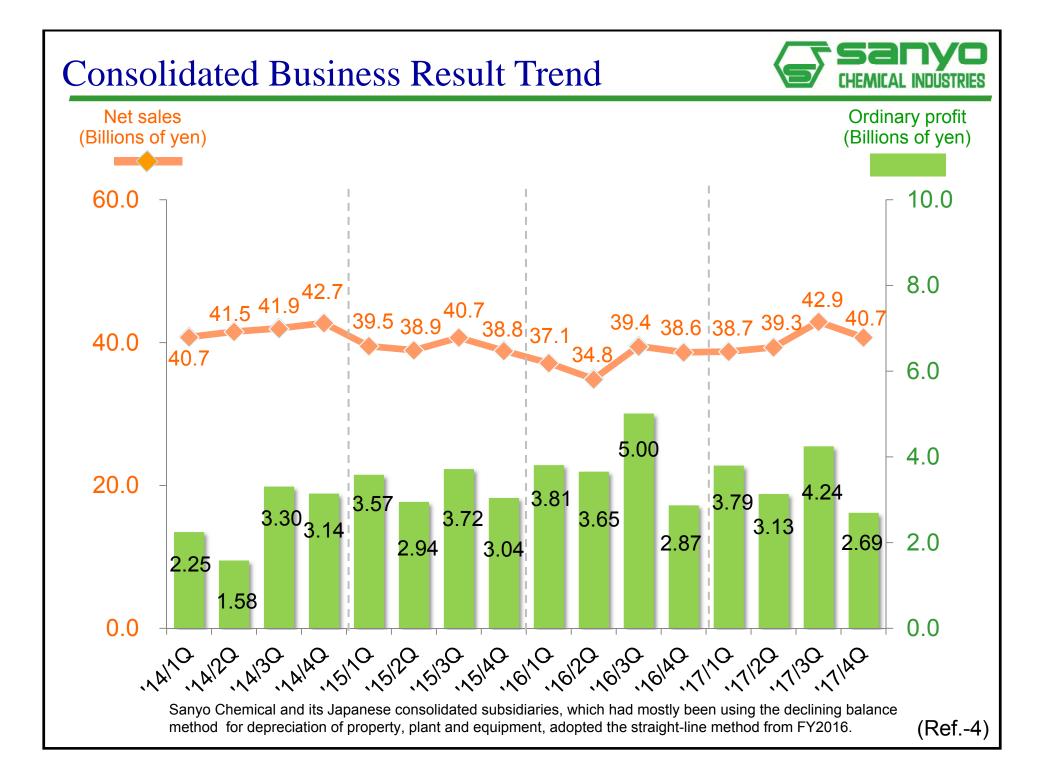


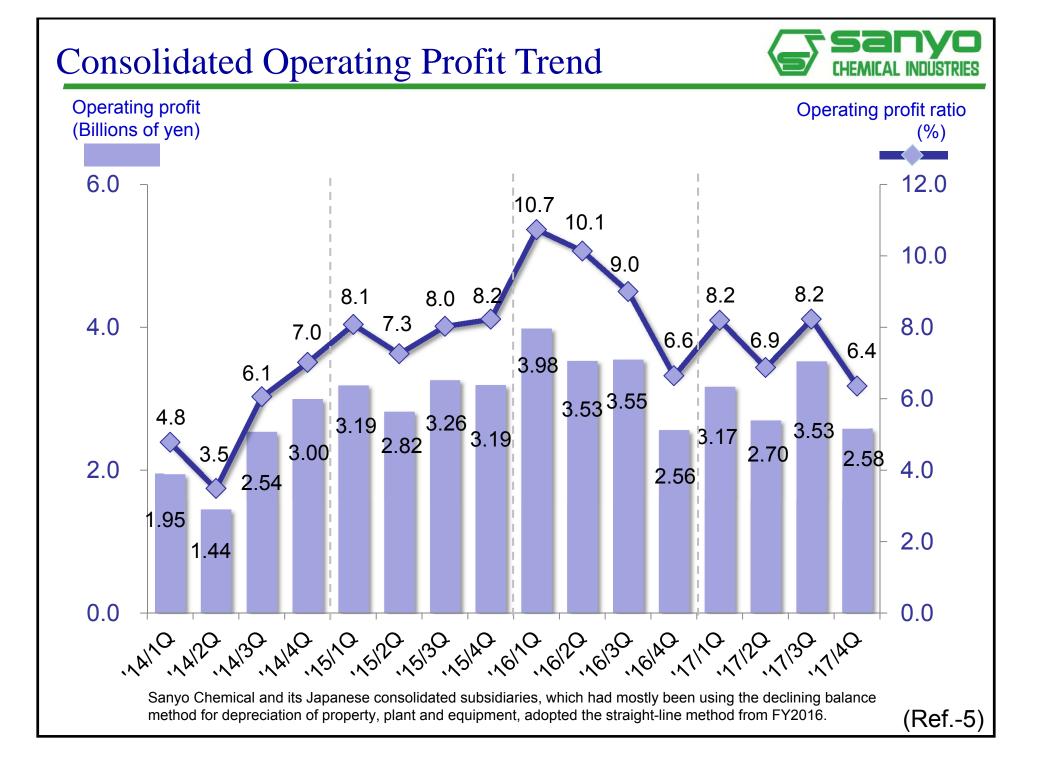
# Reference

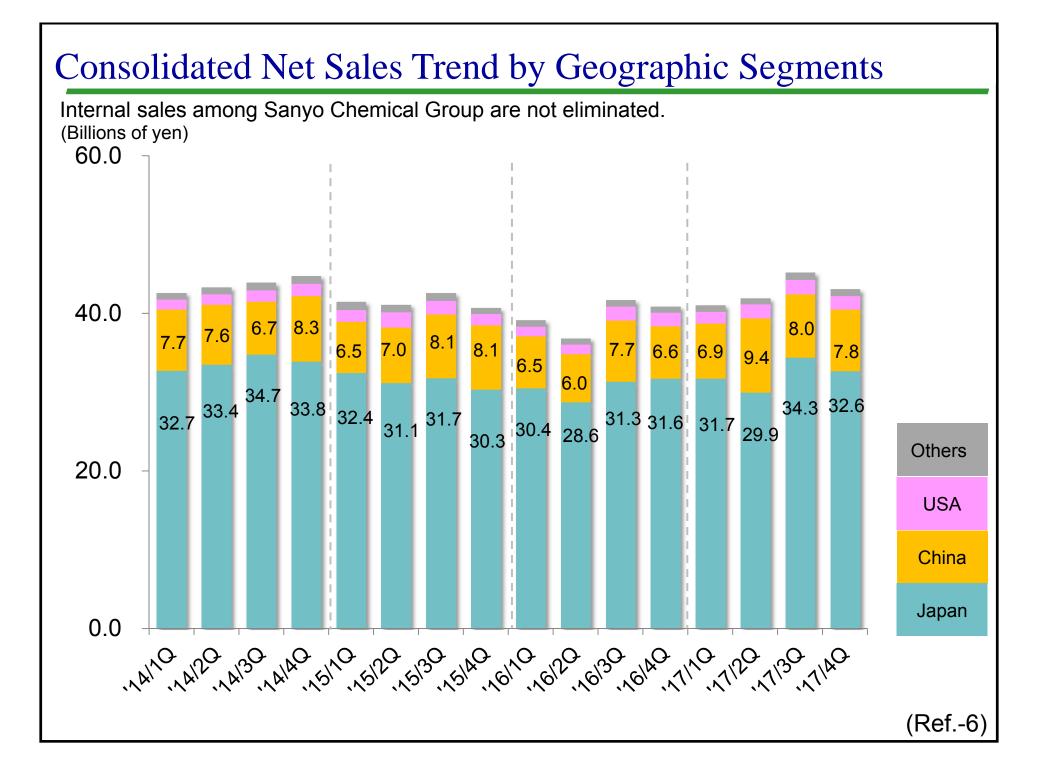


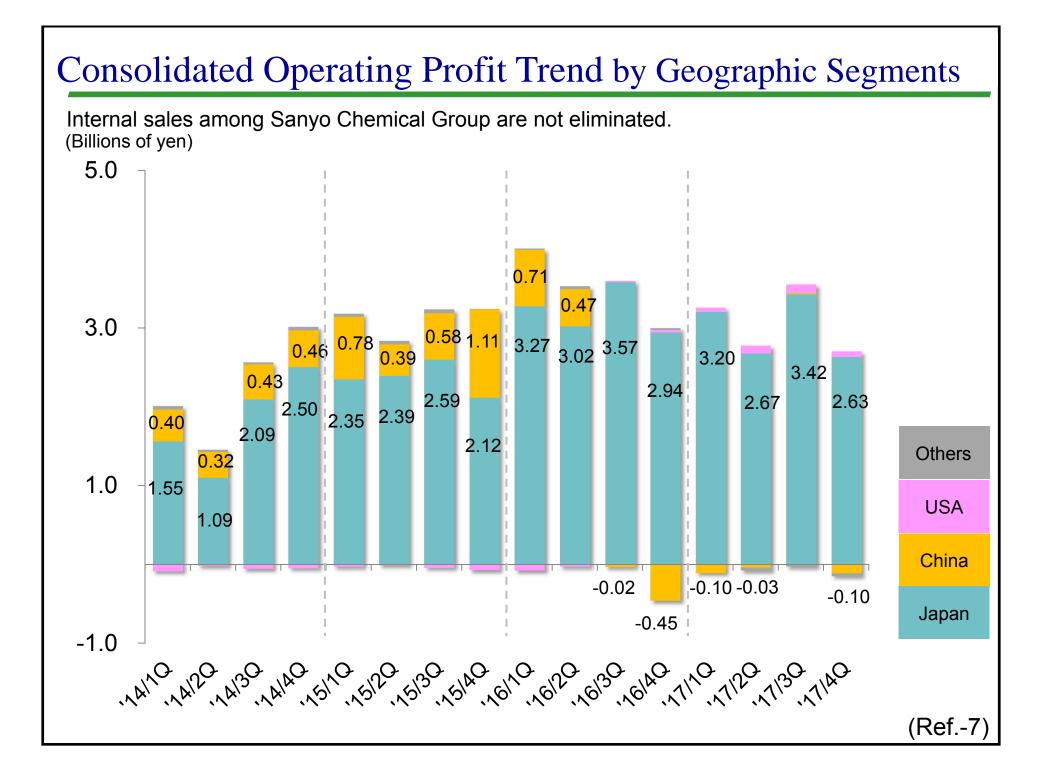


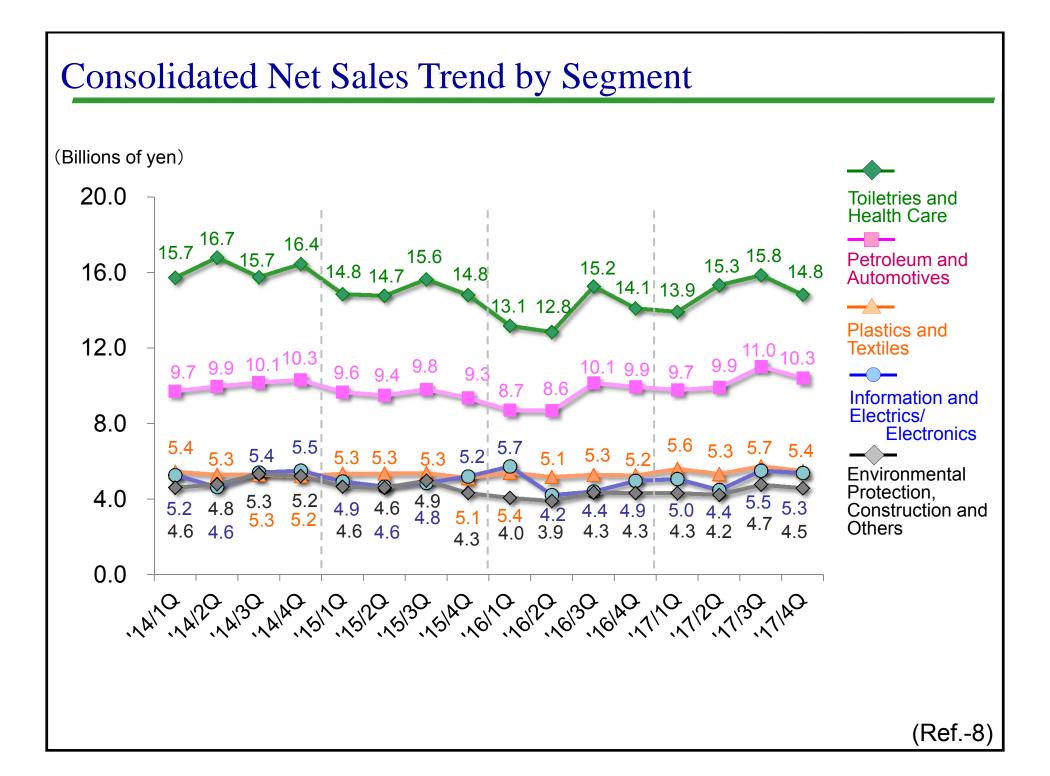


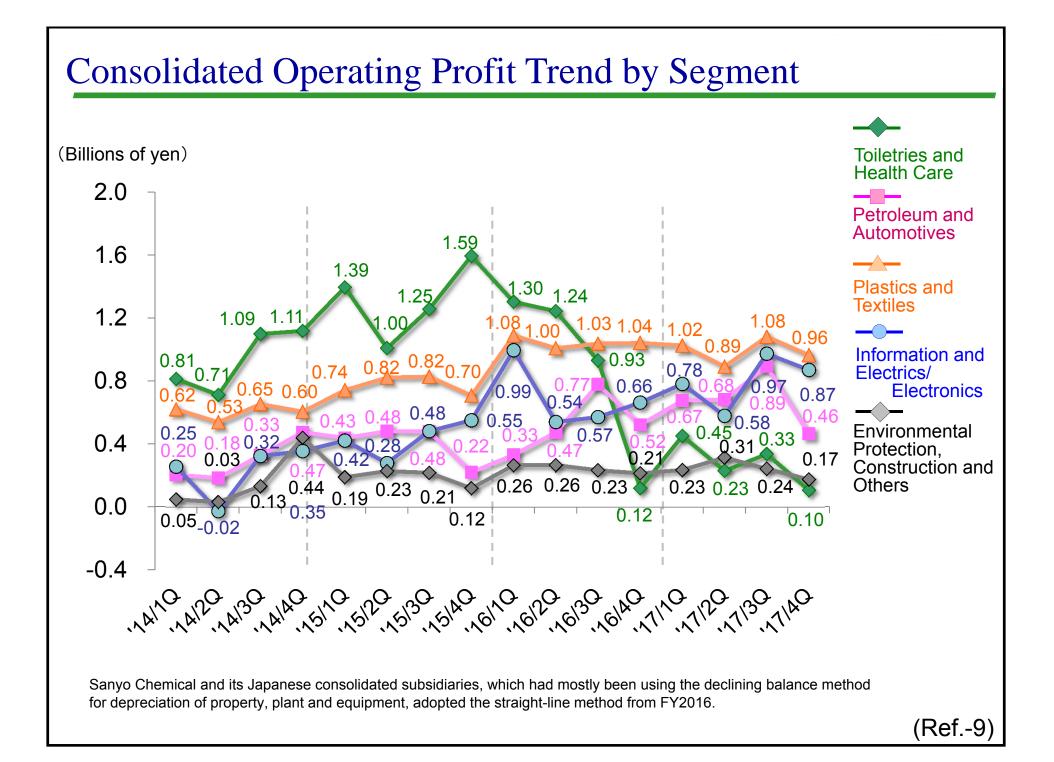


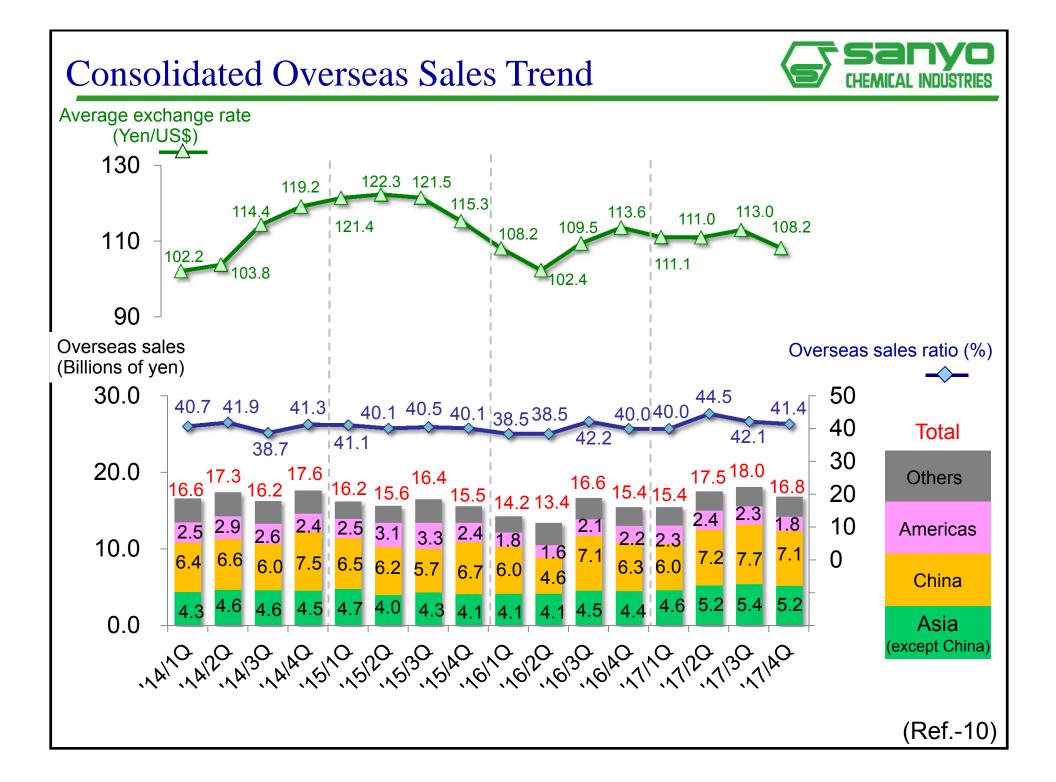












## Domestic Consolidated Subsidiaries (5 companies)

SDP Global Co., Ltd. SD	Sanyo Chemical Toyota Tsusho		Manufacture and sales of superabsorbent polymers
SAN NOPCO LIMITED SN	Sanyo Chemical		Manufacture and sales of agents for pulp & paper, coating agents, a wide range of industrial agents, etc.
San Chemical Co., Ltd. SC	Sanyo Chemical JXTG Nippon Oil & Energy		Manufacture of raw materials for polyurethane foams, etc.
San-Apro Ltd. SA	Sanyo Chemical Evonik International Holding B.V.	50% 50%	Manufacture and sales of curing accelerators for epoxy resins, urethane catalysts, etc.
Sanyo Transport Co., Ltd.	Sanyo Chemical	100%	General trucking

Overseas Consolidated Subsidiaries (8 companies)					
Company Name	Abbr.	Equity Ownership		Line of Business	
Sanyo Kasei (Nantong) Co., Ltd. [China]	SKN	Sanyo Chemical	100%	Manufacture of surfactants, polyurethane resins, etc.	
San-Dia Polymers (Nantong) Co., Ltd. [China]	SDN	SDP Global	100%	Manufacture and sales of superabsorbent polymers	
Sanyo Chemical (Shanghai) Trading Co., Ltd. [China]	SCST	Sanyo Chemical ´	100%	Sales of surfactants, polyurethane resins, etc.	
Sanyo Kasei (Thailand) Ltd. [Thailand]	SKT	Sanyo Chemical Toyota Tsusho and others	89% 11%	Manufacture and sales of surfactants, polyurethane resins, etc.	
SANAM Corporation [USA]	SANAM	Sanyo Chemical ´	100%	Holding company of U.S. consolidated subsidiaries. Sales of lubricating oil additives, toner resins, etc.	
Sanyo Chemical &Resins, LLC [USA]	SCR	SANAM	100%	Manufacture of lubricating oil additives	
Sanyo Chemical Texas Industries, LLC [USA]	SCTI	SANAM	100%	Manufacture of polyurethane beads	
SDP GLOBAL (MALAYSIA) SDN.BHD. [Malaysia]		SDP Global	100%	Manufacture and sales of superabsorbent polymers	

# Subsidiaries and Affiliates Accounted for by Equity Method

Company Name	Abbr.	Equity Ownership		Line of Business
San-Petrochemicals Co., Ltd.	SPCC	Sanyo Chemical JXTG Nippon Oil &Energy		Manufacture of raw materials for synthetic rubbers
Sunrise Chemical LLC [USA]		SANAM Corporation JX Nippon Chemical Texas	50% 50%	Manufacture of raw materials for synthetic rubbers
Nagoya Sanyo Warehouse Co., Ltd.		Sanyo Chemical	100%	Warehousing
Shiohama Chemicals Warehouse Co., Ltd.		Sanyo Chemical JXTG Nippon Oil &Energy	50% 50%	Warehousing
Sanliving Ltd.	SL	Sanyo Chemical	100%	Real estate, insurance and agency