

# **Second Quarter, FY 2018 Analyst Meeting Material**

Second Quarter Results for the Year ending December 31, 2018

August 10, 2018



**TOKAI CARBON CO., LTD.**

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# I

Second Quarter, FY 2018

## **Financial Summary**

## Business Environment

- Graphite Electrodes: Global crude steel production and EAF demand increase.
- Carbon Black: The environmental regulations in China caused a sense of tight supply in the market. Order inquiries from tire manufacturers are high. Full production.
- Fine Carbon: Strong demand from the solar cell and semiconductor markets as well as general industry.

## Operating Trends

- Net sales: Sales rose 86.4% YoY due to an increase in sales prices for graphite electrodes and carbon black, among other factors.  
The new graphite electrode production plant in North America contributed ¥11.526 billion to sales.
- Operating income: Operating income rose 590.1% YoY. Higher sales prices for graphite electrodes contributed substantially to this and other businesses also performed well.
- Special income: The transaction of consolidating Tokai Carbon Korea., Ltd. as a subsidiary company caused the accrual of ¥22.8 billion special income based on effective control criteria.

## Revision of Earnings Forecast for Fiscal Year 2018 (as of August 7)

The previous forecasts (May 28) for net sales and operating income were revised upward.

- Net sales: ¥91.6 billion; Operating income: ¥29.1 billion; ROS: 32%

	(Millions of yen)			
	Jan-Jun 2017	Jan-Jun 2018	YoY Change	% Change
Net Sales	49,184	91,688	42,503	86.4%
Operating Income	4,228	29,177	24,949	590.1%
Ordinary Income	4,924	29,955	25,030	508.2%
Net Income Attributable to Owners of the Parent Company	5,854	44,207	38,352	655.1%

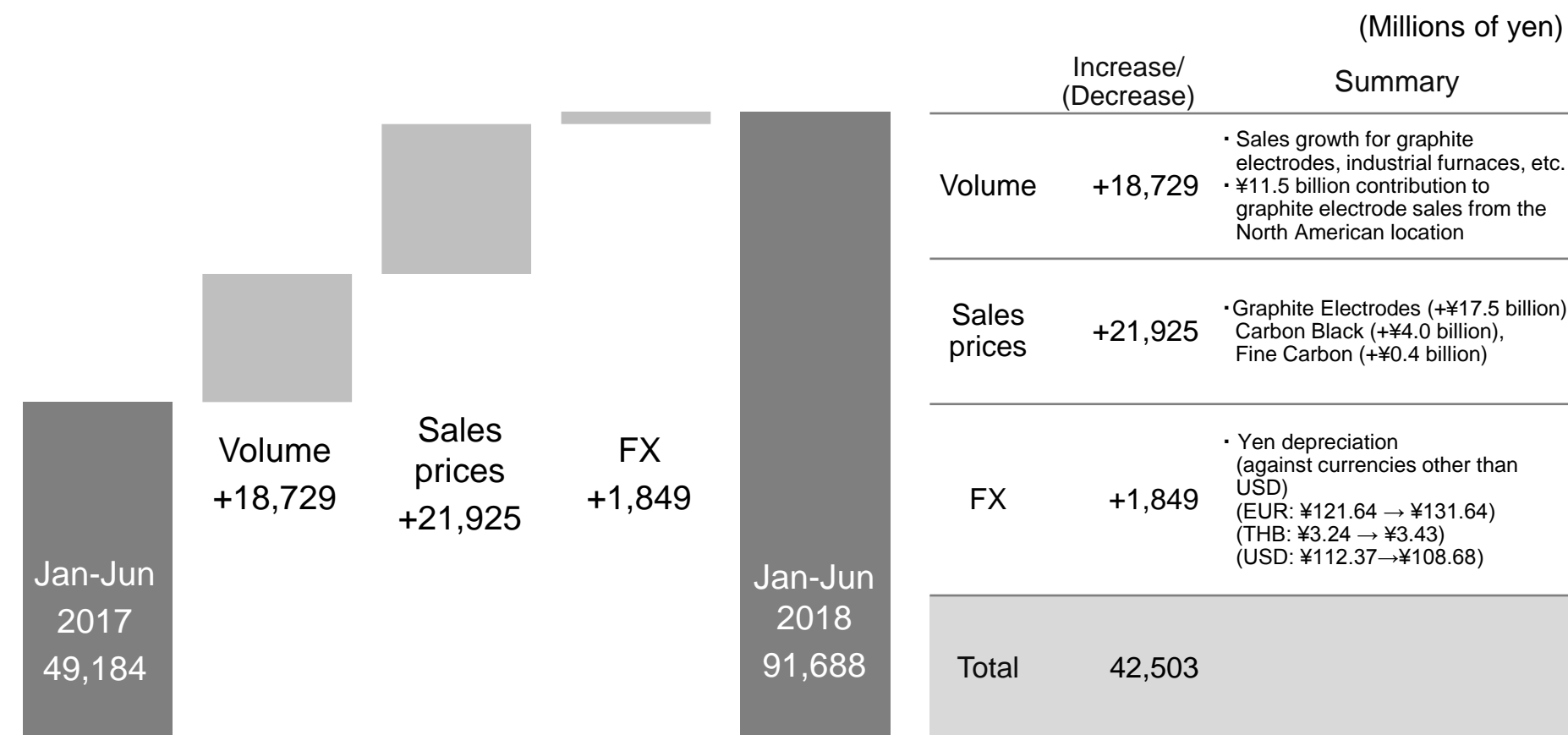
Group companies (As of June 30, 2018)

- Consolidated subsidiaries: 27 (TCK added; TCES removed)
- Equity method affiliates: 2 (equity interest in TCK decreased)

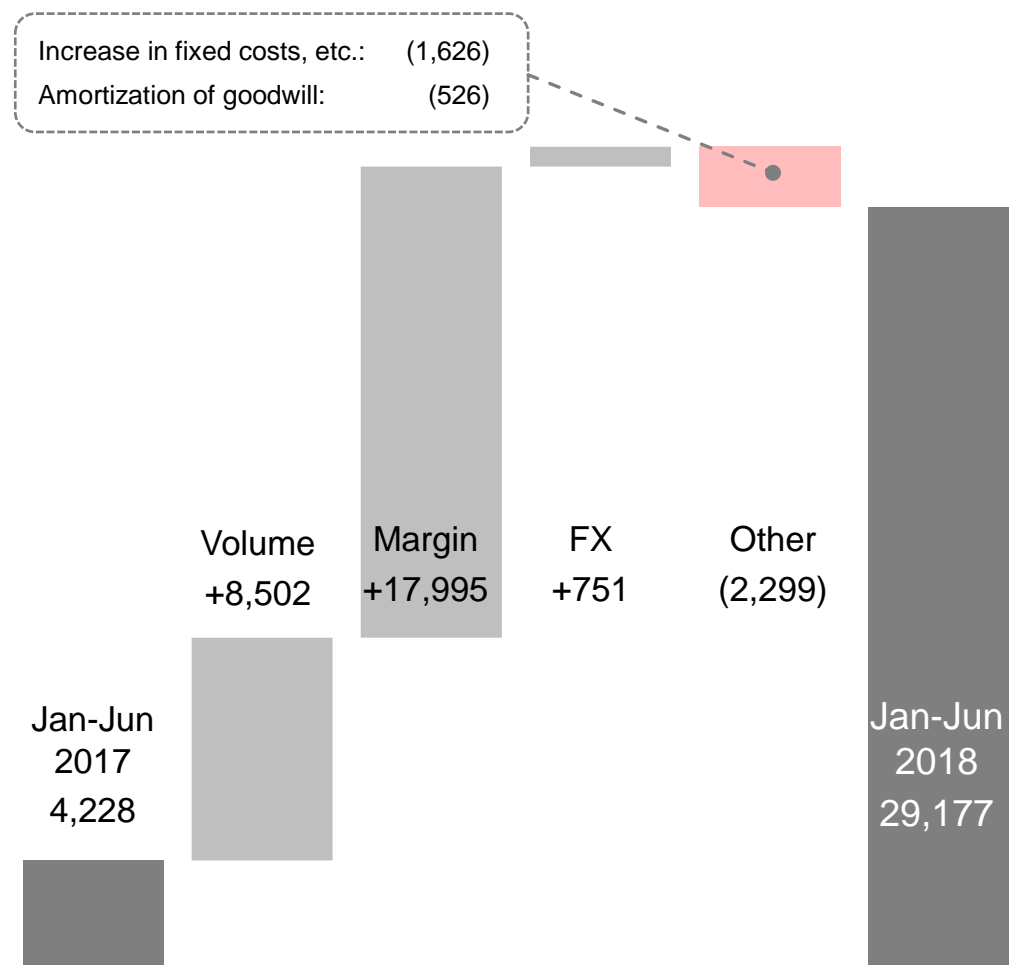
Average exchange rate for the first six months:

- 2017 \$1=¥112.37
- 2018 \$1= ¥108.68

- Acquisition of the North American graphite electrode operations resulted in growth in volume.
- Improvement in sales prices for carbon black and graphite electrodes resulted in growth in YoY sales growth.



- Growth in volume sales due to the consolidation of the North American graphite electrode subsidiary contributed to the increase in profit margin.
- The majority of the increase in the profit margin was due to improvement in sales prices for graphite electrodes and also carbon black.



		(Millions of yen)
	Increase/ (Decrease)	Summary
Volume	+8,502	• Graphite electrodes, industrial furnaces, etc.
Margin	+17,995	• Graphite Electrodes (+¥15.8 billion), Carbon Black (+¥1.7 billion), Fine Carbon (¥0.9 billion)
FX	+751	• Yen depreciation (against currencies other than USD) (USD: ¥112.37 → ¥108.68) (EUR: ¥121.64 → ¥131.64)
Other	(2,299)	• Amortization of goodwill and an increase in labor costs and other fixed costs
Total	24,949	

# Net Sales and Operating Income by Segment

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- The graphite electrodes business expanded.
- Other businesses saw strong performance overall.

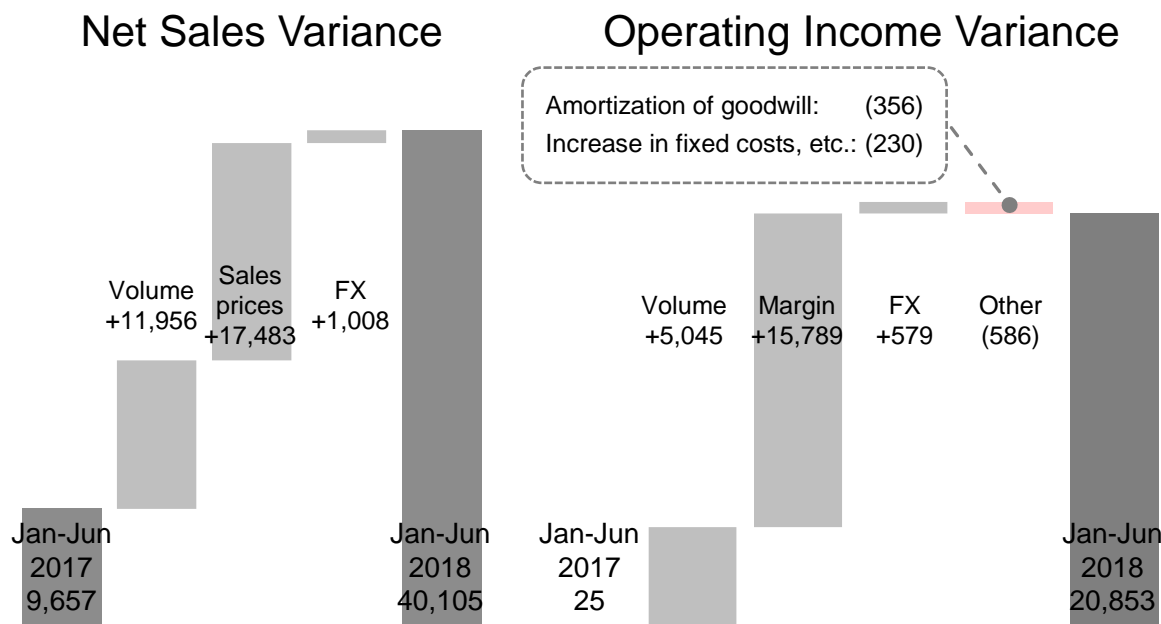
(Millions of yen)

		Net Sales			Operating Income		
		Jan-Jun 2017	Jan-Jun 2018	YoY Change	Jan-Jun 2017	Jan-Jun 2018	YoY Change
Graphite Electrodes		9,657	40,105	30,447	25	20,853	20,828
Carbon Black		23,504	29,193	5,688	3,397	5,199	1,801
Fine Carbon		6,845	9,327	2,482	390	1,739	1,348
Industrial Furnaces and Related Products		2,822	5,348	2,526	512	1,324	811
Other Operations	Friction materials	4,146	4,682	535	-	-	-
	Anode materials	2,082	2,952	869	-	-	-
	Others	125	78	(46)	-	-	-
		6,354	7,713	1,358	451	582	130
Inter-segment eliminations		-	-	-	(548)	(521)	27
Total		49,184	91,688	42,503	4,228	29,177	24,949



- Volume growth from North American operations (valued at ¥11.526 billion) and higher sales prices contributed to net sales growth.
- Operating income saw strong YoY growth.  
Market prices improved from the prices contracted during 2018 due to the rebound in global production of EAF steel, the shift to EAF in China, and tight supply of the raw materials. Volume growth at the North American subsidiary also contributed to profit growth.

	(Millions of yen)			
	Jan-Jun 2017	Jan-Jun 2018	YoY Change	% Change
Net Sales	9,657	40,105	30,447	315.3%
Operating Income	25	20,853	20,828	Major growth
ROS	0.2%	52.0%		



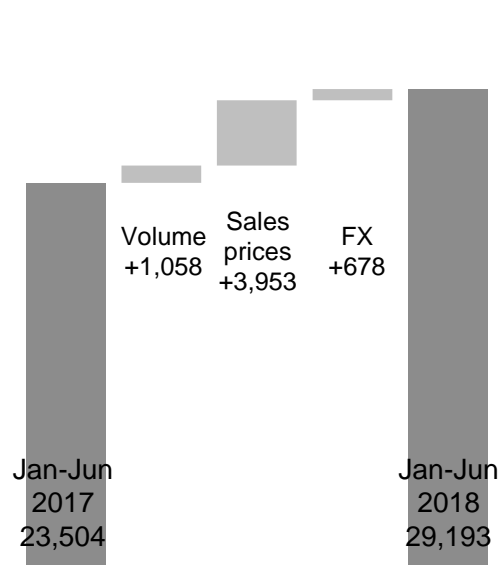
## ■ Favorable business environment

Carbon black supply was tight worldwide, Chinese carbon black manufacturers receded, and order inquiries from tire manufacturers increased substantially.

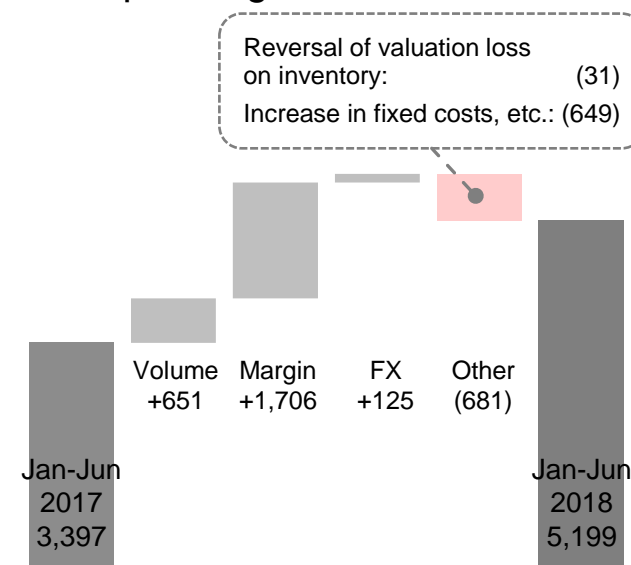
- Net sales increased by 24.2% YoY due to growth in sales volume and an increase in sales prices along with the increase in the price of feedstock oil.
- Operating income rose 53.0% YoY due to higher sales prices and improved production efficiency.

	Jan-Jun 2017	Jan-Jun 2018	YoY Change	% Change
Net Sales	23,504	29,193	5,688	24.2%
Operating Income	3,397	5,199	1,801	53.0%
ROS	14.4%	17.8%		

### Net Sales Variance



### Operating Income Variance

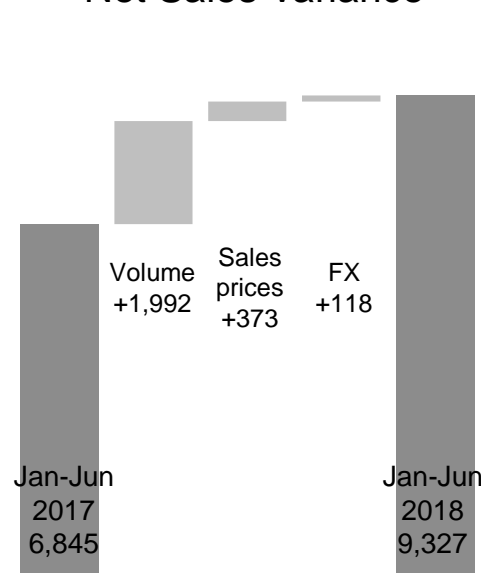


- Demand was firm for fine carbon used in the semiconductor, solar cell, and general industrial industries.
- Improvement in sales prices contributed substantially to growth in sales and profit.
- The consolidation of TOKAI CARBON KOREA as a subsidiary boosted consolidated results (from June 2018 onward).

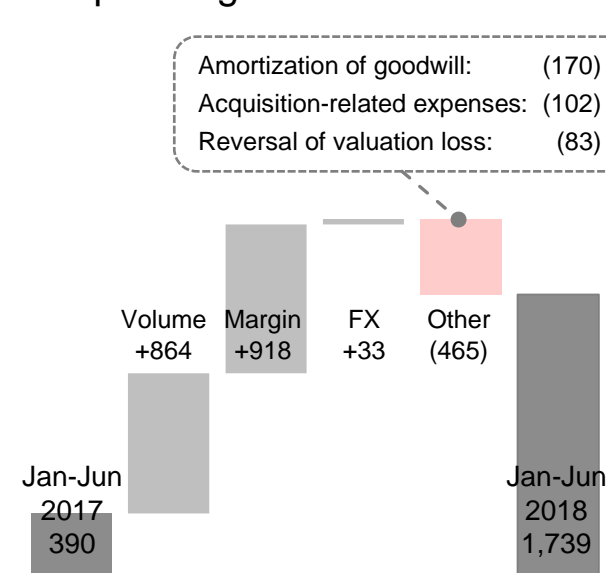
(Millions of yen)

	Jan-Jun 2017	Jan-Jun 2018	YoY Change	% Change
Net Sales	6,845	9,327	2,482	36.3%
Operating Income	390	1,739	1,348	345.4%
ROS	5.7%	18.6%		

## Net Sales Variance



## Operating Income Variance

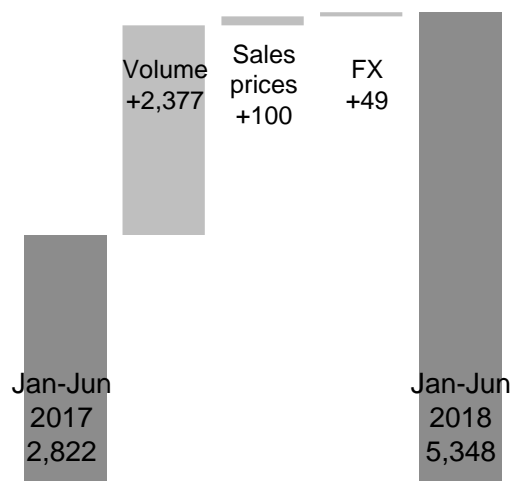


- Sales of industrial furnaces to the automotive MLCC (Multi-layer Ceramic Capacitors) and secondary lithium-ion batteries markets were strong.
- Growth in the volume of industrial furnaces sold contributed substantially to the growth in gross income and large increase in operating income, despite a deterioration in profit margins due to the composition of products shipped.

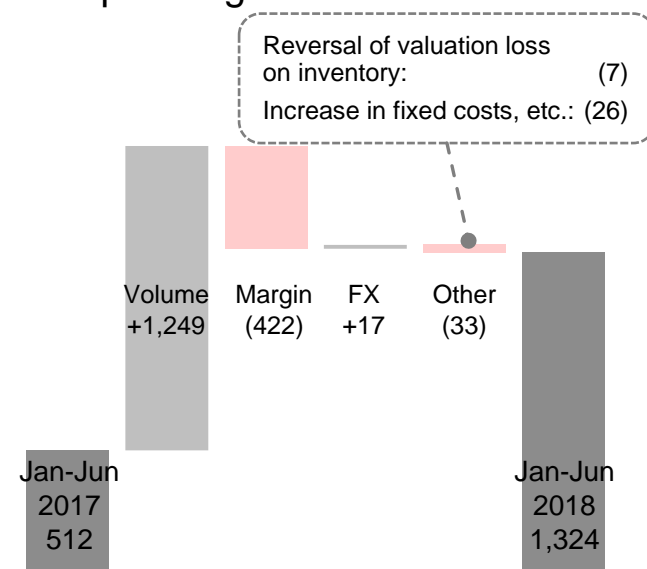
(Millions of yen)

	Jan-Jun 2017	Jan-Jun 2018	YoY Change	% Change
Net Sales	2,822	5,348	2,526	89.5%
Operating Income	512	1,324	811	158.3%
ROS	18.1%	24.8%		

## Net Sales Variance



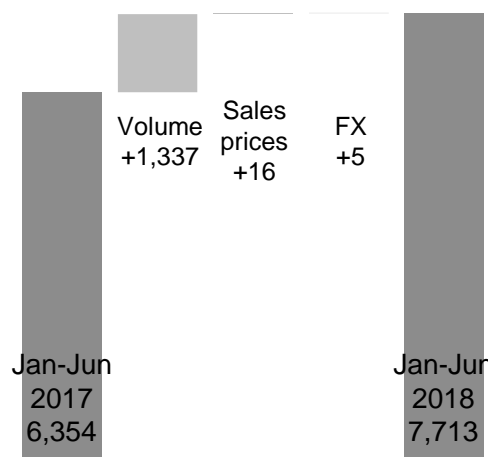
## Operating Income Variance



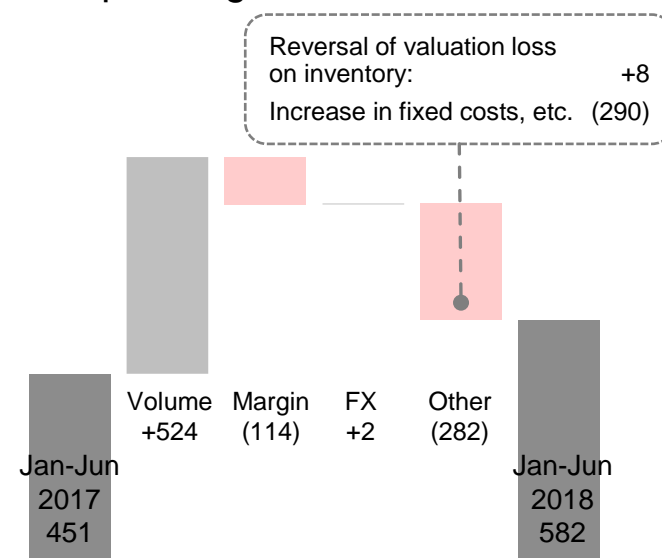
- Friction materials: Growth in demand, mainly for use in construction machinery, boosted net sales by 12.9% YoY.
- Anode materials: Volume growth in sales contributed to sales growth of 41.8% YoY.

	Jan-Jun 2017	Jan-Jun 2018	YoY Change	% Change
Net Sales	6,354	7,713	1,358	21.4%
Operating Income	451	582	130	29.0%
ROS	7.0%	7.6%		

Net Sales Variance



Operating Income Variance



(Millions of yen)

## Major Cash Flow Items

	Jan-Jun 2017	Jan-Jun 2018	Summary
Cash flows from operating activities	5,223	18,607	
Net income (loss) before income taxes for the quarter	7,772	52,892	
Depreciation and amortization	3,216	3,534	
Loss (gain) on step acquisition	-	(22,843)	
Loss (gain) on sale of property, plant and equipment	(2,475)	(61)	
Decrease (increase) in trade receivables	(1,029)	(8,346)	
Decrease (increase) in inventories	(1,803)	(10,355)	
Increase (decrease) in accounts payable-trade	1,149	4,002	
Income tax paid	(1,389)	(2,780)	
Cash flows from investing activities	834	(8,090)	
Purchase of property, plant and equipment	(2,118)	(2,320)	
Proceeds from sale of property, plant and equipment	2,583	119	
Expenditure for acquisition of TCK	-	(5,669)	
Cash flows from financing activities	(8,762)	493	
Net increase (decrease) in short-term loans payable	280	3,019	
Repayment of long-term loans payable	(7,295)	(1,034)	
Payment of dividends	(639)	(1,278)	
Cash and cash equivalents at end of period	25,823	32,373	

(Millions of yen)

## Major Balance Sheet Items

	December 31, 2017	June 30, 2018	Summary
Total assets	182,972	242,750	
Current assets	85,241	121,535	
Cash and cash equivalents	22,152	37,024	
Notes and accounts receivable	30,265	40,376	
Inventory	27,362	39,191	
Fixed assets	97,731	121,215	
Tangible fixed assets	48,447	53,687	• Tangible fixed assets (+¥5,239 million from the end of the previous period)
Intangible fixed assets	17,746	44,195	• Intangible fixed assets (+¥26,449 million from the end of the previous period)
Investments and other assets	31,537	23,332	Capital expenditures: ¥3,374 million (+¥1,232 million from the end of the previous period)
			Depreciation and amortization: ¥3,534 million (+¥318 million from the end of the previous period)
			Amortization of goodwill: ¥718 million (+¥528 million from the end of the previous period)
Total liabilities	56,372	70,836	
Current liabilities	36,870	53,443	• Interest-bearing debt of ¥18,000 million (+¥1,856 million from the end of the previous period)
Long-term liabilities	19,501	17,392	
Total net assets	126,599	171,914	
Shareholder's capital	109,558	152,344	
Other accumulated comprehensive income	16,276	9,978	• Capital-to-asset ratio: 66.9% (End of previous period: 68.8%)
Non-controlling interests	763	9,591	
Total liabilities and net assets	182,972	242,750	

II

FY 2018

# Earnings Forecast



# Revision of Consolidated Earnings Forecast for FY 2018 (announced August 7)

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- Net Sales: ¥ 214.0 billion
- Operating income: ¥74.0 billion
- Growth in the graphite electrode market and so as the other businesses

\* The impact from consolidation of Sid Richardson Carbon, Ltd. (SRC) as a subsidiary is not included in the earnings forecast. (Millions of yen)

	Previous Forecast (May 28)			New Forecast for FY 2018			YoY Change	% Change
	1H	2H	Full Year	1H	2H	Full Year		
Net Sales	89,400	114,600	204,000	91,688	122,312	214,000	+10,000	+4.9%
Operating Income	28,000	37,700	65,700	29,177	44,823	74,000	+8,300	+12.6%
Ordinary Income	28,200	37,800	66,000	29,955	44,545	74,500	+8,500	+12.9%
Net Income Attributable to Owners of the Parent Company	42,800	25,800	68,600	44,207	29,793	74,000	+5,400	+7.9%
ROS	31.3%	32.9%	32.2%	31.8%	36.2%	34.6%	-	-
ROIC	-	-	-	-	-	38.1%	-	-
ROE	-	-	-	-	-	51.4%	-	-

Group companies

- Consolidated subsidiaries: 27
- Equity method affiliates: 2

Average exchange rates:

- 2017 \$1=¥112.19
- 2018 \$1=¥105.00 (3Q onward)

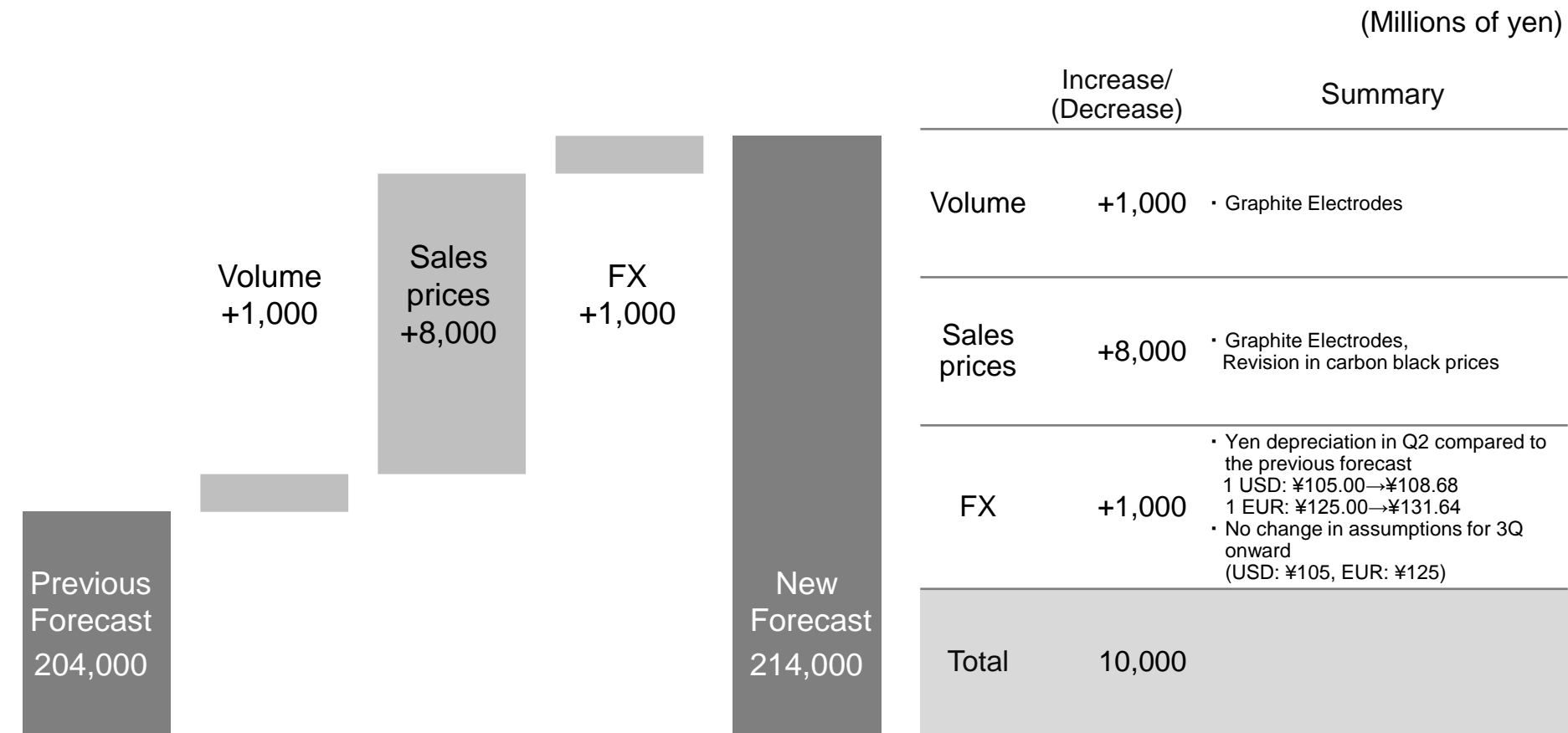
# Net Sales and Operating Income Forecast by Segment

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(Millions of yen)

		Previous Forecast (May 28)			New Forecast for FY 2018			YoY Change	% Change
		1H	2H	Full Year	1H	2H	Full Year		
Net Sales		89,400	114,600	204,000	91,688	122,312	214,000	+10,000	+4.9%
Graphite Electrodes		38,500	54,600	93,100	40,105	61,895	102,000	+8,900	+9.6%
Carbon Black		28,900	29,600	58,500	29,193	31,707	60,900	+2,400	+4.1%
Fine Carbon		8,800	16,700	25,500	9,327	14,673	24,000	(1,500)	(5.9%)
Industrial Furnaces and Related Products		5,300	5,900	11,200	5,348	5,852	11,200	-	-
Other Operations	Friction materials	4,700	4,900	9,600	4,682	5,018	9,700	+100	+1.0%
	Anode materials	3,000	2,900	5,900	2,952	3,048	6,000	+100	+1.7%
	Others	100	100	200	78	122	200	-	-
	Total Others	7,800	7,900	15,700	7,713	8,187	15,900	+200	+1.3%
Operating Income		28,000	37,700	65,700	29,177	44,823	74,000	+8,300	+12.6%
Graphite Electrodes		20,000	28,600	48,600	20,853	34,647	55,500	+6,900	+14.2%
Carbon Black		5,150	4,750	9,900	5,199	5,201	10,400	+500	+5.1%
Fine Carbon		1,600	3,000	4,600	1,739	3,361	5,100	+500	+10.9%
Industrial Furnaces and Related Products		1,150	1,250	2,400	1,324	1,476	2,800	+400	+16.7%
Other		600	600	1,200	582	618	1,200	-	-
Inter-segment eliminations		(500)	(500)	(1,000)	(520)	(480)	(1,000)	-	-

- Growth in the graphite electrode market

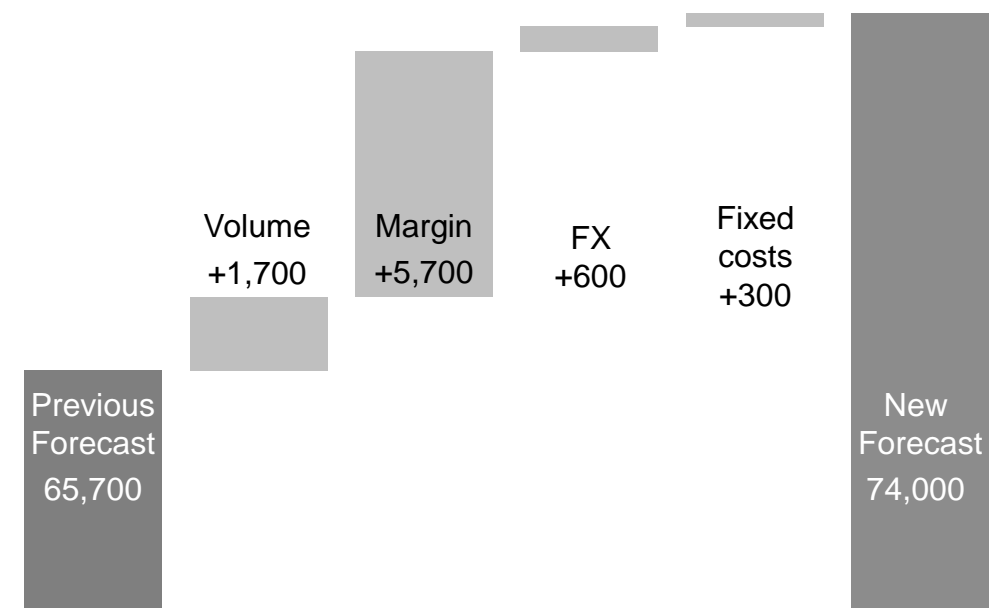


# Analysis of Variance from Previous Forecast: Operating Income

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- Growth in the graphite electrode market

## Operating Income Variance



(Millions of yen)

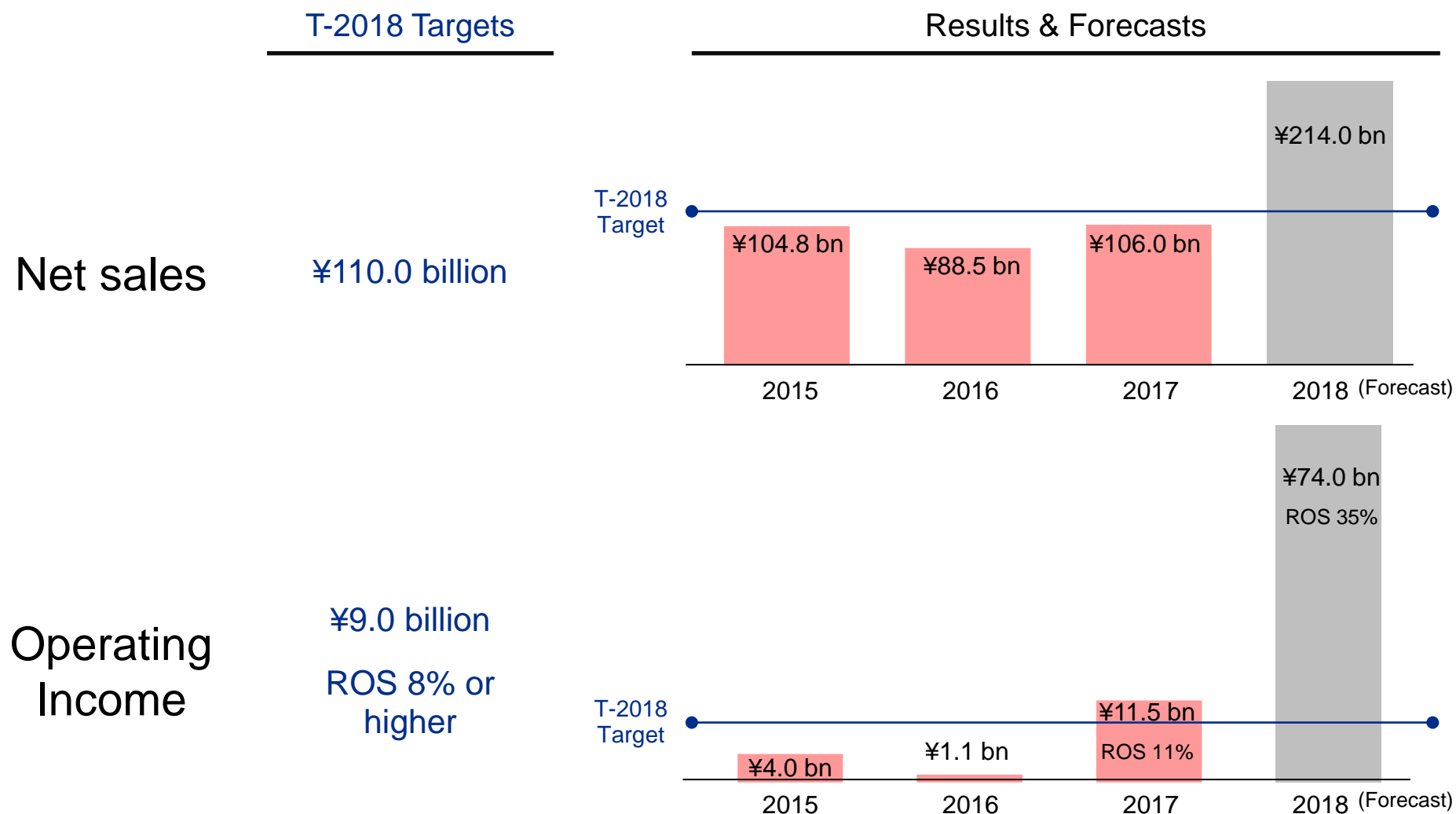
	Increase/ (Decrease)	Summary
Volume	+1,700	Volume growth in graphite electrodes
Margin	+5,700	Increase in sales price of graphite electrodes
FX	+600	<ul style="list-style-type: none"> <li>Yen depreciation in Q2 compared to plan 1 USD: ¥105.00→¥108.68 1 EUR: ¥125.00→¥131.64</li> <li>No change in assumptions for 3Q onward (USD: ¥105, EUR: ¥125)</li> </ul>
Fixed costs	+300	
Total	8,300	

III

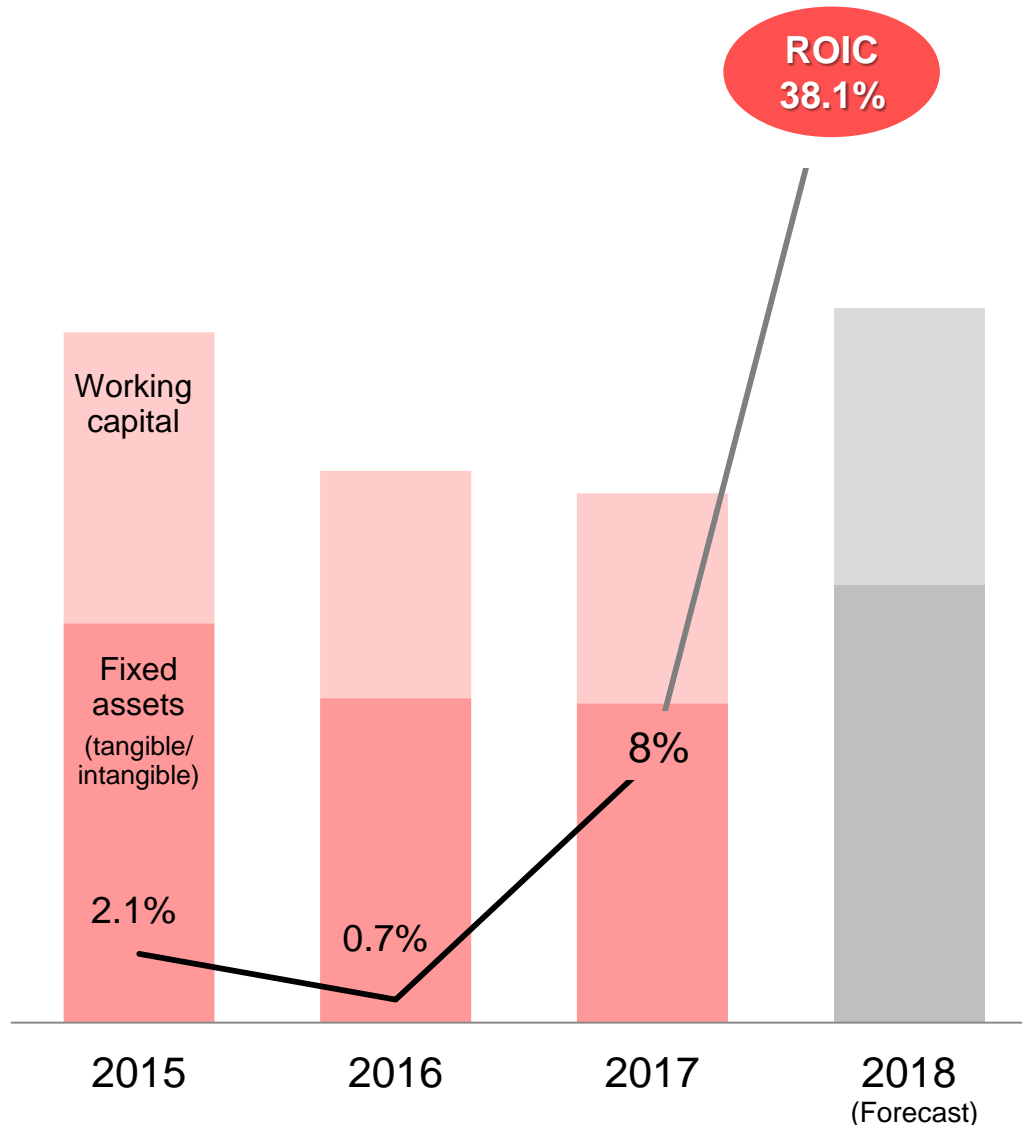
FY 2018

# **Progress Report on Mid-Term Management**

Both net sales and operating income are projected to substantially exceed the targets.



## ROIC Target of 6% achieved early



### Reduce inventory

By roughly ¥13.5 billion for all segments (FY 2016)

### Reduce fixed assets

Reduce fine carbon production capacity

Reduce carbon black production capacity

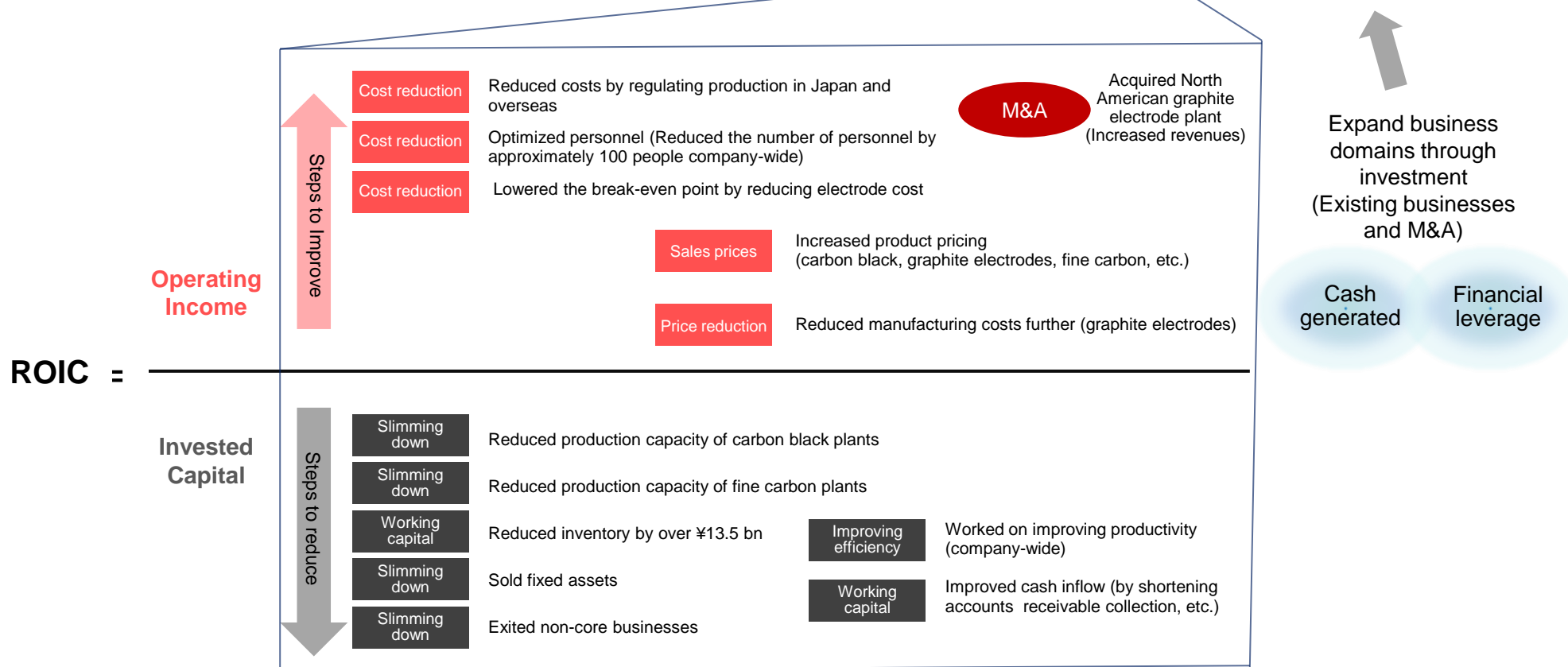
Sell idle assets of Tokai Konetsu Kogyo Co., Ltd.

Sell Nagoya Green Club land, etc.

Impairment losses of roughly ¥10.0 billion in main business segments (FY 2016)

- Shrink:** During the Mid-Term Management Plan, structural reforms were undertaken which led to constitutional change by improving ROIC.
- Grow:** In 2018 and beyond, we will focus on expanding our business domains with the cash generated from our core business and through financial leverage.

	2012	2013	2014	2015	2016	2017	2018 and Beyond
ROIC	3.1%	0.4%	1.8%	2.1%	0.7%	8.0%	Over 36%
ROE	1.9%	1.0%	2.0%	2.0%	(6.8%)	10.0%	Over 34%





## Graphite Electrodes



U.S.A.

Graphite electrode production  
Plant capacity of 30,000 tons per year

Acquisition completed in  
November 2017

Approx. **¥13.4** billion  
(Cash on hand: ¥5.4 billion)  
(Debt: **¥8.0** billion)

## Fine Carbon



South Korea

World's largest CVD production  
Specialty graphite processing plant

Became a subsidiary in  
May 2018

Approx. **¥7.8** billion  
(Cash on hand: ¥7.8 billion)

## Carbon Black



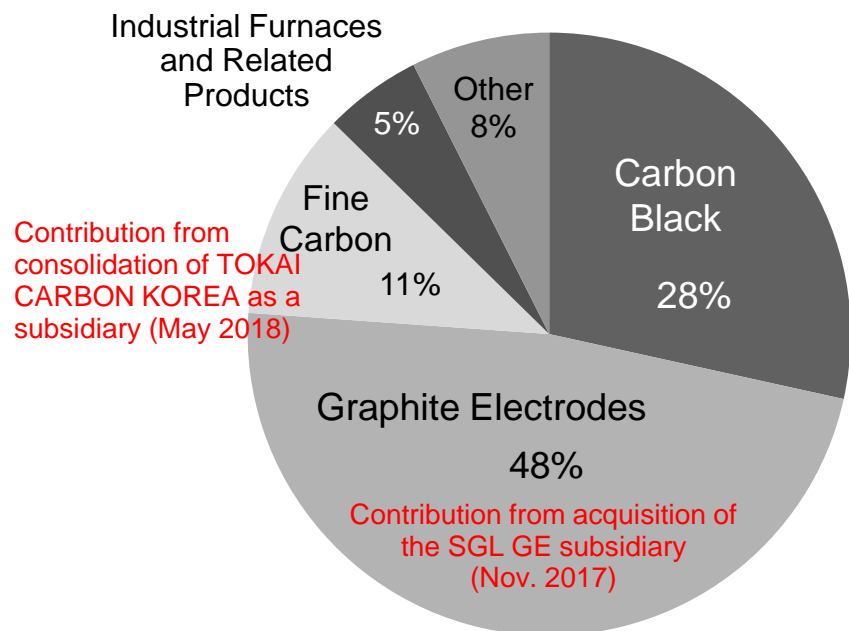
U.S.A.

Carbon black production  
3 plants + 1 research facility

Acquisition to be completed in  
September 2018

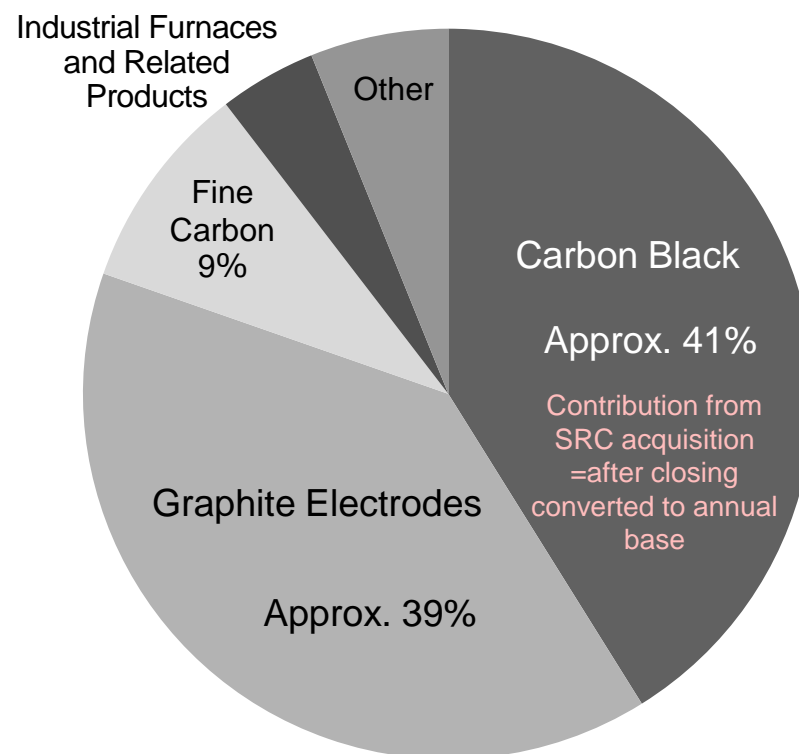
Approx. **¥34.1** billion  
(Debt: **¥37.7** billion )  
- including working capital

Net sales forecast for FY 2018  
(Before SRC acquisition)



¥214.0 billion

Annualized sales projection\*  
(After SRC acquisition)



Approx. ¥ 260.0 billion

\* Simple aggregation. Actually only contributed to net sales for fiscal year ending December 31, 2018 during the period after closing.

- **Integrated management of locations in Japan & overseas**

Integration of new graphite electrode, carbon black, and fine carbon locations

- **Stabilization of the revenue base**

Establish a new business model that is not easily affected by market conditions

- **Forecast of business portfolio continuity**

Solidify the three main business bases and develop next-generation businesses

**Reference Material**

A decorative graphic element in the bottom right corner of the slide. It consists of several overlapping triangles and polygons in various shades of red, creating a dynamic, geometric pattern that slopes upwards from left to right.

# Quarterly Segment Results

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(F) = Forecast (Millions of yen)

		2017					2018f			
		Q1	Q2	Q3	Q4	Full Year	Q1	Q2	2H (F)	Full Year (F)
Net Sales		24,104	25,080	25,882	31,184	106,252	41,595	50,092	122,312	214,000
	Graphite Electrodes	5,136	4,520	5,246	8,706	23,610	16,984	23,121	61,895	102,000
	Carbon Black	11,344	12,160	11,858	12,465	47,828	14,276	14,916	31,707	60,900
	Fine Carbon	3,394	3,450	3,781	3,820	14,447	3,893	5,434	14,673	24,000
	Industrial Furnaces and Related Products	1,207	1,615	1,543	2,457	6,823	2,663	2,685	5,852	11,200
Other Operations	Friction materials	2,033	2,113	2,192	2,332	8,671	2,296	2,385	5,018	9,700
	Anode materials	930	1,152	1,199	1,358	4,640	1,439	1,512	3,048	6,000
	Others	58	66	61	43	230	42	36	122	200
	Total Others	3,021	3,333	3,452	3,734	13,542	3,778	3,934	8,187	15,900
Operating Income		1,781	2,446	3,342	3,916	11,486	12,787	16,390	44,823	74,000
	Graphite Electrodes	144	(119)	619	1,103	1,748	8,558	12,295	34,647	55,500
	Carbon Black	1,479	1,917	1,912	1,559	6,868	2,816	2,382	5,201	10,400
	Fine Carbon	47	343	584	763	1,738	708	1,030	3,361	5,100
	Industrial Furnaces and Related Products	195	317	305	524	1,342	633	691	1,476	2,800
	Other	209	242	174	232	858	320	261	618	1,200
	Inter-segment eliminations	(294)	(253)	(255)	(265)	(1,069)	(250)	(271)	(480)	(1,000)

(Millions of yen)

	Fiscal year ended December 31, 2014	Fiscal year ended December 31, 2015	Fiscal year ended December 31, 2016	Fiscal year ended December 31, 2017	January-June 2018
Capital Investment	6,830	5,301	6,013	4,282	3,374
Depreciation and Amortization	8,629	9,242	8,124	6,605	3,534
Research and Development Expenses	1,882	1,822	2,249	1,482	736
Total Assets	210,439	184,074	158,824	182,972	242,750
Interest-bearing Debt at Fiscal Year-end	38,290	23,936	17,048	16,144	18,000
Financial Account Balance	(139)	82	82	178	109
Number of Employees	2,064	2,092	1,980	2,142	2,543
Exchange Rate (JPY/USD)	105.85	121.05	108.85	112.19	108.68

# Net Sales of Main Subsidiaries

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(Millions of yen)

Subsidiary	Jan-Jun 2017	Jan-Jun 2018	YoY Change	Location/ Business	Summary
TOKAI ERFT CARBON	4,133	16,043	+11,910	Germany Graphite Electrodes	<ul style="list-style-type: none"> <li>▪ Increase in sales prices</li> <li>▪ FX (+¥1,200 million)</li> </ul>
TOKAI CARBON GE	-	14,610	+14,610	U.S. Graphite Electrodes	<ul style="list-style-type: none"> <li>▪ New acquisition</li> <li>▪ +¥11,526 million YoY, excluding ¥3,100 million resale sales transferred from TCES</li> </ul>
THAI TOKAI CARBON PRODUCT	7,401	9,341	+1,940	Thailand Carbon Black	<ul style="list-style-type: none"> <li>▪ Increase in sales prices</li> <li>▪ FX (+¥500 million)</li> </ul>
Tokai Carbon Tianjin	1,976	2,944	+968	China Carbon Black	<ul style="list-style-type: none"> <li>▪ Increase in sales prices</li> </ul>
CANCARB	3,632	3,949	+317	Canada Carbon Black	<ul style="list-style-type: none"> <li>▪ Growth in sales volume</li> </ul>
TOKAI CARBON KOREA	-	1,482	+1,482	Korea Fine Carbon	<ul style="list-style-type: none"> <li>▪ Contributing to consolidated results from June 2018</li> <li>▪ FX: JPY0.1008/KRW1,000</li> </ul>



	(Millions of yen)				
	T-2018 Target (For reference)	2015	2016	2017	2018 (Forecast)
Net Sales	110,000	104,864	88,580	106,252	214,000
Operating Income	9,000	4,088	1,131	11,486	74,000
Net Income Attributable to Owners of the Parent Company	-	2,484	(7,929)	11,816	74,000
ROS	8% or higher	3.9%	1.3%	10.8%	34.6%
ROE	-	2.0%	(6.8%)	10.0%	51.4%
ROIC	6% or higher	2.1%	0.7%	8.0%	38.1%
Depreciation and Amortization	-	9,242	8,124	6,605	7,500
Capital Investment	-	5,301	6,013	4,282	17,000
Inventory	-	34,253	20,734	27,362	45,000
Tangible and Intangible Fixed Assets	-	67,953	53,657	66,194	106,000



The earnings forecasts and other forward-looking statements in this document are based on information obtainable at the time this document was published and assumptions as of the date of publication concerning elements of uncertainty that could affect future earnings.

Actual results may differ substantially, depending on various future factors. Factors that affect business performance include, but are not limited to, economic conditions, trends in product demand and market prices, and fluctuation in exchange rates. The company is not obligated to update the information contained therein.

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