# **Operational Summary**

for the First Half of the Fiscal Year Ending March 31, 2018

November 2, 2017 Mitsubishi Chemical Holdings Corporation

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Mitsubishi Chemical Holdings Corporation has adopted IFRS starting with FY2016 1Q.

## **List of Abbreviations**

FY2017	April 1, 2017 – March 31, 2108	
	1st Quarter (1Q) of FY2017:	April 1, 2017 – June 30, 2017
	2nd Quarter (2Q) of FY2017:	July 1, 2017 – September 30, 2017
	1st Half (1H) of FY2017:	April 1, 2017 – September 30, 2017
	2nd Half (2H) of FY2017:	October 1, 2017 – March 31, 2018

 FY2016
 April 1, 2016 – March 31, 2017

 1st Quarter (1Q) of FY2016:
 April 1, 2016 – June 30, 2016

 2nd Quarter (2Q) of FY2016:
 July 1, 2016 – September 30, 2016

 3rd Quarter (3Q) of FY2016:
 October 1, 2016 – December 31, 2016

 4th Quarter (4Q) of FY2016:
 January 1, 2017 – March 31, 2017

 1st Half (1H) of FY2016:
 April 1, 2016 – September 30, 2016

- MCHC Mitsubishi Chemical Holdings Corporation
- MCC Mitsubishi Chemical Corporation
- MTPC Mitsubishi Tanabe Pharma Corporation
- LSII Life Science Institute, Inc.
- TNSC Taiyo Nippon Sanso Corporation

#### **Consolidated Statements of Operations**

	Exchange Rate (¥/\$)	111.4	111.2	111.3	105.4	5.9	6%
	Naphtha Price (¥/kl)	39,100	36,100	37,600	31,500	6,100	19%
						(Billions of Yen)	
		1Q	2Q	FY2017 1H	FY2016 1H	Change	%
	Sales Revenue	898.0	906.8	1,804.8	1,586.3	218.5	14%
C	Core Operating Income *	95.5	96.8	192.3	136.3	56.0	41%
ontii	Special Items	(4.5)	(2.5)	(7.0)	(16.2)	9.2	
Continuing	Operating Income	91.0	94.3	185.3	120.1	65.2	54%
	Financial Income/Expenses	(1.4)	(3.7)	(5.1)	(8.5)	3.4	
be	(Dividend included above)	[2.6]	[0.3]	[2.9]	[2.7]	[0.2]	
Prat	(Foreign Exchange Gain/Loss included above)	[(0.7)]	[0.0]	[(0.7)]	[(4.6)]	[3.9]	
Operations	Earnings before Taxes	89.6	90.6	180.2	111.6	68.6	
	Income Taxes	(26.3)	(22.6)	(48.9)	(2.4)	(46.5)	
	Net Income from Continuing Operations	63.3	68.0	131.3	109.2	22.1	
	Net Income from Discontinued Operations	-	-	-	(0.1)	0.1	
	Net Income	63.3	68.0	131.3	109.1	22.2	
	Net Income Attributable to Owners of the Parent	47.7	52.8	100.5	79.2	21.3	27%
	Net Income Attributable to Non-Controlling Interests	15.6	15.2	30.8	29.9	0.9	
	* Equity income included	5.6	6.0	11.6	7.4	4.2	

Core operating income is calculated as operating income (loss) excluding certain gains and expenses attributable to non-recurring factors (losses incurred by business withdrawal and contraction, etc.).

#### Mitsubishi Chemical Holdings Corporation

## **Sales Revenue and Core Operating Income by Business Segment**

						(Billions of Yer
oximation for reference purpo	se only.	1Q	2Q	FY2017 1H	FY2016 1H	Change
Total Canaalidated	Sales Revenue	898.0	906.8	1,804.8	1,586.3	218.5
Total Consolidated	Core Operating Income	95.5	96.8	192.3	136.3	56.0
Europtian al Draducta	Sales Revenue	188.7	195.9	384.6	365.4	19.2
Functional Products	Core Operating Income	16.7	16.2	32.9	32.1	0.8
Derfermence Chemicale	Sales Revenue	88.5	87.6	176.1	158.5	17.6
Performance Chemicals	Core Operating Income	9.8	8.1	17.9	14.8	3.1
Performance Products	Sales Revenue	277.2	283.5	560.7	523.9	36.8
	Core Operating Income	26.5	24.3	50.8	46.9	3.9
N 4N 4 A	Sales Revenue	92.3	92.6	184.9	136.1	48.8
MMA	Core Operating Income	24.3	27.9	52.2	15.8	36.4
Detre els ensisede	Sales Revenue	127.5	130.9	258.4	223.5	34.9
Petrochemicals	Core Operating Income	5.8	8.7	14.5	0.2	14.3
Carban nraduata	Sales Revenue	68.1	60.2	128.3	82.3	46.0
Carbon products	Core Operating Income	4.0	1.2	5.2	0.6	4.(
Chemicals	Sales Revenue	287.9	283.7	571.6	441.9	129.7
Chemicals	Core Operating Income	34.1	37.8	71.9	16.6	55.3
Inductrial Cases	Sales Revenue	149.1	153.1	302.2	265.5	36.7
Industrial Gases	Core Operating Income	13.4	14.7	28.1	24.4	3.7
Usalth Care	Sales Revenue	138.1	135.1	273.2	263.4	9.8
Health Care	Core Operating Income	22.0	19.0	41.0	49.0	(8.0
Othoro	Sales Revenue	45.7	51.4	97.1	91.6	5.
Others	Core Operating Income	(0.5)	1.0	0.5	(0.6)	1.1

\*All figures are a

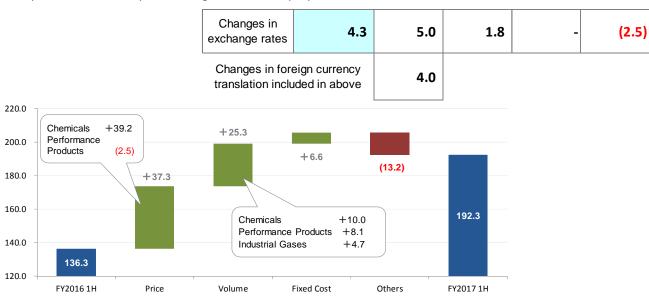
[Inventory valuation gain/loss]
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Performance Chemicals	(0.7)	0.1	(0.6)	0.3	(0.9)
Petrochemicals	(1.0)	(0.7)	(1.7)	(4.9)	3.2
Carbon products	(0.2)	(0.7)	(0.9)	(0.7)	(0.2)
Total	(1.9)	(1.3)	(3.2)	(5.3)	2.1

## **Analysis of Core Operating Income**

			(Billions of Yen)				
	FY2017 1H	FY2016 1H	Change	Price	Volume	Fixed Cost	Others *
Total Consolidated	192.3	136.3	56.0	37.3	25.3	6.6	(13.2)
Performance Products	50.8	46.9	3.9	(2.5)	8.1	3.5	(5.2)
Chemicals	71.9	16.6	55.3	39.2	10.0	2.5	3.6
Industrial Gases	28.1	24.4	3.7	0.3	4.7	0.1	(1.4)
Health Care	41.0	49.0	(8.0)	0.3	3.2	0.3	(11.8)
Others	0.5	(0.6)	1.1	0.0	(0.7)	0.2	1.6

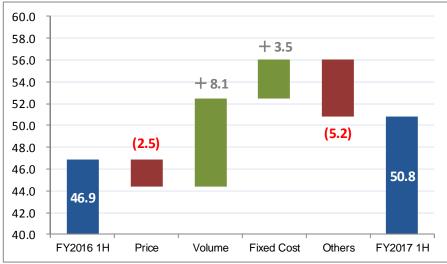
\* Items included are impacts from inventory valuation gain/loss and Equity Income, etc.



### **Performance Products Segment**

				(E	Billions of Yen)
			FY2017 1H	FY2016 1H	Change
	Functional Products Performance	Sales Revenue	384.6	365.4	19.2
		Core Operating Income	32.9	32.1	0.8
		Sales Revenue	176.1	158.5	17.6
	Chemicals	Core Operating Income	17.9	14.8	3.1
F	Performance	Sales Revenue	560.7	523.9	36.8
F	Products	Core Operating Income	50.8	46.9	3.9

#### <Analysis of Core Operating Income>



Functional Products					
Sales revenue	Sales of advanced moldings and composites including high-performance engineering plastics, alumina fibers, and other products remained firm, and sales remained steady for films for displays in electronics and displays.				
Core operating income	Profit increased, due primarily to higher sales volumes of films for displays, high-performance engineering plastics, alumina fibers, and other products, despite a rise in raw material costs for some products.				
	Performance Chemicals				
Sales revenue	In advanced polymers, market prices for phenol- polycarbonate chain continued firm, and sales volumes increased as the impact of scheduled plant maintenance and repairs during the same period of fiscal 2016 was resolved. In addition, sales volumes of battery materials for automobiles in the new energy business increased.				
Core operating income	Profit increased, due primarily to higher sales volumes of battery materials for automobiles, continued firm market prices of phenol-polycarbonate products, and sales increase of epoxy resins, etc.				
<major initiatives=""></major>					
<ul> <li>MCC decided to invest in C.P.C. SRL, an Italian company manufacturing and selling automobile components made of carbon fiber reinforced plastic in October 2017, as part of its efforts to strengthen the carbon fiber business in the U.S. and European markets. Mitsubishi Chemical Carbon Fiber and Composites GmbH, a</li> </ul>					

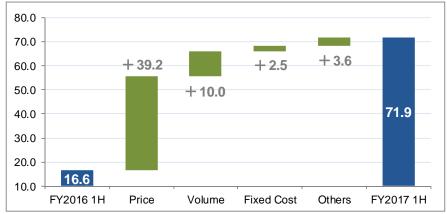
wholly owned subsidiary of MCC, acquired a 44% equity stake in CPC

from its founder.

## **Chemicals Segment**

	(Billions of Yen)						
			FY2017 1H	FY2016 1H	Change		
	ММА	Sales Revenue	184.9	136.1	48.8		
		Core Operating Income	52.2	15.8	36.4		
	Petrochemicals Carbon products	Sales Revenue	258.4	223.5	34.9		
		Core Operating Income	14.5	0.2	14.3		
		Sales Revenue	128.3	82.3	46.0		
		Core Operating Income	5.2	0.6	4.6		
	Chemicals	Sales Revenue	571.6	441.9	129.7		
		Core Operating Income	71.9	16.6	55.3		

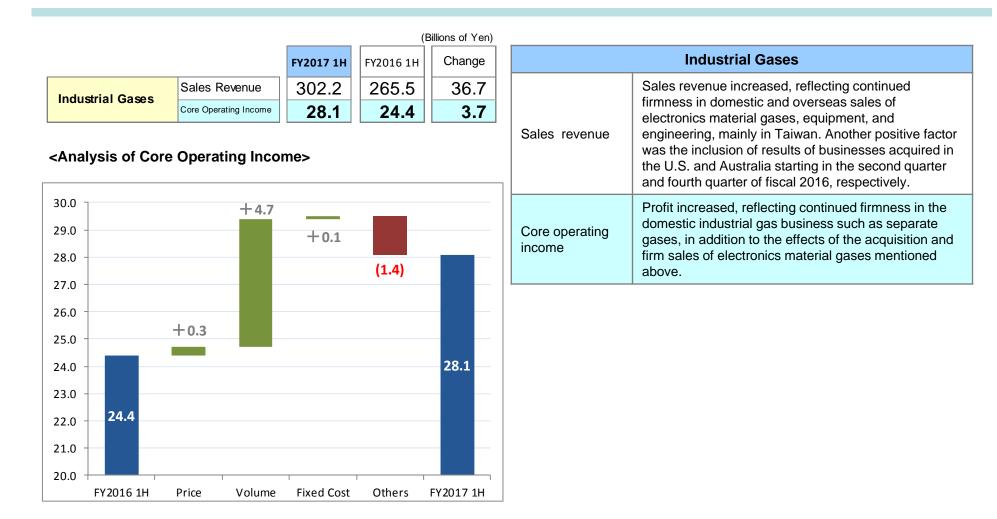
#### <Analysis of Core Operating Income>



MMA							
Sales revenue	MMA monomer market prices rose in line with continuing firm demand.						
Core operating income	Profit increased due primarily to a broadening in the price differential between raw materials and products in MMA and carbon, despite rising raw material prices.						
Petrochemicals							
Sales revenue	Sales volumes increased, reflecting rising sales prices brought on by higher raw material prices and a smaller impact from ethylene production facility scheduled maintenance and repairs, which were less than in the previous period.						
Core operating income	Profit increased reflecting continued firm market prices for petrochemicals, a smaller impact from ethylene production facility scheduled maintenance and repairs, which were less than in the previous period, and other factors.						
Carbon							
Sales revenue	Sale prices rose, accompanying a rise in coking coal prices.						
Core operating income	Profit increased due primarily to continued steady demand, a broadening in the price differential between raw materials and products, accompanying rising market prices in coke, and higher sales prices and higher sales volumes of needle coke.						

- The Saudi Methacrylates Company, a joint venture between MCC and Saudi Basic Industries Corporation achieved mechanical completion of production facilities for MMA monomer (250 kt/y) and PMMA (40 kt/y). Commercial operations are slated to begin in November 2017.
- MCC's subsidiary, Japan Polypropylene Corporation decided to construct a new production facility for polypropylene (150 kt/y) at its Goi Plant, as part of its structural reforms in April 2017. Commercial operation is scheduled to begin in October 2019.

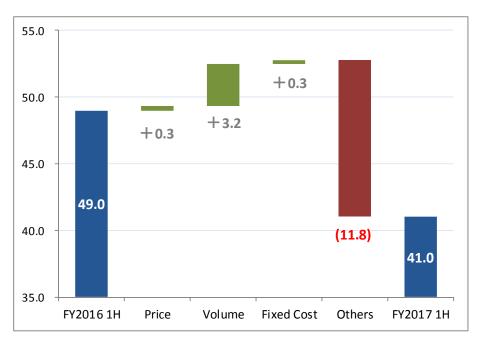
#### **Industrial Gases Segment**



### **Health Care Segment**

				(E	Billions of Yen)
			FY2017 1H	FY2016 1H	Change
	Health Care	Sales Revenue	273.2	263.4	9.8
	Core Operating Income	41.0	49.0	(8.0)	

#### <Analysis of Core Operating Income>



	Health Care
Sales revenue	Pharmaceuticals recorded higher sales revenue, due mainly to sales growth of domestic ethical pharmaceuticals and sales of <i>Radicava</i> , a treatment for amyotrophic lateral sclerosis (ALS) in the U.S., as well as steady royalty revenues from products licensed out overseas including <i>Gilenya</i> , a treatment for multiple sclerosis.
Core operating income	Profit decreased due primarily to increased business development costs in the U.S., in addition to R&D expenses.

#### <Major initiatives>

MTPC's *Radicava*, a free-radical scavenger discovered by Mitsubishi Pharma Corporation (current MTPC) was approved by the U.S. Food and Drug Administration for an indication of amyotrophic lateral sclerosis (ALS) in May 2017. Sales of *Radicava* in the U.S. through MTPC's subsidiary, MT Pharma America, Inc. began in August.
In July 2017, MTPC has entered a definitive agreement to acquire NeuroDerm Ltd., a clinical-stage pharmaceutical company developing novel formulation technology and drug-device combinations for Parkinson's disease. The transaction consideration was US\$1,117 million, and NeuroDerm became a wholly owned subsidiary of MPTC in October 2017. A pharmaceutical developed by NeuroDerm is expected to launch in fiscal 2019 in the U.S.

## **Consolidated Special Items**

					(Billions of Yen)
	1Q	2Q	FY2017 1H	FY2016 1H	Change
Total Special Items	(4.5)	(2.5)	(7.0)	(16.2)	9.2
Integration-related expenses of MCC	(2.2)	(0.2)	(2.4)	(0.3)	(2.1)
Special retirement expenses	(1.1)	(0.8)	(1.9)	(2.0)	0.1
Loss on sale and disposal of fixed assets	(0.8)	(0.3)	(1.1)	(1.0)	(0.1)
Impairment loss	(0.0)	(1.1)	(1.1)	(7.9)	6.8
Others	(0.4)	(0.1)	(0.5)	* (5.0)	4.5

\*Including the impact of losses incurred by the Kumamoto earthquake in Japan

#### [Special Items by Business Segment]

Performance Products	(0.3)	(0.2)	(0.5)	* (8.5)	8.0
Chemicals	(0.4)	(0.2)	(0.6)	(5.7)	5.1
Industrial Gases	0.1	(0.1)	(0.0)	0.2	(0.2)
Health Care	(0.9)	(2.0)	(2.9)	(0.9)	(2.0)
Others	(3.0)	(0.0)	(3.0)	(1.3)	(1.7)

#### **Consolidated Cash Flows**

	Based on s of cash		Adjusted c		
	FY2017 1H	FY2016 1H	FY2017 1H	(Billions of Yen) FY2016 1H	<reference> Target for FY2017 Forecast (announced on May 12)</reference>
Net cash provided by operating activities	189.2	195.6	189.2	195.6	350.0
Income before income taxes	180.2	111.7	180.2	111.7	277.0
Depreciation and amortization	88.0	84.4	88.0	84.4	182.0
Change in operating receivables/payables	(42.3)	31.6	(42.3)	31.6	
Change in Inventories	(15.8)	12.3	(15.8)	12.3	<b>(44.0)</b>
Others	(20.9)	(44.4)	(20.9)	(44.4)	(65.0)
Net cash used in investment activities	(27.4)	(124.3)	(121.8)	(174.3)	(250.0)
Capital expenditure	(105.3)	(96.0)	(105.3)	(96.0)	(249.0)
Sale of assets	6.4	8.0	6.4	8.0	
Investment and loans receivable, etc.	71.5	(36.3)	(22.9)	(86.3)	<b>(1.0)</b>
Free cash flow	161.8	71.3	67.4	21.3	100.0
Net cash used in financing activities	(113.9)	(23.9)	Adjusted cash flo	ows based on act	tual results are
Interest bearing debts	(76.4)	45.3		•	s from investment
Additional acquisition of consolidated subsidiaries' stocks	(2.6)	(39.8)	of surplus funds	for explanatory p	urposes.
Dividends, etc.	(34.9)	(29.4)			
Increase (Decrease) in cash and cash equivalents	47.9	47.4			
Effect of exchange rate changes and change in scope of consolidation	4.8	(32.9)			
Cash and cash equivalents at the beginning of the period	363.5	267.1			
Cash and cash equivalents at the end of the period	416.2	281.6			

#### **Consolidated Statements of Financial Positions**

	Sep. 30, 2017	Mar. 31, 2017	Change
Cash and cash equivalents	416.2	363.5	52.7
Trade receivables	840.7	776.2	64.5
Inventories	559.1	538.1	21.0
Other current assets	190.5	290.6	(100.1)
Total current assets	2,006.5	1,968.4	38.1
Tangible and Intangible fixed assets	1,693.4	1,658.9	34.5
Goodwill	315.4	313.0	2.4
Investment and other non-current assets	560.8	523.2	37.6
Total non-current assets	2,569.6	2,495.1	74.5
Total assets	4,576.1	4,463.5	112.6

			(Billions of Yen)
	Sep. 30, 2017	Mar. 31, 2017	Change
Interest-bearing debts	1,623.4	1,693.7	(70.3)
Trade payables	458.4	437.9	20.5
Other liabilities	655.4	633.7	21.7
Total liabilities	2,737.2	2,765.3	(28.1)
Shareholders' equity	1,182.9	1,089.5	93.4
Other components of equity	26.5	1.9	24.6
Total equity attributable to owners of the parent	1,209.4	1,091.4	118.0
Non-controlling interests	629.5	606.8	22.7
Total equity	1,838.9	1,698.2	140.7
Total liabilities and equity	4,576.1	4,463.5	112.6
Net interest-bearing debts (*1)	1,126.9	1,155.9	(29.0)
Net D/E ratio	0.93	1.06	(0.13)
Ratio of equity attributable to owners of the parent to total assets	26.4%	24.5%	1.9%

\* Net interest-bearing debts

= interest bearing debts (1,623.4 billion yen)

- {cash and cash equivalents (416.2 billion yen) + investments of surplus funds (80.3 billion yen)}

## **Consolidated Financial Results Forecasts for FY2017**

The forecasts for FY2017 full-year consolidated financial results were announced on October 26.

## **Consolidated Statements of Operations**

	Exchange Rate (¥/\$)	111.3	110.0	110.7	110.0	0.7	1 [	108.7
	Naphtha Price (¥/kl)	37,600	44,000	40,800	42,000	(1,200)	] [	34,700
						(Billions of Yen)		<reference></reference>
		FY2017 1H (Actual)	FY2017 2H (Forecast)	FY2017 Forecast	FY2017 Forecast (Announced on May 12)	Change	% to 1H Forecast	FY2016 Actual
	Sales Revenue	1,804.8	1,895.2	3,700.0	3,650.0	50.0	1.4%	3,376.1
Continuing	Core Operating Income *	192.3	172.7	365.0	310.0	55.0	17.7%	307.5
nu	Special Items	(7.0)	(13.0)	(20.0)	(20.0)	0.0	] [	(38.9)
1	Operating Income	185.3	159.7	345.0	290.0	55.0	19.0%	268.6
be	Financial Income/Expenses	(5.1)	(6.9)	(12.0)	(13.0)	1.0	] [	(10.3)
Operations	Earnings before Taxes	180.2	152.8	333.0	277.0	56.0	20.2%	258.3
SUC	Income Taxes	(48.9)	(44.1)	(93.0)	(80.0)	(13.0)	] [	(44.4)
	Net Income from Continuing Operations	131.3	108.7	240.0	197.0	43.0		213.9
	Net Income from Discontinued Operations	-	-	-	-	-	] [	2.6
	Net Income	131.3	108.7	240.0	197.0	43.0	21.8%	216.5
	Net Income Attributable to Owners of the Parent	100.5	79.5	180.0	137.0	43.0	31.4%	156.3
	Net Income Attributable to Non-Controlling Interests	30.8	29.2	60.0	60.0	0.0	] [	60.2

#### Mitsubishi Chemical Holdings Corporation

\*

#### THE KAITEKI COMPANY

# Consolidated Sales Revenue and Core Operating Income by Business Segment

						(Billions of Yen)	<reference></reference>
gures are approximation for refe	rence purpose only.	FY2017 1H (Actual)	FY2017 2H (Forecast)	FY2017 Forecast	FY2017 Forecast (Announced on May 12)	Change	FY2016 Actual (reclassification
Total Consolidated	Sales Revenue	1,804.8	1,895.2	3,700.0	3,650.0	50.0	3,376.1
Total Consolidated	Core Operating Income	192.3	172.7	365.0	310.0	55.0	307.5
Functional Products	Sales Revenue	384.6	405.4	790.0	770.0	20.0	744.6
	Core Operating Income	32.9	32.1	65.0	58.0	7.0	62.2
Performance Chemicals	Sales Revenue	176.1	183.9	360.0	360.0	0.0	327.3
Performance Chemicals	Core Operating Income	17.9	16.1	34.0	28.0	6.0	32.0
Derfermence Dreducte	Sales Revenue	560.7	589.3	1,150.0	1,130.0	20.0	1,071.9
Performance Products	Core Operating Income	50.8	48.2	99.0	86.0	13.0	94.2
MMA	Sales Revenue	184.9	195.1	380.0	320.0	60.0	285.9
	Core Operating Income	52.2	49.8	102.0	46.0	56.0	37.9
Detrechemicale	Sales Revenue	258.4	271.6	530.0	560.0	(30.0)	500.3
Petrochemicals	Core Operating Income	14.5	2.5	17.0	28.0	(11.0)	20.
Carls an anadusta	Sales Revenue	128.3	126.7	255.0	230.0	25.0	197.9
Carbon products	Core Operating Income	5.2	4.8	10.0	4.0	6.0	3.8
Chamiaala	Sales Revenue	571.6	593.4	1,165.0	1,110.0	55.0	984.
Chemicals	Core Operating Income	71.9	57.1	129.0	78.0	51.0	62.
Inductrial Cases	Sales Revenue	302.2	307.8	610.0	610.0	0.0	574.6
Industrial Gases	Core Operating Income	28.1	25.9	54.0	54.0	0.0	52.1
Health Care	Sales Revenue	273.2	286.8	560.0	570.0	(10.0)	547.0
Health Care	Core Operating Income	41.0	43.0	84.0	94.0	(10.0)	98.4
Others	Sales Revenue	97.1	117.9	215.0	230.0	(15.0)	198.5
Others	Core Operating Income	0.5	(1.5)	(1.0)	(2.0)	1.0	0.2

## **Cash Dividends**

MCHC's basic policy of returning profits to shareholders emphasizes enhancement of shareholder value by increasing the value of the company. Therefore, using 30% of the medium-term profit level as a guideline for the consolidated dividend payout ratio, we will make stable dividend payments, while maintaining sufficient internal reserves as resources to develop future businesses.

Based on the above stated policy, we raised the forecast for the interim dividend by ¥3 from the previous forecast, to ¥15 and the year-end dividend by ¥3 from the previous forecast, to ¥15. Accordingly, the forecast for the annual dividend will be increased by ¥10 per share from fiscal 2016 to ¥30.

				IFRS			J-GAAP	
		FY201 Foreca		Previous Forecast	FY2016 Actual	FY2015 Actual	FY2014 Actual	FY2013 Actual
	Interim		15	12	8	7	6	6
Cash dividends per share (Yen)	Year-end	*1	15	12	12	8	7	6
	Total (Annual)	*1	30	24	20	15	13	12
Net income per share (Yen)	Year-end	¥125.	06	¥95.19	¥106.73	¥31.70	¥41.40	¥21.89
Consolidated dividend pay out ratio	Total (Annual)	24.	0%	25.2%	18.7%	47.3%	31.4%	54.8%

\*1 Forecast

References

## **Statements of Operations [Quarterly Data]**

Exchange Rate (¥/\$)	107.9	102.9	111.3	112.9	111.4	111.2
Naphtha Price (¥/kl)	31,600	31,300	34,000	41,800	39,100	36,100

						(Bil	lions of Yen)
			FY2	016		FY2	017
		1Q	2Q	3Q	4Q	1Q	2Q
	Sales Revenue	794.6	791.7	864.3	925.5	898.0	906.8
0 0	Core Operating Income *	70.6	65.7	93.8	77.4	95.5	96.8
onti	Special Items	(5.6)	(10.6)	(3.5)	(19.2)	(4.5)	(2.5)
Continuing	Operating Income	65.0	55.1	90.3	58.2	91.0	94.3
	Financial Income/Expenses	(5.0)	(3.5)	3.3	(5.1)	(1.4)	(3.7)
) be	(Dividend included above)	[2.5]	[0.2]	[1.0]	[0.2]	[2.6]	[0.3]
rat	(Foreign Exchange Gain/Loss included above)	[(3.9)]	[(0.7)]	[5.5]	[(1.4)]	[(0.7)]	[0.0]
Operations	Earnings before Taxes	60.0	51.6	93.6	53.1	89.6	90.6
	Income Taxes	(19.9)	17.5	(25.6)	(16.4)	(26.3)	(22.6)
	Net Income from Continuing Operations	40.1	69.1	68.0	36.7	63.3	68.0
	Net Income from Discontinued Operations	1.1	(1.2)	2.7	(0.0)	-	-
Net	t Income	41.2	67.9	70.7	36.7	63.3	68.0
	Net Income Attributable to Owners of the Parent	26.1	53.1	52.6	24.5	47.7	52.8
	Net Income Attributable to Non-Controlling Interests	15.1	14.8	18.1	12.2	15.6	15.2
	* Equity income included	4.0	3.4	5.4	6.1	5.6	6.0

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\*All

# Sales Revenue and Core Operating Income by Business Segment [Quarterly Data]

(Billions of Y								ions of Ye
es are approximation for reference	purpose only.		FY2	016			FY2	2017
		1Q	2Q	3Q	4Q	10	2	2Q
Total Canaalidatad	Sales Revenue	794.6	791.7	864.3	925.5	898	3.0	906.8
Total Consolidated	Core Operating Income	70.6	65.7	93.8	77.4	95	5.5	96.8
Functional Draduate	Sales Revenue	182.0	183.4	187.4	191.8	188	3.7	195.9
Functional Products	Core Operating Income	16.1	16.0	17.6	12.5	16	5.7	16.2
Berfermenee Chemicele	Sales Revenue	80.0	78.5	79.8	89.0	88	3.5	87.
Performance Chemicals	Core Operating Income	8.2	6.6	9.0	8.2	Ş	8.0	8.
Performance Products	Sales Revenue	262.0	261.9	267.2	280.8	277	7.2	283.
	Core Operating Income	24.3	22.6	26.6	20.7	26	6.5	24.
	Sales Revenue	68.9	67.2	72.2	77.6	92	2.3	92.
MMA	Core Operating Income	6.7	9.1	11.1	11.0	24	.3	27.
Detre ek emie ele	Sales Revenue	113.1	110.4	133.2	143.6	127	<b>'</b> .5	130.
Petrochemicals	Core Operating Income	0.4	(0.2)	8.2	12.5	5	5.8	8.
Cashan	Sales Revenue	39.7	42.6	46.3	69.3	68	3.1	60.
Carbon	Core Operating Income	(0.1)	0.7	1.4	1.8	4	<b>.0</b>	1.
Chamiagla	Sales Revenue	221.7	220.2	251.7	290.5	287	<b>'</b> .9	283.
Chemicals	Core Operating Income	7.0	9.6	20.7	25.3	34	l.1	37.
	Sales Revenue	131.7	133.8	145.5	163.6	149	).1	153.
Industrial Gases	Core Operating Income	11.5	12.9	14.5	13.2	13	3.4	14.
Lasth Care	Sales Revenue	134.9	128.5	151.5	132.1	138	3.1	135.
Health Care	Core Operating Income	29.1	19.9	33.0	16.4	22	2.0	19.
Othere	Sales Revenue	44.3	47.3	48.4	58.5	45	5.7	51.4
Others	Core Operating Income	(1.3)	0.7	(1.0)	1.8	((	).5)	1.0

# **Capital Expenditure, Depreciation & Amortization, R&D Expenses, Number of Employees by Business Segment**

	(Billions of Yen, untill otherwise noted)							
	Capital Expenditure		Depreciation& Amortization		R&D Expenses			Number of Employees
	FY2017 1H	FY2016 1H	FY2017 1H	FY2016 1H	FY2017 1H	FY2016 1H		FY2017 1H (End of the period)
Performance Products	31.9	29.5	26.6	26.8	13.8	14.7		24,109
Chemicals	30.9	38.7	26.7	27.1	4.9	5.9		8,533
Industrial Gases	25.0	18.6	22.7	19.5	1.4	1.3		16,364
Health Care	16.1	11.5	9.3	8.8	43.3	36.0		12,057
Others	3.3	1.7	2.7	2.2	3.0	2.2		8,505
Total	107.2	100.0	88.0	84.4	66.4	60.1		69,568

## **Business Segment Information**

Business	Business	Business Sub-Se	gments					
Domains	Segments		Businesses					
		Functional Products	Electronics and displays	Optical films, Electronics and displays, Acetyl				
			High performance films	Packaging films, Industrial films				
			Environment and living solutions	Aqua and separator solutions, Infrastructure solutions and agricultural material				
	Performance Products		Advanced moldings and composites	High performance engineering plastics, Fibers and textile, Carbon fiber and composite materials, Functioinal moldings and composites Almina fiber and light metal products				
		Performance Chemicals	Advanced polymers	Performance polymers, Engineering polymers, Sustainable resources				
			High performance chemicals	Performance chemicals, Performance materials, Food ingredients				
			New energy	Lithium ion battery materials, Energy transduction device materials				
Industrial Materials	Chemicals	MMA	MMA	MMA				
		Petrochemicals	Petrochemicals	Basic petrochemicals, Polyolefins, Basic chemical derivatives				
		Carbon	Carbon	Carbon				
	Industrial Gases			Industrial gases				
Health Care	Health Care			Pharmaceuticals				
				Life science				

The forward-looking statements are based largely on company expectations and information available as of the date hereof, and are subject to risks and uncertainties, which may be beyond company control.

Actual results could differ materially due to numerous factors, including without limitation, marketing conditions and the effects of industry competition.