

Annual Report 2017

Year Ended March 31, 2017

Index

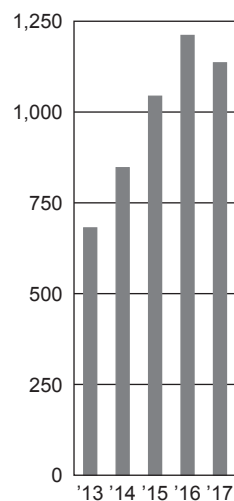
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Financial Data

Murata Manufacturing Co., Ltd. and Subsidiaries
Years ended March 31, 2013–2017

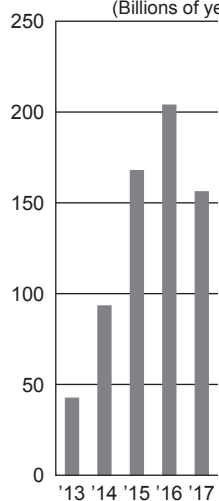
Net sales

(Billions of yen)



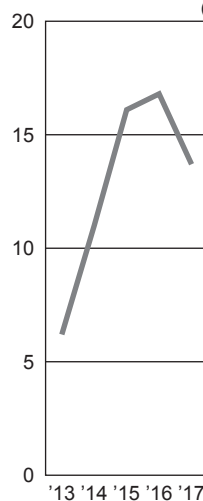
Net income attributable to Murata Corporation

(Billions of yen)



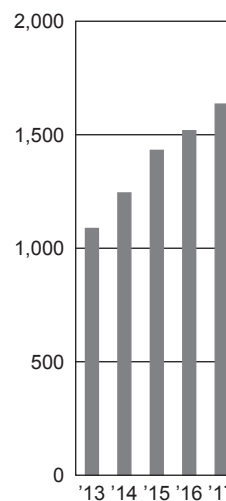
Net income attributable to Murata Corporation / Net sales (%)

(%)



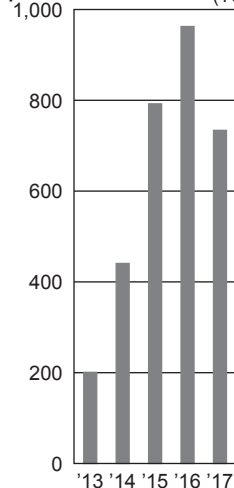
Total assets

(Billions of yen)



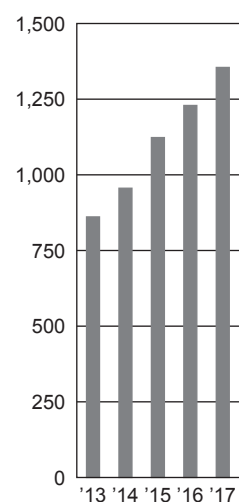
Basic earnings attributable to Murata Corporation per share¹

(Yen)



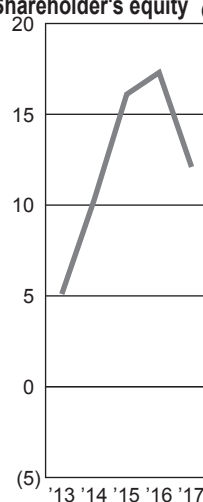
Shareholders' equity

(Billions of yen)



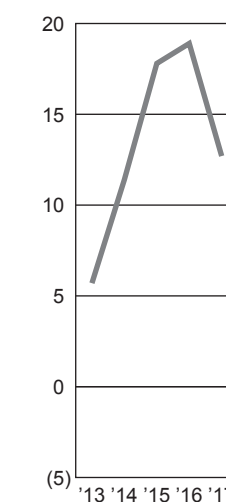
Net income attributable to Murata Corporation / Shareholder's equity (%)

(%)



Income before income taxes / Total assets (%)

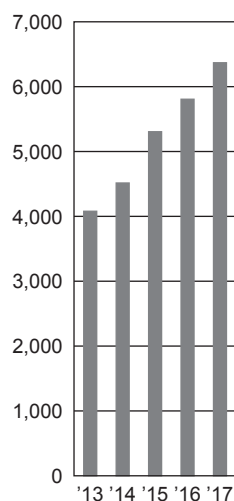
(%)



*1 Based on the average number of common shares outstanding. There are no dilutive potential securities.

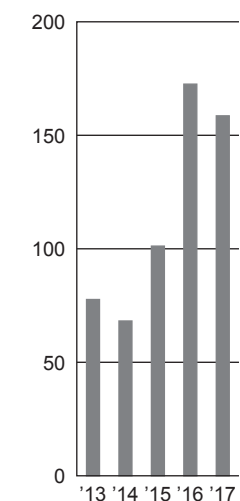
Shareholders' equity per share²

(Yen)



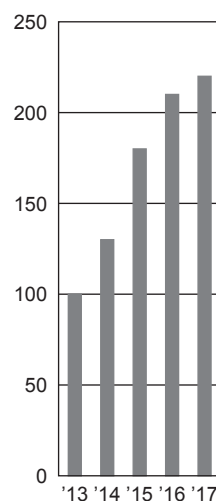
Capital investment

(Billions of yen)



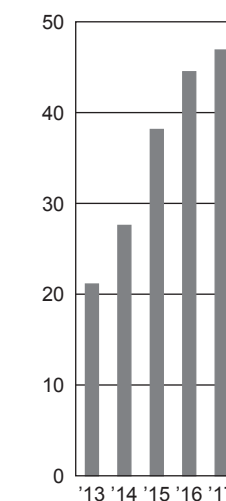
Dividend per share

(Yen)



Total return³

(Billions of yen)



*2 Based on the number of common shares outstanding at term-end.

*3 Total of dividend payments and share buyback.

Productions, Orders, Backlogs, and Sales by Product

Murata Manufacturing Co., Ltd. and Subsidiaries
Year ended March 31, 2017

	Millions of yen	Component ratio	Ratio against the previous year	Thousands of U.S. dollars
2017				
Productions by Product		%	%	
Capacitors	¥ 369,040	32.7	(6.3)	\$ 3,295,000
Piezoelectric Components	177,966	15.8	7.4	1,588,982
Other Components	219,325	19.4	(10.3)	1,958,259
Components Total	766,331	67.9	(4.7)	6,842,241
Communication Modules	316,568	28.1	(24.8)	2,826,500
Power Supplies and Other Modules	45,108	4.0	(14.1)	402,750
Modules Total	361,676	32.1	(23.6)	3,229,250
Total	¥1,128,007	100.0	(11.7)	\$10,071,491

*1 Figures on the tables by product are based on sales price to customers.

*2 Exclusive of consumption taxes on the tables by product

*3 The tables by product indicate productions, orders, backlogs, and sales of electronic components and related products.

	Millions of yen	Component ratio	Ratio against the previous year	Thousands of U.S. dollars
2017				
Orders by Product		%	%	
Capacitors	¥ 397,343	34.4	8.3	\$ 3,547,706
Piezoelectric Components	153,817	13.3	(13.9)	1,373,366
Other Components	226,041	19.5	(1.3)	2,018,223
Components Total	777,201	67.2	0.3	6,939,295
Communication Modules	333,141	28.8	(14.7)	2,974,473
Power Supplies and Other Modules	46,177	4.0	(9.5)	412,295
Modules Total	379,318	32.8	(14.1)	3,386,768
Total	¥1,156,519	100.0	(4.9)	\$10,326,063

	Millions of yen	Component ratio	Ratio against the previous year	Thousands of U.S. dollars
2017				
Backlogs by Product		%	%	
Capacitors	¥ 62,484	40.6	80.4	\$ 557,893
Piezoelectric Components	18,654	12.1	(46.5)	166,554
Other Components	22,579	14.7	20.1	201,598
Components Total	103,717	67.4	17.5	926,045
Communication Modules	43,049	28.0	20.8	384,366
Power Supplies and Other Modules	7,085	4.6	17.9	63,259
Modules Total	50,134	32.6	20.4	447,625
Total	¥153,851	100.0	18.4	\$1,373,670

*1 The backlogs in Capacitors for this year have increased drastically compared to the previous year. This is because of the increased demand for automotive electronics and industrial products.

*2 The backlogs in Piezoelectric Components for this year have decreased drastically compared to the previous year. This is because of temporary production adjustments by customers toward the end of the fiscal year, although the demand for smartphones is increasing.

	Millions of yen	Component ratio	Ratio against the previous year	Thousands of U.S. dollars
2017				
Sales by Product		%	%	
Capacitors	¥ 369,488	32.6	0.6	\$ 3,299,000
Piezoelectric Components	170,012	15.0	5.0	1,517,964
Other Components	222,259	19.7	(3.8)	1,984,455
Components Total	761,759	67.3	0.2	6,801,419
Communication Modules	325,736	28.7	(17.6)	2,908,357
Power Supplies and Other Modules	45,100	4.0	(12.7)	402,679
Modules Total	370,836	32.7	(17.0)	3,311,036
Total	¥1,132,595	100.0	(6.2)	\$10,112,455

Capital Investment

Murata Manufacturing Co., Ltd. and Subsidiaries
Year ended March 31, 2017

1) Capital investment for the fiscal year ended March 31, 2017 amounted to ¥158,579 million (\$1,415,884 thousand).

Major capital investment included the expansion and rationalization of production facilities, construction of buildings and expansion of R&D facilities.

2) Major property, plant and equipment on a net book value basis was as follows:

2017	Millions of yen				
	Land	Buildings	Machinery and equipment	Construction in progress	Total
Parent Company					
Plant, Office and other					
Head Office in Kyoto	¥ 292	¥ 1,580	¥ 4,314	¥ 271	¥ 6,458
Yokaichi Plant in Shiga	466	8,353	5,044	646	14,510
Yasu Plant in Shiga	7,384	15,994	12,394	1,902	37,675
Yokohama Technical Center in Kanagawa	1,797	1,477	820	24	4,118
Other	7,503	5,295	183	1	12,984

2017	Millions of yen				
	Land	Buildings	Machinery and equipment	Construction in progress	Total
Domestic Subsidiaries					
Company Name					
Kanazawa Murata Manufacturing Co., Ltd.	¥2,760	¥22,159	¥40,387	¥5,587	¥70,893
Izumo Murata Manufacturing Co., Ltd.	1,729	18,240	20,938	4,503	45,410
Fukui Murata Manufacturing Co., Ltd.	2,314	16,256	21,728	1,499	41,797
Okayama Murata Manufacturing Co., Ltd.	—	6,949	12,639	1,771	21,359
Toyama Murata Manufacturing Co., Ltd.	1,487	4,435	11,014	1,974	18,910
Murata Land & Building Co., Ltd.	4,745	6,264	2	—	11,011

2017	Millions of yen				
	Land	Buildings	Machinery and equipment	Construction in progress	Total
Foreign Subsidiaries					
Company Name					
Wuxi Murata Electronics Co., Ltd.	¥ —	¥12,666	¥34,987	¥5,325	¥52,978
Shenzhen Murata Technology Co., Ltd.	—	7,175	10,903	118	18,196
Murata Electronics (Thailand), Ltd.	317	5,050	7,471	1,346	14,184
Philippine Manufacturing Co. of Murata, Inc.	—	370	7,205	1	7,576
Murata Electronics Singapore (Pte.) Ltd.	—	2,243	5,895	34	8,172
Murata Electronics Oy.....	—	300	6,396	1,270	7,966

Consolidated Balance Sheets

Murata Manufacturing Co., Ltd. and Subsidiaries
At March 31, 2017 and 2016

ASSETS	Millions of yen		Thousands of U.S. dollars (Note 2)
	2017	2016	2017
Current assets:			
Cash	¥ 170,929	¥ 150,627	\$ 1,526,152
Short-term investments	173,401	174,228	1,548,223
Marketable securities (Note 3)	53,043	45,188	473,598
Notes and accounts receivable:			
Trade notes	271	399	2,419
Trade accounts	209,596	194,549	1,871,393
Allowance for doubtful notes and accounts	(905)	(845)	(8,080)
Inventories (Note 4)	211,447	217,462	1,887,920
Deferred income taxes (Note 9)	25,890	31,365	231,161
Prepaid expenses and other	27,759	22,396	247,848
Total current assets	<u>871,431</u>	<u>835,369</u>	<u>7,780,634</u>
Property, plant and equipment:			
Land	50,761	49,757	453,223
Buildings	394,239	350,279	3,519,991
Machinery and equipment	950,280	873,410	8,484,643
Construction in progress	40,035	37,750	357,456
Total	<u>1,435,315</u>	<u>1,311,196</u>	<u>12,815,313</u>
Accumulated depreciation	<u>(927,346)</u>	<u>(855,334)</u>	<u>(8,279,875)</u>
Net property, plant and equipment	<u>507,969</u>	<u>455,862</u>	<u>4,535,438</u>
Investments and other assets:			
Investments (Note 3)	103,468	100,131	923,821
Intangible assets (Note 15)	48,883	51,708	436,455
Goodwill (Note 15)	62,102	53,738	554,482
Deferred income taxes (Note 9)	5,259	11,258	46,955
Other (Note 6)	35,887	9,718	320,420
Total investments and other assets	<u>255,599</u>	<u>226,553</u>	<u>2,282,133</u>
Total assets	<u>¥1,634,999</u>	<u>¥1,517,784</u>	<u>\$14,598,205</u>

See notes to consolidated financial statements.

LIABILITIES AND SHAREHOLDERS' EQUITY	Millions of yen		Thousands of U.S. dollars (Note 2)
	2017	2016	2017
Current liabilities:			
Short-term borrowings (Note 5)	¥ 46,118	¥ 6,446	\$ 411,768
Trade accounts payable	57,918	56,380	517,125
Accrued payroll and bonuses	34,075	36,456	304,241
Income taxes payable	7,240	28,734	64,643
Accrued expenses and other (Note 6)	63,383	57,607	565,919
Total current liabilities	<u>208,734</u>	<u>185,623</u>	<u>1,863,696</u>
Long-term liabilities:			
Long-term debt (Note 5)	545	3,301	4,866
Termination and retirement benefits (Note 6)	59,324	71,884	529,679
Deferred income taxes (Note 9)	9,677	11,643	86,402
Other	1,385	1,354	12,366
Total long-term liabilities	<u>70,931</u>	<u>88,182</u>	<u>633,313</u>
Commitments and contingent liabilities (Note 11)			
Murata Corporation's Shareholders' equity (Notes 7 and 17):			
Common stock (authorized 581,000,000 shares in 2017 and 2016; issued 225,263,592 shares in 2017 and 2016)	69,377	69,377	619,438
Capital surplus	114,290	103,865	1,020,446
Retained earnings	1,241,180	1,131,809	11,081,964
Accumulated other comprehensive income (loss) (Note 8):			
Unrealized gains on securities	6,127	2,945	54,706
Pension liability adjustments (Note 6)	(15,652)	(23,587)	(139,750)
Foreign currency translation adjustments	(4,694)	5,110	(41,911)
Total accumulated other comprehensive loss.....	<u>(14,219)</u>	<u>(15,532)</u>	<u>(126,955)</u>
Treasury stock, at cost, 12,525,306 shares in 2017 and 13,560,912 shares in 2016	(55,809)	(60,360)	(498,295)
Total Murata Corporation's Shareholders' equity	<u>1,354,819</u>	<u>1,229,159</u>	<u>12,096,598</u>
Noncontrolling interests	515	14,820	4,598
Total equity	<u>1,355,334</u>	<u>1,243,979</u>	<u>12,101,196</u>
Total liabilities and equity	<u>¥1,634,999</u>	<u>¥1,517,784</u>	<u>\$14,598,205</u>

See notes to consolidated financial statements.

Consolidated Statements of Income

Murata Manufacturing Co., Ltd. and Subsidiaries
Years ended March 31, 2017, 2016 and 2015

	Millions of yen			Thousands of U.S. dollars (Note 2)
	2017	2016	2015	2017
Net sales	¥1,135,524	¥1,210,841	¥1,043,542	\$10,138,607
Operating costs and expenses (Note 6):				
Cost of sales	703,129	712,054	629,206	6,277,937
Selling, general and administrative	149,371	145,399	134,811	1,333,670
Research and development	81,809	77,982	64,990	730,437
Total operating costs and expenses	934,309	935,435	829,007	8,342,044
Operating income	201,215	275,406	214,535	1,796,563
Other income (expenses):				
Interest and dividend income	2,449	2,430	3,360	21,866
Interest expense	(272)	(138)	(425)	(2,429)
Foreign currency exchange gain (loss)	(4,815)	(2,127)	18,101	(42,991)
Other-net	1,841	3,602	2,829	16,437
Other income (expenses)-net	(797)	3,767	23,865	(7,117)
Income before income taxes	200,418	279,173	238,400	1,789,446
Income taxes (Note 9):				
Current	39,813	73,495	77,558	355,473
Deferred	4,529	1,457	(6,463)	40,437
Provision for income taxes	44,342	74,952	71,095	395,910
Net income	156,076	204,221	167,305	1,393,536
Less: Net income (loss) attributable to noncontrolling interests	16	445	(406)	143
Net income attributable to Murata Corporation	¥ 156,060	¥ 203,776	¥ 167,711	\$ 1,393,393

Amounts per share (Note 10):	Yen			U.S. dollars (Note 2)
Basic earnings attributable to Murata Corporation per share....	¥733.87	¥962.55	¥792.19	\$ 6.55
Cash dividends per share	¥220.00	¥200.00	¥150.00	\$ 1.96

See notes to consolidated financial statements.

Consolidated Statements of Comprehensive Income

Murata Manufacturing Co., Ltd. and Subsidiaries
Years ended March 31, 2017, 2016 and 2015

	Millions of yen			Thousands of U.S. dollars (Note 2)
	2017	2016	2015	2017
Net income	¥ 156,076	¥ 204,221	¥ 167,305	\$ 1,393,536
Other comprehensive income (loss), net of tax (Note 8):				
Unrealized gains (losses) on securities	3,141	(4,345)	1,820	28,044
Pension liability adjustments	8,822	(18,581)	(1,205)	78,768
Foreign currency translation adjustments	(9,895)	(33,898)	31,591	(88,348)
Other comprehensive income (loss)	2,068	(56,824)	32,206	18,464
Comprehensive income	158,144	147,397	199,511	1,412,000
Less: Comprehensive income (loss) attributable to noncontrolling interests ..	(2)	(1,054)	392	(18)
Comprehensive income attributable to Murata Corporation	¥ 158,146	¥ 148,451	¥ 199,119	\$ 1,412,018

See notes to consolidated financial statements.

Consolidated Statements of Shareholders' Equity

Murata Manufacturing Co., Ltd. and Subsidiaries
Years ended March 31, 2017, 2016 and 2015

	Millions of yen								
	Number of common shares issued	Common stock	Capital surplus	Retained earnings	Accumulated other comprehensive income (loss)	Treasury stock	Controlling interests	Noncontrolling interests	Total equity
Balance at March 31, 2014	225,263,592	¥69,377	¥ 103,864	¥ 834,419	¥ 8,385	¥(60,285)	¥ 955,760	¥ 15,872	¥ 971,632
Purchases of treasury stock at cost ...						(33)	(33)		(33)
Net income				167,711			167,711	(406)	167,305
Cash dividends				(31,756)			(31,756)	(116)	(31,872)
Other comprehensive income, net of tax (Note 8)					31,408		31,408	798	32,206
Equity transaction with noncontrolling interests and other								(307)	(307)
Balance at March 31, 2015	225,263,592	69,377	103,864	970,374	39,793	(60,318)	1,123,090	15,841	1,138,931
Purchases of treasury stock at cost....						(42)	(42)		(42)
Disposal of treasury stock			1			0	1		1
Net income				203,776			203,776	445	204,221
Cash dividends				(42,341)			(42,341)	(116)	(42,457)
Other comprehensive loss, net of tax (Note 8)					(55,325)		(55,325)	(1,499)	(56,824)
Equity transaction with noncontrolling interests and other								149	149
Balance at March 31, 2016	225,263,592	69,377	103,865	1,131,809	(15,532)	(60,360)	1,229,159	14,820	1,243,979
Purchases of treasury stock at cost ...						(88)	(88)		(88)
Disposal of treasury stock			3			2	5		5
Net income				156,060			156,060	16	156,076
Cash dividends				(46,689)			(46,689)		(46,689)
Other comprehensive income, net of tax (Note 8)					2,086		2,086	(18)	2,068
Equity transaction with noncontrolling interests and other			10,422		(773)	4,637	14,286	(14,303)	(17)
Balance at March 31, 2017	<u>225,263,592</u>	<u>¥69,377</u>	<u>¥ 114,290</u>	<u>¥1,241,180</u>	<u>¥ (14,219)</u>	<u>¥(55,809)</u>	<u>¥1,354,819</u>	<u>¥ 515</u>	<u>¥1,355,334</u>

	Thousands of U.S. dollars (Note 2)							
	Common stock	Capital surplus	Retained earnings	Accumulated other comprehensive income (loss)	Treasury stock	Controlling interests	Noncontrolling interests	Total equity
Balance at March 31, 2016	\$ 619,438	\$ 927,366	\$ 10,105,437	\$ (138,678)	\$ (538,929)	\$ 10,974,634	\$ 132,321	\$ 11,106,955
Purchases of treasury stock at cost					(786)	(786)		(786)
Disposal of treasury stock		27			18	45		45
Net income			1,393,393			1,393,393	143	1,393,536
Cash dividends			(416,866)			(416,866)		(416,866)
Other comprehensive income, net of tax (Note 8)				18,625		18,625	(161)	18,464
Equity transaction with noncontrolling interests and other		93,053		(6,902)	41,402	127,553	(127,705)	(152)
Balance at March 31, 2017	<u>\$ 619,438</u>	<u>\$ 1,020,446</u>	<u>\$ 11,081,964</u>	<u>\$ (126,955)</u>	<u>\$ (498,295)</u>	<u>\$ 12,096,598</u>	<u>\$ 4,598</u>	<u>\$ 12,101,196</u>

See notes to consolidated financial statements.

Consolidated Statements of Cash Flows

Murata Manufacturing Co., Ltd. and Subsidiaries
Years ended March 31, 2017, 2016 and 2015

	Millions of yen			Thousands of U.S. dollars (Note 2)
	2017	2016	2015	2017
Operating activities:				
Net income	¥ 156,076	¥ 204,221	¥ 167,305	\$ 1,393,536
Adjustments to reconcile net income to net cash provided by operating activities:				
Depreciation and amortization	113,523	99,105	84,935	1,013,598
Losses on sales and disposals of property, plant and equipment	1,867	1,406	1,443	16,670
Provision for termination and retirement benefits, less payments.....	(1,040)	(16,006)	(4,636)	(9,286)
Deferred income taxes	4,529	1,457	(6,463)	40,438
Changes in assets and liabilities:				
(Increase) decrease in trade notes and accounts receivable ...	(14,317)	19,507	(19,295)	(127,830)
(Increase) decrease in inventories	5,032	(38,549)	(3,431)	44,929
(Increase) decrease in prepaid expenses and other	(4,916)	(12,546)	24	(43,893)
Increase in trade notes and accounts payable	650	4,336	7,133	5,803
Increase (decrease) in accrued payroll and bonuses	(2,394)	500	921	(21,376)
Increase (decrease) in income taxes payable	(22,678)	(20,739)	21,528	(202,482)
Increase in accrued expenses and other	7,586	10,050	7,749	67,732
Other-net	2	(291)	2,723	18
Net cash provided by operating activities	<u>243,920</u>	<u>252,451</u>	<u>259,936</u>	<u>2,177,857</u>
Investing activities:				
Capital expenditures	(158,579)	(172,540)	(101,184)	(1,415,884)
Payment for purchases of marketable securities, investments and other	(58,967)	(64,173)	(42,381)	(526,491)
Maturities and sales of marketable securities, investments and other	45,192	71,807	102,105	403,500
Increase in long-term deposits	(22,591)	—	—	(201,706)
(Increase) decrease in short-term investments	5,982	(41,999)	(1,738)	53,411
Acquisitions of businesses, net of cash acquired (Note 14)...	(14,725)	—	(50,219)	(131,473)
Other-net	991	1,589	2,038	8,848
Net cash used in investing activities	<u>(202,697)</u>	<u>(205,316)</u>	<u>(91,379)</u>	<u>(1,809,795)</u>
Financing activities:				
Net increase (decrease) in short-term borrowings	39,673	(4,671)	(28,847)	354,223
Proceeds from long-term debt	—	1,000	1,055	—
Repayment of long-term debt	(4,662)	(10,494)	(6,907)	(41,625)
Dividends paid	(46,689)	(42,341)	(31,756)	(416,866)
Other-net	(51)	(108)	(511)	(455)
Net cash used in financing activities	<u>(11,729)</u>	<u>(56,614)</u>	<u>(66,966)</u>	<u>(104,723)</u>
Effect of exchange rate changes on cash and cash equivalents	(2,880)	9,113	(7,539)	(25,714)
Net increase (decrease) in cash and cash equivalents	26,614	(366)	94,052	237,625
Cash and cash equivalents at beginning of year	212,570	212,936	118,884	1,897,946
Cash and cash equivalents at end of year	¥ 239,184	¥ 212,570	¥ 212,936	\$ 2,135,571
Additional cash flow information:				
Interest paid	¥ 289	¥ 134	¥ 411	\$ 2,580
Income taxes paid	62,736	95,083	55,933	560,143
Additional cash and cash equivalents information:				
Cash	¥ 170,929	¥ 150,627	¥ 139,685	\$ 1,526,152
Short-term investments	173,401	174,228	146,413	1,548,223
Short-term investments with the original maturities over 3 months	(105,146)	(112,285)	(73,162)	(938,804)
Cash and cash equivalents at end of year	<u>¥ 239,184</u>	<u>¥ 212,570</u>	<u>¥ 212,936</u>	<u>\$ 2,135,571</u>

See notes to consolidated financial statements.

Notes to Consolidated Financial Statements

Murata Manufacturing Co., Ltd. and Subsidiaries

1. Summary of Significant Accounting Policies

(a) Nature of operations

Murata Manufacturing Co., Ltd. (the "Company") and subsidiaries (together the "Companies") are engaged in the development, manufacturing, and sale of electronic components (Components and Modules) in numerous countries, including Japan, North America, Greater China, certain other Asian countries, and European countries as its primary markets. Components consist of Capacitors, Piezoelectric Components, and Other Components. Modules consist of Communication Modules, Power Supplies, and Other Modules. The Companies' products are sold mainly to electronics companies for use as components in telecommunication, computer, audio, video, automotive electronics, and other electronic products.

(b) Basis of financial statements

The consolidated financial statements, stated in Japanese yen, reflect certain adjustments, not recorded on the books of account, to present these statements in accordance with accounting principles generally accepted in the United States of America.

The Companies adopt Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 105, "Generally Accepted Accounting Principles" in the United States of America.

The principal adjustments to amounts recorded in the Companies' books of account include the measurement of net periodic cost for defined benefit retirement plans, the accrual of compensated absences, accounting for derivatives, and the provision for deferred income taxes relating to these adjustments.

(c) Principles of consolidation

The consolidated financial statements include the accounts of the Company and its majority-owned subsidiaries. All significant intercompany balances and transactions are eliminated in consolidation. Investments in 20% to 50%-owned companies are accounted for by the equity method.

(d) Short-term investments, cash and cash equivalents

Short-term investments include time deposits which may be withdrawn on demand without diminution of principal, and commercial paper, which is a highly-liquid investment.

The Companies consider cash and short-term investments with original maturities of 3 months or less as cash and cash equivalents.

(e) Marketable securities and investments

Under ASC 320, "Investment - Debt and Equity Securities", and ASC 825 "Financial Instruments", the Companies classify debt securities and marketable equity securities as available-for-sale and carry them at fair value with a corresponding recognition of the net unrealized holding gains or losses (net of tax) as a separate component of shareholders' equity, except investments whose unrealized holding gains and losses are included in income by electing the fair value option. Gains and losses on sales of investments are computed on an average cost basis. Equity securities that do not have a readily determinable fair value are recorded at average cost (see Note 3). The Companies review the fair value of their marketable securities and investments on a regular basis to determine if the fair value of any individual investment has declined below its cost or amortized cost and if such decline is other-than-temporary. A determination of whether a decline in fair value represents an other-than-temporary impairment is based on criteria that include the extent to which the security's carrying value exceeds its fair value, the duration of the market decline, and the Companies' requirement and intent to hold or sell the investment. Losses from other-than-temporary impairments, if any, are charged to income as incurred.

(f) Inventories

Inventories are stated at the lower of cost, which is determined principally by the average cost method, or market.

(g) Property, plant and equipment

Property, plant and equipment are stated at cost. Depreciation of property, plant and equipment is principally computed using the declining-balance method (straight-line method for certain overseas subsidiaries) based upon the estimated useful lives of the assets. The range of useful lives is principally from 10 to 50 years for buildings and from 4 to 17 years for machinery and equipment.

(h) Termination and retirement benefits

Termination and retirement benefits are accounted for in accordance with ASC 715, "Compensation - Retirement Benefits".

(i) Revenue recognition

The Companies recognize revenue when persuasive evidence of an arrangement including title transfer exists, delivery has occurred, the sales price to the customer is fixed or determinable, and collectability is reasonably assured.

(j) Advertising expenses

Advertising costs are expensed as incurred. Advertising expenses for the years ended March 31, 2017, 2016, and 2015 were ¥3,824 million (\$34,143 thousand), ¥3,833 million, and ¥4,051 million, respectively.

(k) Taxes on income

The Companies account for income taxes in accordance with the provisions of ASC 740, "Income Taxes". Under ASC 740, deferred tax assets and liabilities are computed based on the differences between the financial statement and income tax bases of assets and liabilities using the enacted tax rates. Deferred income tax expenses and credits are primarily based on the change in the deferred tax assets and liabilities from period to period. A valuation allowance is established, when necessary, to reduce deferred tax assets to the amount that is more likely than not to be realized. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the period that includes the enactment date.

Regarding undistributed earnings of subsidiaries, the Companies recognize deferred tax liabilities for the taxable portion of future dividends receivable under the current tax system. The Companies recognize no deferred tax liability for the non-taxable portion because the tax system treats the majority of dividends receivable the Company receives from subsidiaries as non-taxable.

The Companies account for uncertainty in income taxes in accordance with ASC 740. ASC 740 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Benefits from tax positions that meet the more likely than not recognition threshold are measured at the largest amount of benefit that is greater than 50% likely to be realized upon ultimate settlement with the related tax authority.

(l) Earnings per share

The Companies account for earnings per share in accordance with ASC 260, "Earnings Per Share". Diluted earnings attributable to Murata Corporation per share reflects the potential dilution from potential shares outstanding such as shares issuable upon the exercise of stock options. A reconciliation of the numerator and denominator of the basic and diluted earnings attributable to Murata Corporation per share computation is included in Note 10.

(m) Fair value measurements

The Companies account for fair value measurements in accordance with ASC 820, "Fair Value Measurement". ASC 820 clarifies the definitions of fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements.

(n) Derivatives

The Companies account for their derivative instruments and hedging activities in accordance with ASC 815, "Derivatives and Hedging". These standards establish accounting and reporting standards for derivative instruments and for hedging activities, and require that an entity recognize all derivatives as either assets or liabilities in the balance sheet and measure those instruments at fair value.

Changes in fair value of a derivative that is highly effective and that is designated and qualifies as a foreign currency and material procurement cash flow hedge are recorded in other comprehensive income (loss) until earnings are affected by the variability in cash flows of the designated hedged item.

(o) Shipping and handling costs

Shipping and handling costs which are included in selling, general and administrative expenses for the years ended March 31, 2017, 2016, and 2015 were ¥9,345 million (\$83,438 thousand), ¥9,353 million, and ¥9,146 million, respectively.

(p) Consideration given by a vendor to a customer

The Companies account for consideration given to a customer as a reduction of revenue in accordance with ASC 605-50, "Customer Payments and Incentives". ASC 605-50 defines the income statement classification of consideration given by a vendor to a customer or reseller of the vendor's products.

(q) Impairment or disposal of long-lived assets

The Companies account for impairment or disposal of long-lived assets and discontinued operations in accordance with ASC 360, "Property, Plant, and Equipment". This statement applies to all long-lived assets. The Companies' long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of assets may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to the estimated undiscounted future cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount exceeds the fair value of the assets. If the Companies determine to dispose of assets, depreciation estimates for the assets shall be revised to reflect those remaining useful lives. Assets classified as held for sale shall be measured at the lower of its carrying amount or fair value less cost to sell.

(r) Acquisitions

The Companies account for business acquisitions in accordance with ASC 805, "Business Combinations". In accordance with this statement, the Companies use the acquisition method of accounting, which requires the measurement of the fair value of all of the assets and liabilities of an acquired company, including noncontrolling interests. The Companies recognize goodwill at the acquisition date, measured as the excess of the total acquisition price over the net identifiable assets acquired. Acquisition-related costs are accounted for as expenses in the periods in which the costs are incurred and the services are received.

(s) Goodwill and other intangible assets

The Companies account for goodwill and other intangible assets in accordance with ASC 350, "Intangibles - Goodwill and Other". In accordance with this statement, goodwill is not amortized and is instead tested at least annually for impairment. Intangible assets that have finite useful lives will continue to be amortized over their useful lives.

This statement also requires that an intangible asset that is determined to have an indefinite useful life is not amortized, but is instead tested at least annually for impairment until its useful life is determined to be no longer indefinite.

(t) Use of estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

(u) Reclassifications

Certain items in prior years' financial statements have been reclassified to conform to the 2017 presentation.

(v) New accounting standards

Revenue

In May 2014, the FASB issued Accounting Standards Update (ASU) No. 2014-09, "Revenue from Contracts with Customers". Further, in August 2015, the FASB issued ASU No. 2015-14, "Revenue from Contracts with Customers: Deferral of the Effective Date". The ASUs outline a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes current revenue recognition guidance. The ASUs require entities to disclose both quantitative and qualitative information that enables "users of financial statements to understand the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers." The ASUs are effective for annual reporting periods (including interim reporting periods within those periods) beginning after December 15, 2017. The Companies will adopt the ASUs from the fiscal year beginning April 1, 2018. The Companies are currently evaluating the effect that the adoption of this guidance will have on their consolidated financial statements.

Income Taxes

In November 2015, the FASB issued ASU No. 2015-17, "Income Taxes: Balance Sheet Classification of Deferred Taxes". To simplify the presentation of deferred income taxes, the ASU requires that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position. The ASU is effective for annual reporting periods (including interim reporting periods within those periods) beginning after December 15, 2016. The Companies will adopt the ASU from the fiscal year beginning April 1, 2017.

Financial Instruments

In January 2016, the FASB issued ASU No. 2016-01, "Financial Instruments - Overall: Recognition and Measurement of Financial Assets and Financial Liabilities". The ASU requires equity investments (except those accounted for under the equity method of accounting or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income. The ASU is effective for annual reporting periods (including interim reporting periods within those periods) beginning after December 15, 2017. The Companies will adopt the ASU from the fiscal year beginning April 1, 2018. The Companies are currently evaluating the effect that the adoption of this guidance will have on their consolidated financial statements.

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments - Credit Losses: Measurement of Credit Losses on Financial Instruments". The ASU introduces a new impairment model based on expected losses rather than incurred losses. Under this current expected credit loss model, an entity would recognize as an allowance its estimate of the contractual cash flows not expected to be collected. The ASU is effective for annual reporting periods (including interim reporting periods within those periods) beginning after December 15, 2019. The Companies will adopt the ASU from the fiscal year beginning April 1, 2020. The Companies are currently evaluating the effect that the adoption of this guidance will have on their consolidated financial statements.

Leases

In February 2016, the FASB issued ASU No. 2016-02, "Leases". The ASU requires a lessee to recognize the assets and liabilities that arise from all leases on the consolidated balance sheet in principle. The ASU is effective for annual reporting periods (including interim reporting periods within those periods) beginning after December 15, 2018. The Companies will adopt the ASU from the fiscal year beginning April 1, 2019. The Companies are currently evaluating the effect that the adoption of this guidance will have on their consolidated financial statements.

Intangibles - Goodwill and Other

In January 2017, the FASB issued ASU No. 2017-04, "Intangibles - Goodwill and Other: Simplifying the Test for Goodwill Impairment". The ASU eliminates Step 2 from the goodwill impairment test, which measures a goodwill impairment loss by comparing the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill. Instead, the ASU requires if the carrying amount of a reporting unit exceeds its fair value, an impairment loss shall be recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit. The ASU is effective for annual reporting periods (including interim reporting periods within those periods) beginning after December 15, 2020. The Companies will adopt the ASU from the fiscal year beginning April 1, 2021. The Companies are currently evaluating the effect that the adoption of this guidance will have on their consolidated financial statements.

Compensation - Retirement Benefits

In March 2017, the FASB issued ASU No. 2017-07, "Compensation - Retirement Benefits: Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost". The ASU requires entities to disaggregate the current-service-cost component from the other components of net benefit cost (the "other components") and present it with other current compensation costs for related employees in the income statement, and present the other components elsewhere in the income statement and outside of income from operations if such a subtotal is presented. The ASU also requires entities to disclose the income statement lines that contain the other components if they are not presented on appropriately described separate lines. In addition, only the service-cost component of net benefit cost is eligible for capitalization. The ASU is effective for annual reporting periods (including interim reporting periods within those periods) beginning after December 15, 2017. The Companies will adopt the ASU from the fiscal year beginning April 1, 2018. The Companies are currently evaluating the effect that the adoption of this guidance will have on their consolidated financial statements.

2. Translation of Japanese Yen Amounts into U.S. Dollar Amounts

The consolidated financial statements are stated in Japanese yen, the currency of the country in which the Company is incorporated and operates. The translations of Japanese yen amounts into U.S. dollar amounts are included solely for the convenience of readers outside of Japan and have been made at the rate of ¥112 to \$1, the approximate rate of exchange at March 31, 2017. Such translations should not be construed as representations that the Japanese yen amounts could be converted into U.S. dollars at the above or any other rate.

3. Marketable Securities and Investments

The cost and amortized cost, gross unrealized gains, gross unrealized losses, and fair values for available-for-sale securities by major security type, at March 31, 2017 and 2016 were as follows:

	Millions of yen			
	2017			
	Cost and Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Governmental debt securities	¥ 1,000	¥ 2	¥ –	¥ 1,002
Private debt securities	122,000	469	130	122,339
Equity securities	9,481	8,332	–	17,813
Investment trusts	2,000	–	48	1,952
Total available-for-sale securities	<u>¥134,481</u>	<u>¥8,803</u>	<u>¥178</u>	<u>¥143,106</u>
	Millions of yen			
	2016			
	Cost and Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Governmental debt securities	¥ 1,898	¥ 11	¥ –	¥ 1,909
Private debt securities	120,769	350	540	120,579
Equity securities	7,397	4,723	64	12,056
Investment trusts	2,756	–	–	2,756
Total available-for-sale securities	<u>¥132,820</u>	<u>¥5,084</u>	<u>¥604</u>	<u>¥137,300</u>
	Thousands of U.S. dollars			
	2017			
	Cost and Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Governmental debt securities	\$ 8,928	\$ 18	\$ –	\$ 8,946
Private debt securities	1,089,286	4,187	1,161	1,092,312
Equity securities	84,652	74,393	–	159,045
Investment trusts	17,857	–	428	17,429
Total available-for-sale securities	<u>\$1,200,723</u>	<u>\$78,598</u>	<u>\$1,589</u>	<u>\$1,277,732</u>

Notes to Consolidated Financial Statements

The fair value and gross unrealized losses for available-for-sale securities by major security type and length of time that individual securities have been in a continuous unrealized loss position, at March 31, 2017 and 2016 were as follows:

	Millions of yen			
	2017			
	Less than 12 months		12 months or longer	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Private debt securities	¥29,316	¥ 63	¥9,933	¥67
Equity securities	—	—	—	—
Investment trusts	1,952	48	—	—
Total	¥31,268	¥111	¥9,933	¥67

	Millions of yen			
	2016			
	Less than 12 months		12 months or longer	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Private debt securities	¥36,668	¥530	¥5,977	¥10
Equity securities	219	64	—	—
Investment trusts	—	—	—	—
Total	¥36,887	¥594	¥5,977	¥10

	Thousands of U.S. dollars			
	2017			
	Less than 12 months		12 months or longer	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Private debt securities	\$ 261,750	\$563	\$ 88,688	\$598
Equity securities	—	—	—	—
Investment trusts	17,429	428	—	—
Total	\$279,179	\$991	\$ 88,688	\$598

The Companies did not recognize an other-than-temporary impairment loss on the above debt securities which had a fair value below amortized cost at March 31, 2017, (1) as the Companies did not intend to and (2) it was more likely than not that the Companies would not be required to sell such securities before the recovery of amortized cost and (3) as the issuers of the securities had favorable credit ratings.

The aggregate carrying amounts of equity securities at March 31, 2017 and 2016, which are accounted for at cost, were ¥13,405 million (\$119,687 thousand) and ¥8,019 million, respectively.

Of these, at March 31, 2017 and 2016, equity securities of ¥13,393 million (\$119,580 thousand) and ¥8,019 million, respectively, were not evaluated for impairment because (a) the Companies did not identify any events or changes in circumstances that might have a significant adverse effect on the fair value of the securities and (b) the Companies determined that it was not practicable to estimate the fair value of the securities.

Contractual maturities of debt securities (governmental, private debt securities, and investment trusts) at March 31, 2017 were as follows:

	Millions of yen		Thousands of U.S. dollars	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Within 1 year	¥ 53,005	¥ 53,043	\$ 473,259	\$ 473,598
After 1 year through				
5 years	68,617	68,877	612,652	614,973
After 5 years	3,378	3,373	30,160	30,116
Total	¥125,000	¥125,293	\$1,116,071	\$1,118,687

Information related to sales of available-for-sale securities was as follows:

	Millions of yen			Thousands of U.S. dollars
	2017	2016	2015	2017
Proceeds from sales	¥2,908	¥120	¥1,490	\$25,964
Gross realized gains	50	47	402	446
Gross realized losses	0	—	357	0

4. Inventories

Inventories at March 31, 2017 and 2016 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Finished products	¥ 93,451	¥106,490	\$ 834,384
Work in process	71,264	63,648	636,286
Materials and supplies	46,732	47,324	417,250
Total	¥211,447	¥217,462	\$1,887,920

5. Short-Term Borrowings and Long-Term Debt

Short-Term Borrowings at March 31, 2017 and 2016 consisted of the following:

	Millions of yen	Weighted -Average Interest Rate	Millions of yen	Weighted -Average Interest Rate	Thousands of U.S. dollars
	2017		2016		2017
Unsecured bank loans	¥46,114	1.4%	¥ 846	0.4%	\$411,732
Secured bank loans	—	—	5,600	0.4	—
Other	4	0.0	—	—	36
Total	¥46,118	1.4%	¥6,446	0.4%	\$411,768

Long-term debt at March 31, 2017 and 2016 consisted of the following:

	Millions of yen	Weighted -Average Interest Rate	Millions of yen	Weighted -Average Interest Rate	Thousands of U.S. dollars
	2017		2016		2017
Unsecured bank loans, due 2021	¥ 813	0.7%	¥ 2,140	0.9%	\$ 7,259
Secured bank loans, due 2021.....	18	1.3	3,200	1.2	161
Other	57	0.0	1	3.4	509
Total	888	0.6	5,341	1.1	7,929
Less: Portion due within one year	(343)	0.8	(2,040)	1.1	(3,063)
Total	¥ 545	0.5%	¥ 3,301	1.0%	\$ 4,866

The aggregate future maturities of long-term debt outstanding at March 31, 2017 are as follows:

Years ending March 31	Millions of yen	Thousands of U.S. dollars
2018	¥343	\$3,063
2019	239	2,134
2020	203	1,812
2021	103	920
2022.....	—	—
2023 and thereafter	—	—
Total	¥888	\$7,929

Property, plant and equipment having a net book value of ¥23 million (\$205 thousand) and ¥1,957 million was pledged as collateral for short-term borrowings and long-term debt at March 31, 2017 and 2016, respectively.

Notes to Consolidated Financial Statements

6. Termination and Retirement Benefits

The Companies' postretirement benefit plans cover most employees. Benefits are primarily calculated by a point system, based on the employee's position and performance assessment or the employee's years of service, with some plans also considering compensation and other factors. If the termination is involuntary or caused by death, the employee or their beneficiary is usually entitled to greater payments than in the case of voluntary termination.

The Companies fund a portion of the obligation under these plans. The general funding policy is to contribute amounts computed in accordance with accepted actuarial methods.

The Companies sponsor several postretirement benefit plans, including defined benefit plans and defined contribution plans. Certain defined benefit plans are partially funded and administered by independent trustees, others are unfunded and administered by the Companies. These plans usually provide lump sum termination and retirement benefits and are paid at the earlier of the employee's termination or the mandatory retirement age although periodic payments are available under certain conditions.

The following table summarizes the financial status of the termination and retirement plans and the amounts recognized in the financial statements at March 31:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Change in benefit obligation:			
Benefit obligation at beginning of year	¥197,356	¥174,990	\$1,762,107
Service cost	9,323	7,666	83,241
Interest cost	714	1,518	6,375
Amendments	—	(792)	—
Actuarial loss	(6,261)	24,823	(55,902)
Benefits paid	(2,195)	(2,467)	(19,598)
Settlement paid to retirees.....	(4,105)	(3,801)	(36,652)
Settlement paid by transfer to defined contribution pension plan	(4,369)	(4,581)	(39,009)
Acquisitions of businesses.....	119	—	1,063
Benefit obligation at end of year	¥190,582	¥197,356	\$1,701,625
Change in plan assets:			
Fair value of plan assets at beginning of year	¥120,476	¥109,149	\$1,075,679
Actual return on plan assets	3,839	(707)	34,276
Employer contribution	6,564	15,224	58,607
Benefits paid	(2,195)	(2,467)	(19,598)
Settlement paid to retirees	(838)	(723)	(7,482)
Acquisitions of businesses.....	73	—	652
Fair value of plan assets at end of year	¥127,919	¥120,476	\$1,142,134
Funded status at end of year	¥ (62,663)	¥ (76,880)	\$ (559,491)
Amounts recognized in the consolidated balance sheet consist of:			
Investments and other assets: Other	¥ 1,724	¥ 979	\$ 15,393
Accrued expenses and other	(5,063)	(5,975)	(45,205)
Termination and retirement benefits	(59,324)	(71,884)	(529,679)
Net amount recognized	¥ (62,663)	¥ (76,880)	\$ (559,491)
Accumulated benefit obligation at end of year	¥177,805	¥179,976	\$1,587,545

Accumulated benefit obligations for all of the Companies' termination and retirement plans were in excess of their plan assets at March 31, 2017 and 2016.

Amounts recognized in accumulated other comprehensive loss (income) at March 31, 2017 and 2016 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Actuarial loss	¥ 35,645	¥ 50,784	\$ 318,259
Prior service benefit	(12,231)	(14,788)	(109,205)
Pension liability adjustments, before tax	¥ 23,414	¥ 35,996	\$ 209,054

Net periodic benefit cost for the years ended March 31:

	Millions of yen			Thousands of U.S. dollars
	2017	2016	2015	2017
Service cost	¥ 9,323	¥ 7,666	¥ 9,110	\$ 83,241
Interest cost	714	1,518	2,037	6,375
Expected return on plan assets	(2,398)	(2,410)	(2,361)	(21,410)
Amortization of prior service benefit	(2,557)	(2,546)	(2,357)	(22,830)
Amortization of recognized actuarial loss	6,351	1,763	1,738	56,705
Settlement loss.....	1,086	674	224	9,696
Net periodic benefit cost	¥ 12,519	¥ 6,665	¥ 8,391	\$ 111,777

Other amounts recognized in other comprehensive loss (income) for the years ended March 31:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Prior service benefit due to amendments	¥ -	¥ (792)	\$ -
Actuarial loss (gain).....	(7,702)	27,936	(68,768)
Amortization of prior service benefit	2,557	2,546	22,830
Amortization of recognized actuarial loss	(6,351)	(1,763)	(56,705)
Settlement loss.....	(1,086)	(674)	(9,696)
Total recognized in other comprehensive loss (income), before tax	¥(12,582)	¥27,253	\$ (112,339)

The estimated prior service benefit and net loss for the termination and retirement benefit plans that will be amortized from accumulated other comprehensive income (loss) into net periodic benefit cost over the next fiscal year were a gain of ¥1,835 million (\$16,384 thousand) and a loss of ¥3,480 million (\$31,071 thousand).

Termination and retirement benefits, accounted for in accordance with ASC 715, "Compensation - Retirement Benefits", are provided at the amount incurred during the period, which is based on the estimated present value of the projected benefit obligation less the fair value of plan assets at the end of the period. The overfunded or underfunded status of a defined benefit postretirement plan is recognized as an asset or liability in the consolidated balance sheets, with an adjustment to accumulated other comprehensive income (loss).

The unrecognized prior service benefit due to certain plan amendments is being amortized on a straight-line basis over the average remaining service period of employees. The unrecognized actuarial gains and losses in excess of 10% of the larger of the projected benefit obligation or plan assets are being amortized over 5 years.

The following assumptions were utilized to calculate the actuarial present value of the benefit obligation at March 31:

	2017	2016
Discount rate	0.7%	0.5%
Compensation increase rate	2.7%	2.0~2.6%

Notes to Consolidated Financial Statements

The following assumptions were utilized to calculate net periodic benefit cost for the years ended March 31:

	2017	2016	2015
Discount rate	0.5%	1.1%	1.4%
Compensation increase rate	2.0~2.6%	2.0~2.6%	2.0~2.6%
Expected long-term rate of return on plan assets	2.2%	2.2~2.5%	2.5%

The Companies determine the discount rate considering the long-term rate of return on Japanese government bonds. The Companies determine the expected long-term rate of return on plan assets, based on the historical performance of various invested asset categories, as well as the long-term rate of return on Japanese government bonds.

Plan assets are invested for the purpose of achieving a sufficient rate of return to maintain pension plan assets for future payment of benefits to plan participants. Considering the expected rate of return on invested assets, a related standard deviation, and a related correlation coefficient, the Companies believe the current asset allocation is adequate for purposes of meeting investment objectives. For achieving the expected rate of return on plan assets on a mid-term to long-term basis, the Companies select optimal investing institutions by invested asset category and entrust the investment of plan assets to them. The Companies revise the asset allocation when and to the extent considered necessary. The asset allocation of the Company's plan assets which account for most of the plan assets at March 31, 2017 consisted of 17% of equity securities, 58% of debt securities and life insurance company general accounts, and 25% of other.

In May 2015, the FASB issued ASU No. 2015-07, "Fair Value Measurement - Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)". The ASU requires that investments for which fair value is measured at net asset value per share (or its equivalent) using the practical expedient should not be categorized in the fair value hierarchy. The ASU is effective for annual reporting periods (including interim reporting periods within those periods) beginning after December 15, 2015. The Companies adopted the ASU from the year ended March 31, 2017.

The 3 broad levels of inputs used to measure fair value are more fully described in Note 12.

The fair values of the Companies' plan assets at March 31, 2017 were as follows:

	Millions of yen			
	Fair value measurements			Total
	Level 1	Level 2	Level 3	
Assets measured at other than net asset value per share				
Governmental debt securities	¥1,125	¥ 71	–	¥ 1,196
Private debt securities	–	11,218	–	11,218
Life insurance company general accounts	–	32,172	–	32,172
Other	–	5,798	–	5,798
Assets measured at net asset value per share				
Pooled funds (equity securities)....	–	–	–	21,882
Pooled funds (debt securities)....	–	–	–	32,774
Pooled funds (other).....	–	–	–	22,879
Total	¥1,125	¥ 49,259	–	¥ 127,919

Notes to Consolidated Financial Statements

	Thousands of U.S.dollars			
	Fair value measurements			
	Level 1	Level 2	Level 3	Total
Assets measured at other than net asset value per share				
Governmental debt securities	\$ 10,045	\$ 634	–	\$ 10,679
Private debt securities	–	100,161	–	100,161
Life insurance company general accounts	–	287,250	–	287,250
Other	–	51,767	–	51,767
Assets measured at net asset value per share				
Pooled funds (equity securities)....	–	–	–	195,375
Pooled funds (debt securities)....	–	–	–	292,625
Pooled funds (other).....	–	–	–	204,277
Total	\$ 10,045	\$ 439,812	–	\$ 1,142,134

The fair values of the Companies' plan assets at March 31, 2016 were as follows:

	Millions of yen			
	Fair value measurements			
	Level 1	Level 2	Level 3	Total
Assets measured at other than net asset value per share				
Governmental debt securities	¥1,183	¥ 45	–	¥ 1,228
Private debt securities	–	3,995	–	3,995
Life insurance company general accounts	–	31,112	–	31,112
Other	–	15,661	–	15,661
Assets measured at net asset value per share				
Pooled funds (equity securities)....	–	–	–	16,887
Pooled funds (debt securities)....	–	–	–	31,833
Pooled funds (other).....	–	–	–	19,760
Total	¥1,183	¥ 50,813	–	¥ 120,476

Assets measured at net asset value per share (or its equivalent) are not categorized in the fair value hierarchy.

Governmental debt securities

Governmental debt securities contain government bonds. Government bonds are measured by the market approach using quoted prices in active markets; they are classified within Level 1. At March 31, 2017, this class consisted of 100% foreign governmental debt securities. At March 31, 2016, this class consisted of 100% foreign governmental debt securities.

Private debt securities

Private debt securities are measured by the market approach using quoted prices for identical or similar assets in markets that are not active, resulting in a Level 2 classification. At March 31, 2017, this class consisted of 25% Japanese private debt securities and 75% foreign private debt securities. At March 31, 2016, this class consisted of 25% Japanese private debt securities and 75% foreign private debt securities.

Life insurance company general accounts

Life insurance company general accounts are investments in general accounts of life insurance companies. Life insurance company general accounts guarantee principal and certain rates of return, and they are measured by the market approach using inputs other than quoted prices that are observable for the assets, resulting in a Level 2 classification.

Notes to Consolidated Financial Statements

Pooled funds

Pooled funds are measured by the allocated net asset value of pooled fund assets by units of shares.

Pooled funds are typically valued using the net asset value per share provided by the administrator of the fund.

Pooled funds (equity securities) mainly contain marketable equity securities. At March 31, 2017, this class consisted of 27% Japanese pooled funds (equity securities) and 73% foreign pooled funds (equity securities). At March 31, 2016, this class consisted of 26% Japanese pooled funds (equity securities) and 74% foreign pooled funds (equity securities).

Pooled funds (debt securities) mainly contain government bonds and local government bonds. At March 31, 2017, this class consisted of 17% Japanese pooled funds (debt securities) and 83% foreign pooled funds (debt securities). At March 31, 2016, this class consisted of 18% Japanese pooled funds (debt securities) and 82% foreign pooled funds (debt securities).

The Companies expect to contribute ¥4,259 million (\$38,027 thousand) to their defined benefit plans in the year ending March 31, 2018.

The future benefit payments are expected as follows:

Years ending March 31	Millions of yen	Thousands of U.S. dollars
2018	¥ 5,755	\$ 51,384
2019	6,145	54,866
2020	6,238	55,696
2021	6,364	56,821
2022	6,868	61,321
2023-2027	37,304	333,071

In connection with the above-mentioned amendments, the amount of benefit obligations to be transferred to the defined contribution plans was determined to be ¥3,193 million at March 31, 2016, which will be settled by the year ending March 31, 2019, and ¥9,170 million at March 31, 2015, which will be settled by the year ending March 31, 2019. The amount of benefit obligations including the effect of the previous amendments, which will be transferred to the defined contribution plan was ¥6,582 million (\$58,768 thousand) at March 31, 2017, and ¥10,951 million at March 31, 2016.

The Companies recognized the cost of ¥1,516 million (\$13,536 thousand) related to annual contributions to the defined contribution plans in the year ended March 31, 2017, and ¥1,302 million in the year ended March 31, 2016.

7. Shareholders' Equity

Japanese companies are subject to the Companies Act of Japan (the "Companies Act"). The significant provisions in the Companies Act that affect financial and accounting matters are summarized below;

(a) Dividends

Under the Companies Act, companies can pay dividends at any time during the fiscal year in addition to the year-end dividend upon resolution at the shareholders' meeting. Additionally, for companies that meet certain criteria including (1) having a Board of Directors, (2) having independent auditors, (3) having an Audit & Supervisory Board, and (4) the term of service of the directors being prescribed as one year rather than the normal two-year term by its articles of incorporation, the Board of Directors may declare dividends (except for dividends-in-kind) at any time during the fiscal year if the company has prescribed so in its articles of incorporation. With respect to the third condition above, the Board of Directors of companies with (a) board committees (namely, appointment committee, compensation committee and audit committee) or (b) an audit and supervisory committee (as implemented under the Companies Act effective May 1, 2015) may also declare dividends at any time because such companies, by nature, meet the criteria under the Companies Act. The Company is organized as a company with an audit and supervisory committee, effective June 29, 2016. The Company meets all the above criteria and, accordingly, the Board of Directors may declare dividends (except for dividends-in-kind) at any time during the fiscal year.

The Companies Act permits companies to distribute dividends-in-kind (non-cash assets) to shareholders subject to a certain limitation and additional requirements.

Semiannual interim dividends may also be paid once a year upon resolution by the Board of Directors if the articles of incorporation of the company so stipulate. The Companies Act provides certain limitations on the amounts available for dividends or the purchase of treasury stock. The limitation is defined as the amount available for distribution to the shareholders, but the amount of net assets after dividends must be maintained at no less than ¥3 million.

The amount available for dividends under the Companies Act was ¥390,086 million (\$3,482,911 thousand) at March 31, 2017, based on the amount recorded in the parent company's general books of account.

(b) Increases / decreases and transfer of common stock, reserve and surplus

The Companies Act requires that an amount equal to 10% of dividends must be appropriated as a legal reserve (a component of retained earnings) or as additional paid-in capital (a component of capital surplus), depending on the equity account charged upon the payment of such dividends, until the aggregate amount of legal reserve and additional paid-in capital equals 25% of the common stock. Under the Companies Act, the total amount of additional paid-in capital and legal reserve may be reversed without limitation. The Companies Act also provides that common stock, legal reserve, additional paid-in capital, other capital surplus, and retained earnings can be transferred among the accounts within equity under certain conditions upon resolution of the shareholders.

(c) Treasury stock and treasury stock acquisition rights

The Companies Act also provides for companies to purchase treasury stock and dispose of such treasury stock by resolution of the Board of Directors. The amount of treasury stock purchased cannot exceed the amount available for distribution to the shareholders which is determined by a specific formula.

Under the Companies Act, stock acquisition rights are presented as a separate component of equity.

The Companies Act also provides that companies can purchase both treasury stock acquisition rights and treasury stock. Such treasury stock acquisition rights are presented as a separate component of equity or deducted directly from stock acquisition rights.

Notes to Consolidated Financial Statements

8. Comprehensive Income (loss)

The changes in the components of accumulated other comprehensive income (loss) were as follows:

	Millions of yen			
	2017			
	Unrealized gains (losses) on securities	Pension liability adjustment	Foreign currency translation adjustments	Total
Beginning balance	¥2,945	¥(23,587)	¥ 5,110	¥(15,532)
Other comprehensive income (loss), net of tax before reclassification	3,063	5,441	(9,895)	(1,391)
Amounts reclassified from accumulated other comprehensive income (loss), net of tax	78	3,381	–	3,459
Net changes	3,141	8,822	(9,895)	2,068
Comprehensive income (loss) attributable to noncontrolling interests	–	–	(18)	(18)
Equity transaction with noncontrolling interests	41	(887)	73	(773)
Ending balance	¥6,127	¥(15,652)	¥(4,694)	¥(14,219)

	Millions of yen			
	2016			
	Unrealized gains (losses) on securities	Pension liability adjustment	Foreign currency translation adjustments	Total
Beginning balance	¥ 7,114	¥ (5,511)	¥ 38,190	¥ 39,793
Other comprehensive income (loss), net of tax before reclassification	(4,625)	(18,507)	(33,898)	(57,030)
Amounts reclassified from accumulated other comprehensive income (loss), net of tax	280	(74)	–	206
Net changes	(4,345)	(18,581)	(33,898)	(56,824)
Comprehensive income (loss) attributable to noncontrolling interests	(176)	(505)	(818)	(1,499)
Ending balance	¥ 2,945	¥(23,587)	¥ 5,110	¥(15,532)

	Thousands of U.S. dollars			
	2017			
	Unrealized gains (losses) on securities	Pension liability adjustment	Foreign currency translation adjustments	Total
Beginning balance	\$26,295	\$(210,598)	\$ 45,625	\$(138,678)
Other comprehensive income (loss), net of tax before reclassification	27,348	48,580	(88,348)	(12,420)
Amounts reclassified from accumulated other comprehensive income (loss), net of tax	696	30,188	–	30,884
Net changes	28,044	78,768	(88,348)	18,464
Comprehensive income (loss) attributable to noncontrolling interests	–	–	(161)	(161)
Equity transaction with noncontrolling interests	367	(7,920)	651	(6,902)
Ending balance	\$54,706	\$(139,750)	\$(41,911)	\$(126,955)

Amounts recognized in the consolidated statements of income reclassified from accumulated other comprehensive income (loss) were as follows:

Millions of yen		
2017		
	Amounts reclassified from accumulated other comprehensive income (loss)	Account
Unrealized gains (losses) on securities:	¥ 63	Other - net
	15	Income taxes
	78	Total
Pension liability adjustment:	4,880	Net periodic benefit cost
	(1,499)	Income taxes
	3,381	Total
Total reclassification amounts	¥ 3,459	

Millions of yen		
2016		
	Amounts reclassified from accumulated other comprehensive income (loss)	Account
Unrealized gains (losses) on securities:	¥ 352	Other - net
	(72)	Income taxes
	280	Total
Pension liability adjustment:	(108)	Net periodic benefit cost
	34	Income taxes
	(74)	Total
Total reclassification amounts	¥ 206	

Thousands of U.S. dollars		
2017		
	Amounts reclassified from accumulated other comprehensive income (loss)	Account
Unrealized gains (losses) on securities:	\$ 562	Other - net
	134	Income taxes
	696	Total
Pension liability adjustment:	43,572	Net periodic benefit cost
	(13,384)	Income taxes
	30,188	Total
Total reclassification amounts	\$ 30,884	

Notes to Consolidated Financial Statements

The changes in the components of other comprehensive income (loss), including the before- and net-of-tax components of other comprehensive income (loss), were as follows:

	Millions of yen		
	2017		
	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount
Unrealized gains (losses) on securities:			
Unrealized holding gains arising during period ...	¥ 4,092	¥(1,029)	¥ 3,063
Reclassification adjustment for losses included in net income	63	15	78
	<u>4,155</u>	<u>(1,014)</u>	<u>3,141</u>
Pension liability adjustment:			
Pension liability adjustment arising during period	7,702	(2,261)	5,441
Reclassification adjustment for losses included in net income	4,880	(1,499)	3,381
	<u>12,582</u>	<u>(3,760)</u>	<u>8,822</u>
Foreign currency translation adjustments:			
Foreign currency translation adjustments arising during period	(10,155)	260	(9,895)
Other comprehensive income (loss)	<u>¥ 6,582</u>	<u>¥(4,514)</u>	<u>¥ 2,068</u>
	Millions of yen		
	2016		
	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount
Unrealized gains (losses) on securities:			
Unrealized holding losses arising during period ...	¥ (5,835)	¥ 1,210	¥ (4,625)
Reclassification adjustment for losses included in net income	352	(72)	280
	<u>(5,483)</u>	<u>1,138</u>	<u>(4,345)</u>
Pension liability adjustment:			
Pension liability adjustment arising during period	(27,145)	8,638	(18,507)
Reclassification adjustment for gains included in net income	(108)	34	(74)
	<u>(27,253)</u>	<u>8,672</u>	<u>(18,581)</u>
Foreign currency translation adjustments:			
Foreign currency translation adjustments arising during period	(35,091)	1,193	(33,898)
Other comprehensive income (loss)	<u>¥(67,827)</u>	<u>¥11,003</u>	<u>¥(56,824)</u>

	Millions of yen		
	2015		
	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount
Unrealized gains (losses) on securities:			
Unrealized holding gains arising during period ...	¥ 3,348	¥ (547)	¥ 2,801
Reclassification adjustment for gains included in net income	(1,100)	119	(981)
	<u>2,248</u>	<u>(428)</u>	<u>1,820</u>
Pension liability adjustment:			
Pension liability adjustment arising during period	(701)	(249)	(950)
Reclassification adjustment for gains included in net income	(395)	140	(255)
	<u>(1,096)</u>	<u>(109)</u>	<u>(1,205)</u>
Foreign currency translation adjustments:			
Foreign currency translation adjustments arising during period	32,823	(1,232)	31,591
Other comprehensive income (loss)	<u>¥33,975</u>	<u>¥(1,769)</u>	<u>¥32,206</u>
	Thousands of U.S. dollars		
	2017		
	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount
Unrealized gains (losses) on securities:			
Unrealized holding gains arising during period ...	\$ 36,536	\$ (9,188)	\$ 27,348
Reclassification adjustment for losses included in net income	562	134	696
	<u>37,098</u>	<u>(9,054)</u>	<u>28,044</u>
Pension liability adjustment:			
Pension liability adjustment arising during period	68,768	(20,188)	48,580
Reclassification adjustment for losses included in net income	43,572	(13,384)	30,188
	<u>112,340</u>	<u>(33,572)</u>	<u>78,768</u>
Foreign currency translation adjustments:			
Foreign currency translation adjustments arising during period	(90,669)	2,321	(88,348)
Other comprehensive income (loss)	<u>\$ 58,769</u>	<u>\$(40,305)</u>	<u>\$ 18,464</u>

Notes to Consolidated Financial Statements

9. Income Taxes

A reconciliation of the effective income tax rates of the Companies to the normal Japanese statutory tax rates were as follows for the years ended March 31:

	2017	2016	2015
Normal Japanese statutory tax rates	30.7%	32.8%	35.4%
Increase (decrease) in taxes resulting from:			
Tax credits	(6.4)	(5.9)	(4.5)
Permanently non-deductible and non-taxable items.....	(0.0)	0.1	0.2
Foreign earnings taxed at different rates	(2.4)	(2.2)	(2.2)
Effect of enacted future tax rate reduction on deferred taxes	–	1.1	1.3
Net change in valuation allowance for deferred tax assets	(1.4)	(1.0)	(2.0)
Income taxes on undistributed earnings of foreign subsidiaries ...	1.2	1.0	0.8
Other-net	0.4	0.9	0.8
Effective tax rates	22.1%	26.8%	29.8%

The Companies follow the provisions of ASC 740, "Income Taxes", to account for enacted future tax rates. Under the provisions of ASC 740, the effect of a change in tax laws or rates is included in income in the period the change is enacted and the provisions require recalculation of deferred tax assets and liabilities based on the new tax laws or rates.

On March 29, 2016, changes were enacted which decreased the normal statutory tax rate from 32.1% to 30.7% effective from the year beginning April 1, 2016 and 2017, and to 30.5% effective from the year beginning April 1, 2018, and thereafter. As a result, deferred tax assets (after the deduction of deferred tax liabilities) decreased by ¥2,057 million, and the deferred income tax provision increased by ¥2,057 million during the fiscal year ended March 31, 2016.

On March 31, 2015, changes were enacted which decreased the normal statutory tax rate from 35.4% to 32.8% effective from the year beginning April 1, 2015, and to 32.1% effective from the year beginning April 1, 2016 thereafter. As a result, deferred tax assets (after the deduction of deferred tax liabilities) decreased by ¥3,031 million, and deferred income tax provision increased by ¥3,031 million during the fiscal year ended March 31, 2015.

The approximate effects of temporary differences and tax loss carryforwards that gave rise to deferred tax balances at March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Deferred tax assets:			
Intercompany profits	¥ 6,128	¥ 7,619	\$ 54,714
Termination and retirement benefits	22,656	26,900	202,286
Enterprise taxes	579	2,560	5,170
Compensated absences	2,399	2,324	21,420
Inventory valuation	4,938	5,031	44,089
Marketable securities and investments adjustments	–	377	–
Tangible and intangible assets	13,068	8,638	116,679
Accrued bonuses	6,163	6,853	55,027
Other temporary differences	11,053	9,054	98,687
Tax loss carryforwards	11,447	18,624	102,205
Total	78,431	87,980	700,277
Valuation allowance	(24,925)	(26,815)	(222,545)
Total	¥ 53,506	¥ 61,165	\$ 477,732
Deferred tax liabilities:			
Undistributed earnings of foreign subsidiaries	¥ 15,127	¥ 12,920	\$ 135,063
Marketable securities and investments adjustments	1,075	–	9,598
Tangible and intangible assets	14,049	16,159	125,438
Goodwill	–	95	–
Other temporary differences	2,028	1,390	18,106
Total	¥ 32,279	¥ 30,564	\$ 288,205

The total valuation allowance decreased by ¥1,890 million (\$16,875 thousand) for the year ended March 31, 2017 and decreased by ¥1,852 million for the year ended March 31, 2016.

Based upon the level of historical taxable income and projections for future taxable income over the periods in which the net deductible temporary differences are expected to reverse, management believes it is more likely than not that the Companies will realize the benefits of these deferred tax assets, net of existing valuation allowances at March 31, 2017 and 2016.

The Company and subsidiaries had tax loss carryforwards approximating ¥35,715 million (\$318,884 thousand), excluding a portion available only for local taxes approximating ¥11,472 million (\$102,429 thousand), available to reduce future taxable income at March 31, 2017, which expire substantially in the period from 2019 to 2038.

Notes to Consolidated Financial Statements

A reconciliation of the beginning and ending amount of unrecognized tax benefits at March 31 was as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Balance at beginning of year	¥ 69	¥103	\$ 616
Additions based on tax positions related to the current year	10	10	89
Additions for tax positions of prior years	—	0	—
Reductions for tax positions of prior years	(0)	(39)	(0)
Other	0	(5)	0
Balance at end of year	¥ 79	¥ 69	\$ 705

The total amount of unrecognized tax benefits, if recognized, would reduce the effective tax rate.

The Japanese tax authority completed the audit of the consolidated income tax of the Company and domestic subsidiaries, which adopted the consolidated taxation system, for the years before 2014. Further, the tax authorities completed the tax audit of the major foreign subsidiaries for the years before 2003. The Companies believe unrecognized tax benefits are reasonably estimated, but unrecognized tax benefits may change as a result of the tax examination. At March 31, 2017, the Companies do not anticipate a material change of unrecognized tax benefits in the next 12 months.

The Companies classify interest and penalties related to unrecognized tax benefits as income taxes in the consolidated statements of income. Accrued interest and penalties in the consolidated balance sheets at March 31, 2017 and 2016, and interest and penalties in the consolidated statement of income for the years ended March 31, 2017 and 2016 were not material.

10. Amounts per Share

Basic earnings per share were computed by dividing net income attributable to Murata Corporation by the weighted-average common shares outstanding for the years ended March 31, 2017, 2016 and 2015.

	Millions of yen			Thousands of U.S. dollars
	2017	2016	2015	2017
Net income attributable to Murata Corporation....	¥156,060	¥203,776	¥167,711	\$1,393,393
	Numbers of shares			
	2017	2016	2015	
Weighted-average common shares outstanding..	212,654,609	211,703,608	211,706,421	
	Yen			U.S. dollars
	2017	2016	2015	2017
Earnings attributable to Murata Corporation per share:				
Basic	¥733.87	¥962.55	¥792.19	\$6.55

Diluted earnings attributable to Murata Corporation per share is not stated since there were no dilutive potential securities.

11. Commitments and Contingent Liabilities

Outstanding commitments at March 31, 2017 and 2016 for the purchase of property, plant, and equipment approximated ¥72,333 million (\$645,830 thousand) and ¥60,463 million, respectively. At March 31, 2017, the Companies had no trade accounts receivable discounted and transferred to banks. At March 31, 2016, the Companies were contingently liable for trade accounts receivable discounted and transferred to banks of ¥28 million, which are accounted for as sales when discounted and transferred.

12. Fair Value Measurements

The Companies account for fair value measurements in accordance with ASC 820, "Fair Value Measurement". ASC 820 clarifies the definitions of fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements.

ASC 820 prioritizes the inputs used to measure fair value into the 3 broad levels, and classifies the fair value hierarchy as follows:

Level 1: Quoted prices for identical assets or liabilities in active markets

Level 2: Quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the assets or liabilities

Level 3: Inputs that are unobservable for the assets or liabilities

Assets and liabilities measured at fair value on a recurring basis at March 31, 2017 were as follows:

	Millions of yen			
	Fair value measurements			
	Level 1	Level 2	Level 3	Total
Assets				
Available-for-sale securities				
Governmental debt securities ...	¥ –	¥ 1,002	–	¥ 1,002
Private debt securities	–	122,339	–	122,339
Equity securities	17,813	–	–	17,813
Investment trusts	–	1,952	–	1,952
Derivatives				
Forward exchange contracts	–	1,188	–	1,188
Liabilities				
Derivatives				
Forward exchange contracts	¥ –	¥ 1,283	–	¥ 1,283

	Thousands of U.S. dollars			
	Fair value measurements			
	Level 1	Level 2	Level 3	Total
Assets				
Available-for-sale securities				
Governmental debt securities ...	\$ –	\$ 8,946	–	\$ 8,946
Private debt securities	–	1,092,313	–	1,092,313
Equity securities	159,045	–	–	159,045
Investment trusts	–	17,429	–	17,429
Derivatives				
Forward exchange contracts	–	10,607	–	10,607
Liabilities				
Derivatives				
Forward exchange contracts	\$ –	\$ 11,455	–	\$ 11,455

The Companies had no assets and liabilities measured at fair value that were classified as Level 3 on a recurring basis for the year ended March 31, 2017.

Notes to Consolidated Financial Statements

Assets and liabilities measured at fair value on a recurring basis at March 31, 2016 were as follows:

	Millions of yen			
	Fair value measurements			Total
	Level 1	Level 2	Level 3	
Assets				
Available-for-sale securities				
Governmental debt securities ...	¥ –	¥ 1,909	–	¥ 1,909
Private debt securities	–	120,579	–	120,579
Equity securities	12,056	–	–	12,056
Investment trusts	–	2,756	–	2,756
Derivatives				
Forward exchange contracts	–	3,340	–	3,340
Currency option contracts	–	19	–	19
Liabilities				
Derivatives				
Forward exchange contracts	¥ –	¥ 135	–	¥ 135
Currency option contracts	–	61	–	61
Interest rate swap contracts	–	29	–	29

The Companies had no assets and liabilities measured at fair value that were classified as Level 3 on a recurring basis for the year ended March 31, 2016.

Available-for-sale securities

Marketable equity securities are measured by the market approach using quoted prices in active markets; they are classified within Level 1. Governmental debt securities, private debt securities, and investment trusts are measured by the market approach using quoted prices for identical or similar assets in markets that are not active; they are classified within Level 2. The Companies elected the fair value option under ASC 825, "Financial Instruments", for some equity securities included in available-for-sale securities. Included in "Other - net" in the consolidated statements of income were gains of ¥183 million (\$1,634 thousand) and losses of ¥60 million from the change in the fair value of those investments for the year ended March 31, 2017 and 2016, respectively. The amount of aggregate fair value was ¥13,123 million (\$117,170 thousand) and ¥11,940 million at March 31, 2017 and 2016, respectively.

Derivatives

Forward exchange contracts, currency option contracts, and interest rate swap contracts are measured by the market approach using marketable data of observable foreign exchange rates, interest rates, and others; they are classified within Level 2.

13. Financial Instruments and Concentration of Credit Risk

In the normal course of business, the Companies invest in various financial assets and incur various financial liabilities.

Financial assets and liabilities

- (1) Cash, short-term investments, notes and accounts receivable, financial instruments which are included in other assets, short-term borrowings, notes and accounts payable and long-term debt
The carrying amounts indicated in the consolidated balance sheets approximated fair values at March 31, 2017 and 2016.
- (2) Marketable securities and Investments
Fair value is primarily based on quoted market prices or is estimated using the discounted cash flow method, based on the market interest rates currently available to the Companies for instruments with similar terms and maturities. The fair values of marketable securities and investments are presented in Note 3.

Derivatives

The Companies enter into forward exchange contracts and currency option contracts in order to manage foreign currency risk, and interest rate swap contracts in order to manage interest expense fluctuation risk caused by long-term debt. The Companies do not enter into forward exchange contracts, currency option contracts, or interest rate swap contracts for trading purposes. The exposure to credit risk is minimal since the counterparties are major financial institutions. The Companies do not anticipate nonperformance by any of the counterparties.

The Companies reclassified changes in the fair value of forward exchange contracts, currency option contracts, and interest rate swap contracts as earnings in the same period.

The notional amounts of forward exchange contracts, currency option contracts, and interest rate swap contracts for the years ended March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Notional amounts:			
Forward exchange contracts	¥139,971	¥140,780	\$1,249,741
Currency option contracts	—	31,242	—
Interest rate swap contracts	—	3,400	—

The fair values of forward exchange contracts, currency option contracts, and interest rate swap contracts for the years ended March 31, 2017 and 2016 were as follows:

	Account	Millions of yen		Thousands of U.S. dollars
		2017	2016	2017
		Fair values		
Forward exchange contracts	Prepaid expenses and other	¥1,188	¥3,340	\$10,607
	Accrued expenses and other	1,283	135	11,455
Currency option contracts	Prepaid expenses and other	—	19	—
	Accrued expenses and other	—	61	—
Interest rate swap contracts	Accrued expenses and other	—	29	—

Gains and losses on forward exchange contracts, currency option contracts, and interest rate swap contracts not designated as hedges recognized in the consolidated statements of income for the years ended March 31, 2017 and 2016 were as follows:

	Account	Millions of yen		Thousands of U.S. dollars
		2017	2016	2017
		Amounts		
Forward exchange contracts	Foreign currency exchange gain (loss)	¥ (13,689)	¥ 9,691	\$ (122,223)
Currency option contracts	Foreign currency exchange gain (loss)	42	(41)	375
Interest rate swap contracts	Interest expense	41	68	366

While the Companies no longer apply hedge accounting to forward exchange contracts, currency option contracts, and interest rate swap contracts, the Companies continue to utilize them and consider them to be effective economic hedges for managing foreign currency risk and for interest expense fluctuation risk caused by long-term debt.

Concentration of credit risk

A significant portion of the Companies' sales is dependent upon and concentrated in the electronics industry, especially telecommunications equipment. The Companies generally extend credit to their customers, and therefore, collection of receivables could be affected by developments in the electronics industry. However, the Companies closely monitor extensions of credit and have never experienced significant credit losses.

Notes to Consolidated Financial Statements

14. Acquisitions

Acquisitions for the year ended March 31, 2017 were as follows:

(1) The acquisition of IPDiA S.A.

On October 17, 2016, Murata Electronics Europe B.V., a wholly-owned subsidiary of the Company, acquired 98.0% of the total outstanding shares of IPDiA S.A. ("IPD"). The total acquisition price was ¥6,721 million (\$60,009 thousand). As a result of the acquisition, IPD and its subsidiary (collectively, the "IPD Group") were newly consolidated into the Companies' consolidated financial statements.

IPD is dedicated to the manufacturing of leading edge Integrated Passive Devices, specializing in silicon sub-mounts for lighting and 3D silicon capacitors for medical, industrial, communication and high reliability applications.

Its technology has been adopted by world leaders in medical electronics, semiconductor area and the high reliability industry. This acquisition will enhance the Companies' position as the leading provider of high reliability capacitors. It is part of the Companies' strategy to strengthen its core business within the communication mobile market, and to expand into new applications within the automotive and medical markets.

The following table summarizes the estimated fair values of the assets acquired and liabilities assumed at the acquisition date.

	Millions of yen	Thousands of U.S. dollars
Cash	¥ 486	\$ 4,339
Other current assets	857	7,653
Property, plant and equipment	443	3,955
Intangible assets	2,263	20,205
Goodwill	4,030	35,982
Other non-current assets	1	9
Total assets acquired	8,080	72,143
Current liabilities	878	7,840
Long-term liabilities	345	3,080
Total liabilities assumed	1,223	10,920
Noncontrolling interest	136	1,214
Net assets acquired	¥ 6,721	\$ 60,009

Intangible assets acquired are mainly technologies of ¥1,536 million (\$13,714 thousand), which are subject to amortization. The Companies have estimated the amortization period for technologies to be 6 years. Goodwill recognized, which is assigned to the Components segment, is attributable primarily to expected synergies from combining operations of the IPD Group and the Companies. The recognized goodwill is not considered to be tax-deductible.

Acquisition-related costs of ¥193 million (\$1,723 thousand) are included in selling, general and administrative expenses in the consolidated statements of income for the year ended March 31, 2017.

The results of operations of the IPD Group from the acquisition date are included in the consolidated financial statements and the amounts are immaterial.

The pro forma results are immaterial.

(2) The acquisition of Primatec Inc.

On November 1, 2016, the Company completed the acquisition of Primatec Inc. ("PTI"). PTI became a wholly-owned subsidiary of the Company. The total acquisition price was ¥9,500 million (\$84,821 thousand). The amount of gain recognized as a result of remeasuring to fair value the equity interest held before the acquisition of ¥150 million (\$1,339 thousand) is included in Other-net in the consolidated statements of income for the year ended March 31, 2017. The fair value was measured based on various factors, including the purchase price of PTI's shares and the discounted cash flow method that uses future expected cash flows generated from the investee.

PTI is dedicated to developing, manufacturing, and selling various products founded upon highly functional polymer products such as LCP (liquid crystal polymer) electronic materials. PTI's materials have been well received for use in high-performance circuit boards in the energy and display sectors, and demand for their products is estimated to further increase in the electronics and electronic component sectors in which miniaturized and thin products are increasingly in demand.

The Company will utilize the materials technology of PTI to expand sales of MetroCirc™ (a multi-layered resin substrate) used in smartphones, etc., and additionally develop new advanced products that lead the global market in new applications for IoT devices and data centers. This acquisition is part of the Company's strategy to continue to strengthen and expand its businesses in all Electronic markets.

The following table summarizes the estimated fair values of the assets acquired and liabilities assumed at the acquisition date.

	Millions of yen	Thousands of U.S. dollars
Cash	¥ 1,010	\$ 9,018
Other current assets	1,821	16,258
Property, plant and equipment	3,330	29,732
Intangible assets	1,256	11,214
Goodwill	4,663	41,634
Other non-current assets	20	179
Total assets acquired	12,100	108,035
Current liabilities	1,821	16,259
Long-term liabilities	429	3,830
Total liabilities assumed	2,250	20,089
Cash paid for acquisition	9,500	84,821
Equity interest held before acquisition	350	3,125
Net assets acquired	¥ 9,850	\$ 87,946

Intangible assets acquired are technologies of ¥1,250 million (\$11,161 thousand), which are subject to amortization. The Companies have estimated the amortization period for technologies to be 6 years. Goodwill recognized, which is assigned to the Modules segment, is attributable primarily to expected synergies from combining operations of PTI and the Companies. The recognized goodwill deductible for tax purposes resulting from the transaction is ¥4,591 million (\$40,991 thousand).

Acquisition-related costs of ¥29 million (\$259 thousand) are included in selling, general and administrative expenses in the consolidated statements of income for the year ended March 31, 2017.

The results of operations of PTI from the acquisition date are included in the consolidated financial statements and the amounts are immaterial.

The pro forma results are immaterial.

There were no acquisitions for the year ended March 31, 2016.

Significant acquisitions for the year ended March 31, 2015 were as follows.

On December 12, 2014, Murata Electronics North America, Inc. ("MEA"), a wholly-owned subsidiary of the Company, completed the acquisition of Peregrine Semiconductor Corp. ("PSC"). PSC became a wholly-owned subsidiary of MEA. The total acquisition price was ¥50,127 million. The amount of gain recognized as a result of remeasuring to fair value the equity interest held before the acquisition of ¥775 million is included in Other-net in the consolidated statements of income for the year ended March 31, 2015. The fair value was measured mainly based on the quoted price of PSC's shares. As a result of the acquisition, PSC and its 3 subsidiaries (collectively, the "PSC Group") were newly consolidated into the Companies' consolidated financial statements.

PSC is a leading provider of RF components including RF switches for communications terminals such as mobile-phones or smartphones, wireless communication base stations, and satellite communications. UltraCMOS®, PSC's proprietary process technology, can contribute to the provision of low-cost RF components with good high-frequency characteristics, and RF switches that employ the technology have been used in Murata's RF modules for some time. PSC is one of the main suppliers of the Company's RF front-end modules, and the Company has been able to supply a range of products through its collaboration with PSC. As a result of this acquisition, the Company will establish an integrated development system that encompasses all aspects from RF component semiconductor process development to semiconductor design, circuit design, and module design. This will enable the Company to reflect market requirements in product development more accurately and quickly and provide state-of-the-art products that meet customer needs to an even greater degree in a timely manner.

Notes to Consolidated Financial Statements

The following table summarizes the estimated fair values of the assets acquired and liabilities assumed at the acquisition date.

	Millions of yen
Cash	¥ 1,030
Other current assets	9,891
Property, plant and equipment	2,202
Intangible assets	15,258
Goodwill	34,301
Other non-current assets	2,190
Total assets acquired	<u>64,872</u>
Current liabilities	8,485
Long-term liabilities	5,485
Total liabilities assumed	<u>13,970</u>
Cash paid for acquisition	50,127
Equity interest held before acquisition	775
Net assets acquired	<u>¥50,902</u>

Intangible assets acquired are mainly technologies of ¥8,738 million, which are subject to amortization. The Companies have estimated the amortization period for technologies to be 7 years. Goodwill recognized, which is assigned to the Modules segment, is attributable primarily to expected synergies from combining operations of the PSC Group and the Companies. The recognized goodwill is not considered to be tax-deductible.

Acquisition-related costs of ¥915 million are included in selling, general and administrative expenses in the consolidated statements of income for the year ended March 31, 2015.

The results of operations of the PSC Group from the acquisition date are included in the consolidated financial statements and the amounts are immaterial.

The pro forma results are immaterial.

15. Goodwill and Other Intangible Assets

Intangible assets other than goodwill at March 31, 2017 and 2016 were as follows:

	Millions of yen		
	2017		
	Gross carrying amount	Accumulated amortization	Net carrying amount
Amortized intangible assets			
Software	¥35,176	¥17,859	¥17,317
Technology	28,423	14,284	14,139
Customer relationships	20,621	8,234	12,387
Patents	4,413	1,937	2,476
Other	9,937	7,645	2,292
Total	¥98,570	¥49,959	¥48,611
Unamortized intangible assets	¥ 272	–	¥ 272
	Millions of yen		
	2016		
	Gross carrying amount	Accumulated amortization	Net carrying amount
Amortized intangible assets			
Software	¥32,544	¥16,201	¥16,343
Technology	26,413	10,798	15,615
Customer relationships	20,135	5,862	14,273
Patents	3,973	1,752	2,221
Other	10,691	7,685	3,006
Total	¥93,756	¥42,298	¥51,458
Unamortized intangible assets	¥ 250	–	¥ 250
	Thousands of U.S. dollars		
	2017		
	Gross carrying amount	Accumulated amortization	Net carrying amount
Amortized intangible assets			
Software	\$314,071	\$159,455	\$154,616
Technology	253,777	127,536	126,241
Customer relationships	184,116	73,518	110,598
Patents	39,402	17,295	22,107
Other	88,723	68,259	20,464
Total	\$880,089	\$446,063	\$434,026
Unamortized intangible assets	\$ 2,429	–	\$ 2,429

Intangible assets other than goodwill acquired for the year ended March 31, 2017 totaled ¥9,933 million (\$88,688 thousand) and primarily consisted of software of ¥5,301 million (\$47,330 thousand) and technology of 2,786 million (\$24,875 thousand). The weighted-average useful life for software and technology is 5.00 years and 6.00 years, respectively.

Total amortization expenses of intangible assets for the years ended March 31, 2017, 2016 and 2015 amounted to ¥12,063 million (\$107,705 thousand), ¥12,153 million and ¥13,139 million, respectively. The estimated amortization expenses for intangible assets for the next 5 years are as follows:

Years ending March 31	Millions of yen	Thousands of U.S. dollars
2018	¥11,274	\$100,661
2019	9,722	86,804
2020	7,685	68,616
2021	4,982	44,482
2022	3,765	33,616

Notes to Consolidated Financial Statements

The changes in the carrying amount of goodwill of each operating segment for the years ended March 31, 2017 and 2016 were as follows:

	Millions of yen		
	2017		
	Components	Modules	Total
Balance at beginning year			
Acquisition cost	¥18,720	¥ 47,527	¥ 66,247
Accumulated impairment losses	(2,096)	(10,413)	(12,509)
Net carrying amounts	<u>16,624</u>	<u>37,114</u>	<u>53,738</u>
Increase (decrease) in goodwill resulting from			
Goodwill acquired during year	4,030	4,663	8,693
Impairment losses	—	—	—
Translation Adjustments and other	(187)	(142)	(329)
Balance at ending year			
Acquisition cost	22,563	52,048	74,611
Accumulated impairment losses	(2,096)	(10,413)	(12,509)
Net carrying amounts	<u>¥20,467</u>	<u>¥ 41,635</u>	<u>¥ 62,102</u>
	Millions of yen		
	2016		
	Components	Modules	Total
Balance at beginning year			
Acquisition cost	¥18,897	¥ 49,714	¥ 68,611
Accumulated impairment losses	(2,096)	(10,413)	(12,509)
Net carrying amounts	<u>16,801</u>	<u>39,301</u>	<u>56,102</u>
Increase (decrease) in goodwill resulting from			
Goodwill acquired during year	—	—	—
Impairment losses	—	—	—
Translation Adjustments and other	(177)	(2,187)	(2,364)
Balance at ending year			
Acquisition cost	18,720	47,527	66,247
Accumulated impairment losses	(2,096)	(10,413)	(12,509)
Net carrying amounts	<u>¥16,624</u>	<u>¥ 37,114</u>	<u>¥ 53,738</u>
	Thousands of U.S. dollars		
	2017		
	Components	Modules	Total
Balance at beginning year			
Acquisition cost	\$ 167,143	\$ 424,348	\$ 591,491
Accumulated impairment losses	(18,714)	(92,973)	(111,687)
Net carrying amounts	<u>148,429</u>	<u>331,375</u>	<u>479,804</u>
Increase (decrease) in goodwill resulting from			
Goodwill acquired during year	35,982	41,634	77,616
Impairment losses	—	—	—
Translation Adjustments and other	(1,670)	(1,268)	(2,938)
Balance at ending year			
Acquisition cost	201,455	464,714	666,169
Accumulated impairment losses	(18,714)	(92,973)	(111,687)
Net carrying amounts	<u>\$ 182,741</u>	<u>\$ 371,741</u>	<u>\$ 554,482</u>

16. Segment Information

1) Operating segment information

The Companies mainly develop, manufacture, and sell electronic components and related products. Operating segments of the Companies are classified based on the nature of products, and the Companies recognized the Components segment, the Modules segment, and Others.

Operating segment information for the years ended March 31, 2017, 2016 and 2015 was as follows:

	Millions of yen			Thousands of U.S. dollars
	2017	2016	2015	2017
Components				
Sales to:				
Unaffiliated customers	¥761,759	¥760,166	¥679,081	\$6,801,419
Intersegment	36,489	50,522	42,628	325,795
Total revenue	798,248	810,688	721,709	7,127,214
Segment income	202,573	262,624	205,974	1,808,688
Assets	577,376	531,178	457,142	5,155,143
Depreciation and amortization	80,271	70,413	61,141	716,706
Expenditure for long-lived assets	120,230	137,836	76,728	1,073,482
Modules				
Sales to:				
Unaffiliated customers	¥370,836	¥446,849	¥360,910	\$3,311,036
Intersegment	38	66	61	339
Total revenue	370,874	446,915	360,971	3,311,375
Segment income	39,512	51,919	42,685	352,786
Assets	191,507	190,441	173,787	1,709,884
Depreciation and amortization	21,376	18,378	14,248	190,857
Expenditure for long-lived assets	29,167	29,461	18,708	260,420
Others				
Sales to:				
Unaffiliated customers	¥ 2,929	¥ 3,826	¥ 3,551	\$ 26,152
Intersegment	40,131	55,365	43,333	358,312
Total revenue	43,060	59,191	46,884	384,464
Segment income	3,810	5,064	4,781	34,018
Assets	8,727	6,656	7,134	77,919
Depreciation and amortization	1,899	2,257	1,484	16,955
Expenditure for long-lived assets	2,304	1,151	1,334	20,571
Corporate and eliminations				
Sales to:				
Unaffiliated customers	-	-	-	-
Intersegment	¥ (76,658)	¥(105,953)	¥ (86,022)	\$ (684,446)
Total revenue	(76,658)	(105,953)	(86,022)	(684,446)
Corporate expenses	(44,680)	(44,201)	(38,905)	(398,929)
Assets	857,389	789,509	793,240	7,655,259
Depreciation and amortization	9,977	8,057	8,062	89,080
Expenditure for long-lived assets	13,099	6,397	6,984	116,955

Notes to Consolidated Financial Statements

Consolidated

Sales to:

Unaffiliated customers	¥1,135,524	¥1,210,841	¥1,043,542	\$10,138,607
Intersegment	—	—	—	—
Total revenue	1,135,524	1,210,841	1,043,542	10,138,607
Operating income	201,215	275,406	214,535	1,796,563
Assets	1,634,999	1,517,784	1,431,303	14,598,205
Depreciation and amortization	113,523	99,105	84,935	1,013,598
Expenditure for long-lived assets	164,800	174,845	103,754	1,471,428

*1 Major products and businesses included in the operating segments

(1) Components : Capacitors and Piezoelectric Components

(2) Modules : Communication Modules and Power Supplies

(3) Others : Machinery manufacturing, welfare services, education and training services, and sales of software

*2 Intersegment transactions are based on market prices.

*3 Segment income for each operating segments represents net sales less related costs. Corporate expenses represent expenses of headquarters functions and fundamental researches.

*4 Assets for operating segments are composed of inventories and fixed assets used in business. The other assets are included in Corporate and eliminations.

*5 Expenditure for long-lived assets is composed of expenditures for property, plant, and equipment, and intangible assets, and does not include expenditures related to acquisitions.

2) Geographic information

Net sales are attributed to countries or areas based on customer locations.

Long-lived assets are composed of property, plant and equipment based on their physical locations.

Net sales

	Millions of yen			Thousands of U.S. dollars
	2017	2016	2015	2017
Japan	¥ 87,043	¥ 81,713	¥ 84,702	\$ 777,169
The Americas	102,690	83,750	87,135	916,875
Europe	83,640	81,942	82,362	746,786
Greater China	647,349	750,256	600,542	5,779,902
Asia and Others	214,802	213,180	188,801	1,917,875
Total	¥1,135,524	¥1,210,841	¥1,043,542	\$10,138,607

Notes : Major countries and areas included in the segments other than Japan:

*1 The Americas : USA and Mexico

*2 Europe : Germany, Hungary, and United Kingdom

*3 Greater China : China and Taiwan

*4 Asia and Others : Vietnam, South Korea, and Thailand

Long-lived assets

	Millions of yen			Thousands of U.S. dollars
	2017	2016	2015	2017
Japan	¥367,410	¥319,459	¥258,862	\$3,280,447
The Americas	3,720	3,939	3,882	33,214
Europe	9,298	8,359	8,477	83,018
Greater China	82,422	83,334	81,642	735,911
Asia and Others	45,119	40,771	33,123	402,848
Total	¥507,969	¥455,862	¥385,986	\$4,535,438

Notes : Major countries and areas included in the segments other than Japan:

*1 The Americas : USA

*2 Europe : Finland, France, United Kingdom, and Germany

*3 Greater China : China and Taiwan

*4 Asia and Others : Thailand, Philippines, Singapore, and Vietnam

3) Information about major customers

There is one customer group which accounted for more than 10% of consolidated sales for the years ended March 31, 2017, 2016, and 2015. Consolidated sales to the customer group for the years ended March 31, 2017, 2016, and 2015 were ¥155,295 million (\$1,386,563 thousand), ¥245,639 million, and ¥227,360 million, respectively. There is another customer group which accounted for more than 10% of consolidated sales for the years ended March 31, 2017 and 2016. Consolidated sales to this customer group for the years ended March 31, 2017 and 2016 were ¥123,966 million (\$1,106,839 thousand), and ¥133,838 million, respectively. Sales to such customer groups are included in the Components segment and the Modules segment.

17. Subsequent Events

1. The Companies have evaluated subsequent events through June 29, 2017, which is the presentation date of this financial report.
2. The ordinary general meeting of shareholders on June 29, 2017 resolved to pay a cash dividend of ¥110 (\$0.98) per share to shareholders of record at March 31, 2017, or a total of ¥23,401 million (\$208,938 thousand).

Independent Auditors' Report

Deloitte.

Deloitte Touche Tohmatsu LLC
Shijokarasuma FT Square
20, Naginataboko-cho
Karasuma-higashiiru, Shijo-dori
Shimogyo-ku, Kyoto 600-8008
Japan

Tel: +81 (75) 222 0181
Fax: +81 (75) 231 2703
www.deloitte.com/jp

To the Board of Directors and Shareholders of
Murata Manufacturing Co., Ltd.
Nagaokakyo-shi
Kyoto, Japan

We have audited the accompanying consolidated financial statements of Murata Manufacturing Co., Ltd. and its subsidiaries (the "Company"), which comprise the consolidated balance sheets as of March 31, 2017 and 2016, and the related consolidated statements of income, comprehensive income, shareholders' equity, and cash flows for each of the three years in the period ended March 31, 2017, and the related notes to the consolidated financial statements, all expressed in Japanese yen.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Company's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Murata Manufacturing Co., Ltd. and its subsidiaries as of March 31, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended March 31, 2017, in accordance with accounting principles generally accepted in the United States of America.

Convenience Translation

Our audits also comprehended the translation of Japanese yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made in accordance with the basis stated in Note 2 to the consolidated financial statements. Such U.S. dollar amounts are presented solely for the convenience of readers outside of Japan.

Deloitte Touche Tohmatsu LLC

June 29, 2017

Member of
Deloitte Touche Tohmatsu Limited

Internal Control Section

NOTE TO READERS:

The Companies design and operate effective internal control over financial reporting, and prepare management's report on internal control over financial reporting under the Financial Instruments and Exchange Act of Japan.

Management's report on internal control over financial reporting of the Companies is audited in accordance with auditing standards for internal control over financial reporting generally accepted in Japan, and an opinion on management's report on internal control over financial reporting is expressed by Deloitte Touche Tohmatsu LLC.

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Management's Report on Internal Control

NOTE TO READERS:

Following is an English translation of management's report on internal control over financial reporting filed under the Financial Instruments and Exchange Act of Japan. Readers should be aware that this report is presented merely as supplemental information.

Readers should be particularly aware of the differences between an assessment of internal control over financial reporting ("ICFR") under the Financial Instruments and Exchange Act ("ICFR under FIEA") and one conducted under the standards of the Public Company Accounting Oversight Board (the United States of America) ("ICFR under PCAOB").

• In an assessment of ICFR under FIEA, there is detailed guidance on the scope of an assessment of ICFR, such as quantitative guidance on business location selection and/or account selection. In an assessment of ICFR under PCAOB, there is no such detailed guidance. Accordingly, regarding the scope of assessment of internal control over business processes, we selected locations and business units to be tested, and the companies whose combined sales and other balances reached two-thirds of total sales and other balances for the prior year on a consolidation basis were selected as "significant locations and/or business units."

(TRANSLATION)

MANAGEMENT'S REPORT ON INTERNAL CONTROL

1. Matters relating to the basic framework for internal control over financial reporting

Tsuneo Murata, Chairman of the Board, President and Representative Director, and Yoshito Takemura, Executive Vice President and Board Member, are responsible for designing and operating effective internal control over financial reporting of our company (the "Company") and have designed and operated internal control over financial reporting of the consolidated financial statements in accordance with the basic framework for internal control set forth in "On the Revision of the Standards and Practice Standards for Management Assessment and Audit concerning Internal Control Over Financial Reporting (Council Opinions)" published by the Business Accounting Council.

The internal control is designed to achieve its objectives to the extent reasonable through the effective function and combination of its basic elements. Therefore, there is a possibility that misstatements may not be completely prevented or detected by internal control over financial reporting.

2. Matters relating to the scope of assessment, the basis date of assessment and the assessment procedures

Tsuneo Murata, Chairman of the Board, President and Representative Director, and Yoshito Takemura, Executive Vice President and Board Member, performed the assessment of internal control over financial reporting as of March 31, 2017, which is the end of this fiscal year. The assessment was performed in accordance with assessment standards for internal control over financial reporting generally accepted in Japan.

In conducting this assessment, we evaluated internal controls which may have a material effect on our entire financial reporting on a consolidated basis ("entity-level controls") and based on the results of this assessment, we selected business processes to be tested. We analyzed these selected business processes, identified key controls that may have a material impact on the reliability of the Company's financial reporting, and assessed the design and operation of these key controls. These procedures have allowed us to evaluate the effectiveness of the internal controls of the Company.

We determined the required scope of assessment of internal control over financial reporting for the Company, as well as its consolidated subsidiaries and subsidiaries accounted for by the equity method, from the perspective of the materiality that may affect the reliability of their financial reporting. The procedures, methods and others to determine the scope are determined taking into account the materiality of quantitative and qualitative impacts on financial reporting. In light of the results of the assessment of entity-level controls conducted for all locations and business units except for insignificant ones, we reasonably determined the scope of assessment of internal controls over business processes.

Regarding the scope of assessment of internal control over business processes, we selected locations and business units to be tested, and the companies whose combined sales and other balances reached two-thirds of total sales and other balances for the prior year on a consolidation basis were selected as "significant locations and/or business units". We included in the scope of assessment, at the selected significant locations and/or business units, business processes leading to sales, accounts receivable and inventories as significant accounts that may have a material impact on the business objectives of the Company. Further, in addition to selected significant locations and/or business units, we also selected individually for testing, as business processes having greater materiality, business processes relating to (i) greater likelihood of material misstatements and/or (ii) significant accounts involving estimates and the management's judgment and/or (iii) a business dealing with high-risk transactions, taking into account their impact on the financial reporting.

3. Matters relating to the results of the assessment

As a result of the assessment described above, as of the end of this fiscal year, we concluded that the Company's internal control over financial reporting of the consolidated financial statements was effectively maintained.

4. Additional matters

Not applicable.

5. Particular matters

Not applicable.

Tsuneo Murata
Chairman of the Board
President
Representative Director
Murata Manufacturing Co., Ltd.

The above represents a translation, for convenience only, of the original report issued in the Japanese language.

Independent Auditors' Report (filed under the Financial Instruments and Exchange Act of Japan)

NOTE TO READERS:

Following is an English translation of the Independent Auditors' Report filed under the Financial Instruments and Exchange Act of Japan. Readers should be aware that this report is presented merely as supplemental information.

- Readers should be particularly aware of the differences between an audit of internal control over financial reporting ("ICFR") under the Financial Instruments and Exchange Act ("ICFR under FIEA") and one conducted under the standards of the Public Company Accounting Oversight Board (the United States of America) ("ICFR under PCAOB");
- In an audit of ICFR under FIEA, the auditors express an opinion on management's report on ICFR, and do not express an opinion on the Company's ICFR directly. In an audit of ICFR under PCAOB, the auditors express an opinion on the Company's ICFR directly.
 - In an audit of ICFR under FIEA, there is detailed guidance on the scope of an audit of ICFR, such as quantitative guidance on business location selection and/or account selection. In an audit of ICFR under PCAOB, there is no such detailed guidance. Accordingly, regarding the scope of assessment of internal control over business processes, the Company selected locations and business units to be tested, and the companies whose combined sales and other balances reached two thirds of total sales and other balances for the prior year on a consolidation basis were selected as "significant locations and/or business units."

(TRANSLATION)

INDEPENDENT AUDITORS' REPORT (filed under the Financial Instruments and Exchange Act of Japan)

June 29, 2017

To the Board of Directors of Murata Manufacturing Co., Ltd.

Deloitte Touche Tohmatsu LLC

Designated Unlimited Liability Partner,
Engagement Partner,
Certified Public Accountant: Taizo Ando

Designated Unlimited Liability Partner,
Engagement Partner,
Certified Public Accountant: Koichiro Tsukuda

Designated Unlimited Liability Partner,
Engagement Partner,
Certified Public Accountant: Takashi Ishii

[Audit of Financial Statements]

Pursuant to the first paragraph of Article 193-2 of the Financial Instruments and Exchange Act, we have audited the consolidated financial statements included in the Financial Section, namely, the consolidated balance sheet of Murata Manufacturing Co., Ltd. (the "Company") and its consolidated subsidiaries as of March 31, 2017, and the related consolidated statements of income, comprehensive income, shareholders' equity and cash flows for the fiscal year from April 1, 2016 to March 31, 2017, and the related notes, and consolidated supplementary schedules.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America pursuant to the third paragraph of the Supplementary Provisions of the Cabinet Office Ordinance for Partial Amendment of the Ordinance for Terminology, Forms and Preparation Methods of Consolidated Financial Statements (No.11 of the Cabinet Office Ordinance in 2002), and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in Japan. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Audit Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Murata Manufacturing Co., Ltd. and its consolidated subsidiaries as of March 31, 2017, and the results of their operations and their cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

[Audit of Internal Control]

Pursuant to the second paragraph of Article 193-2 of the Financial Instruments and Exchange Act, we have audited management's report on internal control over financial reporting of Murata Manufacturing Co., Ltd. as of March 31, 2017.

Management's Responsibility for the Report on Internal Control

Management is responsible for designing and operating effective internal control over financial reporting and for the preparation and fair presentation of its report on internal control in accordance with assessment standards for internal control over financial reporting generally accepted in Japan. There is a possibility that misstatements may not be completely prevented or detected by internal control over financial reporting.

Auditors' Responsibility

Our responsibility is to express an opinion on management's report on internal control based on our internal control audit. We conducted our internal control audit in accordance with auditing standards for internal control over financial reporting generally accepted in Japan. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether management's report on internal control is free from material misstatement.

An internal control audit involves performing procedures to obtain audit evidence about the results of the assessment of internal control over financial reporting in management's report on internal control. The procedures selected depend on the auditor's judgment, including the significance of effects on reliability of financial reporting. An internal control audit includes examining representations on the scope, procedures and results of the assessment of internal control over financial reporting made by management, as well as evaluating the overall presentation of management's report on internal control.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, management's report on internal control over financial reporting referred to above, which represents that the internal control over financial reporting of Murata Manufacturing Co., Ltd. as of March 31, 2017 is effectively maintained, presents fairly, in all material respects, the results of the assessment of internal control over financial reporting in accordance with assessment standards for internal control over financial reporting generally accepted in Japan.

Interest

Our firm and the engagement partners do not have any interest in the Company for which disclosure is required under the provisions of the Certified Public Accountants Act.

The above represents a translation, for convenience only, of the original report issued in the Japanese language and "consolidated supplementary schedules" referred to in this report are not included in the attached financial documents.

