# IGNITE YOUR SPIRIT

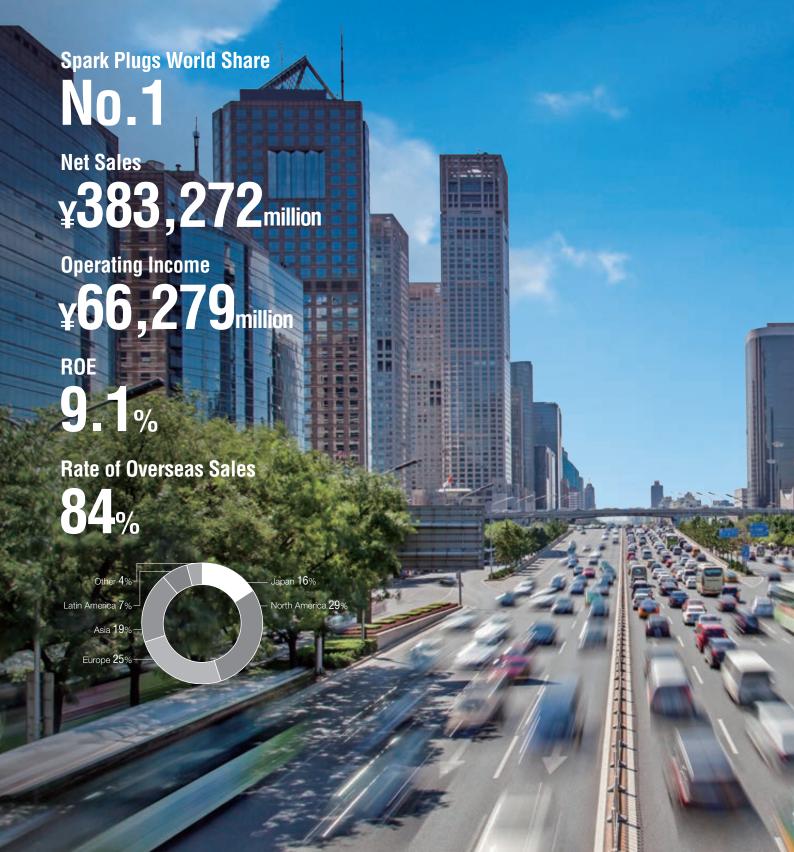


**Annual Report 2016** 

Fiscal year ended March 31, 2016



# Strong Potential for Future Growth.



#### **Profile**

NGK SPARK PLUG CO., LTD., established in 1936 as a manufacturer of spark plugs, has always cultivated ceramics as its core competence. The Company has a distinguished track record of applying the expertise cultivated in the field of ceramics in other fields to create new value. Today, NGK SPARK PLUG CO., LTD. is a leading manufacturer supplying its products to major manufacturers worldwide in the automotive, electronics and other industries. The Company's products are vital components of a host of finished products manufactured on production lines the world

NGK SPARK PLUG CO., LTD. is at the forefront of innovation in the information and communications and automotive industries that are destined to underpin the 21st century society. The Company is also increasingly active in the medical field, attuning its expertise to the needs of the aging society, and in the environmental sphere.

Drawing on a wealth of experience, NGK SPARK PLUG CO., LTD. continues to deploy its technological prowess in the service of its customers and society.

## **Our Operation**

#### **Automotive Components Group**

In the Automotive Components Business, we manufacture and sell spark plugs, glow plugs, various automotive sensors, ceramic engine parts and other automotive components.

In Japan, NGK SPARK PLUG CO., LTD. manufactures and sells these products. In addition, the Company supplies raw materials and parts to Ceramic Sensor Co., Ltd., NITTOKU SparkTec WKS CO., LTD., and five other subsidiaries in Japan to which manufacturing is consigned and from which the Company purchases finished products, semi-products and assembly parts and sells them.

Overseas, Ceramica e Velas de Ignicao NGK do Brasil Ltda., a subsidiary in Brazil, is an integrated operation that manufactures and sells spark plugs, and NGK Spark Plugs (U.S.A.), Inc. and twelve other manufacturing and sales subsidiaries and associates in North America, China, South Korea, Southeast Asia and Europe purchase parts and raw materials from the Company, assemble finished products and sell them in their respective regions. Wells Vehicle Electronics, L.P. conducts integrated operation that manufactures and sells automotive components. Some of the semi-products and components manufactured at overseas factories are utilized as assembly parts by the Company and other manufacturing sites.

In addition, the above-mentioned overseas manufacturing and sales subsidiaries, NGK Spark Plug Europe GmbH and ten other overseas sales subsidiaries sell finished products procured from the Company and the overseas manufacturing subsidiaries to customers in their regions.

#### **Technical Ceramics Group**

#### **Semiconductor Division**

In the Semiconductor Business, we manufacture and sell IC packages and other semiconductor

In Japan, NGK SPARK PLUG CO., LTD. and NTK CERATEC CO., LTD.\* manufacture and sell these components. In addition, the Company supplies raw materials and parts to NTK Ceramic Co., Ltd., a subsidiary, to which manufacturing is consigned and from which the Company purchases finished products, semi-products and parts and sells them.

Overseas, NTK Technologies, Inc. and four other overseas sales subsidiaries sell finished products procured from the Company to customers in their regions.

#### **Ceramics Division**

In the Ceramics Business, we manufacture and sell cutting tools for machining, and other ceramics products for industrial applications. In Japan, NGK SPARK PLUG CO., LTD. and NTK CE-RATEC CO., LTD.\* manufacture and sell these products. In addition, the Company supplies raw materials and parts to Kamioka Ceramic Co., Ltd. and three other subsidiaries and associates in Japan to which manufacturing is consigned, purchases finished products, semi-products and parts from them and sells them.

Overseas, Ceramica e Velas de Ignicao NGK do Brasil Ltda., a subsidiary in Brazil, is an integrated operation that manufactures and sells ceramics products for industrial applications and NTK Technical Ceramics Korea Co., Ltd. purchases semi-products and some raw materials from the Company, assembles finished cutting tools and sells them directly to customers or via the Company and its sales subsidiaries.

NGK Spark Plug Europe GmbH and eight other overseas sales subsidiaries sell finished products procured from the Company and the above mentioned overseas manufacturing subsidiaries to customers in their regions.

\*NIHON CERATEC CO., LTD. changed its name to NTK CERATEC CO., LTD. as of April 1, 2016.

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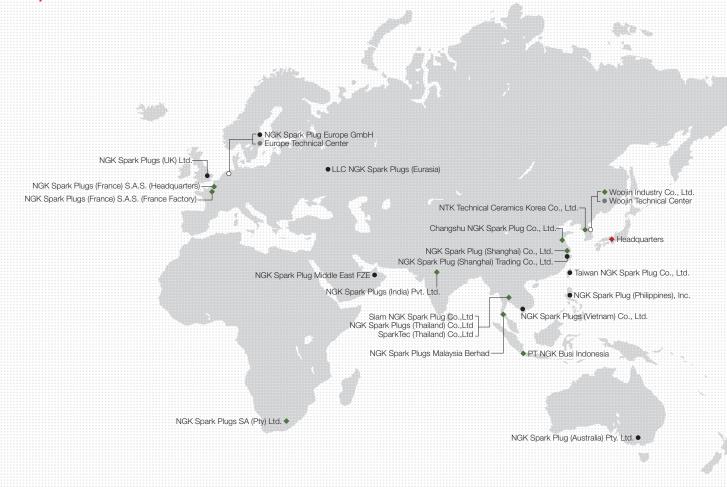
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#### Forward-Looking Statements

This Annual Report contains information about forward-looking statements related to such matters as the Company's plans, strategies, and business results. These forward-looking statements represent judgments made by the Company based on information available at present and are inherently subject to a variety of risks and uncertainties.

The Company's actual activities and business results could differ significantly due to changes including, but not limited to, changes in the economic environment, business environment, exchange rates, laws, regulations, government policies, political circumstances, market demand for products, and price competition.

#### **Global Network**



#### Manufacturing & Sales Organization



NGK Spark Plugs (U.S.A.), Inc. (West Virginia Factory)



Wells Vehicle Electronics, L.P.



Ceramica e Velas de Ignicao NGK do Brasil Ltda.



NGK Spark Plug (Shanghai) Co., Ltd.



Changshu NGK Spark Plug Co., Ltd.



Woojin Industry Co., Ltd.



NTK Technical Ceramics Korea Co., Ltd.



NGK Spark Plugs (Thailand) Co., Ltd.



Siam NGK Spark Plug Co., Ltd.



SparkTec (Thailand) Co., Ltd.



NGK Spark Plugs Malaysia Berhad



PT NGK Busi Indonesia



NGK Spark Plugs (India) Pvt. Ltd.



NGK Spark Plugs (France) S.A.S. (Headquarters)



NGK Spark Plugs (France) S.A.S. (France Factory)



NGK Spark Plugs SA (Pty) Ltd.

◆NGK Spark Plugs (U.S.A.), Inc.(Headquarters) -●U.S.A.Technical Center

Wells Vehicle Electronics, L.P.◆

NTK Technologies, Inc.

NGK Spark Plugs Canada Limited

NGK Spark Plugs (U.S.A.) Holding, Inc.

NGK Spark Plugs (U.S.A.), Inc. (West Virginia Factory)

Bujias NGK de Mexico S.A. de C.V. •

Bujias NGK del Ecuador Cia. Ltda. •

◆Ceramica e Velas de Ignicao NGK do Brasil Ltda. ● Brasil Technical Center

# **Employees**

14,524

#### **Overseas Sites**

(As of March 31, 2016)

- ♦ Headquarters
- Manufacturing & Sales Organization
   Sales Organization
- Technical Center
- Holding Company

#### Sales Organization



NTK Technologies, Inc.



NGK Spark Plugs Canada Limited



Bujias NGK de Mexico S.A. de C.V.



Bujias NGK del Ecuador Cia. Ltda.



Taiwan NGK Spark Plug Co., Ltd.



NGK Spark Plugs (Vietnam) Co., Ltd.



NGK Spark Plugs (Philippines), Inc.



NGK Spark Plug Middle East FZE





NGK Spark Plug Europe GmbH



NGK Spark Plugs (UK) Ltd.



LLC NGK Spark Plugs (Eurasia)

#### Technical Center



NGK Spark Plugs (U.S.A.), Inc. (Headquarters) U.S.A. Technical Center



Brasil Technical Center



Europe Technical Center

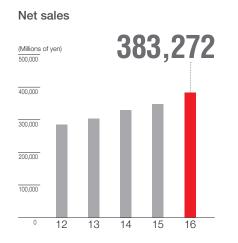


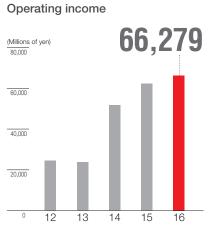
Woojin Technical Center

Millions of yen

			-		
	2016	2015	2014	2013	2012
For the year:					
Net sales	¥383,272	¥347,636	¥329,758	¥302,799	¥284,746
Operating income (loss)	66,279	62,197	51,662	23,754	24,478
Profit (loss) attributable to owners of the parent	30,815	36,753	32,704	20,910	25,524
Cash flows from operating activities	56,465	36,593	54,698	26,194	21,080
Cash flows from investing activities	(82,331)	(12,866)	(61,149)	(15,443)	(15,851)
Cash flows from financing activities	25,121	(18,746)	24,123	(15,495)	(4,688)
Depreciation	16,847	13,338	11,567	12,798	15,439
Capital expenditures	45,339	36,373	41,034	24,013	14,005
At year-end:					
Total assets	¥526,161	¥485,498	¥458,149	¥366,489	¥340,296
Net assets	341,045	343,381	302,794	268,309	235,613
			Yen		
Per Share Data:					
Earnings (loss)					
—Basic	¥141.60	¥168.88	¥150.26	¥96.06	¥117.25
—Diluted	_	_	_	_	_
Cash dividends	42.00	36.00	28.00	22.00	22.00
Net assets	1,557.16	1,566.80	1,381.38	1,223.41	1,075.24
Ratios:					
Operating income ratio(%)	17.3	17.9	15.7	7.8	8.6
Equity ratio (%)	64.4	70.2	65.6	72.7	68.8
Return on net sales (%)	8.0	10.6	9.9	6.9	9.0
ROA (Return on assets)(%)	6.1	7.8	7.9	5.9	7.5
ROE (Return on equity)(%)	9.1	11.4	11.5	8.4	11.3
Number of employees (Consolidated)	14,524	13,197	12,760	12,563	12,064

Notes: U.S. dollar amounts above and elsewhere in this Annual Report are converted from yen, for convenience only, at the rate of ¥113=U.S.\$1



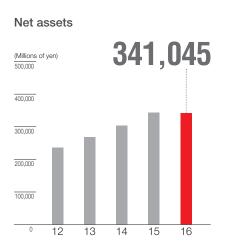




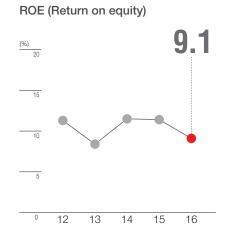
Millions of yen

Thousands of U.S. dollars

2016	2006	2007	2008	2009	2010	2011
\$3,391,788	¥284,885	¥344,891	¥345,584	¥292,122	¥243,914	¥269,233
586,540	41,513	52,402	35,040	(5,222)	10,684	28,771
272,699	25,104	34,073	22,144	(71,669)	13,510	23,680
499,690	34,750	36,481	37,728	36,604	34,255	35,399
(728,593)	(30,692)	(22,924)	(43,821)	(27,154)	(17,271)	(20,412)
222,310	(2,458)	(14,042)	(2,930)	(10,461)	865	(7,154)
149,088	15,269	18,861	25,474	31,767	18,826	16,646
401,230	26,919	29,271	63,231	24,173	10,978	8,767
\$4,656,292	¥386,235	¥413,769	¥412,151	¥275,995	¥331,476	¥337,318
3,018,097	260,766	288,977	288,299	184,385	207,007	218,159
U.S. dollars			en	Y		
\$1.25	¥112.82	¥154.24	¥100.93	¥(328.90)	¥62.01	¥108.71
_	106.91	146.44	95.80	(328.90)	61.46	107.83
0.38	20.00	27.00	27.00	13.50	11.00	22.00
13.78	1,166.97	1,302.52	1,312.72	838.11	942.41	994.36
	14.6	15.2	10.1	(1.8)	4.4	10.7
	67.1	69.4	69.4	66.2	61.9	64.2
	8.8	9.9	6.4	(24.5)	5.5	8.8
	7.1	8.5	5.4	(20.8)	4.4	7.1
	10.5	12.5	7.7	(30.6)	7.0	11.2
	9,815	10,407	11,599	11,979	11,795	11,767









# We will run the final stage— "SHINKA" (Evolving)

#### Shinichi Odo

Representative Director and Chairman of the Board Chief Executive Officer President Officer

# Financial results for the fiscal year ended March 31st, 2016

In the fiscal year ended March 31st, 2016, global economic conditions were mixed. In China, economic growth continued to trend downward as labor demand began to contract and the previous strong growth in consumption had started to show signs of slowing down. In the United States, although little growth in capital investment and exports owing to low crude oil prices and the appreciation of the dollar coupled with the delayed economic recovery of developing countries, personal consumption increased in response to low crude oil prices, improvement in the labor market,

and rising wages. Backed by the robust performance of the household sector, the trend of U.S. economic recovery continued. In Europe, while a moderate economic recovery continued, concerns about a possible slowdown of manufacturing emerged, and the European economies showed indications of deceleration amid persisting robust growth. In Japan, personal consumption was supported by the expansion of both employment and capital investment in the first half of the fiscal year 2015, reflecting brisk corporate performance coupled with higher stock prices. In the second half of the year, however, economic conditions greatly was deteriorated mainly in manufacturing because of a steep decline in stock prices, the appreciation of the yen

from the New Year onward triggered by the federal funds rate increase in the U.S. and the continued slowdown of economies in the developing countries.

In these circumstances, for the fiscal year ended March 31st, 2016, consolidated net sales increased 10.3% year on year to ¥383,272 million, operating income increased 6.6% to ¥66,279 million and profit attributable to owners of the parent decreased 16.2% to ¥30,815 million partly because a settlement package for certain customers relating to a violation of the U.S. antitrust law in the amount of ¥14,837 million was recorded as an other expense. Net sales increased for the sixth consecutive year and operating income increased for the third consecutive year, setting new all-time highs.

In the fiscal year 2016, although the U.S. economy is expected to remain on a moderate recovery track, in view of the uncertainty over European economic prospects, the growing concerns about the possibility of recessions in developing countries as well as the further steep appreciation of the yen, we expect that business conditions across the Group's entire operations will remain extremely challenging. Therefore, with regard to the results for the fiscal year 2016, we forecast net sales of ¥369.8 billion, a decrease of 3.5% year on year, operating income of ¥42.5 billion, a decrease of 35.9%, and profit attributable to owners of the parent of ¥30.5 billion, a decrease of 1.0%, assuming an exchange rate of ¥105 to the U.S. dollar and ¥120 to the euro.

#### Business initiatives in fiscal 2015

In our long-term management plan NITTOKU SHINKARON (The Evolution of NGK SPARK PLUG), the fiscal year 2015 was the final year of the 2nd SHINKA (Renovating), and we focused our efforts on the establishment of new products and new businesses.

In the Automotive Components business, Wells Manufacturing, L.P. (hereafter Wells) became a member of the NGK SPARK PLUG Group. An established manufacturer and supplier of automotive-related components with a history of over a century, Wells is a leader in the U.S. automo-

tive aftermarket which offers more than 38,000 automotive components, including ignition coils, switches, and sensors. We have considered various possibilities in order to further strengthen the competitiveness of the Automotive Components business and explored ways of leveraging the powerful international sales network, which is one of our strengths. In the meantime, we came to a conclusion that the acquisition of Wells should allow us to expand the product lineup and increase our presence in the aftermarket. Synergy between the two companies is expected to lead to sales expansion of both our products and Wells' products. From the fiscal year starting April 2016, we will sell ignition coils manufactured by Wells through our sales network in North America, Europe, and Australia.

In the Technical Ceramics business, NTK CERATEC CO., LTD. (former NIHON CERATEC CO., LTD.) headquartered in Sendai joined the NGK SPARK PLUG Group, in a move to enhance our competitiveness in the semiconductor manufacturing equipment components market, a sector in which growth is expected. NTK CERATEC has high-precision processing technology and cost competitiveness in high-mix low-volume production, and moreover, a product lineup distinct from our own. Our decision to acquire this company was based on the anticipated synergistic benefits which can be achieved by combining these strengths of NTK CERATEC with our strengths, that is, the customer base through the overseas sales network and our technology development capabilities starting with materials. Going forward, plans call for expansion of the product lineup by integrating our sheet lamination technology with NTK CERATEC's spray coat, hot press, polishing and cleaning technology. At the same time, we will also aim to achieve both shorter lead times and cost reduction by reviewing the production sites.

In terms of new business development, in the fiscal year 2015 we continued to invest resources in three business fields: the environment and energy field, the medical field, and the next-generation vehicle field. In the field of nextgeneration vehicles, we began sales of a hydrogen leak detection sensor for fuel cell vehicles. Our hydrogen leak detection sensor adopts a new detection method called "heat conduction." It is capable of precisely detecting hydrogen

#### A Message from the president

leaks by measuring the amount of heat transferred from the heater in the sensor to the escaping hydrogen. We aim to further expand sales of this hydrogen leak detection sensor. And by bringing our technologies and ideas together, we will continue the development of products to contribute to the next-generation automotive era.

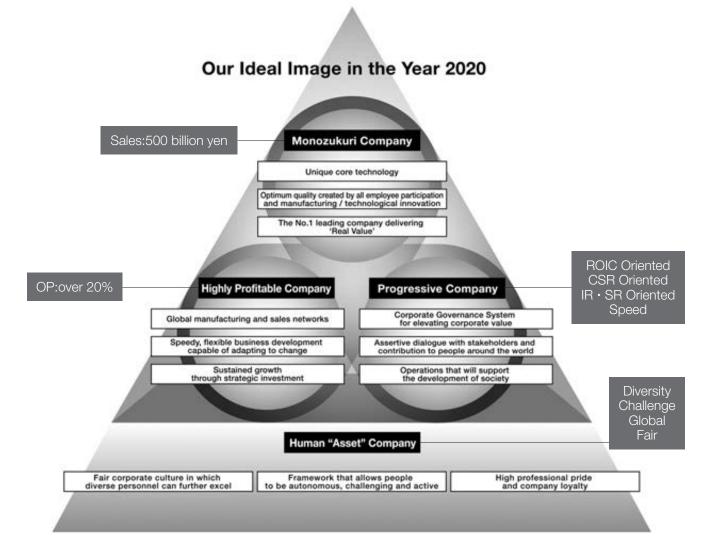
Launch of the 7th medium-term management plan in the fiscal year 2016 (5-year plan to deliver "Real Value" after "Evolving")

The Group has developed to where it is today through continual innovation and improvement, in order to provide good quality from the customers' viewpoint. Indeed, this is the founding principle of the Group, and we will remain

true to this principle as we work to resolve various issues in the future.

This is why, in 2010, the Group announced NITTOKU SHINKARON (The Evolution of NGK SPARK PLUG), a plan focusing on what the Group should aim to be in ten years time. The plan is based on the steps of "Delving," "Renovating," and "Evolving," with each step lasting three years. The Group's aim is to become a monozukuri company holding an unshakable position as No.1 in delivering products with value to our customers around the world; a highly profitable, progressive, human "assets" company that in the fiscal year 2020 offers "Real Value" to all our stakeholders. The fiscal year 2016 marks the start of the 7th medium-term business plan, coinciding with the 3rd SHINKA (Evolving).

For this 7th medium-term management plan, we ear-





marked five years to finalize our NITTOKU SHINKARON long-term management plan of delivering real value, which also includes the three years of the last step "Evolving." By resolving managerial issues identified through the implementation of the 6th mid-term management plan, we will do our utmost to deliver "Real Value" in the fiscal year 2020. For details of the 7th mid-term management plan, please refer to pages 10-11.

# | Dividend Policy

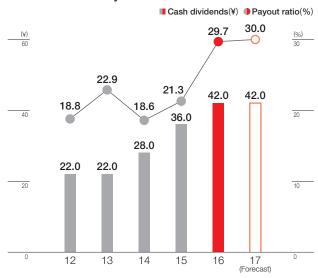
At NGK SPARK PLUG, we consider returning profits to shareholders as one of our most important management policies. In this regard, our basic policy is to provide stable dividends to meet the expectations of shareholders. On the other hand, we also consider it is important to return profits to shareholders in line with earnings. With a consolidated payout ratio of at least 30% as a target, we intend to continuously pay the interim dividends and year-end dividends while comprehensively taking into consideration the basic policy of paying stable dividends and the need to maintain sufficient internal reserves for R&D investment, capital expenditures for business expansion and for rationalization of operations, and for taking equity stakes in other companies.

We recognize the effectiveness of share buybacks

for enhancing capital efficiency and intend to repurchase shares when deemed necessary. We have set annual dividends for the fiscal year 2015 at ¥42.0 per share, consisting of an interim dividend of ¥21.0 and a year-end dividend of ¥21.0. With regard to dividends per share for the fiscal year 2016, we plan to pay common dividends of ¥42.0 per share.

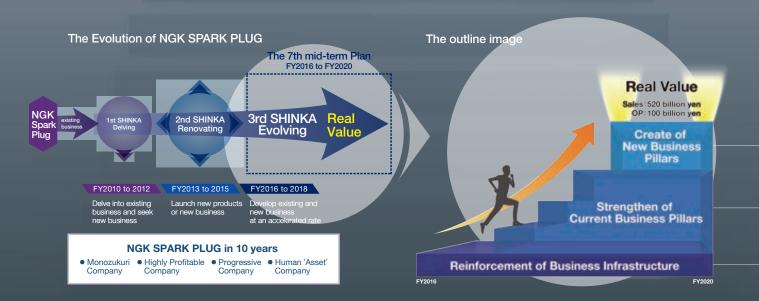
We appreciate all of our shareholders and other stakeholders for their continued understanding and support of our business activities.

#### Cash dividends/Payout ratio



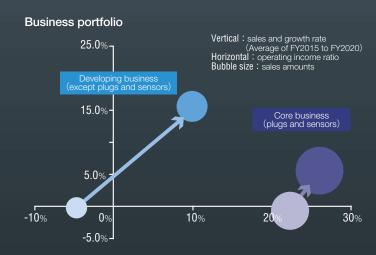
# Delivering "Real Value" to all stakeholders

Having entered the final "Evolving" phase of the NITTOKU SHINKARON (The Evolution of NGK SPARK PLUG) long-term management plan, and in preparation for the next phase of delivering "Real Value," NGK SPARK PLUG has launched the 7th mid-term management plan covering the five years from fiscal 2016. In order to reduce our dependence on the Automotive Components Business, we intend to make a concerted effort to foster new businesses as we anticipate future changes in the business environment. Our targets are to achieve sales of 520.0 billion yen and operating income of 100.0 billion yen (in fiscal 2020) and deliver "Real Value" to all our stakeholders through implementation of three key strategies, 1) strengthening current businesses, 2) establishing new business pillars, and 3) establishing strong business infrastructure.



#### Management indicators

		FY2015	FY2020E
Net Sales		383,272 million yen	520,000 million yen
Operating Income		66,279 million yen	100,000 million yen
Operating Income Ration	Operating 17.3% Income Ratio		Over 20%
ROIC	DIC 11.6%		Over 13%
Dividend Pay	out	29.7%	Over 30%
cf.			
ROE		9.1%	Over 12%
Net Earnings Per Share		141.60 yen	300 yen
Forex	\$1	120 yen	115 yen
	€1	132 yen	120 yen



Delivering "Real Value" to all stakeholders in FY2020

# Slogan for the 7th Mid-Term Plan

# **Accelerating Current & New Businesses**

#### **Strengthening Current Businesses**

Identify the features, quality, and pricing required in emerging markets and offer competitive products

#### Sensors

Establish competitive advantages in technology and strengthen collaboration with system manufacturers to comply with stricter environmental regulations in various regions

Launch new aftermarket business by leveraging Wells products

#### IC packages

Promote restructuring, implement a growth strategy and utilize external resources to turn around the business

#### Components for semiconductor manufacturing equipment

Maximize synergy with NTK CERATEC, which has excellent processing technology and cost competitiveness in small-lot, high-mix production and become a leading contender in the field of ceramic components for semiconductor manufacturing equipment

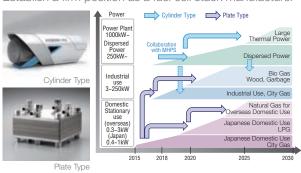
#### **Cutting tools**

Implement a growth strategy by area and by product; and improve the plant's productivity by accelerating reforms in

#### **Establishing New Business Pillars**

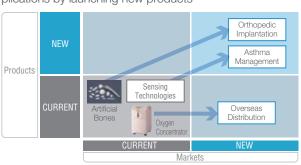
#### **Fuel cells**

Establish a firm position as a fuel cell stack manufacturer



#### Medical field

Enter new markets with current products and expand applications by launching new products



## **Establishing Strong Business Infrastructure**

Strengthening business infrastructures for organization and human resources

#### Infrastructure

- Management of Portfolio, Suggesting StrategiesGlobal SCM
- **Human Resources**
- Global Management Talents for next generationTraining programs
- Appropriate positioning

- Organization Promoting Regional Headquarters
- 9 business units for speed decision making
- Establishing Corporate Strategy Group
   Reform our works for enhancing work productivity

# Introduction of ROIC as a new performance indica-

We have introduced a new performance indicator, return on invested capital (ROIC) to align the perspectives of management, divisions, and shareholders in pursuit of enhancement of corporate value. The target is ROIC of over 13% in fiscal 2020 by further improving capital efficiency.



The role of the outside directors has received attention with the Company's adoption of the Corporate Governance Code since June 2015. Here, our two outside directors discuss the issues confronting the Company's management and the direction it wants to take.

How long have you been serving as an outside director of NGK SPARK PLUG? What is your take on the role of an outside director and what is your impression of the Board of Directors meetings?

Otaki I have been an outside director of the Company since June 2013, hence this is my fourth year in this position. Throughout this time, I have maintained a neutral stance when listening to the opinions of various people within the Company; and when asked for my opinion, I have always strived to offer one from a different perspective. In light of my previous involvement in the management of a multinational company, I am aware of the role of an outside director. Whenever I think discussion is insufficient, I try to ask questions to get to grips with the issues involved and facilitate fruitful discussion.

Yasui ■ I became an outside director a year after Mr. Otaki's appointment. In the past couple of years, major developments discussed at Board meetings have included the Company's response to the Corporate Governance Code introduced by the Financial Services Agency and the Tokyo Stock Exchange, formulation of the new mid-term management plan, and M&As in

Japan and abroad. It was a new experience for me, and I recognized and valued the differing perspectives between Mr. Otaki and myself at the Board of Directors meetings.

Otaki As a CPA, the opinions Mr. Yasui expresses tend to be grounded in quantitative data. Likewise, I certainly recognize the significance of overseeing management from multiple perspectives. NGK SPARK PLUG is undergoing an unprecedented transformation, and moreover the Company needs to establish a new mainstay business alongside spark plugs. Since taking calculated risks is necessary in making strategic moves to drive growth of the business, such as major M&A transactions, our role as outside directors is to support the management's decision-making by drawing on our knowledge and experience.

Yasui The briefings and information we receive from NGK SPARK PLUG attests to the Company's proactive stance vis-à-vis outside directors. For example, like every other officer, I have been provided with a tablet with which I can access all the minutes of meetings of the Corporate Management Committee and various other committees. Infrastructure is in place to facilitate the active exchange of opinions at the Board of Directors meetings. Management welcomes the expression of different views, discusses the issues thoroughly, and does not flinch from bold decision-making.

#### NGK SPARK PLUG recorded a large loss on payment of a settlement in relation to a violation of the U.S. antitrust law. What is your view on this?

Yasui - This incident was significantly detrimental to profit and the Company is working hard to identify the causes and establish measures to prevent recurrence. My view is that, to some extent, the Company was in certain respects vulnerable in its approach to doing business on the global stage.

Otaki - Coming from an organizational viewpoint, I think the systems of the Corporate Legal Dept. were inadequate. I also heard that a Corporate Auditor who is an attorney at law did not have opportunities to offer advice. Hence, a framework is needed to ensure that legal functions are fully involved in operations and the expertise of legal specialists is fully utilized.

Yasui - I agree with Mr. Otaki. To prevent recurrence, in addition to putting in place the kind of framework he mentioned, I think it is essential to inculcate legal knowledge and promote awareness of compliance among employees through education and training.

Otaki - Another issue is the homogeneity of the Company. Despite its 80-year history, NGK SPARK PLUG has had little experience of encountering different cultures. And as such, although the consequent Group-wide unity and uniformity can be strengths in some circumstances, there is a risk of groupthink, in which people may be reluctant to consider different perspectives and hesitate to challenge the status quo. Through M&A, different people will join the Group. In this process, it will become increasingly important to embrace cultures that did not previously exist in the Company. In this regard, a mission statement on the importance of cultivating shared values throughout the Group would be a useful tool.

#### What are your views on the Company's corporate governance?

Yasui - Regarding the 73 items of the Corporate Governance Code introduced by the FSA and the Tokyo Stock Exchange, NGK SPARK PLUG is in compliance with 70 items while it has provided explanations about the remaining three items. Currently, the Company is considering the establishment of advisory committees on nomination and compensation. I believe that these committees will reinforce corporate governance and I am eager to be involved in them in my capacity as an outside director.

Otaki - Corporate governance will become increasingly important as the Company develops from now on, since it is a key to embracing diversity and sharing values. There are still several areas where the Company should make greater efforts. In June, the Company appointed Ms. Megumi Tamagawa as an additional outside director. This is a welcome step toward the enhancement of corporate governance.

Yasui - I have high expectations concerning Ms. Tamaga-

wa's appointment. Her input will strengthen the oversight and advisory functions. Moreover, having a female director is also a step in the right direction in terms of diversity.

Otaki - The Corporate Governance Code advocates the principle of "Dialogue with Shareholders." I would like to see the Company enhance communication, particularly with individual shareholders, encouraging them to become long-term shareholders. The Company has recently been active with corporate advertising. I hope such ads will boost recognition of the Company among the general public and attract more individual shareholders.

#### How do you think the Company can achieve the goal of the seventh mid-term management plan and deliver "Real Value"?

Yasui - Delivering "Real Value" to all stakeholders in the fiscal year 2020 goes hand in hand with the sustainable increase of corporate value. The quantitative targets, net sales of 520 billion yen and operating income of 100 billion yen, are the yardsticks for realizing the ultimate goal, which cannot be achieved simply by an M&A-led expansion of the business. We definitely need products with a competitive edge, and this why the "Evolving" step of the next three years. which is framed to address this issue, is so

Otaki - Creating products with overwhelming competitiveness, such as spark plugs, is difficult. But the Company does need to come up with products with which it can carve out strong positions in niche markets complementing the mainstay spark plug business. And from among such products, it should identify those with the greatest potential and cultivate them to the point that they become the second and the third pillars of the business.

important.

Yasui - NGK SPARK PLUG continued to operate without borrowing over the years. However, to "Evolve" and deliver "Real Value," the Company intends to make aggressive investment, which will entail borrowing. To measure investment efficiency, the Company has introduced a new performance indicator, return on invested capital (ROIC), in the new mid-term management plan. The target is ROIC of over 13% in the fiscal year 2020. This means that we will apply stricter criteria to individual investment projects and in determining whether to stay in a business or withdraw.

Otaki - Rather than just judging from the Company's overall profitability, the responsibility of each business should be clarified. Calculating the ROIC requires being able to grasp changes in conditions and account for them swiftly, thus making it necessary to keep track of operations on a regular basis.



#### **Review of Results**

Automotive sales increased mainly in North America and Europe, and sales of automotive components both for factory installation in new vehicles and for aftermarkets were also robust. In addition, Wells, a newly consolidated subsidiary from the year under review, also contributed to sales. In foreign exchange markets, although the yen appreciated in the second half of fiscal 2015, the trend for the full year was toward a weaker yen, which in effect contributed to higher net sales. As a result, net sales of the Automotive Components Group increased 10.3% year on year to ¥322,856 million and operating income rose 4.1% to ¥71,135 million.

#### Outlook

Sales of new automobiles are expected to be robust, mainly in the U.S. and China. In the aftermarkets, we intend to expand sales of a wide range of automotive components by taking full advantage of the Company's existing sales network. For the fiscal year ending March 31st, 2017, we forecast net sales of ¥308,858 million, a decrease of 4.3% year on year, and operating income of ¥48,470 million, a decrease of 31.9%.



#### Completion of a New Factory for Spark Plug Parts in Komaki-shi, Aichi Prefecture

In the spark plug business, we are increasing production capabilities of existing factories and building new factories, among which is the completion of a new factory of NITTOKU SparkTec WKS CO., LTD., a 100% subsidiary of NGK SPARK PLUG CO., LTD. This new factory manufactures parts for spark plugs such as center electrodes and terminals.

\*The company name was changed from NITTOKU SEISAKUSYO CO., LTD. to NITTOKU SparkTec WKS CO., LTD. in February 2016.

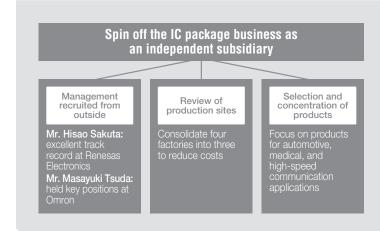


#### Review of Results

Sales of ceramic IC packages for mobile phones and smartphones were lackluster because of sluggish demand from customers. In these circumstances, the Semiconductor Division strove to improve profitability through productivity enhancement, cost reduction and other rationalization initiatives. Moreover, sales and profit of NIHON CERATEC Co., Ltd., which became a consolidated subsidiary from the year under review, greatly contributed to the performance of the Semiconductor Division. On the other hand, following the termination of production of organic IC packages, we dissolved our capital and business alliance with a partner and had to withdraw from the organic IC package business; efforts are underway toward the elimination of unprofitable products. As a result, the Semiconductor Division's net sales increased 21.0% year on year to ¥35,636 million and an operating loss was ¥4,744 million, compared with the operating loss of ¥6,908 million recorded for fiscal 2014.

#### Outlook

While promoting restructuring of the semiconductor business, we will move forward with consolidation of production sites along with selection and concentration of products. For the fiscal year ending March 31st, 2017, we forecast net sales of ¥21,105 million, a decrease of 11.3% year on year, and an operating loss of ¥6,652 million compared with the operating loss of ¥7,116 million recorded for fiscal 2015.



#### Promote restructuring, implement a growth strategy while utilizing external resources to turn around the business

We will promote restructuring to turn around the IC package business. Measures include 1) spinning off of the IC package business as an independent subsidiary, 2) review of the production sites, 3) selection and concentration of products, and 4) inviting management leaders from outside the NGK SPARK PLUG Group. The target is to achieve profitability on a monthly basis by the end of fiscal 2018 and achieve profitability for the full year of fiscal 2019.



#### **Review of Results**

The Ceramics Division's shipments of products for machine tools and for industrial equipment were robust, primarily in Europe and Southeast Asia. We also applied the selection and concentration approach to our products for industrial equipment. As a result, net sales of the Ceramics Division increased 0.9% year on year to ¥20,995 million, but operating income decreased 93.6% to ¥47 million.

#### Outlook

We are working to establish a stable earnings structure for the ceramics business. For the fiscal year ending March 31st, 2017, we forecast net sales of ¥35,841 million, an increase of 9.2% year on year, and operating income of ¥646 million, a decrease of 73.3%.

Note: In April 2016, in semiconductor manufacturing equipment products in "Semiconductor" in Technical ceramics, we reviewed the segment management division. It has been changed to "Ceramics."



# Alliance with Japan Medical Dynamic Marketing to expand the medical business

The manufacturing and sales of our artificial bone products featuring our ceramics technology have been limited to Japan so far. And as such, we formed a capital and business alliance with Medical Dynamic Marketing Inc. (MDM) with a view to expanding the business domain to include manufacturing and sales of orthopedic implant products and to promote our ceramics products in the global market. MDM has excellent capabilities for improving products, a product portfolio in the field of orthopedics, and production and sales operations in North America. We believe building a strong collaborative relationship with MDM through the alliance will contribute significantly to the expansion of the orthopedic implants business, which is aligned with our target business model based on R&D and product improvement.



#### Slogan

With established trust and confidence inside and outside the company, we aim to contribute to the peoples of the world by creating and putting at their disposal new values for the future.

#### 1. Commitment

With full use of the most suitable technology and our accumulated experience, we continue striving to offer new values to the peoples of the world.

#### 2. Management Policy

We offer a working environment in which each one of us is encouraged to make full use of his or her personality and capabilities.

With all our power we are dedicated to pursue management based on trust and confidence.

#### 3. Action Guideline

Ever onward! Always mindful of what is the best course, we swiftly put it into action.

# **Commitment to CSR**

#### **CSR of NGK SPARK PLUG Group**

We view CSR not just as a responsibility but as an opportunity to be accountable through review of the NGK SPARK PLUG Group's economic, environmental and social activities from a global perspective, to enhance corporate value, and to contribute to the sustainable development of society in accordance with our Corporate Philosophy. Our CSR activities are wide ranging and diverse. They include offering excellent products to customers, disclosing corporate information to shareholders and the wider investor community in an optimal, easy-to-understand manner, collaborating with suppliers for mutual development, ensuring a safe and employee-friendly working environment, and participating in and supporting activities in the local community. To articulate the Group's action guidelines for CSR activities, we established the CSR Policy in April 2011, which comprises the Compliance Policy and nine other policies, and are promoting CSR based on a multifaceted approach. We amended the CSR Policy in April 2016.

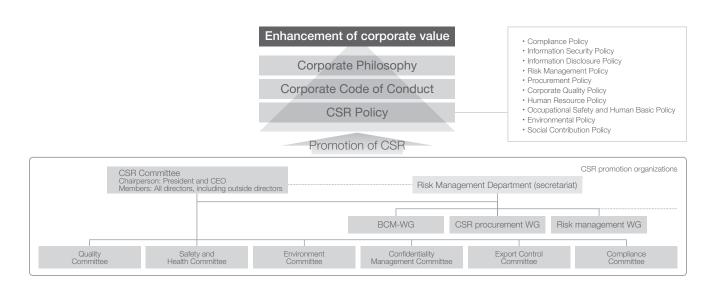
#### **CSR Promotion System**

As well as determining each year's key tasks for implementation of the CSR Policy, the CSR Committee oversees and evaluates the CSR-related activities implemented by the respective taskforce committees and divisions, and makes proposals regarding them, in order to achieve total optimization of CSR

activities, thereby strengthening the business foundation. Working groups are established as necessary to discuss specific themes and develop countermeasures. Through close collaboration among the CSR Committee, the task force committees, and working groups, a company-wide CSR promotion system is put in place. We publish an annual CSR report on our CSR activities and results, which is available on our website.



CSR Report 2016



#### **Corporate Governance**

We believe that one of our most important managerial tasks is to establish and maintain a fair and efficient management system, thus securing soundness and transparency in management.

#### **Management Organization**

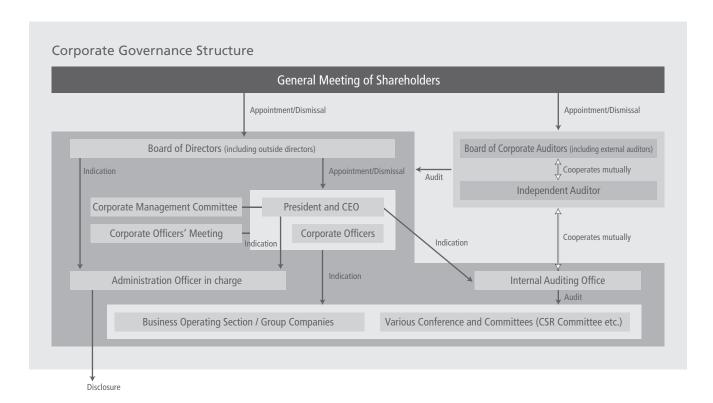
The Board of Directors, consisting of ten directors (three of whom are outside directors), deliberates and makes decisions on matters stipulated by laws or bylaws and management-related matters of importance, and supervises the execution of operations by each director. In April 2012, to meet the need for greater speed in both decision-making and business execution, we introduced the corporate officers system and a performance-based system for officers' remuneration. The 21 corporate officers, eight of whom concurrently serve as directors, execute business in accordance with the policies decided by the Board of Directors. At the corporate officers' meeting held once a month, corporate officers report on the progress of business execution, share information and exchange opinions in order to enhance operational efficiency. The term of office of a corporate officer and that of a director are one year.

#### **Management Oversight Functions**

The Company employs the Board of Corporate Auditors System and the Board of Corporate Auditors consists of four corporate auditors (two of whom are external corporate auditors). The corporate auditors attend the meetings of the Board of Directors and, if necessary, various other meetings and committee meetings, to grasp important issues. Through audits of the Company's offices and subsidiaries, they also supervise directors' execution of duties. In order to strengthen the Board of Directors' function of overseeing the execution of operations and to ensure transparency of decision-making, the Company has appointed three outside directors. The outside directors oversee the execution of operations and provide advice based on their abundant experience, deep insight, and specialized knowledge from an independent standpoint.

#### **Internal Audits**

The Internal Auditing Office performs audits of the Company and its subsidiaries and affiliates, reports to management, and makes proposals to correct problems and improve business operations. A department that receives a proposal for improvement formulates and implements an improvement plan and the Internal Auditing Office investigates and confirms the implementation status. The effectiveness of internal control over financial reporting is assessed in accordance with the requirements for the internal control report system pursuant to the Financial Instruments and Exchange Act so as to maintain and improve internal control. The Internal Auditing Office exchanges views with corporate auditors and the accounting auditor about each audit plan and audit results, and strives to enhance the effectiveness of auditing.



#### Compliance

Recognizing that NGK SPARK PLUG is a member of society, we enhance corporate ethics, comply with laws and ordinances, international rules, and company regulations, striving to become a company trusted by the international community

#### **Action Guidelines**

- We not only comply with laws and regulations, but also act in good faith with common sense and responsibility as a member of
- We regularly educate and raise the awareness of all our employees to impart a high level of ethics and correct knowledge, with which they can act voluntarily to prevent a violation.
- Should a violation occur, we will promptly investigate the causes and take remedial actions. We will strive to take appropriate countermeasures to prevent recurrence and fulfill our accountability.

#### **Compliance Promotion Structure**

The Compliance Committee, chaired by a representative director and consisting of the representatives of the departments specialized in legal and regulatory matters and the divisions, meets every three months to monitor key issues and actions concerning them and to implement corrections. While continuing to hold seminars for employees according to positions and conduct education and training at workplaces, we also began holding seminars for suppliers. In fiscal 2015, we held a seminar for executives led by a specialist. In addition, we conducted field audits of the Group companies overseas about the statuses of their compliance with antitrust laws and confirmed that the rules are thoroughly communicated and adhered to.

#### **Corporate Ethics Helpline**

We have the Corporate Ethics Helpline in place so that our employees can receive consultation or make a report about compliance. The helpline is available inside and outside the Company and employees may use it anonymously. The Helpline received 50 cases of consultation and reporting in fiscal 2015, many of which were related to labor issues and management of personal information. Some of the reported cases prompted the Company to take action and ensure thorough compliance with internal rules.

#### **Export Controls**

To ensure appropriate security export controls in compliance with the Foreign Exchange and Foreign Trade Control Act of Japan, we have the Export Control Rules and an export control organization in house as a framework enabling us to flexibly respond to amendments of the law. We also have put in place an antiterrorism security control system for air cargo in accordance with the guidance of the authorities. As part of our efforts for appropriate cargo management, metal detectors have been introduced at our logistics centers.

#### Security Control / Information Security

We have established the Confidentiality Management Regulations and strive to appropriately manage confidential information of the Company, our customers, and our suppliers. Our Privacy Policy is available on our website. In addition, we are also working on the IT business continuity plan (BCP) through initiatives including making the data communication system, which is used in and outside of the Company, more robust, relocating it to an external data center, and implementing network-level redundancy.

#### **Protection and Utilization of Intellectual Property Rights**

To protect our current and newly developed products, we are active in the acquisition of intellectual property rights and investigate thirdparty intellectual property rights to confirm whether IP provisions in agreements are appropriate. We are strengthening management of our intellectual property in China, the Middle East, and the ASEAN region as a countermeasure against counterfeit products.

#### Risk Management

NGK SPARK PLUG has made preparations to deal with various possible risks, such as natural disasters, accidents, and infectious diseases. If such a risk should arise, we will act to minimize the impact on our stakeholders. We will also work to restore and maintain the continuity of business operations, thereby earning the continued trust of our stakeholders.

#### **Action Guidelines**

- We conduct our activities with top priority on the protection of human life.
- We strive to prevent factors that could affect business continuity.
- We minimize impact on related parties.
- We strive for rapid restoration of business operations and stable supply of products and services.
- We take measures to prevent the recurrence of risks.

#### **Business Continuity Plan (BCP)**

We are implementing a PDCA cycle for maintenance, operation and ongoing improvement of business continuity based on the business continuity plan (BCP) formulated in 2012. In fiscal 2015, as part of a corporate-wide disaster drill, all directors and officers of the Company, presidents of subsidiaries in Japan, and plant managers participated in hazard mapping for large-scale disasters and a simulation drill incorporating a BCP scenario to be implemented during recovery from a disaster.

#### **Response to New Infectious Diseases**

Mindful of the importance of protecting employee health, we are working to prevent the spread of influenza in the workplace. As group infection at workplaces may affect the performance of duties, we are implementing measures that are timely and focused with the departments concerned.

The NGK SPARK PLUG Group endeavors to identify the expectations of its stakeholders, respond to them and enhance corporate value, capitalizing on stakeholders' confidence in the Group.

#### With Our Customers

In order to grasp the diverse and evolving needs of customers and to offer safe and reliable products that deliver greater customer satisfaction, we are advocating and implementing total quality management (TQM). In fiscal 2015, in accordance with the CSR Policy, we are working on entrenching across the Group the five pillars of quality assurance, daily management, policy management, small-group improvement activities, and education & training on quality management while maintaining and enhancing our world-class quality.

#### With Our Shareholders and Investors

The Group is working to ensure the transparency and fairness of information disclosure to shareholders and investors in Japan and overseas. In fiscal 2015, we held presentations around Japan and vigorously contacted investors in Japan and overseas as part of our efforts to deepen investors' understanding of NGK SPARK PLUG.

#### With Our Employees

Recognizing that employees are the most important management resource, we launched a new personnel system in 2014 which

includes the development of a working environment that leverages on diversity. In fiscal year 2015, we established a system for global human resources development and, continuing from the previous year, promoted the active participation of female employees.

#### With Our Suppliers

With a view to global optimization of procurement, while strengthening cooperation with suppliers, we have established the NGK SPARK PLUG Group CSR Procurement Guidelines. In fiscal 2015, we conducted a CSR survey of our suppliers using a self-check sheet and fed back the overall results to them. Our efforts to cultivate partnerships with our suppliers also include the creation of opportunities to share the Company' policy and exchange opinions with suppliers and the provision of support to suppliers for enhancement of their manufacturing.

#### With Local Communities and International Society

As part of our concerted effort to fulfill our responsibility as a good corporate citizen, we are involved in various social contribution activities in communities where our production sites are located. In conducting business around the world, we respect local cultures and customs and engage in activities that contribute to the development of local communities.

#### Social Contribution Activities of Our Sites Worldwide

# Sponsorship of Marathon Festival Nagoya Aichi 2016

We are actively engaged in initiatives to promote diversity. In particular, we regard the promotion of active participation of female employees as an important management issue and have introduced systems that support diverse working styles of female employees. In our desire to support women and to contribute to the vitality of the local community, NGK SPARK PLUG sponsored this event, which included a women's marathon, for the second consecutive year.



NGK Spark Plug's booth with an oxygen bar equipped with oxygen concentrators for medical applications. Visitors were able to try out high-concentration oxygen

#### Roadside Clean-up Campaign (West Virginia, U.S.)

The West Virginia Factory of NGK Spark Plugs (U.S.A.), Inc. has been participating in the Adopt-A-Highway Program since 2001.

In this program, businesses, civic organizations, etc. "adopt" a road and engage in activities such as cleanups and tree planting. Adopted highways are identified by a sign installed by the local government bearing the name of the "guardian." NGK Spark Plugs (U.S.A.), Inc. is the "guardian" of River Bend Road (West Virginia State Road).



Recognizing that environmental issues are a common challenge for all humankind and have an important bearing on our business, NGK SPARK PLUG is making a concerted effort to minimize our business activities' environmental impacts, including CO2 emissions, water consumption, waste, and chemical substances, and to develop products and technologies with excellent environmental performance. We are also endeavoring to deepen communication with our stakeholders, including those in local communities, and to work together with them to contribute to the emergence of a sustainable society.

#### Global Eco Vision 2020

In Global Eco Vision 2020, we set four key environmental tasks: efficient use of resources, mitigation of global warming, management of chemical substances, and development of environmentally friendly products. The current target is to reduce the ratio of CO2 emissions to production output by 5% in fiscal 2020 compared with that in fiscal 2015 (1% reduction per year on average). We also aim to enhance the efficiency of physical distribution systems.

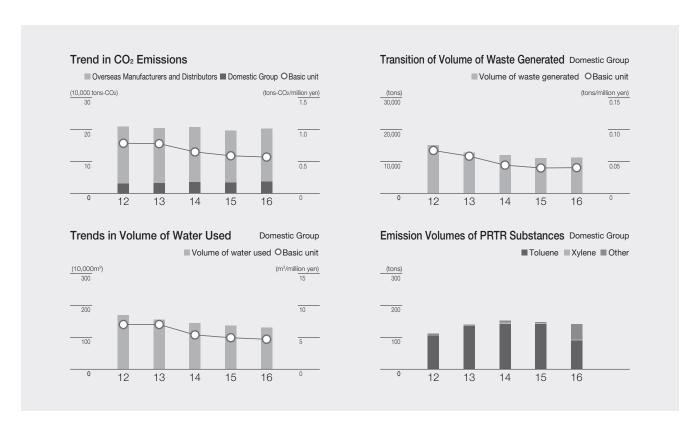
#### **Environmental Management**

Based on the Group's common environmental policy, we have established an environmental management system in order to promote environmental protection initiatives systematically and effectively. With the aim of realizing the Eco Vision, everyone is involved.

Operation of the environmental management system is checked through internal audits, and the central and regional environment committees check progress toward goals and identify issues for the Group, each division, region, and department in order to facilitate continuous improvement. We have obtained integrated ISO 14001 certification covering NGK SPARK PLUG and its 10 affiliated companies in Japan. Overseas subsidiaries are seeking to obtain ISO 14001 certification individually. As of the end of March 31, 2016, 16 overseas subsidiaries were ISO 14001 certified and 93% of the Group companies in Japan and overseas were certified.

#### **Eco-efficiency**

We calculate eco-efficiency by determining net sales per unit of CO<sub>2</sub> emissions and generated waste, and endeavor to improve it. In fiscal 2015, the CO<sub>2</sub> index improved from the previous fiscal year. On the other hand, there was a slight decline in the waste index due to the waste brought about by factory consolidation as a result of change in business.





# With Ceramic Technology at the Core, R&D Geared to the Needs of the Coming Era

While pursuing research into ceramics, our core competence, we are developing technologies and products in new fields such as the environment and energy, next-generation vehicles, and for medical applications, by combining ceramics with other materials.

The Group's R&D initiatives are carried out by the Engineering R&D Group, the New Business Advancement Group, the Fuel Cell Business Group, and engineering departments of operating divisions. We are striving to enhance the quality of R&D outcomes by exploiting the latest technologies through vigorous participation in technology conferences and industry associations as well as joint research with universities and public research institutions in Japan and around the world. R&D expenses in the year under review amounted to ¥23,123 million.

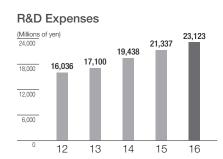
#### **Automotive Components**

We are enhancing the temperature resistance, voltage resistance, and ignitability of spark plugs, as well as making them more compact and elongated. With these objectives in mind, we are promoting comprehensive development extending from materials to product design, including development of manufacturing methods. Regarding glow plugs for diesel engines, we are developing ones with excellent heating characteristics and long life in response to increasingly stringent regulatory control of exhaust gas emissions. We are also developing temperature control systems for glow plugs for diesel engines. In addition, the hydrogen leak detection sensor we developed for next-generation fuel cell vehicles using hydrogen as fuel will help ensure safety in the event of hydrogen leakage.

#### **Technical Ceramics**

With regard to semiconductors, we are developing a wide range of products, including ceramic packages for automotive applications, packages for communication devices, LED packages, and ceramic packages for CMOS. For LEDs, we are developing multilayer ceramic packages using aluminum nitride (ALN) with good heat conductivity.

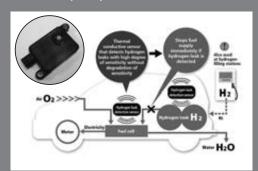
As for ceramics, we are developing tools suitable for processing automotive and aircraft components as well as for various other applications. Leveraging our unique functional ceramics material technology and process technology, we are promoting development of solid oxide fuel cells (SOFCs), which have great potential as high-efficiency, clean power generation systems.



#### Launch of Hydrogen Leak Detection Sensor for Fuel Cell Vehicles (FCV)

In line with the expected spread of FCVs as next-generation vehicles, the need to ensure safety in the event of hydrogen leaks has become an important issue. To address this concern, we have been developing a hydrogen leak detection sensor since 2006.

The hydrogen leak detection sensor that we recently launched adopts a new detection method called "heat conduction." It enables accurate detection of a hydrogen leak by measuring the amount of heat transferred from the heater in the sensor to the escaping hydrogen. When the sensor detects even the slightest hydrogen leak from a fuel cell system, such as a hydrogen tank or a stack, it notifies the driver and stops the supply of hydrogen to the fuel cell.



# **Management's Discussion and Analysis**

#### Overview of Results

During the fiscal year ended March 31, 2016 (fiscal year 2015), with regard to global economic conditions, in China, the economic growth rate continued to decline, and downward pressure on the China economy is likely to persist. In addition, labor demand began to contract and consumption, which had been expanding, appeared to be weakening. In the U.S., despite little growth in both capital investment and exports owing to low crude oil prices and the appreciation of dollar coupled with the lack of indications of economic recovery in China and emerging-market countries, personal consumption increased, reflecting low crude oil prices, the tighter labor market, and rising wages. Backed by the robust performance of the household sector, the trend of U.S. economic recovery continued. In Europe, while a moderate economic recovery is expected to continue, concerns about a possible slowdown of manufacturing emerged, and consumer sentiment decreased against the backdrop of weak stock markets. The European economies consequently showed indications of deceleration amid persisting brisk growth. In Japan, the government's economic policy remained effective in the first half of the fiscal year 2015 and the positive cycle continued. Personal consumption was supported by the expansion of both employment and capital investment, reflecting successful corporate performance coupled with higher stock prices. In the second half of the year, however, economic conditions significantly deteriorated centering on manufacturing because of a steep decline in stock prices and appreciation of yen from the New Year onward triggered by the federal funds rate increase in the U.S. as well as decelerating economic conditions in the emerging-market countries.

In the automotive industry, which is the principal market for the NGK SPARK PLUG Group's products, automotive sales were the highest ever in China supported by tax reduction and also in the U.S. However, the volume of automotive sales in Japan declined significantly because the tax on compact cars was increased from April 2015

In the semiconductor industry, demand from China and emergingmarket countries became the driving force. As a result, Chinese manufacturers gradually gained vigor also in the market for smartphones, leading to intensified price competition.

As a result, consolidated net sales for the fiscal year 2015 increased 10.3% year on year to ¥383,272 million and operating income increased 6.6% to ¥66,279 million. Profit attributable to owners of the parent decreased 16.2% to ¥30,815 million partly because a settlement package for certain customers amounting to ¥14,837 million, relating to violation of the U.S. antitrust law, was recorded as an other expense.

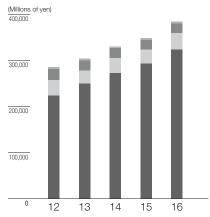
#### **Results of Operation**

#### **Net Sales**

Consolidated net sales increased ¥35,636 million or 10.3% year on year to ¥383,272 million. Regarding worldwide automotive sales,

#### Net Sales by Business Segment





# **Management's Discussion and Analysis**

whereas sales in the U.S. and in China where tax reduction supported automotive sales, were the highest ever, the volume of automotive sales in Japan decreased significantly because the tax on compact cars was increased from April 2015 onward.

2015 2016 (decrease **Automotive Components** 292,794 322,856 30,062 Technical Ceramics 50,257 56,631 6,374 Semiconductor 29.441 35.636 6.195 Ceramics 20,816 20,995 179 4.585 3.785 (800) Consolidated net sales 347,636 383.272 35.636

#### Costs of Goods Sold

Costs of goods sold increased ¥23,460 million or 10.5% from the previous fiscal year to ¥246,775 million. The ratio of costs of goods sold to net sales increased 0.2 percentage points from 64.2% for the previous fiscal year to 64.4% for the fiscal year under review.

#### Selling, General and Administrative Expenses

Selling, general and administrative expenses increased ¥8,094 million or 13.0% from the previous fiscal year to ¥70,218 million.

#### **Operating Income**

As a result, operating income increased ¥4,082 million or 6.6% from

the previous fiscal year to ¥66,279 million. The ratio of operating income to net sales decreased 0.6 percentage points from 17.9% for the previous fiscal year to 17.3% for the year under review.

#### **Profit Attributable to Owners of the Parent**

Profit attributable to owners of the parent decreased ¥5,938 million or 16.2% from the previous fiscal year to ¥30,815 million. This was partly because a settlement package for certain customers amounting to ¥14,837 million, relating to violation of the U.S. antitrust law, was recorded as an other expense.

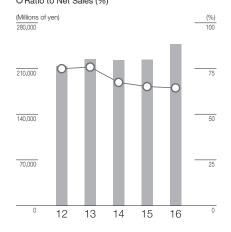
As a result, the return on equity decreased 2.3 percentage points from 11.4% at the previous fiscal year-end to 9.1%, and basic earnings per share decreased ¥27.28 from ¥168.88 at the previous fiscal year-end to ¥141.60.

#### **Capital Expenditures**

Capital expenditures amounted to ¥45,339 million, including ¥37,682 million for the Automotive Components Group, and ¥4,110 million for the Semiconductor Business and ¥3,538 million for the Ceramics Business of the Technical Ceramics Group. Capital expenditures of ¥61,800 million are planned for the fiscal year 2016, primarily for increasing production of automotive components and for R&D facilities, and will be financed mostly by internal resources

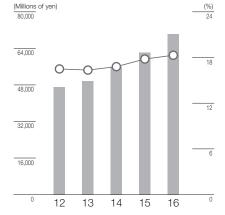


Costs of Goods Sold (Millions of yen) O Ratio to Net Sales (%)



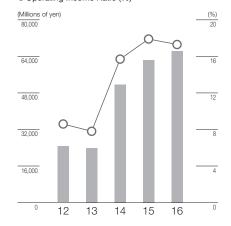
#### Selling, General and Administrative **Expenses and Ratio to Net Sales**

Selling, General and Administrative Expenses (Millions of yen) O Ratio to Net Sales (%)



#### Operating Income and Operating Income Ratio

Operating Income (Millions of yen) Operating Income Ratio (%)



#### R&D

R&D expenses in the fiscal year under review amounted to ¥23,123 million, which included expenses related to improvements of existing products and applied research. The "research and development cost" pursuant to the "Accounting Standard for Research and Development Cost" (Business Accounting Council) amounted to ¥5,402 million.

**Financial Policy** 

NGK SPARK PLUG Group's financial policy is to secure working capital to underpin smooth business operations and to systematically prepare for medium- to long-term funding needs enabling flexible capital expenditures in the future, in order to support stable management and the ability to respond to changing circumstances. For this purpose, as well as retention and management of current funds in accordance with financial planning, we are implementing ongoing measures to enhance the efficiency of receivables, payables and inventories. At the same time, while the Group is strengthening internal rules such as the Fund Management Regulations, the Investment Committee and other organizations are working to reduce investment risks.

To satisfy short-term funding requirements, the Group uses indirect financing, in addition to internal reserves. For medium- to longterm funding needs, the Group engages in direct financing from financial markets through the issuance of corporate bonds, etc.

#### **Financial Condition**

#### **Total Assets**

Total assets were ¥526,161 million, having increased ¥40,663 million or 8.4% from the end of the previous fiscal year. The main factors were as follows:

- Of property, plant and equipment, machinery and equipment increased owing to capital expenditures.
- Of intangible assets, goodwill increased mainly because of an increase in the number of consolidated subsidiaries.

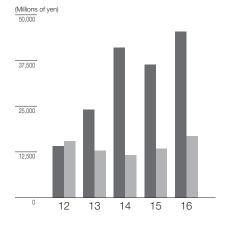
#### **Total Liabilities**

Total liabilities amounted to ¥185,116 million, having increased ¥42,999 million or 30.3% from the end of the previous fiscal year. The main factors were as follows:

- Interest-bearing debt increased mainly owing to financing by the issuance of corporate bonds amounting to ¥30,000 million and long-term borrowings amounting to ¥19,859 million despite redemption of corporate bonds amounting to ¥15,000 million.
- Of other liabilities, net defined benefit liability increased ¥8,174 million mainly due to actuarial loss.

#### Capital Expenditures and **Depreciation Expenses**

■ Capital Expenditures Depreciation Expenses



# **Management's Discussion and Analysis**

#### Net Assets

Net assets amounted to ¥341,045 million, having decreased ¥2,336 million or 0.7% from the end of the previous fiscal year. Whereas retained earnings increased ¥22,328 million, net unrealized gains on available-for-sale securities decreased ¥7,564 million, foreign currency translation adjustments decreased ¥11,622 million, and remeasurements of defined benefit plans decreased ¥5,237 million.

As a result, net assets per share amounted to ¥1,557.16 compared with ¥1,566.80 at the end of the previous fiscal year.

#### **Cash Flows**

Cash and cash equivalents at March 31, 2016, amounted to ¥71,156 million, in net value, excluding the effect of exchange rate changes on cash and cash equivalents amounting to ¥3,639 million, having decreased ¥4,384 million from the end of the previous fiscal vear.

#### **Cash Flows from Operating Activities**

Net cash provided by operating activities was ¥56,465 million, having increased ¥19,872 million from the previous fiscal year. This increase was mainly attributable to a decrease in income taxes paid.

#### **Cash Flows from Investing Activities**

Net cash used in investing activities amounted to ¥82,331 million, having increased ¥69,465 million from the previous fiscal year. This increase was mainly attributable to purchase of shares of subsidiaries resulting in change in scope of consolidation.

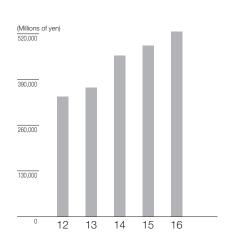
#### **Cash Flows from Financing Activities**

Net cash provided by financing activities amounted to ¥25,121 million, whereas for the previous fiscal year, net cash used in financing activities amounting to ¥18,746 million was recorded. The main factor was cash inflows from the issuance of corporate bonds and long-term borrowings.

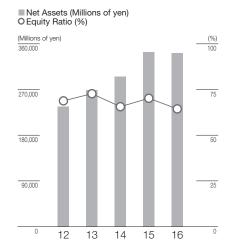
#### **Dividend Policy**

NGK SPARK PLUG regards returning profits to shareholders as one of its most important management policies and will continue to meet the expectations of shareholders under the basic policy of continuing to pay stable dividends. We also think it is important to provide shareholders with returns in line with earnings. While maintaining a target dividend payout ratio of at least 30% of profit attributable to owners of the parent, we decide the amount of dividends by comprehensively taking into consideration the basic policy of paying stable dividends and of maintaining sufficient internal reserves for R&D investment, capital expenditures for business expansion and for rationalization of operations, and investment in other companies, which are essential to future growth. We intend to maintain payments of an interim dividend and a year-end dividend. NGK SPARK PLUG recognizes the effectiveness of share buybacks for enhancing capital

#### **Total Assets**



#### Net Assets and Equity Ratio



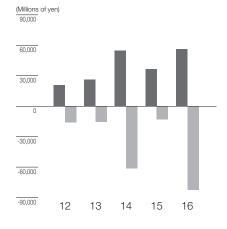
efficiency and intends to repurchase its shares, as necessary.

In order to ensure flexibility in the returning of profits to shareholders, the Company's Articles of Incorporation specifies dividends from surplus as a matter requiring resolution of the board of direc-

The Company paid dividends per share of ¥42.0 for the fiscal year ended March 31, 2016, consisting of an interim dividend of ¥21.0 and a year-end dividend of ¥21.0.

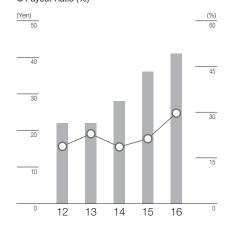
#### **Cash Flows from Operating Activities** and Investing Activities

# ■ Cash Flows from Operating Activities ■ Cash Flows from Investing Activities



#### Cash Dividends and Payout Ratio

# Cash Dividends (Yen) Payout Ratio (%)



# **Consolidated Balance Sheets**

NGK SPARK PLUG CO., LTD. and Consolidated Subsidiaries March 31, 2016 and 2015

	Millions of y	Thousands of U.S. dollars	
	2016	2015	2016
Current assets:			
Cash and cash equivalents (Note 3)	¥ 71,156	¥ 75,540	\$ 629,699
Short-term investments (Notes 3 and 6)	26,377	26,008	233,425
Notes and accounts receivable, net of allowance for doubtful accounts (Notes 3 and 4)	83,596	77,653	739,788
Inventories (Note 5)	82,123	78,380	726,752
Deferred tax assets (Note 16)	12,080	12,679	106,903
Other current assets	2,981	3,024	26,380
Total current assets	278,313	273,284	2,462,947
Investments and other assets:			
Investment securities (Notes 3 and 6)	48,090	58,597	425,575
Investments in unconsolidated subsidiaries and associates (Note 3)	5,339	7,485	47,248
Goodwill (Note 19)	9,280	_	82,124
Other intangible assets (Note 7)	14,203	3,421	125,691
Deferred tax assets (Note 16)	988	868	8,743
Other assets	1,602	1,902	14,177
Less allowance for doubtful accounts	(128)	(128)	(1,133
Total investments and other assets	79,374	72,145	702,425
Property, plant and equipment:			
Land	19,764	18,082	174,903
Buildings and structures	156,224	146,442	1,382,513
Machinery and equipment	277,465	252,284	2,455,442
Construction in progress	13,393	13,449	118,522
Total property, plant and equipment	466,846	430,257	4,131,380
Less accumulated depreciation	(298,372)	(290,188)	(2,640,460
Net property, plant and equipment	168,474	140,069	1,490,920
Total assets	¥526,161	¥485,498	\$4,656,292

	Millions of y	en	Thousands of U.S. dollars
	2016	2015	2016
Current liabilities:			
Short-term borrowings (Notes 3 and 9)	¥ 11	¥ 668	\$ 97
Current portion of long-term debt (Notes 3 and 9)	174	15,187	1,540
Accounts payable (Notes 3 and 8)	40,676	36,529	359,965
Accrued expenses	21,407	17,543	189,442
Income taxes payable	2,038	7,783	18,035
Other current liabilities	2,029	1,624	17,956
Total current liabilities	66,335	79,334	587,035
Long-term debt (Notes 3 and 9)	80,027	30,298	708,204
Net defined benefit liability (Note 10)	32,186	24,012	284,832
Deferred tax liabilities (Note 16)	5,382	7,129	47,628
Other long-term liabilities	1,186	1,344	10,496
Total liabilities	185,116	142,117	1,638,195
Net assets (Note 14): Shareholders' equity:			
Common stock: authorized 390,000,000 shares;			
issued 223,544,820 shares	47,869	47,869	423,619
Capital surplus	54,825	54,825	485,177
Retained earnings	245,464	223,136	2,172,248
Less treasury stock at cost: 5,923,363 shares in 2016 and 5,921,224 shares in 2015	(7,647)	(7,640)	(67,673)
Total shareholders' equity	340,511	318,190	3,013,371
Accumulated other comprehensive income:			
Net unrealized gains on available-for-sale securities	22,734	30,298	201,186
Foreign currency translation adjustments	(15,640)	(4,018)	(138,407)
Remeasurements of defined benefit plans (Note 10)	(8,734)	(3,497)	(77,292)
Total accumulated other comprehensive income	(1,640)	22,783	(14,513)
Noncontrolling interests	2,174	2,408	19,239
Total net assets	341,045	343,381	3,018,097
Total liabilities and net assets	¥526,161	¥485,498	\$4,656,292

# **Consolidated Statements of Income** -

NGK SPARK PLUG CO., LTD. and Consolidated Subsidiaries For the Years Ended March 31, 2016 and 2015

	Millions of ye	en	Thousands of U.S. dollars
	2016	2015	2016
Operating revenue:			
Net sales (Note 19)	¥383,272	¥347,636	\$3,391,788
Operating costs and expenses:			
Costs of goods sold	246,775	223,315	2,183,850
Selling, general and administrative expenses	70,218	62,124	621,398
	316,993	285,439	2,805,248
Operating income (Note 19)	66,279	62,197	586,540
Other income (expenses):			
Interest and dividend income	2,648	2,885	23,434
Interest expense	(343)	(457)	(3,035
Loss on sale or disposal of property, plant and equipment	(811)	(940)	(7,177
Depreciation of idle property, plant and equipment	(214)	(191)	(1,894
Impairment loss on fixed assets (Note 15)	(2,428)	(4,133)	(21,487
Equity in net (losses) earnings of associates	(66)	594	(584
Foreign exchange (loss) gain	(4,575)	2,231	(40,487
Loss on sales of shares of subsidiaries and associates	(1,789)	_	(15,832
Loss on violation of antitrust law	(857)	(5,786)	(7,584
Settlement package	(14,837)	_	(131,301
Other, net	750	631	6,637
	(22,522)	(5,166)	(199,310
Profit before income taxes	43,757	57,031	387,230
Income tax expense (Note 16):			
Current	10,544	18,752	93,310
Deferred	2,094	1,249	18,531
Total income tax expense	12,638	20,001	111,841
Profit	31,119	37,030	275,389
Profit attributable to:			
Noncontrolling interests	304	277	2,690
Owners of the parent	¥ 30,815	¥ 36,753	\$ 272,699

Yen	U.S. dollars	
¥141.60	¥168.88	\$1.25
42.00	36.00	0.38
	¥141.60	<b>¥141.60</b> ¥168.88

# **Consolidated Statements of Comprehensive Income** -

NGK SPARK PLUG CO., LTD. and Consolidated Subsidiaries For the Years Ended March 31, 2016 and 2015

	Millions of yen		Thousands of U.S. dollars
	2016	2015	2016
Profit	¥31,119	¥37,030	\$275,389
Other comprehensive income:			
Unrealized (losses) gains on available-for-sale securities	(7,528)	9,163	(66,620)
Foreign currency translation adjustments	(11,480)	2,109	(101,593)
Remeasurements of defined benefit plans	(5,236)	585	(46,336)
Share of other comprehensive income of associates accounted for using the equity method	(532)	571	(4,708)
Total other comprehensive income (Note 17)	(24,776)	12,428	(219,257)
Comprehensive income	¥ 6,343	¥49,458	\$ 56,132
Comprehensive income attributable to:			
Owners of the parent	¥ 6,392	¥49,027	\$ 56,566
Noncontrolling interests	(49)	431	(434)
Total comprehensive income	¥ 6,343	¥49,458	\$ 56,132

# **Consolidated Statements of Changes in Net Assets**

NGK SPARK PLUG CO., LTD. and Consolidated Subsidiaries For the Years Ended March 31, 2016 and 2015

			Shai	reholders' equ	uity	Accumulated other comprehensive income						
	Number of shares of common stock issued	Common stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity		Foreign currency translation adjustments	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Noncontrolling interests	Total net assets
						N	fillions of ye	n				
Balance at April 1, 2014	223,544,820	¥47,869	¥54,825	¥195,042	¥(7,611)	¥290,125	¥21,138	¥ (6,544)	) ¥(4,084)	¥10,510	¥2,159	¥302,79
Cumulative effects of changes in												
accounting policies		_	_	(1,477)	_	(1,477)	_	_	_	_	_	(1,47
Restated balance at April 1, 2014		47,869	54,825	193,565	(7,611)	288,648	21,138	(6,544)	(4,084)	10,510	2,159	301,31
Profit attributable to owners of												
the parent for the year	_	_	_	36,753	_	36,753	_	_	_	_	_	36,75
Cash dividends	_	_	_	(7,182)	_	(7,182)	_	_	_	_	_	(7,182
Purchases of treasury stock and												
fractional shares, net of sales	_	_	_	_	(29)	(29)	_	_	_	_	_	(29
Net changes other than changes in												
shareholders' equity for the year	_	_	_	_	_	_	9,160	2,526	587	12,273	249	12,522
Balance at March 31, 2015	223,544,820	47,869	54,825	223,136	(7,640)	318,190	30,298	(4,018)	(3,497)	22,783	2,408	343,38
Profit attributable to owners												
of the parent for the year	_	_	_	30,815	_	30,815	_	_	_	_	_	30,81
Cash dividends	_	_	_	(8,487)	_	(8,487)	_	_	_	_	_	(8,487
Purchases of treasury stock and												
fractional shares, net of sales	_	_	_	_	(7)	(7)	_	_	_	_	_	(7
Net changes other than changes in												
shareholders' equity for the year	_	_	_	_	_	_	(7,564)	(11,622)	(5,237)	(24,423)	(234)	(24,657
Balance at March 31, 2016	223,544,820	¥47,869	¥54,825	¥245,464	¥(7,647)	¥340,511	¥22,734	¥(15,640)	¥(8,734)	¥ (1,640)	¥2,174	¥341,04
						Thousa	nds of U.S.	dollars				
Balance at March 31, 2015		\$423,619	\$485,177	\$1,974,655	\$(67,611)	\$2,815,840	\$268,124	\$ (35,558)	\$(30,947)	\$201,619	\$21,310	\$3,038,769
Profit attributable to owners												
of the parent for the year		_	_	272,699	_	272,699	_	_	_	_	_	272,699
Cash dividends		_	_	(75,106)	_	(75,106)	_	_	_	_	_	(75,106
Purchases of treasury stock and												
fractional shares, net of sales		_	_	_	(62)	(62)	_	_	_	_	_	(62
Net changes other than changes in												
shareholders' equity for the year		_	_	_	_	_	(66,938)	(102,849)	(46,345)	(216,132)	(2,071)	(218,203
Balance at March 31, 2016		\$423,619	\$485,177	\$2,172,248	\$(67,673)	\$3,013,371	\$201,186	\$(138,407)	\$(77,292)	\$ (14,513)	\$19,239	\$3,018,09

# **Consolidated Statements of Cash Flows**

NGK SPARK PLUG CO., LTD. and Consolidated Subsidiaries For the Years Ended March 31, 2016 and 2015

	Millions of y	Thousands of U.S. dollars	
	2016	2015	2016
Cash flows from operating activities:			
Profit before income taxes	¥43,757	¥57,031	\$387,230
Adjustments for:			
Depreciation	16,847	13,338	149,088
Impairment loss on fixed assets	2,428	4,133	21,487
Equity in net losses (earnings) of associates	66	(594)	584
Increase in trade receivables	(1,167)	(4,580)	(10,327)
Increase in inventories	(1,949)	(5,309)	(17,248)
Increase (decrease) in trade payables	5,157	(1,499)	45,637
Other, net	4,810	(1,283)	42,567
Subtotal	69,949	61,237	619,018
Interest and dividends received	2,932	2,576	25,947
Interest paid	(307)	(504)	(2,717)
Income taxes paid	(16,109)	(26,716)	(142,558)
Net cash provided by operating activities	56,465	36,593	499,690
Cash flows from investing activities:			
Increase in property, plant and equipment	(42,892)	(36,702)	(379,575)
Increase in intangible assets	(1,168)	(1,281)	(10,337)
Purchase of shares of subsidiaries resulting in change in scope of consolidation (Note 18)	(37,415)	_	(331,106)
Increase in long-term investments	(1,298)	(1,983)	(11,487)
Decrease in long-term investments	7,505	11,700	66,416
Net (increase) decrease in short-term investments	(9,218)	14,763	(81,575)
Other, net	2,155	637	19,071
Net cash used in investing activities	(82,331)	(12,866)	(728,593)
Cash flows from financing activities:			
Issuance of long-term debt	29,859	_	264,239
Proceeds from long-term debt	19,848	_	175,646
Repayment of long-term debt	(15,259)	(10,285)	(135,036)
Net decrease in short-term borrowings	(650)	(1,069)	(5,752)
Dividends paid	(8,486)	(7,180)	(75,097)
Purchase of treasury stock and fractional shares, net of sales	(7)	(29)	(62)
Other, net	(184)	(183)	(1,628)
Net cash provided by (used in) financing activities	25,121	(18,746)	222,310
Effect of exchange rate changes on cash and cash equivalents	(3,639)	1,592	(32,204)
Net (decrease) increase in cash and cash equivalents	(4,384)	6,573	(38,797)
Cash and cash equivalents at beginning of year	75,540	68,967	668,496
Cash and cash equivalents at end of year	¥71,156	¥75,540	\$629,699

#### Notes to Consolidated Financial Statements

NGK SPARK PLUG CO., LTD. and Consolidated Subsidiaries

#### 1. Basis of Consolidated Financial Statements

The accompanying consolidated financial statements of NGK SPARK PLUG CO., LTD. (the "Company") and its consolidated subsidiaries (together with the Company, the "NGK Spark Plug Group") have been prepared in accordance with the provisions set forth in the Financial Instrument and Exchange Law of Japan and its related accounting regulations and in conformity with accounting principles generally accepted in Japan ("Japanese GAAP"), which are different in certain respects as to application and disclosure requirements from International Financial Reporting Standards ("IFRS").

The accompanying consolidated financial statements have been reformatted and translated into English, with some expanded descriptions, from the consolidated financial statements of the Company prepared in accordance with Japanese GAAP and filed with the appropriate Local Finance Bureau of the Ministry of Finance as required by the Financial Instrument and Exchange Law of Japan. Certain supplementary information included in the statutory Japanese language consolidated financial statements is not presented in the accompanying consolidated financial statements.

The translation of the Japanese yen amounts into U.S. dollar amounts is included solely for the convenience of readers outside Japan, using the approximate exchange rate prevailing at March 31, 2016, which was ¥113 to U.S. \$1.00. The translation should not be construed as a representation that the Japanese yen amounts have been, could have been or could in the future be converted into U.S. dollars at this or any other rate of exchange.

Certain comparative figures have been reclassified to conform to the current year's presentation.

#### 2. Summary of Significant Accounting Policies

#### (a) Principles of consolidation

The accompanying consolidated financial statements include the accounts of the Company and its significant subsidiaries. Investments in significant unconsolidated subsidiaries and associates are accounted for by the equity method. Investments in unconsolidated subsidiaries and associates not accounted for by the equity method are stated at cost. All intercompany transactions and accounts have been eliminated. The difference between the cost of investments in subsidiaries and the underlying equity in their net assets, adjusted based on the fair value at the time of acquisition, is deferred principally as goodwill and amortized over the estimated useful life, generally 5-10 years, on a straight-line basis.

The number of consolidated subsidiaries and associates accounted for by the equity method for the years ended March 31, 2016 and 2015 was as follows:

	2016	2015
Consolidated subsidiaries:		
Domestic	10	9
Overseas	30	25
Associates accounted for by the equity method	2	3

Investments in the remaining unconsolidated subsidiaries and associated companies are stated at cost. If the equity method of accounting had been applied to the investments in these companies, the effect on the accompanying consolidated financial statements would not have been material

For the year ended March 31, 2016, the fiscal year-end date of NGK Spark Plug (Shanghai) Co., Ltd., Changshu NGK Spark Plug Co., Ltd., NGK Spark Plug (Shanghai) Trading Co., Ltd., Bujias NGK de Mexico S.A. de C.V., LLC NGK Spark Plugs (Eurasia), Woo Jin Industry Co., Ltd. and two other companies is December 31. However, when preparing consolidated financial statements, the Company uses the financial statements of the

seven consolidated subsidiaries and one associate that have been compiled by a temporary closing of their accounts as of March 31.

(Unification of accounting policies applied to foreign subsidiaries for consolidated financial statements)

The Company has adopted Practical Issues Task Force ("PITF") No. 18, "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for Consolidated Financial Statements," issued by the Accounting Standards Board of Japan ("ASBJ"). PITF No. 18 requires that accounting policies and procedures applied by a parent company and its subsidiaries to similar transactions and events under similar circumstances should, in principle, be unified for the preparation of the consolidated financial statements. PITF No. 18, however, as a tentative measure, allows a parent company to prepare consolidated financial statements using its foreign subsidiaries financial statements prepared in accordance with either IFRS or U.S. generally accepted accounting principles ("U.S. GAAP"). In this case, adjustments for the following four items are required in the consolidation process so that their impact on profit attributable to owners of the parent is accounted for in accordance with Japanese GAAP, unless the impact is not material.

- (a) Goodwill not subject to amortization
- (b) Actuarial gains and losses of defined benefit retirement plans recognized outside profit and loss
- Capitalized expenditures for research and development activities
- (d) Fair value measurement of investment properties and revaluation of property, plant and equipment and intangible assets

(Unification of accounting policies applied to associates

accounted for using the equity method)
The Company also has adopted ASBJ PITF No. 24, "Practical Solution on Unification of Accounting Policies Applied to Associates and Proceedings of the Policies Applied to Associates and Proceedings of the Policies Applied to Associates and Proceedings of the Policies Applied by the Policies and Proceedings of the Policies of t requires that accounting policies and procedures applied by an investment company and its associates to similar transactions and events under similar circumstances should, in principle, be unified for applying the equity method. PITF No. 24, however, as a tentative measure, allows an investment company to apply the equity method using its foreign associates' financial statements prepared in accordance with either IFRS or U.S. GAAP. In this case, adjustments for the same four items as PITF No. 18 are required in the consolidation process so that their impact on profit attributable to owners of the parent is accounted for in accordance with Japanese GAAP, unless the impact is not

#### (b) Cash equivalents

The NGK Spark Plug Group considers highly liquid debt instruments purchased with an original maturity of three months or less to be cash equivalents.

#### (c) Investments and marketable securities

The NGK Spark Plug Group classifies certain investments in debt and equity securities as "held-to-maturity," "trading" or "availablefor-sale." The classification determines the respective accounting method to be applied to the investments as stipulated by the accounting standards for financial instruments. The NGK Spark Plug Group has no securities categorized as trading or held-tomaturity securities. Available-for-sale securities are stated at fair value if such value is available, and net unrealized gain or loss on these securities is reported as a component of accumulated other comprehensive income, net of applicable income taxes. Gains and losses on the disposal of available-for-sale securities are computed by the moving average method. Available-for-sale

securities without available fair value are carried at cost determined by the moving average method. Adjustments in the carrying values of individual investment securities are charged to income through write-downs when a decline in value is deemed other than temporary.

## (d) Accounting for derivatives

Derivative instruments are valued at fair value if hedge accounting is not appropriate or when there is no hedging designation, and the gains and losses on the derivatives are recognized in current earnings. According to the special treatment as permitted by the accounting standard for financial instruments, if interest rate and currency swap contracts are used as hedges and meet certain hedging criteria, the interest rate and currency swap contracts are not remeasured at market price, and the amount to be received under the interest rate and currency swap contracts is added to or deducted from the interest on the liabilities for which the swap contracts are executed, and the liabilities denominated in foreign currencies for which the interest rate and currency swap contracts are executed are translated at the contracted rate. Measurement of hedge effectiveness is not considered necessary for interest rate and currency swap contracts that meet the requirements for the special treatment.

#### (e) Inventories

Inventories held for sale in the ordinary course of business are valued at the lower of cost, determined principally by the moving average method, or net realizable value. If net realizable value has fallen below cost at of the end of the period, the cost basis is reduced to net realizable value and regarded as decreased profitability of inventories.

## (f) Allowance for doubtful accounts

Allowance for doubtful accounts has been provided for at the aggregate amount of estimated credit losses based on an individual review of certain doubtful or troubled receivables and a general reserve for other receivables based on the historical loss experience of a certain past period.

# (g) Property, plant and equipment and depreciation

Property, plant and equipment, including significant renewals and additions, are stated at cost. Depreciation is calculated based on the estimated useful life of the asset by the straight-line method.

Expenditures on maintenance and repairs are charged to income as incurred. Upon disposal, the cost and accumulated depreciation are removed from the related accounts and any gain or loss is recorded as income or expense.

#### (h) Leases

The Company and its domestic consolidated subsidiaries capitalize the assets used under finance leases as lessee, except for certain immaterial or short-term finance leases which are accounted for as operating leases in accordance with the current accounting standard. Depreciation is calculated using the straight-line method over the lease term and assuming no residual value.

## (i) Impairment of fixed assets

The Company and its domestic consolidated subsidiaries have adopted the "Accounting Standard for Impairment of Fixed Assets" and the related practical guidance. The standard requires that fixed assets be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. An impairment loss is recognized in the income statement by reducing the carrying amount of the impaired asset or a group of assets to the

recoverable amount, measured by the higher of the asset's net selling price or value in use. Fixed assets include land, plants, buildings and other forms of property, including intangible assets, and are to be grouped at the lowest level for which there are identifiable cash flows from other groups of assets. For the purpose of recognition and measurement of an impairment loss, fixed assets of the NGK Spark Plug Group, other than idle or unused property, are grouped into cash generating units based on managerial accounting classifications.

#### (j) Employee retirement benefits

The difference between retirement benefit obligations and plan assets has been recognized as net defined benefit liability. To calculate the retirement benefit obligations, the benefit formula basis is used to allocate estimated retirement benefits. Past service cost that is yet to be recognized is amortized on a straight-line basis over ten years, a period not exceeding the average remaining service period of the employees. Actuarial gains and losses that are yet to be recognized are amortized on a straight-line basis over ten years, a period not exceeding the average remaining service period of employees, from the year following the year in which they arise. Net defined benefit liability and retirement benefit costs of certain consolidated subsidiaries are calculated using the simplified method as permitted by the accounting standard for retirement benefits.

(Changes in accounting policies for retirement benefits) Effective from the year ended March 31, 2015, the Company and its domestic consolidated subsidiaries have adopted Article 35 of the Accounting Standard for Retirement Benefits (ASBJ Statement No. 26, May 17, 2012 (hereinafter, "Statement No. 26")) and Article 67 of the Guidance on Accounting Standard for Retirement Benefits (ASBJ Guidance No. 25, March 26, 2015 (hereinafter, "Guidance No. 25")) and have changed methods used to determine the retirement benefit obligations and current service cost. In addition, the Company and its domestic consolidated subsidiaries have changed the method used to attribute expected benefits to periods of service from a straightline method to a benefit formula basis and the method used to determine the discount rate to a single weighted average discount rate reflecting the estimated timing and amount of benefit payments.

In accordance with Article 37 of Statement No. 26, the effect of changing the method used to determine retirement benefit obligations and current service costs has been recognized in retained earnings at the beginning of the year ended March 31 2015. As a result, net defined benefit liability increased by ¥2,166 million and retained earnings decreased by ¥1,477 million at the beginning of the year ended March 31, 2015 compared with the amounts that would have been reported without the change. The effects on income were not material.

# (k) Translation of foreign currency accounts

Receivables, payables and securities, other than stocks of subsidiaries and certain other securities, are translated into Japanese yen at exchange rates prevailing at the fiscal year-end. Transactions in foreign currencies are recorded based on the exchange rates prevailing on the transaction dates. Resulting translation gains and losses are included in current earnings.

For financial statement items of the overseas consolidated subsidiaries, all asset and liability accounts are translated into Japanese yen by applying the exchange rate in effect at the respective fiscal year-end. All income and expense accounts are translated at the average rate of exchange prevailing during each year. Translation differences, after allocating portions attributable to noncontrolling interests, are reported in foreign currency translation adjustments as a component of accumulated other comprehensive income in the accompanying consolidated balance sheets.

#### (I) Research and development expenses

Expenses related to research and development are charged to income as incurred. Research and development expenses arise from a wide range of the NGK Spark Plug Group's activities, including basic and applied research for material development, planning and designing of new products and processes and activities aimed at improving existing products and processes. For the years ended March 31, 2016 and 2015, research and development expenses aggregated ¥23,123 million (\$204,628 thousand) and ¥21,337 million, respectively. These amounts included research and development activities for basic and applied research and the development of new products and processes in the amount of ¥5,402 million (\$47,805 thousand) and ¥4,597 million at March 31, 2016 and 2015, respectively, and were recorded as general and administrative expenses. The remaining expenses were recorded for the respective years in the accompanying consolidated statements of income as manufacturing costs.

#### (m) Bond issue costs

Bond issue costs are charged to income when incurred.

#### (n) Income taxes

Income taxes are accounted for by the asset-liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss carryforwards. Deferred tax assets and liabilities are measured using the enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the period that includes the promulgation date.

## (o) Enterprise taxes

The NGK Spark Plug Group records enterprise taxes calculated based on the "added value" and "capital" amounts when levied as size-based corporate taxes for local government enterprise taxes, which are included in selling, general and administrative expenses.

# (p) Appropriation of retained earnings

Cash dividends are recorded in the fiscal year when a proposed appropriation of retained earnings is approved by the Board of Directors of the Company.

### (q) Per share data

Basic earnings per share is computed by dividing income available to common shareholders by the weighted average number of shares of common stock outstanding during the year. Diluted earnings per share is not disclosed as the NGK Spark Plug Group had no dilutive common shares. Cash dividends per share shown for each fiscal year in the accompanying consolidated statements of income represent dividends declared by the Company as applicable to the respective year.

## (r) Changing in accounting policies for business combinations

The Company and its domestic subsidiaries adopted "Revised Accounting Standard for Business Combinations" (ASBJ Statement No. 21, September 13, 2013 (hereinafter, "Statement No. 21"), "Revised Accounting Standard for Consolidated Financial Statements" (ASBJ Statement No. 22, September 13, 2013 (hereinafter, "Statement No. 22")) and "Revised Accounting Standard for Business Divestitures" (ASBJ Statement No. 7,

September 13, 2013 (hereinafter, "Statement No. 7")) (together, the "Business Combination Accounting Standards"), from the current fiscal year. As a result, the Company changed its accounting policies to recognize in capital surplus the differences arising from changes in the Company's ownership interest in subsidiaries over which the Company continues to maintain control and to record acquisition related costs as expenses in the fiscal year in which the costs are incurred. In addition, the Company changed its accounting policy for the reallocation of acquisition costs due to the completion following provisional accounting to reflect such reallocation in the consolidated financial statements for the fiscal year in which the business combination took place. The Company also changed the presentation of net income, the term "noncontrolling interests" is used instead of "minority interests," and certain amounts in the prior year comparative information were reclassified to conform to such changes in the current year presentation.

With regard to the application of the Business Combination Accounting Standards, the Company followed the provisional treatments in Article 58-2 (4) of Statement No. 21, article 44-5 (4) of Statement No. 22 and Article 57-4 (4) of Statement No. 7 with application from the beginning of the current fiscal year

In the consolidated statement of cash flows, cash flows from the acquisition or disposal of shares of subsidiaries with no change in the scope of consolidation are included in "Cash flows from financing activities." Cash flows from acquisition related costs for the acquisition of shares of subsidiaries that result in a change in the scope of consolidation or costs related to the acquisition or disposal of shares of subsidiaries with no change in the scope of consolidation are included in "Cash flows from operating activities.

The effects on the consolidated financial statements were

# (s) New accounting standards issued but not yet adopted

"Revised Implementation Guidance on Recoverability of Deferred Tax Assets" (ASBJ Guidance No. 26, March 28, 2016 (hereinafter, "Guidance No. 26")

# (1) Overview

Following the framework in Auditing Committee Report No. 66, "Audit Treatment regarding the Judgment of Recoverability of Deferred Tax Assets," which prescribes estimation of deferred tax assets according to the classification of the entity by one of five types, the following treatments were changed as necessary:

- 1) Treatment for an entity that does not meet any of the criteria in types 1 to 5
- 2) Criteria for types 2 and 3;
- 3) Treatment for deductible temporary differences which an entity classified as type 2 is unable to schedule;
- 4) Treatment for the period which an entity classified as type 3 is able to reasonably estimate with respect to future taxable income before consideration of taxable or deductible temporary differences that exist at the end of the current fiscal year; and
- 5) Treatment when an entity classified as type 4 also meets the criteria for types 2 or 3.
- (2) Effective date

Effective from the beginning of the fiscal year ending March 31, 2017

(3) Effects of application of the Guidance

The Company is currently in the process of determining the effects of this new standard on the consolidated financial statements.

#### 3. Financial Instruments

## (a) Qualitative information on financial instruments

The NGK Spark Plug Group does not invest surplus funds in securities other than short-term bank deposits and debt securities with high liquidity from issuers with high credit ratings in accordance with fund management policies. The NGK Spark Plug Group uses indirect financing from financial institutions such as correspondent banks and direct financing from financial markets principally by the issuance of corporate bonds to satisfy short-term and long-term funding requirements.

The NGK Spark Plug Group is exposed to credit risk primarily

with respect to trade receivables. In order to reduce the credit risk of these receivables, the NGK Spark Plug Group sets payment terms according to the credit capability of its customers. In some cases, the NGK Spark Plug Group receives security deposits in advance.

The NGK Spark Plug Group holds investments in securities such as negotiable certificates of deposits, debt securities and equity securities whose fair values are monitored on a quarterly basis.

The NGK Spark Plug Group is a party to derivative instruments such as foreign currency forward exchange contracts, currency option contracts and interest rate and currency swap agreements in the normal course of business principally for hedging purposes in order to reduce its own exposure to fluctuations in exchange rates and interest rates. The NGK Spark Plug Group does not hold or issue derivative financial instruments for trading purposes. Under the NGK Spark Plug Group's financial management policies, contract balances of currency derivatives are limited to certain anticipated export sales and import purchases.

## (b) Fair value of financial instruments

The fair value and carrying value of financial instruments at March 31, 2016 and 2015, other than unlisted equity securities for which the fair value was extremely difficult to determine, were as follows:

	Carrying value		Fair value		Differ	ence	
			Milli	ons of yen			
At March 31, 2016:							
Financial assets:							
Cash and cash equivalents	¥	71,156	¥	71,156	¥	-	-
Short-term investments		26,377		26,377		-	-
Trade receivables		74,942		74,942		-	-
Investment securities: Available-for-sale securities		46.544		46,544			
				- , -	¥	, –	_
Total	¥	219,019	¥	219,019	#		_
Financial liabilities (*1):	.,	(4.4)		(4.4)			
Short-term borrowings	¥	(11)	¥	(11)	¥		-
Long-term bank loans	(24,859)		(25,055)			(19	6
Trade payables		(28,050)		(28,050)		-	-
Bonds payable,							
including current portion		(55,000)		(55,376)		(37)	
Total		107,920)		108,492)		(57	2)
Derivative instruments (*2)	¥	153	¥	153	¥	_	_
At March 31, 2015:							
Financial assets:							
Cash and cash equivalents	¥	75,540	¥	75,540	¥	_	_
Short-term investments		26,008		26,008		_	_
Trade receivables		68,515		68,515		_	_
Investment securities:							
Available-for-sale securities		57,182		57,182		_	_
Total	¥	227,245	¥	227,245	¥	′ –	_

Derivative instruments (*2)	¥ 49	¥ 49	¥ —
Total	¥ (70,907)	¥ (71,167)	¥ (260)
Bonds payable, including current portion	(40,000)	(40,230)	(230)
Trade payables	(25,239)	(25,239)	_
Short-term borrowings Long-term bank loans	¥ (668) (5,000)	¥ (668) (5,030)	¥ — (30)
Financial liabilities (*1):			

	Thousands of U.S. dollars					
At March 31, 2016:			Т			
Financial assets:						
Cash and cash equivalents	\$	629,699	\$	629,699	\$	_
Short-term investments		233,425		233,425		_
Trade receivables		663,203		663,203		_
Investment securities:						
Available-for-sale securities		411,894		411,894		_
Total	\$1	1,938,221	\$	,938,221	\$	_
Financial liabilities (*1):						
Short-term borrowings	\$	(97)	\$	(97)	\$	_
Long-term bank loans		(219,991)		(221,726)		(1,735)
Trade payables		(248, 230)		(248, 230)		_
Bonds payable, including						
current portion		(486,726)		(490,053)		(3,327)
Total	\$	(955,044)	\$	(960,106)	\$	(5,062)
Derivative instruments (*2)	\$	1,354	\$	1,354	\$	_

- \*1) Amounts in parenthesis reflect liabilities.
- \*2) The value of derivative instruments is shown as a net position.

#### Notes:

- (1) The methods and assumptions used to estimate the fair value of financial instruments are summarized below: The fair value of cash and cash equivalents, trade receivables, short-term borrowings and trade payables is approximately equal to the carrying value due to their short-term maturities. The fair value of investment equity securities is based on quoted market prices. The fair value of bonds and other securities included in investment securities, bonds payable and derivative instruments is based on the price provided by corresponding financial institutions. The fair value of long-term bank loans is computed based on the total amount of principal and interest discounted at an interest rate applicable to new loans under the same conditions.
- (2) The following securities are not included in the table above because the fair value was extremely difficult to determine.

	Carrying value			
	Millions o	Millions of yen		
	2016	2015	2016	
Investments (equity securities) in unconsolidated subsidiaries				
and associates	¥5,339	¥7,485	\$47,248	
Unlisted equity securities	1,182	1,047	10,460	

Expected maturities of financial assets at March 31, 2016 were as follows:

	Due in one year or less	Due after one year through five years	Due after five years
		Millions of yen	
At March 31, 2016:			
Cash and cash equivalents	¥ 71,156	¥ –	¥—
Trade receivables	74,942	_	_
Investments	25,029	1,130	_
	¥171,127	¥1,130	¥—

Thousands	of	U.S.	dollars
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At March 31, 2016:					
Cash and cash equivalents	\$	629,699	\$	_	\$-
Trade receivables		663,203		_	_
Investments		221,496	10	,000	_
	\$1	,514,398	\$10	,000	\$-

Contractual maturities of bank loans at March 31, 2016 were as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2017	11	97
2018	11	97
2019	9,962	88,159
2020	9,924	87,823
2021	4,962	43,912
	¥24,870	\$220,088

Contractual maturities of bonds payable at March 31, 2016 were as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2017	_	_
2018	_	_
2019	25,000	221,239
2020	_	_
2021	30,000	265,487
	¥55,000	\$486,726

# 4. Notes and Accounts Receivable

At March 31, 2016 and 2015, notes and accounts receivable consisted of the following:

	Millions o	Thousands of U.S. dollars	
	2016	2015	2016
Trade receivables	¥72,990	¥66,179	\$645,929
Unconsolidated subsidiaries and associates	1,954	2,379	17,292
Other	9,058	9,482	80,160
Less allowance for doubtful accounts	(406)	(387)	(3,593)
	¥83,596	¥77,653	\$739,788

# 5. Inventories

At March 31, 2016 and 2015, inventories consisted of the following:

	Millions of yen		U.S. dollars
	2016	2015	2016
Finished goods	¥47,177	¥46,705	\$417,496
Work-in-process	23,089	21,303	204,327
Raw materials	11,857	10,372	104,929
	¥82,123	¥78,380	\$726,752

For the year ended March 31, 2016, a write-down of ¥801 million (\$7,088 thousand) was recognized as costs of goods sold. For the year ended March 31, 2015, a reversal of a writedown of ¥22 million was recognized as a reduction in costs of goods sold.

#### 6. Investments

At March 31, 2016 and 2015, short-term investments consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2016	2015	2016
Securities with fair value:			
Bonds	¥ 7,112	¥13,310	\$ 62,938
Other	11,937	4,523	105,637
	19,049	17,833	168,575
Time deposits with an original			
maturity of more than three months	7,328	8,175	64,850
	¥26,377	¥26,008	\$233,425

At March 31, 2016 and 2015, investment securities consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2016	2015	2016
Securities with fair value:			
Equity securities	¥45,414	¥57,181	\$401,894
Bonds	1,130	1	10,000
	46,544	57,182	411,894
Other securities without fair value	1,546	1,415	13,681
	¥48,090	¥58,597	\$425,575

At March 31, 2016 and 2015, the cost and fair value of availablefor-sale securities were summarized as follows:

	Cost	Gross unrealized gains	Gross unrealized losses	Fair and carrying value
		Millions	of yen	
At March 31, 2016:				
Equity securities	¥12,684	¥32,837	¥(107)	¥45,414
Bonds	8,261	_	(19)	8,242
Other	11,318	619	_	11,937
	¥32,263	¥33,456	¥(126)	¥65,593
At March 31, 2015:				
Equity securities	¥12,672	¥44,583	¥ (74)	¥57,181
Bonds	13,317	39	(45)	13,311
Other	3,919	604	_	4,523
	¥29,908	¥45,226	¥(119)	¥75,015

	Thousands of U.S. dollars			
At March 31, 2016:				
Equity securities	\$112,248	\$290,593	\$ (947)	\$401,894
Bonds	73,106	_	(168)	72,938
Other	100,159	5,478	_	105,637
	\$285,513	\$296,071	\$(1,115)	\$580,469

No loss on the write-down of available-for-sale securities was recognized for the year ended March 31, 2016, and a loss on the write-down of available-for-sale securities was not material for the year ended March 31, 2015.

# 7. Other Intangible Assets

At March 31, 2016 and 2015, other intangible assets consisted of the following:

	Millions	of yen	Thousands of U.S. dollars
	2016	2015	2016
Software	¥ 3,554	¥3,132	\$ 31,452
Other	10,649	289	94,239
	¥14,203	¥3,421	\$125,691

#### 8. Accounts Payable

At March 31, 2016 and 2015, accounts payable consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2016	2015	2016
Trade payables	¥27,836	¥24,812	\$246,336
Unconsolidated subsidiaries			
and associates	370	595	3,275
Other	12,470	11,122	110,354
	¥40,676	¥36,529	\$359,965

## 9. Short-term Borrowings and Long-term Debt

At March 31, 2016 and 2015, short-term borrowings consisted of the following:

	Millions	of yen	U.S. dollars
	2016	2015	2016
Unsecured bank loans with interest at rates 2.00% per annum at			
March 31, 2016	¥11	¥668	\$97

At March 31, 2016 and 2015, long-term debt consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2016	2015	2016
1.22% unsecured bonds due September 2015	¥ –	¥15,000	\$ -
0.391% unsecured bonds due September 2018	25,000	25,000	221,239
0.296% unsecured bonds due September 2020	30,000	_	265,487
0.41% unsecured bank loans due September 2018	5,000	5,000	44,248
2.00% unsecured bank loans due September 2018	11	_	97
0.11% unsecured bank loans due August 2020	11,909	_	105,389
0.285% unsecured bank loans due August 2020	7,939	_	70,257
Capitalized lease obligations	342	485	3,027
	80,201	45,485	709,744
Less current portion	(174)	(15,187)	(1,540)
	¥80,027	¥30,298	\$708,204

As is customary in Japan, substantially all bank borrowings are subject to general agreements which provide, among other things, that the banks may under certain circumstances request additional security for these loans and may treat any security so furnished to the bank, as well as cash deposited with it, as security for all present and future indebtedness. The banks have never requested the Company or its subsidiaries to submit such additional security. Also, as is customary in Japan, the Company and certain of its subsidiaries may have time deposits with banks from which they have short-term and long-term borrowings. However, there are no agreements with any banks which would require maintaining such deposits.

The aggregate annual maturities of long-term debt at March 31, 2016 were as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars	
2017	¥ 174	\$ 1,540	
2018	120	1,062	
2019	34,994	309,681	
2020	9,945	88,009	
2021	34,967	309,443	
Thereafter	1	9	
	¥80,201	\$709,744	

#### 10. Employee Retirement Benefits

The Company has a lump-sum retirement benefit plan and a defined benefit pension plan that cover 80% of the retirement benefits for employees of the Company who retire at the compulsory retirement age after ten years or more of service. Some of the Company's domestic consolidated subsidiaries have similar retirement benefit plans. Some of the overseas consolidated subsidiaries have defined contribution plans. The Company contributes certain plan assets to the employee retirement benefit trust under the defined benefit pension plan. Net defined benefit liability and retirement benefit costs of certain consolidated subsidiaries are calculated using the simplified method as permitted by the accounting standard for retirement

Information about employee retirement benefits for the years ended March 31, 2016 and 2015 was as follows:

#### (a) Defined benefit plans

Movement in retirement benefit obligations, except for plans applying the simplified method:

	Millions of yen		U.S. dollars
	2016	2015	2016
Balance at April 1	¥57,361	¥53,009	\$507,619
Cumulative effects of changes in			
accounting policies	_	2,166	_
Restated balance	57,361	55,175	507,619
Service cost	3,276	3,076	28,991
Interest cost	645	673	5,708
Actuarial loss	6,301	1,113	55,761
Benefits paid	(3,045)	(2,591)	(26,947)
Past service cost	(114)	_	(1,008)
Increase due to newly			
consolidated subsidiaries	4,297	_	38,027
Other	(339)	(85)	(3,000)
Balance at March 31	¥68,382	¥57,361	\$605,151

Movement in plan assets, except for plans applying the simplified method:

	Millions of yen		Thousands of U.S. dollars
	2016	2015	2016
Balance at April 1	¥33,585	¥29,725	\$297,212
Expected return on plan assets	1,005	787	8,894
Actuarial (loss) gain	(1,848)	1,577	(16,354)
Contributions paid by the employer	3,385	3,278	29,956
Benefits paid	(2,185)	(1,792)	(19,336)
Increase due to newly consolidated subsidiaries	2,781		24,611
Other	(282)	10	(2,496)
Balance at March 31	¥36,441	¥33,585	\$322,487

Movement in net defined benefit liability for plans applying the simplified method:

	Millions o	f yen	Thousands of U.S. dollars
	2016	2015	2016
Balance at April 1	¥236	¥238	\$2,088
Retirement benefit costs	45	43	398
Benefits paid	(15)	(26)	(133)
Contributions paid by the			
employer	(21)	(19)	(185)
Balance at March 31	¥245	¥236	\$2,168

Reconciliation from retirement benefit obligations and plan assets to net defined benefit liability:

	Millions of yen		Thousands of U.S. dollars
	2016	2015	2016
Funded retirement benefit obligations	¥47,607	¥38,372	\$421,301
Plan assets	(36,591)	(33,715)	(323,814)
	11,016	4,657	97,487
Unfunded retirement benefit			
obligations	21,170	19,355	187,345
Total net defined benefit liability	32,186	24,012	284,832
Net defined benefit liability	32,186	24,012	284,832
Total net defined benefit liability	¥32,186	¥24,012	\$284,832

## Retirement benefit costs:

	Millions of yen		Thousands of U.S. dollars
	2016	2015	2016
Service cost	¥3,276	¥3,076	\$28,991
Interest cost	645	673	5,708
Expected return on plan assets	(1,012)	(787)	(8,956)
Net actuarial loss amortization	664	752	5,876
Past service cost amortization	8	22	71
Retirement benefit costs based on			
the simplified method	45	43	398
Total	¥3,626	¥3,779	\$32,088

Remeasurements of defined benefit plans included in other comprehensive income (before adjusting for tax effects):

	Millions of yen		U.S. dollars
	2016	2015	2016
Past service costs	¥ (124)	¥ (22)	\$ (1,097)
Actuarial losses	7,479	(1,213)	66,185
Total	¥7,355	¥(1,235)	\$65,088

Remeasurements of defined benefit plans included in accumulated other comprehensive income (before adjusting for tax effects):

	Millions of yen		U.S. dollars
	2016	2015	2016
Past service cost yet to be recognized Actuarial losses yet to be	¥ (134)	¥ (10)	\$ (1,186)
recognized	12,393	4,914	109,673
Total	¥12,259	¥4,904	\$108,487

## Plan assets:

## (1) Plan assets comprise:

	2016	2015
Bonds	19%	21%
Equity securities	24%	36%
General life insurance accounts	29%	26%
Alternative investments	16%	14%
Other	12%	3%
Total	100%	100%

Note: 7% of plan assets in 2016 and 10% of plan assets in 2015 were contributed to the employee retirement benefit trust under the defined benefit pension plan.

(2) Long-term expected rate of return:

Current and target asset allocation and historical and expected returns on various categories of plan assets have been considered in determining the long-term expected rate of return. Actuarial assumptions:

The principal actuarial assumptions at March 31, 2016 and 2015 were as follows:

	2016	2015
Discount rate	Mainly 0.3%	Mainly 0.9%
Long-term expected rate of return	Mainly 2.75%	Mainly 2.75%

#### (b) Defined contribution plans

For the years ended March 31, 2016 and 2015, the amount of required contribution to the defined contribution plans of the overseas consolidated subsidiaries was ¥213 million (\$1,885 thousand) and ¥181 million, respectively.

# 11. Lease Commitments

At March 31, 2016 and 2015, the NGK Spark Plug Group had annual commitments under operating leases as lessee. The aggregate future minimum payments for noncancelable operating leases were as follows:

	Millions o	Millions of yen	
	2016	2015	2016
Due within one year	¥ 693	¥ 657	\$ 6,133
Due after one year	2,235	2,015	19,779
	¥2,928	¥2,672	\$25,912

## 12. Contingent Liabilities

- (1) Guarantee on loans
  - At March 31, 2016 and 2015, contingent liabilities in respect to guarantees of indebtedness, principally of employees, amounted to ¥19 million (\$168 thousand) and ¥28 million, respectively.
- (2) The NGK Spark Plug Group is subject to investigations by overseas authorities regarding possible violations of competition laws in relation to certain past transactions of the automotive components segment. Additional losses may arise if new facts related to possible violations become known and result in damage claims or civil lawsuits against the Group. However, the effect of these contingent liabilities on the consolidated financial statements is not estimable at this stage.

## 13. Derivative Instruments

At March 31, 2016 and 2015, derivative instruments, except for derivative instruments accounted for by hedge accounting, were stated at fair value and recognized for valuation gains and losses in current earnings as follows:

	Notional principal or contract amounts	Fair value	Valuation gains (losses)
		Millions of yen	
At March 31, 2016:			
Foreign exchange contracts:			
Forward contracts to sell	¥14,672	¥167	¥167
Currency call options	500	(15)	(15)
Currency put options	377	1	1
			¥153

At March 31, 2015:			
Foreign exchange contracts:			
Forward contracts to sell	¥12,218	¥44	¥44
Currency call options	794	(8)	(8)
Currency put options	805	13	13
			¥49
	Thous	ands of U.S. dollar	S
At March 31, 2016:			
Foreign exchange contracts:			
Forward contracts to sell	\$129,841	\$1,478	\$1,478
Currency call options	4,425	(133)	(133)
Currency put options	3,336	9	9
			\$1,354

At March 31, 2016 and 2015, derivative instruments to which hedge accounting was applied were as follows:

Notional principal Contract

	Hedged items	or contract amounts	amounts due after one year	Fair va	alue
			Millions of yer	1	
At March 31, 2016:					
Interest rate and currency swaps:					
(floating rate receipt, fixed-rate payment)	Long-term				
(U.S.\$ receipt, Japanese yen payment)	bank loans	¥24,848	¥24,848	¥	
At March 31, 2015:					
Interest rate and currency swaps: (floating rate receipt, fixed-rate payment)	Long-term				
(U.S.\$ receipt, Japanese yen payment)	bank loans	¥5,000	¥5,000	¥	_
	Hedged items	Notional principal or contract amounts	Contract amounts due after one year	Fair va	alue
		Thous	ands of LLS	dollars	

At March 31, 2016:

Interest rate and currency swaps:

(floating rate receipt, fixed-rate payment) Long-term

(U.S.\$ receipt, Japanese yen payment) bank loans \$219,894 \$219,894

The above interest rate and currency swaps which qualify for hedge accounting and meet specific matching criteria are not separated from the hedged bank loans. The fair value of such derivative instruments is reflected in the calculation of the fair value of the related bank loans (see Note 3).

## 14. Net Assets

Under Japanese laws and regulations, the entire amount paid for new shares is required to be designated as common stock. However, a company may, by a resolution of the Board of Directors, designate an amount not exceeding one half of the price of the new shares as additional paid-in capital, which is included in capital surplus.

Under Japanese Corporate Law (the "Law"), in cases in which a dividend distribution of surplus is made, the smaller of an amount equal to 10% of the dividend or the excess, if any, of 25% of common stock over the total of additional paid-in capital and legal earnings reserve must be set aside as additional paidin capital or legal earnings reserve. Legal earnings reserve is included in retained earnings in the accompanying consolidated balance sheets.

Under the Law, legal earnings reserve and additional paid-in capital can be used to eliminate or reduce a deficit by a resolution of the shareholders' meeting. Additional paid-in capital and legal earnings reserve may not be distributed as dividends. All additional paid-in capital and all legal earnings reserve may be transferred to other capital surplus and retained earnings, respectively, which are potentially available for dividends.

At March 31, 2016 and 2015, respectively, capital surplus consisted principally of additional paid-in capital. In addition, retained earnings included legal earnings reserve of the Company in the amount of ¥5,838 million (\$51,664 thousand) at March 31, 2016 and 2015, respectively.

The maximum amount that the Company can distribute as dividends is calculated based on the separate financial statements of the Company in accordance with Japanese laws and regulations.

During the year ended March 31, 2016, the Company paid interim dividends of ¥4,570 million (\$40,442 thousand), ¥21.00 (\$0.19) per share. On May 8, 2016, the Board of Directors of the Company approved cash dividends of ¥4,570 million (\$40,442 thousand), ¥21.00 (\$0.19) per share, for the appropriation of retained earnings to shareholders of record as of March 31, 2016.

#### 15. Impairment Loss on Fixed Assets

For the years ended March 31, 2016 and 2015, the NGK Spark Plug Group recognized an impairment loss on fixed assets in the amount of ¥ 2,428 million (\$21,487 thousand) and ¥4,133 million, respectively, as other expenses.

For the year ended March 31, 2016, impairment loss consisted of ¥2,101 million (\$18,593 thousand) on machinery and equipment, ¥193 million (\$1,708 thousand) on construction in progress and ¥134 million (\$1,186 thousand) on other assets. The loss arose in connection with property used for production of IC packages in the "Semiconductor" subsegment of the "Technical Ceramics" segment that became impaired because performance in the IC package business worsened due to a change in supply and demand and increased costs to stabilize quality. Recoverable amounts estimated using value in use were

For the year ended March 31, 2015, the major assets subject to impairment were as follows:

- (a) Property used for production of IC packages in the "Semiconductor" subsegment of the "Technical Ceramics" segment. Loss for the year ended March 31, 2015 amounted to ¥3,540 million, which consisted of ¥2,982 million on machinery and equipment and other property and ¥558 million on construction in progress. The property became impaired because performance in the IC package business worsened due to a change in supply and demand and increased costs to stabilize quality. Recoverable amounts estimated using value in use were nil.
- (b) Property used for production of ceramics products for industrial business in the "Ceramics" subsegment of the "Technical Ceramics" segment. Loss for the year ended March 31, 2015 amounted to ¥593 million, which consisted of ¥574 million on machinery and equipment and other property and ¥19 million on construction in progress. The property became impaired because performance in the ceramics products for industrial business worsened due to a change in supply and demand and increased costs to stabilize quality. Recoverable amounts estimated using value in use were nil

#### 16. Income Taxes

The tax effects of temporary differences that gave rise to a significant portion of deferred tax assets and liabilities at March 31, 2016 and 2015 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2016	2015	2016
Deferred tax assets:			
Net operating loss carryforwards	¥ 2,778	¥ 2,521	\$ 24,584
Impairment loss on fixed assets	5,575	6,385	49,336
Net defined benefit liability	9,731	7,765	86,115
Depreciation	3,475	2,703	30,752
Accrued expenses	4,377	3,988	38,735
Inventories	2,741	2,307	24,257
Intercompany profits	5,481	6,573	48,504
Other	1,915	2,469	16,947
Less valuation allowance	(7,130)	(7,540)	(63,097)
	28,943	27,171	256,133
Deferred tax liabilities:			
Unrealized gains on available-for-			
sale securities	9,993	14,312	88,434
Retained earnings of overseas consolidated subsidiaries	E E70	5 100	49,363
Other	5,578 5,686	5,109 1,332	50,318
Ott 161	21,257	20,753	188,115
Not deferred toy accets			
Net deferred tax assets	¥ 7,686	¥ 6,418	\$ 68,018

At March 31, 2016 and 2015, deferred tax assets and liabilities were as follows:

	Millions of yen		Thousands of U.S. dollars
	2016	2015	2016
Deferred tax assets:			
Current	¥12,080	¥12,679	\$106,903
Noncurrent	988	868	8,743
Deferred tax liabilities:			
Noncurrent	5,382	7,129	47,628

In assessing the realizability of deferred tax assets, management of the NGK Spark Plug Group considers whether some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which the temporary differences become deductible. At March 31, 2016 and 2015, a valuation allowance was provided to reduce deferred tax assets to the amount that management believed the deferred tax assets were realizable.

For the years ended March 31, 2016, the reconciliation of the differences between the combined Japanese statutory tax rate and the effective income tax rate on pre-tax income reflected in the accompanying consolidated statements of income was as follows.

	Percentage of pre-tax income (%)
	2016
Combined Japanese statutory tax rate	32.8
Increase (decrease) due to:	
Permanently nondeductible expenses	0.4
Tax exempt income	(0.5)
Tax credits for research and development expenses	(3.8)
Differences between Japanese and foreign tax rates	(1.1)
Changes in valuation allowance	(1.7)
Retained earnings of overseas consolidated subsidiaries	1.8
Effect of income tax rate changes	1.5
Loss on violation of antitrust law	0.6
Other	(1.1)
Effective income tax rate	28.9

For the year ended March 31, 2015, a reconciliation of the difference between the statutory and effective tax rates is not disclosed since the difference between the combined Japanese statutory tax rate and the effective income tax rate was less than 5% of the combined Japanese statutory tax rate.

On March 31, 2016, amendments to the Japanese tax regulations were enacted into law. Based on the amendments, the statutory income tax rates utilized for the measurement of deferred tax assets and liabilities expected to be settled or realized from April 1, 2016 to March 31, 2018 and on or after April 1, 2018 were changed from 32.1% to 30.7% and 30.5%, respectively, as of March 31, 2016.

Due to these changes in statutory income tax rates, net deferred tax assets (after deducting the deferred tax liabilities) decreased by ¥334 million (\$2,956 thousand) as of March 31, 2016, deferred income tax expense recognized for the fiscal year ended March 31, 2016 increased by ¥675 million (\$5,973 thousand), net unrealized gains on available-for-sale securities increased by ¥515 million (\$4,558 thousand) and remeasurements of defined benefit plans included in accumulated other comprehensive income decreased by ¥175 million (\$1,549 thousand).

On March 31, 2015, amendments to the Japanese tax regulations were enacted into law. Based on the amendments, the statutory income tax rates utilized for the measurement of deferred tax assets and liabilities expected to be settled or realized from April 1, 2015 to March 31, 2016 and on or after April 1, 2016 were changed for the year ended March 31, 2015 from 35.3% to 32.8% and 32.1%, respectively, as of March 31, 2015.

Due to these changes in statutory income tax rates, net deferred tax assets (after deducting the deferred tax liabilities) decreased by ¥234 million as of March 31, 2015, deferred income tax expense recognized for the fiscal year ended March 31, 2015 increased by ¥1,543 million, Net unrealized gains on available-for-sale securities increased by ¥1,449 million and remeasurements of defined benefit plans included in accumulated other comprehensive income decreased by ¥140 million compared with the amounts that have been reported without the changes.

# 17. Other Comprehensive Income

Amounts reclassified as profit in the current period that were recognized in other comprehensive income in the current or previous periods and the tax effects for each component of other comprehensive income were as follows:

	Millions o	Thousands of U.S. dollars	
	2016	2015	2016
Unrealized (losses) gains on			
available-for-sale securities			
(Decrease) increase during the year	¥(11,831)	¥11,944	\$(104,699)
Subtotal, before tax	(11,831)	11,944	(104,699)
Tax effect	4,303	(2,781)	38,079
Subtotal, net of tax	(7,528)	9,163	(66,620)
Foreign currency translation adjustments			
(Decrease) increase during the year	(11,480)	2,109	(101,593)
Remeasurements of defined benefit plans			
(Decrease) increase during the year	(8,027)	461	(71,035)
Reclassification adjustments	672	774	5,947
Subtotal, before tax	(7,355)	1,235	(65,088)
Tax effect	2,119	(650)	18,752
Subtotal, net of tax	(5,236)	585	(46,336)
Share of other comprehensive income of			
associates accounted for by the equity method			
(Decrease) increase during the year	(539)	571	(4,770)
Reclassification adjustments	7	_	62
Subtotal	(532)	571	(4,708)
Total other comprehensive income	¥(24,776)	¥12,428	\$(219,257)

#### 18. Cash Flow Information

(a) Assets acquired and liabilities assumed of Nihon Ceratec Co., Ltd., newly consolidated subsidiary due to the acquisition of shares as of the acquisition date, related acquisition cost and net expenditure for the acquisition of shares for the year ended March 31, 2016 were as follows:

	Millions of yen	Thousands of U.S. dollars
Current assets	¥4,884	\$43,221
Noncurrent assets	3,821	33,814
Goodwill	768	6,796
Current liabilities	(1,560)	(13,805)
Noncurrent liabilities	(613)	(5,425)
Acquisition cost of shares	¥7,300	\$64,601
Cash and cash equivalents of		
acquired company	¥ (131)	\$ (1,159)
Net cash used for acquisition of		
acquired company	¥7,169	\$63,442

(b) Assets acquired and liabilities assumed of Wells Vehicle Electronics Holdings Corp. and its three subsidiaries, newly consolidated subsidiaries due to the acquisition of shares as of the acquisition date, related acquisition cost and net expenditure for the acquisition of shares for the year ended March 31, 2016 were as follows:

	Millions of yen	Thousands of U.S. dollars
Current assets	¥13,185	\$116,681
Noncurrent assets	16,349	144,681
Goodwill	10,193	90,204
Current liabilities	(32,785)	(290,133)
Noncurrent liabilities	(5,168)	(45,734)
Acquisition cost of shares	¥ 1,774	\$ 15,699
Assumption of bank borrowings	28,841	255,230
Cash and cash equivalents of		
acquired company	(369)	(3,265)
Net cash used for acquisition of		
acquired company	¥30,246	\$267,664

## 19. Segment Information

## (a) General information about reportable segments

The reportable segments of the Company are the business units for which the Company is able to obtain financial information separately in order for the Board of Directors of the Company to conduct periodic investigations to determine the distribution of management resources and evaluate business results. The Company has its business units identified by products. Each business unit plans its own comprehensive domestic and overseas strategies for its own products and conducts its business activities. Accordingly, the NGK Spark Plug Group consists of two reportable segments: "Automotive components" and "Technical ceramics." The "Technical ceramics" segment consists of the "Semiconductor" and "Ceramics" subsegments.

- In the "Automotive components" segment, the Company manufactures and sells spark plugs, glow plugs, various automotive sensors, ceramic engine parts and other automotive components.
- In the "Technical ceramics" segment, the Company manufactures and sells IC packages and other semiconductor components in the "Semiconductor" subsegment and manufactures and sells cutting tools and ceramics products for industrial in the "Ceramics" subsegment.

## (b) Information about reportable segment profit and loss, segment assets and other material items

Information about reportable segments as of and for the years ended March 31, 2016 and 2015 was as follows:

				Rep	orta	ble segmer	its										
				Tec	chnic	cal ceramic	S										
	Δ	utomotive					Total	Technical									
	C	omponents	Sem	iconductor	Ce	eramics	CE	eramics		Total	Ot	her		Total	Adjustments	Co	nsolidated
								N	/lilli	ons of yen							
For the year 2016:																	
Operating revenue - net sales:																	
External customers	¥	322,856	¥	35,636	¥	20,995	¥	56,631	¥	379,487	¥	3,785	¥	383,272	¥—	¥	383,272
Intersegment sales		_		_		_		_		_		_		_	_		_
Total net sales		322,856		35,636		20,995		56,631		379,487		3,785		383,272	_		383,272
Segment income (loss)	¥	71,135	¥	(4,744)	¥	47	¥	(4,697)	¥	66,438	¥	(159) }	¥	66,279	¥—	¥	66,279
Segment assets	¥	453,319	¥	39,799	¥	31,836	¥	71,635	¥	524,954	¥	1,207	¥	526,161	¥-	¥	526,161
Other items:																	
Depreciation	¥	14,870	¥	1,061	¥	905	¥	1,966	¥	16,836	¥	11	¥	16,847	¥-	¥	16,847
Impairment loss on fixed assets		_		2,428		_		2,428		2,428		_		2,428	_		2,428
Increase in property, plant and																	
equipment and intangible assets		37,682		4,110		3,538		7,648		45,330		9		45,339			45,339
For the year 2015																	
Operating revenue - net sales:																	
External customers	¥	292,794	¥	29.441	¥	20,816	¥	50,257	V	343,051	¥	4,585	¥	347.636	¥—	¥	347,636
Intersegment sales	+	202,104	+	23,441	+	20,010	+	00,201 4	+	-	+	-,000 1	Ť	- 000	+-	+	047,000
Total net sales		292,794		29.441		20.816		50,257		343.051		4,585		347,636			347,636
Segment income (loss)	¥	68.331	¥	-,	¥	-,	¥	(6.173)	¥	62.158	¥	39		62.197	¥—	¥	62.197
Segment assets	¥	,		31,576		28,822		60,398		484,123		1,375		485,498	¥—	¥	485,498
Other items:		120,120		01,010		20,022		00,000	-	101,120		1,010	_	100, 100			100, 100
Depreciation	¥	11.381	¥	1.076	¥	872	¥	1.948	¥	13.329	¥	9 }	¥	13.338	¥—	¥	13.338
Impairment loss on fixed assets				3.540		593		4,133	-	4,133		_		4,133			4,133
Increase in property, plant and				0,040		330		1,100		1,100				1,100			1,100
equipment and intangible assets		31,876		2,624		1.862		4.486		36.362		11		36.373	_		36.373

#### Thousands of U.S. dollars

For the year 2016:							
Operating revenue - net sales:							
External customers	\$2,857,133	\$315,363	\$185,796	\$501,159 \$3,3	358,292 \$33,496	\$3,391,788	\$- \$3,391,788
Intersegment sales	_	_	_	_		_	
Total net sales	2,857,133	315,363	185,796	501,159 3,3	358,292 33,496	3,391,788	- 3,391,788
Segment income (loss)	\$ 629,513	\$ (41,982)	\$ 416	\$ (41,566) \$ 5	587,947 \$ (1,407	) \$ 586,540	\$- \$ 586,540
Segment assets	\$4,011,673	\$352,204	\$281,734	\$633,938 \$4,6	645,611 \$10,681	\$4,656,292	\$- \$4,656,292
Other items:							
Depreciation	\$ 131,593	\$ 9,389	\$ 8,009	\$ 17,398 \$ 1	148,991 \$ 97	\$ 149,088	\$- \$ 149,088
Impairment loss on fixed assets	_	21,487	_	21,487	21,487 —	21,487	- 21,487
Increase in property, plant and							
equipment and intangible assets	333,469	36,371	31,310	67,681 4	401,150 80	401,230	- 401,230

Note: As disclosed in Note 2(i), from the year ended March 31, 2015, the Company and its domestic consolidated subsidiaries have changed the determination of retirement benefit obligations and current service cost. The effects on segment income or loss has not been material.

#### (c) Enterprisewide information

Information about geographic areas as of and for the years ended March 31, 2016 and 2015 was as follows:

	Millions	Thousands of U.S. dollars	
	2016	2015	2016
Operating revenue - net sales:			
Japan	¥ 63,016	¥ 56,587	\$ 557,664
North America	111,966	90,703	990,850
Europe	95,861	89,690	848,327
Asia	71,470	66,256	632,478
Other area	40,959	44,400	362,469
	¥383,272	¥347.636	\$3,391,788

	Millions	Thousands of U.S. dollars	
	2016	2015	2016
Property, plant and equipment:			
Japan	¥133,598	¥110,212	\$1,182,283
Other area	34,876	29,857	308,637
	¥168,474	¥140,069	\$1,490,920

The NGK Spark Plug Group had no single external customer which accounted for more than 10% of net sales for the years ended March 31, 2016 or 2015.

## (d) Information about goodwill as of and for the year ended March 31, 2016 was as follows:

		Rep	ortable segme	ents					
		Te	chnical cerami	CS					
	Automotive components	Semiconductor	Ceramics	Total Technical ceramics	Total	Other	Total	Adjustments	Consolidated
				N	/lillions of yen				
Goodwill:									
Amortization	¥ 749	¥153	¥—	¥153	¥ 902	¥—	¥ 902	¥—	¥ 902
Balance	8,665	615		615	9,280		9,280	_	9,280
				Thousa	ands of U.S. do	ollars			
Amortization	\$ 6,628	\$1,354	\$-	\$1,354	\$ 7,982	\$-	\$ 7,982	\$-	\$ 7,982
Balance	76,682	5,442	_	5,442	82,124	_	82,124	_	82,124

## 20. Business Combinations

Business combinations resulting from acquisitions

# (a) Acquisition of Nihon Ceratec Co., Ltd.

- (1) Overview of the combination
  - 1) Name and business of the acquired company Name: Nihon Ceratec Co., Ltd.

Business: Development, manufacturing and sales, also cleaning and regeneration of structural ceramics and various application products. Development, manufacturing and sales of piezoelectric ceramics and various application products.

- 2) Major reasons for the combination The Company decided to acquire all the shares of Nihon Ceratec for the purpose of utilizing its high-precision processing technology and cost competitiveness in the production of small in components for semiconductor manufacturing equipment, which the Company plans to expand.
- 3) Date of the combination April 1, 2015
- 4) Legal form of the combination Acquisition of shares

- 5) Name of the acquired company after the combination Nihon Ceratec Co., Ltd.
- 6) Ratio of voting rights acquired 100%
- 7) Main reason for determining the acquiring company The Company acquired 100% of the voting rights by acquiring shares of Nihon Ceratec for cash.
- (2) Period of operation of the acquired company included in the consolidated financial statements From April 1, 2015 to March 31, 2016
- (3) Acquisition cost of the acquired company

Consideration for acquisition Cash \$7,300 million (\$64,601 thousand)

Acquisition cost \$7,300 million (\$64,601 thousand) \$7,300 million (\$64,601 thousand)

(4) Expenses for the acquisition Expenses such as advisory costs

¥93 million (\$823 thousand)

- (5) Amount of goodwill, reason for recognition, and amortization method and period
  - 1) Amount of goodwill ¥768 million (\$6,796 thousand)

- 2) Reason for recognition The acquisition cost exceeded the net amount of assets acquired and liabilities assumed.
- 3) Amortization method and period Straight-line amortization over 5 years
- (6) Assets acquired and liabilities assumed as of the date of the business combination

	Millions of yen	Thousands of U.S. dollars
Current assets	¥4,884	\$43,221
Noncurrent assets	3,821	33,814
Total assets	¥8,705	\$77,035
Current liabilities	¥1,560	\$13,805
Noncurrent liabilities	613	5,425
Total liabilities	¥2,173	\$19,230

## (b) Acquisition of Wells Vehicle Electronics Holdings Corp.

- Overview of the combination
  - Name and business of the acquired company Name: UCI Acquisition Holdings (No. 2) Corp. (hereinafter, UCI Acquisition)

Business: Manufacturing and sales of automotive components, mainly driven by Wells Vehicle Electronics, L.P. (formerly, Wells Manufacturing L.P.) (hereinafter, "Wells"), which is owned by UCI Acquisition.

- 2) Major reasons for the combination In order to strengthen the automotive components business which is the core business of the Company, the Company aims to expand its business areas and develop new sales channels and customers by acquiring the business of Wells, which has strengths in the US automotive repair market.
- 3) Date of the combination July 1, 2015

- 4) Legal form of the combination Acquisition of shares
- 5) Name of the acquired company after the combination Wells Vehicle Electronics Holdings Corp.
- 6) Ratio of voting rights acquired
- 7) Main reason for determining the acquiring company The Company acquired 100% of the voting rights by acquiring shares of UCI Acquisition for cash.
- (2) Period of operation of the acquired company included in the consolidated financial statements From July 1, 2015 to March 31, 2016
- (3) Acquisition cost of the acquired company

Consideration for acquisition Cash \$249,718 thousand Acquisition cost \$249,718 thousand

The consideration for the acquisition includes the repayment of a bank borrowing of the acquired company.

(4) Expenses for the acquisition

Expenses such as advisory

¥950 million (\$8,407 thousand)

- (5) Amount of goodwill, reason for recognition, and amortization method and period
  - 1) Amount of goodwill

¥10,193 million (\$90,204 thousand)

The amount of goodwill is provisionally calculated, as allocation of the acquisition cost has not been finished yet at the end of the fiscal year.

2) Reason for recognition

The acquisition cost exceeded the net amount of assets acquired and liabilities assumed

Amortization method and period Straight-line amortization over 10 years (6) Assets acquired and liabilities assumed as of the date of the business combination

	Millions of yen	Thousands of U.S. dollars
Current assets	¥13,185	\$116,681
Noncurrent assets	16,349	144,681
Total assets	¥29,534	\$261,362
Current liabilities	¥32,785	\$290,133
Noncurrent liabilities	5,168	45,734
Total liabilities	¥37,953	\$335,867

(7) Amount allocated to intangible assets other than goodwill and weighted average amortization period

	Millions of yen	Thousands of U.S. dollars
Customer related assets	¥12,195	\$107,920
	(Amortization perio	nd · 10 years)

(8) Purchase price allocation

The purchase price allocation had not been completed as of March 31, 2016. Therefore, provisional accounting treatment has been applied based on reasonable information available at that time

(9) Estimated impact on the consolidated financial results if the business combination had been completed at the beginning of the fiscal year (April 1, 2015)

The amount of the impact on the accompanying consolidated financial statements is negligible. This amount has not been audited.

## 21. Significant Subsequent Events

Acquisition of stock shares of Japan Medical Dynamic Marketing

On April 20, 2016, the Company concluded a capital and business alliance agreement with Japan Medical Dynamic Marketing Inc. (hereinafter, "MDM") and a stock transfer agreement with ITOCHU Corporation under which the Company will acquire its holding stock equal to 30% of the total number of issued shares of MDM with effect on May 16, 2016. As a result, MDM thereby became an equity-method affiliate of NGK Spark Plug Co., Ltd.

## (a) Overview of the acquisition of stock shares

- (1) Name and business of the acquired company Name: Japan Medical Dynamic Marketing Inc. Business: Import and sale of medical devices Development, manufacture and sales of domestic medical products Promotion of medical products to medical professionals and major hospitals throughout Japan
- (2) Major reasons for concluding the capital and business alliance agreement

The Company decided to acquire the shares of MDM for the purpose of utilizing its product development capabilities, product portfolio in the field of orthopedic implants and production and sales operations in North America, which will contribute to our business expansion in the market for medical applications, in which the Company expects to become a global manufacturer of comprehensive orthopedic implants.

- (3) Date of the stock acquisition May 16, 2016
- (4) Stockholding ratio after the stock acquisition 30%

## (b) Acquisition cost of the acquired stock

¥6,195 million cash (\$54,823 thousand)



## Independent Auditor's Report

To the Board of Directors of NGK SPARK PLUG CO., LTD.:

We have audited the accompanying consolidated financial statements of NGK SPARK PLUG CO., LTD. and its consolidated subsidiaries (the "NGK Spark Plug Group"), which comprise the consolidated balance sheets as at March 31, 2016 and 2015, and the consolidated statements of income, consolidated statements of comprehensive income, consolidated statements of changes in net assets and consolidated statements of cash flows for the years then ended, and a summary of significant accounting policies and other explanatory information.

# 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 Japan, 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.

## Auditor's 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 Japan. Those standards require that we comply with ethical requirements and 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 our judgement, 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, we consider 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, while the objective of the financial statement audit is 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.

## Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the NGK Spark Plug Group as at March 31, 2016 and 2015, and their financial performance and cash flows for the years then ended in accordance with accounting principles generally accepted in Japan.

#### Convenience Translation

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended March 31, 2016 are presented solely for convenience. Our audit also included the translation of yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 1 of Notes to the consolidated financial statements.

KPMG AZSA LLC

July 28, 2016 Nagoya, Japan

KPMG AZSA LLC, a limited liability audit corporation incorporated under the Japanese Certified Public Accountants Law and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

(As of March 31, 2016)

#### **Common Shares**

Authorized: 390,000,000 Issued: 223,544,820

## Stock Listings

Tokyo Stock Exchange, 1st Section Nagoya Stock Exchange, 1st Section

# **Transfer Agent**

Mitsubishi UFJ Trust and Banking Corporation

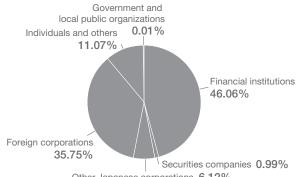
# **Independent Auditor**

KPMG AZSA LLC

## **Number of Shareholders**

12.234

# Share Distribution by Owner



 $Other\ Japanese\ corporations\ 6.12\%$  5,923,300 shares (59,233 units) of treasury stock are included in "Individuals and others."

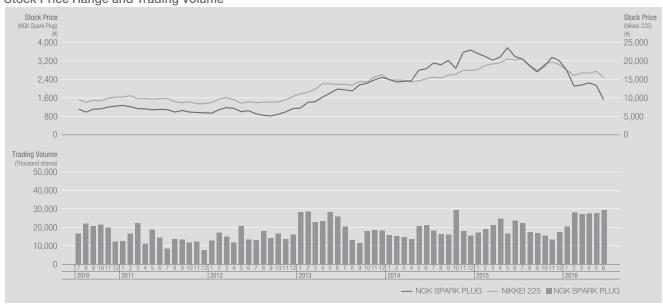
## Major Shareholders

Name	Number of shares held (1,000 shares)	Ownership ratio (%)
The Dai-ichi Life Insurance Company, Limited	16,752	7.49
Meiji Yasuda Life Insurance Company	13,794	6.17
Japan Trustee Services Bank, Ltd. (trust account)	12,857	5.75
State Street Bank and Trust Company	12,578	5.63
The Master Trust Bank of Japan, Ltd. (trust account)	12,447	5.57
The Bank of Tokyo-Mitsubishi UFJ, Ltd.	6,541	2.93
National Mutual Insurance Federation of Agricultural Cooperatives	6,138	2.75
The Nomura Trust and Banking Co., Ltd. (investment trust contract account)	4,025	1.80
The Master Trust Bank of Japan, Ltd. Toyota Motor Account	3,929	1.76
State Street Bank and Trust Company 505223	3,614	1.61

#### Note:

Although the Company held treasury stock of 5,923 thousand shares as of March 31, 2016, the Company is excluded from the above list of major shareholders.

# Stock Price Range and Trading Volume



All figures on this page are based on the Japanese "Securities Report."

# **Corporate Data**

(As of March 31, 2016)

#### NGK SPARK PLUG CO., LTD. Organization (As of June 29, 2016) Headquarters Business Planning Management Div. Spark Plug Div. 14-18 Takatsuji-cho, Mizuho-ku, Planning Managemen & Administration Dept Nagoya 467-8525, Japan Secretarial Office http://www.ngkntk.co.jp Sensor Div. Marketing Div. Corporate Strategy Gr. Strategic Marketing Dept. Established Corporate Planning Dept. Glow Plug Div. October 1936 Audit & Audit & Supervisory Board Memb Risk Management Dept. SCM Div. Paid-in Capital Public Relations Dept. AEC Div. SCM Strategy Dept. Meetings ¥47,869 million Working Styles Reforming Office Committees Logistics Dept. **Number of Employees** Semiconductor Div. Consolidated: 14,524 Corporate Administration Gr. Product Technology Div. Non-Consolidated: 5.829 General Administration Dept. Testing Technology Development Dept. ndustrial Ceramics Div Corporate Legal Dept. Production Design Control Dept. Number of Employees (Consolidated) Human Resources Production Technolog Cutting Tools Div. Dept. Development Dept. Accounting & Finance Dept. Production Technology 1 Dept. 15.000 Information Systems Dept. Production Technology 2 Dept. Fuel Cell Div. 13,197 12,563 12,760 Production Technology 3 Dept. 12,064 Engineering R&D Gr. Production Technology 4 Dept. Business Developmer Div. Planning Control Office Operations Managemer Development Dept Strategic Engineering Planning Dept. Intellectual Property Facility Engineering Div. Planning Control Dept. MP Dept Energy Conservation Promotion Office FD Dept. LFP Office Plant Engineering Dept. Machinery Production & Maintenance Dept Machinery Design Dept. Corporate Quality Management Div. 12 13 15 16 Quality Assurance Dept. TQM Promotion Procurement Div. Strategic Planning Office Supplier Relations & Development Office Procurement Dept. Sales Planning & Marketing Dept. OEM Sales & Marketing Dept OEM Technical Marketing Dept. Aftermarket Sales & Marketing Dept. Aftermarket Technica Service Dept.

Tokyo Sales Dept.

# **Directors, Corporate Officers and Corporate Auditors**

(As of June 29, 2016)

Representative Director and Chairman of the Board Chief Executive Officer President Officer Representative Director and Vice Chairman of the Board

Representative Director Vice President Officer Member of the Board Vice President Officer Member of the Board Senior Managing Officer



Shinichi Odo\*1



Shinji Shibagaki\*1



Teppei Okawa\*1



Shogo Kawajiri



Takeshi Nakagawa



Takeshi Kawai

Member of the Board Managing Officer Member of the Board



Masahiko Okuyama



Morihiko Otaki\*2



Kanemaru Yasui\*2

Corporate

Auditor



Megumi Tamagawa\*<sup>2</sup>

\*1Representative Director \*2Outside Director

Standing Corporate Auditor



Keiichi Matsunari



Fumio Mizuno



Shigehisa Sao\*3



Kenichi Masuda\*3

\*3Outside Auditor

Managing Officer



Takahiro Suzuki



Yoshitaka Narita



Kozo Amano



Corporate

Officer

Noboru Ishida



Kozo Yamasaki



Nobuyuki Tokioka



Yoshihiro Matsubara



Takio Kojima

Corporate Officer



Yutaka Tanaka



Masato Taniguchi



Toru Matsui



Mikihiko Kato



Masaki Sumiya



Kenji Isobe



Hiroyuki Maeda





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