



# Profile

Sanken Electric Co., Ltd. began operations as a spin off from a research institute in 1946 conducting R&D activities in semiconductors, which was then a new field of electronics. Technology gained through these activities was used to manufacture a growing line of power supply products.

Having grown in tandem with the electronics industry since then, today Sanken Electric has forged a commanding presence as a manufacturer in the field of power electronics. This reputation enables the Company to offer customers high-quality solutions in power supplies and peripheral business domains that meet their diverse needs. Along with a focus on growth in its core business of semiconductor devices, Sanken Electric is determined to enhance the competitiveness of products for the fast-growing fields of automotive electronics and energy-saving consumer products. Underpinned by an extensive track record and expertise gained over the years, Sanken Electric will strive to supply products that are more original and advanced than ever before, and consistently rise to meet any challenge by remaining a consummate innovator in power electronics.

# Contents

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Profile	Inside Cover
Contents	Inside Cover
Financial Performance	1
Dear Fellow Shareholders	2
Special Features	6
Global Network	
Sanken at a Glance	
Review of Operations	
Semiconductor Devices Business	
Power Module Business	
Power System Business	
R&D and Intellectual Property	
CSR Initiatives (CSR, Governance, Environment	tal initiatives)23
Financial Highlights	
Financial Section	
Investor Information	

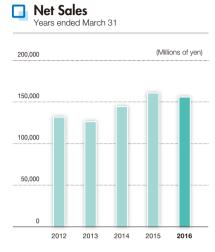
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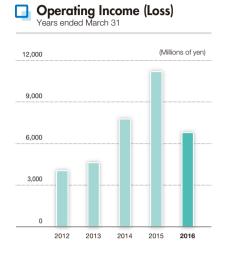
#### **Forward-Looking Statements**

This annual Report contains forecasts and other forward-looking statements concerning the Sanken Group's future plans and results. Such statements reflect assumptions and beliefs based on information available to the Group at the time of this report's writing. The Group's actual performance may be affected by numerous factors, including new competition in the electronics industry, risks and uncertainties related to market demand and conditions in global stock and foreign exchange markets. Readers are therefore reminded that actual results may differ from forward-looking statements in this report.

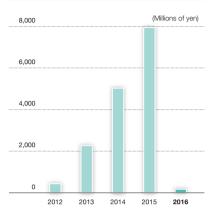
# **Financial Performance**

Sanken Electric Co., Ltd. and Consolidated Subsidiaries Years ended March 31, 2016, 2015, 2014, 2013, and 2012

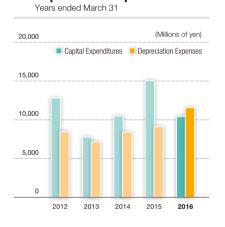




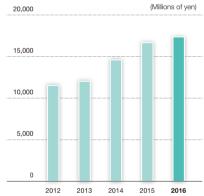




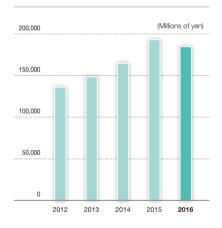
Capital Expenditures/ Depreciation Expenses



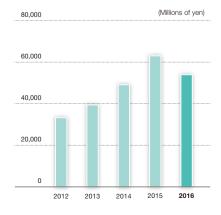
**R&D Expenses** Years ended March 31



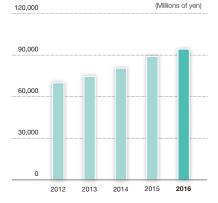
As of March 31







Interest-bearing Debt As of March 31



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# **Dear Fellow Shareholders**



# FY 2015 Business Environment and Operating Results

### The weak revenue and profits resulted from an unfavorable business environment, exacerbated by our unpreparedness for unforeseen mishap in manufacturing processes, which are now being addressed and corrected for the future

The global economy displayed a firm trend of gradual recovery during the first half of FY2015, uncertainties regarding the future business climate, however, generally prevailed during the second half of the fiscal year.

The global electronics industry, to which our corporate group belongs, generally suffered from a cyclical downward trend, prompted by a slowdown of the economic growth in some of the emerging nations, which led to a drastic expansion in the recent past, but suddenly faced adjustments in the wake of political and societal uneasiness in numerous parts of the world. Also rendering a sizable impact to our business was the lukewarm state of economic growth in some of the advanced economies, the most notable of which was Japan. Therefore, there was not a drastic economic fall off the cliff, but the overall sentiment was at the very least unenthusiastic during the whole fiscal period under review. In spite of such challenging circumstances our corporate group proactively tried to achieve the fundamental near-term objectives of "sales growth in strategic markets" and a "generation of cash flow through leaner production". Looking closely at the consolidated business performance for FY2015, sales were ¥155,919 million, which was a decline by 3.0%, compared with the previous year, followed by an operating income of ¥6,803 million, a drop by 39.3% against the same period last year. The current net income attributed to the shareholders of the parent company was ¥171 million, which was a fall by 97.8% when compared with the previous fiscal period.

The principal cause of the reduction in revenue was a sales decline in our core semiconductor device business, due to such circumstances as the slower growth in the Chinese economy. It is true that the relatively brisk North American economy brought us steadily growing sales from automotive electronic components, with combined benefits from a historically high level of number of vehicles sold coupled with a sharp increase in the number of electronic parts and components installed in a single motor vehicle. Demand showed a declining trend, however, in such areas as the office equipment and industrial machinery markets, due to ongoing weaknesses in the Japan and overseas markets of capital investment programs in general, along with stalled growth in the white goods market, where Chinese manufacturers, at some point in time, basically became motionless in order to conduct wide-ranging inventory adjustments of finished air conditioners, as well as other products. The company was also influenced by a reduction in sales from its power system business, which was heavily impacted by a reduction in investments by cell phone carriers on facilities, such as mobile phone base stations.

In addition, we had a rare one-time event implementing an IT system migration project that took place in May, the earlier part of the fiscal year, which turned out to have caused a large number of customer orders to be placed earlier to the previous fiscal year than normally submitted during our fiscal Q1, due to our customers' perceived risks associated with large-scale IT system changes.

The primary reasons for the decline in profits, on the other hand, included a decrease in sales, due to the economic conditions, the industry cycle and our IT system project, coupled with a weakness in profitability at our manufacturing plants when they were faced with lower utilization caused by our efforts to try to reduce inventory to regain a better financial position. Furthermore, a large drop in profits came from an incident related to the contaminated cleansing agent of wafers, hydrogen peroxide, sourced from outside, which caused defective wafers that were later subjected to total disposal, as well as losses actually incurred during the third guarter, along with lost opportunities for sales during the fourth guarter. The net income was further impacted by extraordinary losses recorded for the Company's effort to advance the structural reforms of various types implemented throughout the corporate group.

# The lessons learned from the contaminated hydrogen peroxide issue and the measures taken to avoid any incident of a similar nature in the future.

We determined that the incident with the contaminated cleansing agent was an issue representative of something that just might happen at any moment in our wafer fabrication plant, therefore we implemented appropriate measures to address the immediate issue and also align a long-term course on how to operate a fab in an efficient and trouble- free manner.

Ever since we started the major fab capacity expansion program at Polar Semiconductor, LLC, our fabrication plant in the U.S., we did not change the fundamental operating philosophy, therefore the fab operation was performed in much the same way as before when the capacity was much smaller. The capacity increase, accomplished in a relatively short period of time, may have caused some stress on the part of the day-today operations. In fact, the fab's operational efficiency indices gradually worsened. Against such a reality and the need for immediate action, we solicited outside help by a team of consultants to change the basic operational arrangement and consequently constructed a new way of running the fab. After only a few months of operational reformulation the efficiency indices have almost instantaneously improved significantly and the fab is on its way to achieving its "optimal" level of operational efficiency.

# Management Strategies for FY2016

### Committed to Strategies for "Penetrating into Growing Global Markets" and "Regaining Sound Financial Position"

The Company deems its "semiconductor device business" as its core business and for FY2016 the corporate management will proceed with our basic strategic policies, "to penetrate into growing global markets" and "regain a sound financial position".

In terms of our "penetration into growing global markets", we will continue to focus, as we have done in the past, on two primary areas, "eco-friendly, energy saving" and "green energy" markets, where sustained growth in demand is projected on a global scale for the foreseeable future. Specific addressable fields of expansion include semiconductor device markets with automotive, motion control, white goods, industrial machinery, telecommunications and renewable energy applications. Further initiatives will be put forth on areas with an extrahigh growth potential, such as automotive, white goods and industrial machinery fields, as we endeavor to expand our business overseas. Although still in its early adoption stage, we aim to increase the sales of energy storage systems and power modules for the renewable energy market, where accelerated growth is expected in the vears ahead.

As for activities intended to "regain a sound financial condition", including such objectives as reductions in inventory and total indebtedness, these will be achieved through the maximum use of the new IT system, which was put into full operation in May 2015. The IT system was launched with the aim of boosting flexibility in the manufacture of products with high demand volatility, while streamlining the entire chain of supply for parts and materials, creating leaner production processes. Additionally, the highly-selective execution of capital expenditure programs, with an amount not exceeding the amount of fixed asset depreciation, contributed to the conservation of cash to pay off debt, after two years of aggressive capacity expansion programs both within and outside Japan for the front-end and back-end production processes conducted in FY2014 and FY2015. The Company also is trying to be more adaptive to third-party outside foundries and subcontractors, to ease the cash flow situation, while expanding our total supply capacity of wafers. Concurrent with the moves mentioned above, we also began implementing a number of fundamental and structural reforms in our business with the management thrust to "Choose and Focus" and "Eliminate the Unprofitable".

# The "Choose and Focus" strategy calls for fundamental structural reforms, which in turn prompts accelerated sales expansion in our strategically critical fields of business.

Business structural reforms in activities intended for the "enhancement of the financial constitution" are very relevant to the activities intended for the "commitment to growth markets" and they are important measures that can influence the successful outcome of our business expansion in the future.

Let us look at the semiconductor device business, for example. We significantly deemphasized the business of simple power supply ICs, as we sought to systematically strengthen the other, more promising fields we plan to expand in the future by re-allocating our financial, human and other development resources extracted from the less promising.

More specifically, we established a set of four

strategic directions in the semiconductor device business, "Expand Overseas Automotive Sales", "Pursue Automotive Motor Potential", "Nurture the "Power IoT" Market", and "Expand Modular Products", with dedicated organizations, "Overseas Automotive Department", "Team for Automotive Motor Applications", "Team for IoT-related Products", and "Modular Technology Department", each delegated to perform tasks required for the respective strategic objectives. Through these organizations we will accelerate efforts to develop semiconductor products in these fields, ultimately expanding our sales in both domestic and overseas markets in the near future.

### Promotion of strategic product developments in our key business of semiconductor device business

We would like to explain our strategies for the future of each of the markets in the "Semiconductor Device Segment", which is our primary source of revenue. The "Automotive" market has experienced substantial growth in recent years. We plan to expand the growth potential in this area, with a strategic drive for "overseas markets", "environmental protection measures" and "modularization". We will endeavor to establish concerted, collaborative sales and marketing efforts to promote sales expansion in Europe in particular. We will also concentrate our efforts in developing and expanding the sale of Intelligent Power Modules for vehicular motion control functions, intended for more environmentally friendly automobiles, such as electric or hybrid vehicles. Furthermore, Allegro MicroSystems LLC will focus on the incremental growth of power ICs in addition to existing sensor products of various properties, including the giant magnetoresistance, or GMR sensor, which is considered to be our sensor for the next generation.

Moving onto the "white goods" market, we plan to recover to a growth path in FY2016 by reversing the weaker business performance recorded in FY2015, caused by the negative impact from the air-conditioner inventory adjustments in China, following higher-level production for the previous season by Chinese airconditioner manufacturers. Regardless of the short-term setbacks, demand in China and Korea is showing further growth potential in household appliances, now shifting from non-inverter-driven to inverter driven to adapt to the conversion of motors to DC motors, prompted by programs implemented for eco-friendly and energy-saving policy objectives by the governments of various nations. Our Company will endeavor to leverage this and other opportunities to quickly capture and properly respond to the changing needs of the marketplace.

In the "Power Supply" market, evolution into digital control and modularization technologies will also become increasingly critical. We will put greater effort into the product development of "digital control ICs" and "power modules", in addition to our existing product line of "analog control ICs" and "discrete semiconductors", to accelerate the transition of our entire power IC product portfolio. More specifically, we are now aiming to supply to the market next generation "intelligent" power supplies, with keywords to align the brand-new concept of the "Power IoT" in the new emerging application fields of Home Energy Management Systems, Business Energy Management Systems and Machine2Machine Communications. We will also widen our product line of power supply products that comply with a variety of environmental regulations and restrictions, promulgated by a number of regulatory authorities and standard-setting organizations.

# Targeting long-term sustainable growth by pursuing the virtues of "eco-friendly, energy-saving", keys to the competitive edge of our products.

The global community continues to place an emphasis on "eco-friendly, energy-saving" concepts, which are indisputably attracting a keener interest worldwide against a rapidly widening shared common understanding of such diverse environmental issues as accelerating global warming, worsening air pollution and the depletion of precious natural resources for future generations, etc., with this move nowhere close to slowing down in the foreseeable future.

Our Company has established, through its incessant endeavors, to stay the company of choice or power semiconductor and power conversion circuitry, a unique position in the "eco-friendly and energy saving" market, both in Japan and overseas. We will keep on aiming to achieve sustainable growth for our business by exhibiting our competitive strengths. Our competitive leverage exists in diverse aspects of our business, such as our respectable group of customers, which has been created over the years by prompt responses tailored to address the needs of each customer and made possible through very close communications between our customers, along with our engineering and sales staff. Our competitive advantage also lies in various power-related element technologies that are essential to any of our power devices and power systems, as well as our total solution capabilities, which can be activated immediately at any time to respond to a diverse range of ever-changing market needs.

To our valued investors, we ask for your continued support for our Company and hope that you are as excited as we are about the growth of our business going forward.

# Vision and Growth Strategies

The "Eco-friendly and Energy Saving" market will undergo steady growth over the medium to long-term. The Sanken Group has established a unique market position by developing and providing a diverse range of devices and systems for controlling the "power".

The Sanken Group aims for steady progress in the global market by identifying growth markets and selectively concentrating management resources in such markets.

### Vision

# Achieving global implementation of "Eco-friendly and Energy Saving" business operations

### Market awareness

The field of the "Eco-friendly and Energy Saving" business is steadily growing worldwide and the market environment is a stage in which the "Power Devices" and "Power Systems" of the Sanken Group can flourish.

## Strengths of Sanken Group

Market position	The "trust of customers" has been built through cohesive sales efforts and customized responsive action.
Technical capabilities	Comprehensive power solution technologies, essential for Eco-friendly and Power Saving businesses.
Product performance	Total solutions that span devices to modules, as well as boards and equipment.

### Growth strategies for FY2016

# "Commitment to Growing Markets"

"Eco-friendly and Energy Saving" as well as "Green Energy" markets	Automotive, motion control, white goods, industrial machinery, telecommunications and new energy.				
"Overseas markets"	Automotive, white goods and industrial machinery.				
"New energy markets"	Electricity storage systems and power modules.				

# Critical Strategies for FY2016

The future of the global market environment is increasingly uncertain, as the Sanken Group proceeds with the medium-term management plan of three years, which started with the first year in FY2015. In anticipation of such changes, growth strategies that incorporate a basic policy of "focusing efforts on the growth market" will be promoted for FY2016, in order to proceed with growth strategies that narrow down the prioritized fields.

Exclusive posts have been established to focus primarily on the four key fields for steady market development and expansion.

# Enhanced development in four key fields



Automotive motordriver business operations

Modularized products



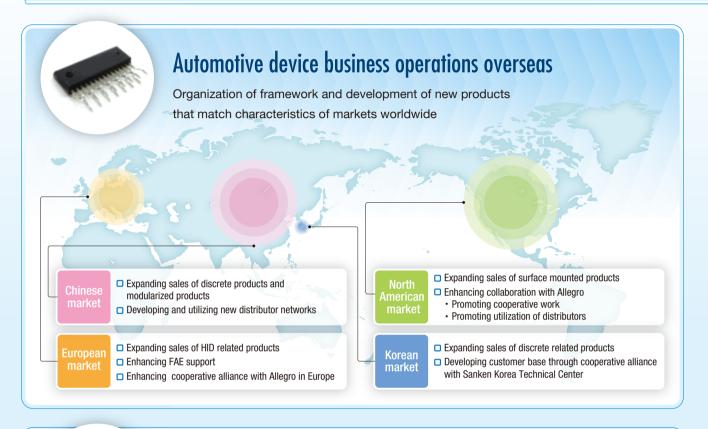
Internet of Things (IoT) related products

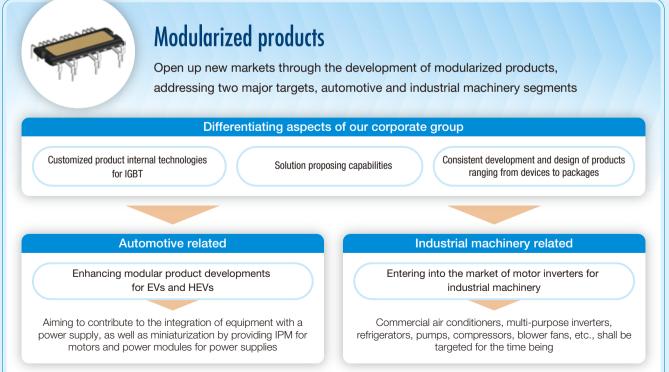
# New posts are established for the purpose of enhancing development in key fields

Corporate Technology Operations Group	
Device Marketing Supervisory Department	Dedicated post engaged in the development of IoT that utilizes digital technologies, with " <b>Application Technology Section</b> " established in the department.
	The week encound in the development of any much state for
AMBD Automotive Device Business Development	The post engaged in the development of new products for automotive devices overseas, with "Overseas Automotive Department" established in the division.
MCBD Motion Control Device Business Development	The dedicated post engaged in high pressure and automotive motors, with <b>"Motor Technology Section No. 1</b> " established in the department.
PCBD Power Conversion Device Business Development	The dedicated post engaged in the planning of modularized products, with <b>"Module Technology Department"</b> established in the division.

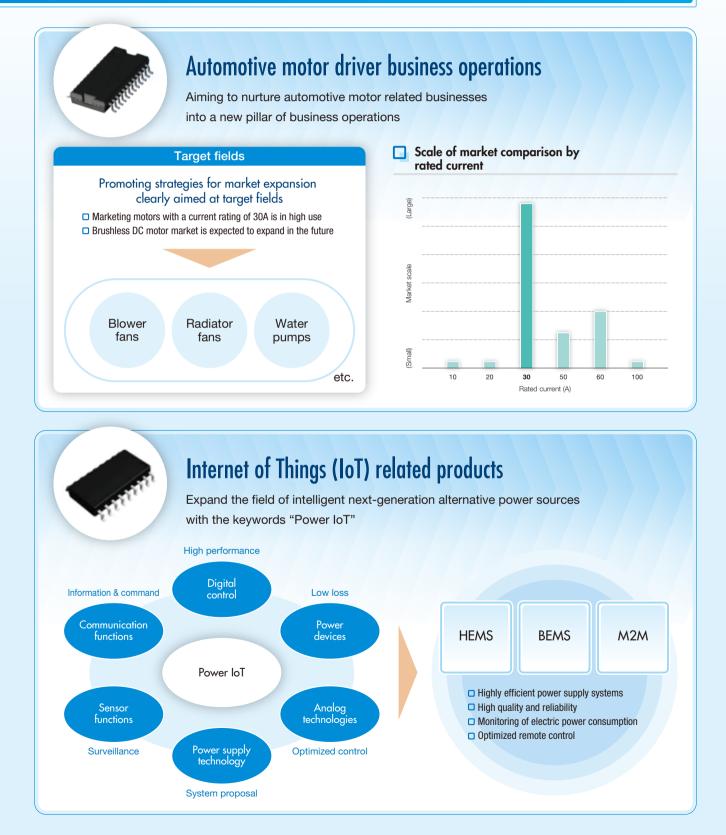


# **Enhanced development**





# in four key fields



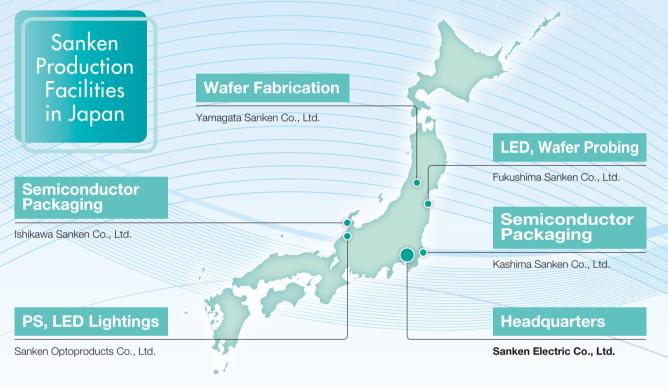
# **Global** Network







Fukushima Sanken Co., Ltd.





Kashima Sanken Co., Ltd.

Sanken Electric and its affiliated companies in total have sales and production facilities in 11 countries and regions including Japan, and are trying to expand their business on a global scale through application of their unique proprietary technologies.

With the exercise of appropriate management decision-making on a global basis for both the development





Ishikawa Sanken Co., Ltd.

Sanken Optoproducts Co., Ltd.

and production aspects of business, Sanken always strives to choose "the best available decision from "the overall group-wide perspective." This management philosophy is best represented in the arrangement in the semiconductor segment, where Sanken and its group companies are trying to shorten the development cycle time for highly sophisticated multi-functional products through a collabo-







Sanken L.D.Electric (Jiangyin) Co., Ltd.

Dalian Sanken Electric Co., Ltd.

Korea Sanken Co., Ltd.

Allegro MicroSystems Philippines, Inc.



P.T. Sanken Indonesia

Polar Semiconductor, Inc.

Allegro MicroSystems, Inc.

Allegro MicroSystems Thailand, Inc.

rative trilateral arrangement combining Sanken Electric's power semiconductor technology including packaging technology, Allegro MicroSystems, LLC's (AMI) digital and high integration technologies, and Polar Semiconductor, LLC's (PSI) wafer processing technology.

In addition to the combination and collaboration of technologies, Sanken and its affiliates are aggressively

expanding production capacity in response to the high growth potential of the "eco-friendly and energy saving" market, and in particular improving the wafer supply system and raising cost competitiveness by expanding the front-end wafer processing capacity at PSI.

# Sanken at a Glance

As the market for "eco-friendly and energy-saving" products spreads to every corner of the world, stages upon which Sanken's advanced proprietary technology on power electronics and time-proven application-specific expertise do thrive will widen rapidly.

As the worldwide trend for achieving a lowcarbon society gathers momentum, it is becoming increasingly clear that the "eco-friendly and energy-saving" solutions long pursued by Sanken Electric are in ever greater demand from various markets.

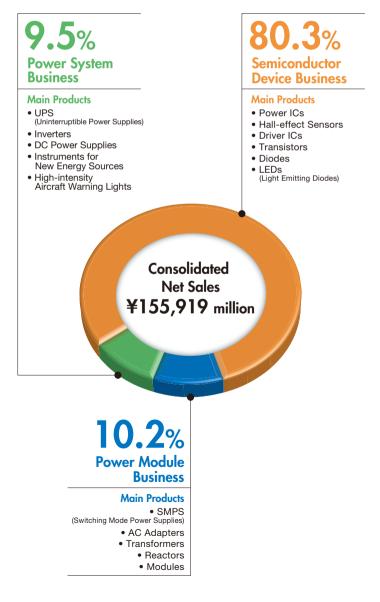
For automobiles, for instance, noteworthy moves are surfacing as the use of electronic components is expanding, internal combustion cars are pressing for lower fuel consumption, and hybrid and electric vehicles are steadily on the rise. In white goods, inverters are finally making inroads, particularly in air conditioners. Furthermore, the use of natural energy, such as solar and wind power, as well as concepts such as the "Smart City," are spreading worldwide.

To bring to real life the potential of these novel ideas, the power electronics technology and expertise of Sanken and its affiliates are indispensible. Sanken has more than half a century of experience in development, production and marketing of products that meet the "eco-friendly and energy-saving" needs of the market, and is now actively engaged in technological research and product development to achieve growth on a global scale.

### Power solution technologies that are essential to the "eco-friendly and energy-saving" concept

- Process technologies (Power semiconductors, control ICs)
- Package technologies
- Circuit technologies
- Device technologies, etc.

# Composition of consolidated net sales by business segment (FY 2015)



Semiconductor devices sit at the center of Sanken's entire business, and our products in this core business segment range from power ICs to high-voltage large- current transistors and diodes, as well as Halleffect sensor ICs. Most of our semiconductor devices belong to an engineering field known as power electronics and deal with conversion and management of electric power. They are used as key components in various consumer and commercial products, including automobiles, home appliances, industrial machinery, AV equipment (IT and mobile equipment), telecommunications equipment and LED lighting fixtures.

Sanken Electric and its US subsidiary, Allegro MicroSystems, LLC, strive to accelerate product development with our ample reservoir of proprietary technologies, and offer to the market products best suited to satisfy the specific needs of our customers.

# Market Conditions

The market environment in FY2015 was such that automotive products continued in a steady trend, while white goods, office equipment and industrial machinery products experienced stagnant growth, ending as a year of inactive growth.

The number of motors used in vehicles increased rapidly, against a background of increasing electrification rates, as well as an increasing number of hybrid and electric vehicles. The role of automotive power semiconductors, which control such electrical devices, is becoming increasingly important. Amidst such a situation in FY2015, the automotive electronics market expanded at a steady pace, as the number of automobiles sold increased, primarily in North America and Europe.

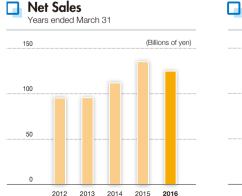
In the field of white goods, furthermore, the progress of "conversion to inverter" that has significant energy saving effects, has been extended beyond air conditioners to refrigerators and washing machines, leading to a rapid spread in the China and Southeast Asian bloc, which was falling behind in implementation. Furthermore, the DC conversion of motors has progressed in recent years, driven by an ecofriendly and energy saving perspective and the importance of power semiconductors for efficiently controlling DC motors has also been increasing. A reduction in demand associated with the inventory adjustments of air conditioners in China, which occurred in the second half of FY2015, caused a temporary slowdown in growth. Both domestic and overseas markets stagnated throughout the year, due to the inventory adjustments of office equipment and industrial machinery as well.

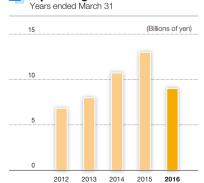
In general, the "eco-friendly and energy saving" market our corporate group is pursuing has experienced a temporary drop in demand amidst variable changes in the respective fields, but growth in the market size is expected to accelerate over the medium to long range.

### 🌗 Fiscal 2015 Results

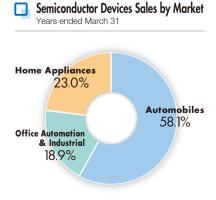
Our corporate group will continue to regard the "semiconductor device business" as our mainstay business and we will aggressively stride to increase sales and achieve global expansion with the slogan "Eco-friendly and energy saving," targeting automotive, white goods, industrial machinery and telecommunication equipment, as our strategic markets, given that they are considered to be our core businesses.

As for development, we carried out a structural





**Operating Income** 



reform of our organization by separating our marketing functions from our development functions, in order to enhance both of these functions, thereby further accelerating the speed of our development and focusing our efforts in the timely market introduction of new products. In terms of production we continued to concentrate on facility investments, aiming to increase the semiconductor production capacity in preprocessing and enhance assembly and other operations in post-processing.

As for individual markets, first of all in the automotive field, we implemented business expansion measures in response to accelerating conversion to electronics. We promoted the development and supply of products that fulfill the needs of our customers by focusing on "motor controls," which are shared by all types of vehicles, including vehicles driven by an internal combustion engine, as well as hybrid vehicles and electric vehicles. The market size in this area is therefore believed to be the greatest and it is considered to be the primary target at Sanken Electric. Allegro MicroSystems LCC, on the other hand, put effort into advancing action that responds to expanding applications in automotive sensors, in order to secure and improve the number one share of the global market. White goods were developed to cater to the current broad range, in response to the accelerating conversion of motors to inverters. In the power supply market, the development and increased sale of digitally controlled power supplies were promoted, in anticipation of the future development of the Internet of Things (IoT).

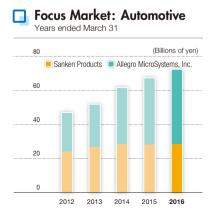
Although growth during the first half was sluggish for automotive products in the domestic, new emerging and European markets, favorable sales were sustained throughout the year in North America, due to our efforts. Opportunity losses occurred at Polar Semiconductor LLC, due to a chemical solution problem which made a loss in revenue inevitable, although the sale of automotive sensors continued to grow steadily at Allegro MicroSystems LCC.

All this resulted in a reduction in consolidated sales for the semiconductor business by ¥1.431 billion (1.1% decrease) from the previous fiscal year to reach ¥125.117 billion, with a consolidated operating income reduction of ¥3.489 billion (27.4% decrease) compared to the previous fiscal year to reach ¥9.247 billion.

# Agenda for the Future

Our corporate group will continually regard our "semiconductor device business" as our mainstay business and we will continue to make aggressive strides to increase sales and achieve global expansion with the slogan "Eco-friendly and energy saving." Automotive, white goods, industrial machinery and telecommunications are identified as fields with a growth market, therefore aggressive sales expansion strategies will be promoted domestically, as well as in overseas markets.

As for individual markets, first of all in the automotive field, we will seek to increase sales in China and Korea by establishing a new "Overseas Automotive Department," while enhancing sales and seeking technical collaborations with Allegro MicroSystems LCC in Europe. We will also enhance our product development for environmentally responsive automobiles, such as EV and HEV, which are expected to increase in number in the future. An accumulation of business performances in growth fields will be sought through the implementation of such new products as magneto-resistance (MR) application technologies and motor drivers, in addition to sensors, which are the core



# 

# Focus Market: OA & Industrial



\*Non-consolidated

technologies at Allegro MicroSystems LCC.

In terms of white goods, we will substantiate our product line to accommodate progressing inverter and DC conversions of motors to ensure that we capture demand, which is found primarily in the Asian market.

In regards to power supplies, we will press on with our product development using the keywords Power IoT and modular technology, in pursuit of introducing products to such strategic domains as white goods and industrial machinery, in an aggressive manner.

The automotive LEDs we develop and supply continue to grow in a stable manner, as the LED conversion of automotive lighting progresses. Sustained growth will be sought by taking advantage of the high performance of a product that comprehensively covers such features as a high temperature resistance and long service life, high luminance, environmental resistance and electrostatic measures.

Automotive market Automotive market Allegro		Continued growth of overseas markets with keywords of environmental response and modularization.		
		Increased sales with new products and new applications, such as magneto-resistance application technolo- gies and motor drivers.		
White goods market         Secured capturing market trends of inverter and the DC conversion of motors, by offering subproduct lines.		Secured capturing market trends of inverter and the DC conversion of motors, by offering substantiated product lines.		
Power supply market Accelerated portfolio change-over by introducing Power IoT and modula		Accelerated portfolio change-over by introducing Power IoT and modular technologies.		
Automotive LED market		Automotive LED market Secured stable growth that responds to the evolution of LED for automotive lighting.		

### Descriptions of activities by market

The power module business illustrates Sanken's advantage gained from the combination of its superior semiconductor technologies and power-supply circuitry technologies. This domain is shifting away from the traditional structure centered on television, and we are seeing it broaden to encompass products such as the high efficiency adapters required for FPD-TV, printers and telecommunications and networks and to power supplies for industrial machinery and servers, and in the future we will expand to encompass even the automotive board business.

### 🖣 Fiscal 2015 Results

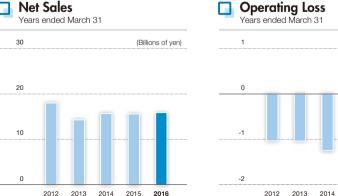
We continue to expand our volume markets for flat screen television sets, printers, telecommunication and network devices and the like in our Power Module (PM) business operations. Efforts have been put into developing and increasing sales in new markets where rapid growth is anticipated for the future, such as the market for power supply boards of low output base stations (small cells and microcells) for the mobile communication of smartphones and the like, as well as system POL and automotive boards that respond to a rapid increase in the electrification rate of automobiles. As for automotive products, the mass production of boards for speed sensors and power windows started at P.T. Sanken Indonesia, the newly established production line for automotive products, which enabled us to steadily increase our supply to the market.

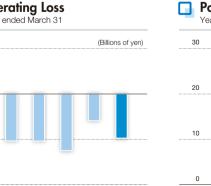
All this resulted in an increase in consolidated sales for the PM business by ¥367 million (2.4% increase), over the previous fiscal year to reach ¥15.922 billion. In terms of profitability, there was an increased number of unprofitable products and the consolidated operating loss was ¥973 million (consolidated operating loss of ¥594 million compared to the previous fiscal year), although a reduction in production costs was implemented as a part of the business structural reform, in addition to focused sales expansion strategies for new markets, as described above.

# Agenda for the Future

Thorough business structural reforms will be pursued for the PM business operations, in response to an increasing operating loss. Unprofitable products will be identified for early withdrawal and personnel related to such products will also be reduced at P.T. Sanken Indonesia, as part of personnel planning. About 30% of the engineers will also be reassigned to Power System (PS) business operations to enhance business collaborations with PS business operations to improve management efficiency. In terms of development for automotive boards that are expected to further increase in demand in the future, the business operations will be transferred to the Semiconductor Device Business Division to accelerate the speed of development.

Such structural reforms will change over the portfolio of the PS Business Division as we proceed with improvements to profitability. In terms of the fields in which we will focus our efforts in the future, we will continue with our development and sales expansion of power boards for low output base stations (small cells and microcells), as well as system POL. We will also aim to create new products and new markets by combining the technologies that have been nurtured respectively in our PM and PS business operations. For instance we are combining the board assay technology of the PM Business Division with the control technology of the PS Business Division to produce commercial air conditioner drive boards and the like, in order to create a new board business.

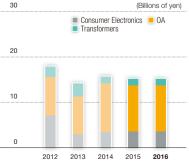




2015

2016





The power system business is the origin of our company and the source of our "excellence in manufacturing" tradition. This segment's products, such as large DC power supplies, high-intensity aircraft warning lights, or "strobes," uninterruptible power supplies, and general purpose inverters for industrial motors, have earned customer trust and a reputation for excellence in socially critical facilities where power interruptions are absolutely unacceptable, such as airport control towers, telecommunications systems, power transmission substations and highway tunnels and toll systems.

### Fiscal 2015 Results

In our Power System (PS) business operations, we increased the sales of power conditioners and storage systems for solar power generation (ESS: Energy Storage System) based on our alliance with battery manufacturers and major developers, through the utilization of our broad experience and past business performances with solar power and wind power generation using the slogan "Green Energy," while enhancing our penetration into the market of energy management systems (EMS) for a variety of facilities, such as public facilities, buildings, condominiums and residential houses. Such efforts increased our sales in new energy fields but the sales of battery products for telecommunications, which are our core products, decreased due to the downscaling of facilities for mobile phone base stations.

All this resulted in a reduction in consolidated sales for the PS business by ¥3.739 billion (20.1% reduction) compared to the previous fiscal year, to reach ¥14.879 billion. Furthermore, this resulted in a reduction in the consolidated operating income by ¥353 million (26.6% reduction), when compared with the previous fiscal year, to reach ¥973 million.

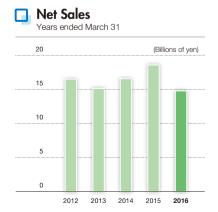
# Agenda for the Future

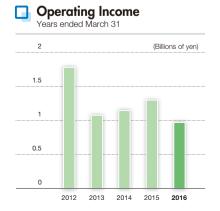
In terms of market environment that surrounds the PS business operations, a steady transition is estimated to continue with infrastructural investments, although in the telecommunication and infrastructure fields, which are our core business areas, investments on mobile phone base stations appear to remain in a lull. Further market expansion is also anticipated for new energy fields, due to an expansion in the market for energy storage systems and progressing popularization of EMS.

PS business operations will proceed to expand markets under such an environment, in consideration for the new energy market and the infrastructure market as the two pillars of the business.

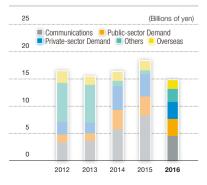
As for the new energy market, the "interface unit for connectivity," which connects a variety of equipment that comprises EMS, has been identified as a new target field. Aggressive development and sales expansion efforts will therefore be made in this new target field.

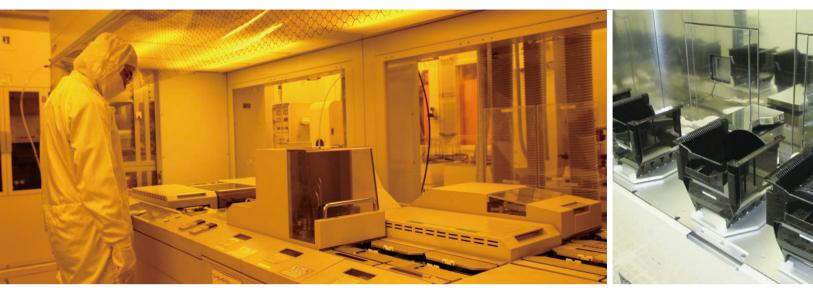
In regard to the infrastructure market, an updating of infrastructure for the expressways that criss-cross the entire nation is being planned and we intend to develop and expand sales with new "UPS for ETC." We have already received numerous instructions for implementation, which are adding to our track record. The LED conversion of special lighting apparatuses, such as high-intensity airplane warning lights, is also progressing. We have introduced our LED strobe lights to the market and we will also proceed with the introduction of new applications for our products.



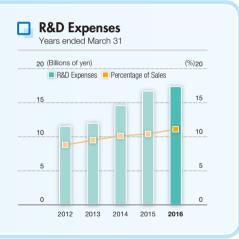


#### Power System Sales by Use Years ended March 31





Our corporate group has secured leading global and domestic market shares for a large number of product categories, through the promotion of aggressive research and development based on a foundation of highly competitive technical capabilities, driven by the key words "eco-friendly and energy saving", as well as "green energy". In the future we will continue to accelerate our development of new technologies and new products aimed at the development of new markets and new applications that will further broaden the stage on which we conduct our activities.



### **Research and Development Policy**

Sanken has defined its business domain to be "Power Electronics," and is pursuing its research and development activities by focusing on the most promising growth stages in this sector.

We are conducting our research and development under the following two guidelines as our basic policy.

(1) Achieve a growth strategy with the concepts "ecofriendly and energy saving market" and "green energy market" positioned as its core.

(2) Facilitate new product development based on the establishment of tech nological marketing and efficient development management.

# Key Research and Development Goals and Sanken's Strengths

Currently, the Company is advancing its research and development efforts in two directions. The first is to put "ecofriendly" features into our products by raising "efficiency" in our electric power conversion and motion control devices and to bring out smaller and Currently, the Company is advancing its research and development efforts in two directions. The first is to put "eco-friendly" features into our products by raising "efficiency" in our electric power conversion and motion control devices and to bring out smaller and lighter products. The second is to offer "energy-saving" features by reducing power consumption while



the machine is in a stand-by or lower than full power mode.

The Company itself is a globally unique existence which keeps within itself the comprehensive set of elemental technologies related to electric power supply, ranging from development and manufacture of semiconductor devices, circuit design and manufacture of power supply boards. And this whole range of technological assets give the Company a great advantage in trying to make real the concepts of "eco-friendly" and "energy-saving."

This Company will be further accelerating the development of next-generation power devices, such as SiC (silicon carbide) and GaN (gallium nitride), through the achievement of market introductions.

Sanken has ascertained sectors, such as automotive, white goods, telecommunications, industrial machinery, LED lighting, new energy and sensors, as its immediate target markets for going forward and will undertake focused research and development activities that are aimed to capture these target markets.

### **Research and Development Achievements in Fiscal 2015**

In the semiconductor devices business, Sanken is concentrating on the development of products to lead its shift to growth markets, through the introduction of technological marketing in product development, and measures that include aggressively tackling issues such as more rapid completion of development projects, and thus enhancements to development process management, and the creation of standard products for newly developing countries that are exhibiting remarkable growth.

In relation to automotive products the control circuit that uses the BCD process and the power output stage were integrated into a single chip to miniaturize them, whereas the LED driver IC for the automotive headlights was developed with consideration given to the operating safety environment unique to automobiles. The product makes it possible to individually regulate LEDs by varying the amount of current flowing to the LEDs by connecting MOS FET in parallel with the LED.

Saving electricity and energy is pursued for white goods and OA equipment on a national level, while regulations for increasing the efficiency of motors have been progressively enhanced, leading to an accelerated move to inverter controls, sensorless controls, as well as from brush DC motors to brushless DC motors. In response to such trends we developed the Intelligent Power Module (IPM) incorporating a sensorless vector control for brushless DC motors, with an established high efficiency, low noise, tight control and space saving design. With fan motor drive ICs for air conditioners we adopted a lifetime control technology optimized for MOS FET to enhance the recovery characteristics for switching operations to improve the APF (energy consumption efficiency) of air conditioners.

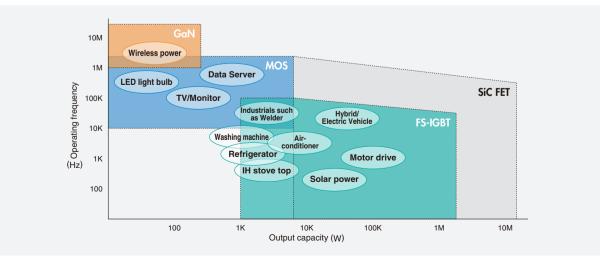
As for power supply related products we developed a current resonance IC that features significant space-saving features at a reduced cost through the incorporation of a low power consumption standby function to eliminate the need for a standby power source in order to achieve a single converter configuration, instead of the conventional



two converter configuration. Concerning ICs for the switching mode power supply, in order to improve efficiency, we developed a new product capable of automatically switching the operating mode according to the load conditions and this can easily be configured for power supply systems that have an high cost performance with a small number of components.

With regard to LED related products we achieved more extensive light control with 5% or less at modulated light signal input terminals and we developed a driver IC for highly efficient and high power factor LED lighting. In LED lighting products we utilized our proprietary simulation tool to develop a super high color rendering LED that achieves the color rendering property of an AAA fluorescent tube class, while offering a service life, reliability, brightness and efficiency, no different from white colored LEDs, even though the device has a blue light activated system.

In relation to development activities for next-generation devices we have been working with GaN devices and are currently mass producing a lateral semiconductor device that utilizes the "GaN on Si" technology derived from the Fundamental Technology Research Facilitation Program of the New Energy and Industrial Technology Development Organization (NEDO). In regards to vertical semiconductor devices that utilize bulk GaN substrates we are participating in the Research and Development



### Expansion of power device development areas



Program of Japan the Science and Technology Agency in order to proceed with our examination of improving performance to exceed that of horizontal semiconductor devices. In terms of SiC devices, we are proceeding with technology developments intended to achieve the practical implementation of high temperature resistant packaging of SiC devices in the Strategic Innovation Creation Program (SIP), while receiving a consignment of development work for the solar power generation related project at NEDO, in order to develop a highly efficient, highly reliable SiC module.

### Research and Development Organization

The R&D organization formed around Sanken's Engineering Headquarters, which is located at the Company's head office, undertakes worldwide cooperative development activities aimed at the efficient creation of new technologies, based on mutually complementary development between two companies – Sanken's headquarters in Japan and Sanken North America, Inc. Sanken's most important overseas subsidiaries are Allegro Microsystems, LLC (AML), which specializes in the design of products such as sensors and motor drivers, and Polar Semiconductor, LLC (PSL), which manages a design center for handling new circuit development. These two companies are playing an important role in Sanken's worldwide cooperation and development under the direction of Sanken North America, Inc.

The organization of the Engineering Headquarters at

the Company's head office is comprised of three operating divisions for "AMBD" (Automotive Devices Business Development), "MCBD" (Motion Control Devices Business Development) and "PCBD" (Power Conversion Devices Business Development). The marketing functions for three markets, in which our efforts are focused, will respond to technology trends with bewildering changes in a flexible manner, with each business division taking charge of each market. The "Device Marketing Supervisory Department" supervises such efforts, while engaging in activities to pave the way for IoT related markets, for which new responsive action is essential. The "Development Supervisory Department" has taken charge of developing new device products and modular products for the expanding technical domain, which has been broadening so rapidly that the operating divisions are unable to keep up, while the "Process Technology Supervisory Department" provides a function for developing semiconductor elements and processes.

### **Intellectual Property**

It is of utmost importance to protect effectively the intellectual property rights that are related to our core technologies, side by side with creating innovative, high value added products through continuous research and development, in order to remain competitive in the semiconductor market place. To this end, Sanken has taken steps, not only to create intellectual property and legalize the respective rights, and to make effective use of this intellectual property, but also has laid out a system to accelerate de-



velopment of new products and technologies through sharing of information between the research and development and the intellectual property organizations from the initial stages of development.

We are building an intellectual infrastructure, such as the intellectual property database and a patent survey system, while striving to nurture intellectual property personnel.

As for intellectual property strategies, we are deploying strategies with an emphasis on "proactive" action.

Firstly, we will firmly press forward with the "acquisition of global intellectual property rights." More specifically, we will expand our patent ownership ratio abroad, in order to heighten the degree of freedom for implementing business activities in global markets. The overseas ratio of new patent applications increased in FY2015, due in part to awareness taking root throughout the company of our emphasis overseas.

Secondly, we are aiming for "qualitative improvements to held patents." The asset value of the patents we hold are improved through patent development activities based on an analysis of the patents held by other companies, as well as by creating counter-patents through reverse engineering and building a "strong patent group" that can be used to conclude advantageous cross-licenses. Patent applications focused on strategic technical topics will be conducted from FY2016, to promote the strategy of "winning in winnable fields."

Thirdly, we will promote the "optimization of open & close strategies," with activities that focus management resources on acquiring effective patents in order to secure

a competitive advantage through closing, particularly with respect to technologies and know-how, which are a part of our core technologies.

Fourthly, we will consider the "prevention of intellectual property risk and early solutions" as an important topic and we will conduct activities accordingly. We will enhance our capability to investigate and appraise global patents, while striving to reduce risks through a "discovery" system (evidence disclosure program).

Our intellectual property organization aims to maximize the contribution to business operations and improve cost performance through such activities.

# **CSR** Initiatives

# CSR Policies and System for Advancing CSR

Sanken Electric and the Sanken Group of companies clearly define the role of Corporate Social Responsibility ("CSR") as "social contribution through practice of our Management Philosophy," and are engaged in various aspects of CSR initiatives based on the following fundamental policies.

# **Fundamental CSR Policies**

1. Fair and just conduct in compliance with ethics and laws and ordinances

An enterprise is a member of society. As such, the Company will respond to society's trust with honest conduct of its business.

2. Energy-saving products developed and marketed through integrated application of technological capabilities

To move closer to the ultimate goal to realize a

sustainable society, the Company will use its portfolio of proprietary technologies and strive to solve environmental problems.

#### 3. Good relationships with all stakeholders

The Company will conduct necessary dialogue and cooperate with individuals, groups, and communities with which it has various forms of relationships.

## The CSR Committee

Sanken seeks to continually improve its over-all corporate value by pursuing responsible business activities. As a special corporate-wide, cross-functional organization, the CSR Committee works to promote dissemination of the CSR concept and encourage CSR actions at all Group companies.

- Basic Directions of the CSR Committee -
- **1.** To align CSR activities with the management philosophy and business plans.
- 2. To exercise appropriate control of economic, legal, and ethical risks.
- 3. To disclose the outcomes of our CSR activities, and maintain dialogue with the various parties involved.

### **CSR Promotion Forum**

Sanken adopts a company-wide, grass-root approach to motivate its employees to participate in its wide array of CSR activities.

The Company created an organization called the CSR Promotion Forum, comprised of the so-called "CSR advocates" selected from among younger generation associates, taking into account the diThe CSR Committee is an organization whose members include the heads of each headquarters, and is responsible for monitoring the CSR efforts conducted at Group companies.



versity of gender and national origin. They regularly meet and discuss such topics as what is included in a CSR awareness raising programs, how to implement specific CSR activities including comminity works and school visits, and what the future of Sanken's CSR should be.

# 2 Corporate Governance

To raise the Company's corporate value and fulfill its social responsibilities, Sanken constructs and aims to continually enhance "a framework for corporate governance" to ensure the appropriate formulation of its management goals and implementation of those goals.

### **Basic Approach to Corporate Governance**

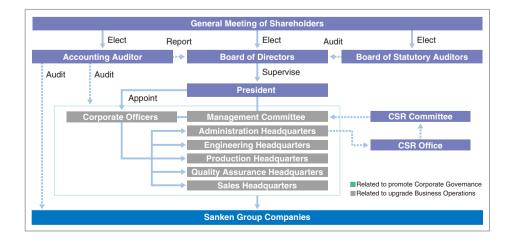
Sanken is striding forward to enhance accountability and ensure appropriate strategic decision-making by the Board of Directors, and strengthen the board's supervisory role, in order to boost efficiency, improve transparency and maintain sound management. At the same time, the Company is working to strengthen its corporate governance system through the activities of

### **Corporate Governance Structure**

The Company, a global business enterprise, believes that it must select "a corporate governance system that is best suited for the current unique nature of the Company," taking into consideration such factors as the need to open wide channels of communication with various stakeholders including overseas investors. Based on this thinking, the Company has adopted an Audit and Supervisory Board system comprised of the eight-member Board of Directors (including two Independent Outside Directors) and a four-member Audit and Supervisory Board (including two Outside Statutory Auditors). its CSR Office and IR Section. Additionally, we have set the term of office of directors at one year with the aim of ensuring that the Board of Directors is more responsive to changes in the business environment and to clarify that the performance of the duties of the Board of Directors is evaluated each year corresponding to the Company's fiscal period.

ficer system has enabled the Company to effectively separate business execution from strategic decisionmaking and supervisory functions. This system is also designed to facilitate rapid responses to changes in the business environment. As of the end of March 2016, Sanken had 17 corporate officers, five of whom are serving concurrently as directors.

The Company believes the independence of both the two Outside Directors and the two Outside Statutory Auditors has been established, and that there is no concern of a conflict of interest arising with the general shareholders.



Furthermore, the adoption of the corporate of-

### Internal Audits, Audits by Statutory Audits, and Financial Audits

For internal audits, Sanken has an internal audit group within the CSR Office that is staffed by ten individuals. The CSR Office is involved in on-site and off-site auditing and evaluating all corporate activities performed by employees, formulating proposals for improvements and providing execution support, and holding compliance education and training sessions.

The Statutory Auditors sit on the Board of Statutory Auditors, and meet to set audit policies and audit plans, and to decide other matters as prescribed by law, as well as to share audit information among Statutory Auditors. In accordance with the division of duties determined by the Board of Statutory Auditors, the Statutory Auditors attend Board of Directors' meetings, management committee meetings and other important meetings, as well as inspect important documents. The findings of their audits are reported to the Board of Statutory Auditors. The Statutory Auditors also meet regularly for discussions with directors, the

## Internal Control System and Compliance System

We have established a "Code of Conduct" that serves as the standard of behavior for employees, as well as "Conduct Guidelines" that provide standards for observing the laws and ordinances of ethics. Furthermore, executives and employees are made thoroughly aware of the spirit of compliance, as well as the importance of compliance by the CEO, as efforts are made to ensure the thorough observance of the laws, ordinances and Articles of Association through the implementation of continuous education and training. As for the internal reporting system, endeavors to substantiate regulations and programs are made to establish a compliance framework by establishing a "Helpline System" that serves as a point of contact for employees to report internal information, as well as to access consultations. A person in charge of J-SOX was appointed in the Internal Audit Department in order to comply appropriately with the Internal Control Report System (J-SOX), based on the Financial Instruhead of the CSR Office and the Accounting Auditors to improve the efficacy of audits performed. Furthermore, strict monitoring is performed through auditing visits at the Group's business locations both in Japan and overseas, with the results reported to the Board of Statuary Auditors.

The Statuary Auditors are responsible for assessing the status of the Company's operations and assets, as well as the execution of other inspection duties. To this end, the Statuary Auditors, in their efforts to carry out effective audits, maintain close contacts with those in charge of monitoring functions within the Internal Auditing Group of the CSR Office and other units involved in internal control systems.

The independence of the two Outside Statutory Auditors has been reviewed, and the Company concludes that no conflict of interest exists between the Outside Statutory Auditors and the Company's general shareholders.

ments and Exchange Act, while continuously reviewing and improving the company overall to secure the reliability of financial information.

The Company sends its Corporate Officers to Group companies as necessary as directors, in order to facilitate close communication of the Group's strategies, stay actively involved in important operational decision-making and work to implement effective management processes in general. Moreover, the Company enacted a set of policies such as the Affiliated Company Management Regulations and the Management Guidelines to clarify the duties and authority of each company in the Group. The Company has assigned from among its departments a unit that is principally responsible for overseeing group companies, and works to maintain close sharing of information and remain engaged in management guidance and performance control.

# **Risk Management System and Related Activities**

The corporate group established a "Risk Management Committee" as an organization that reports directly to the President, in order to enhance a comprehensive risk management framework and to promote action. The Committee meets regularly. The Committee is engaged in a variety of activities, including preparation for contingencies through such means as substantiating emergency stockpiles, as well as sharing historical disaster responses and effective training methods to raise the base level of response action for disasters in the corporate group as a whole.

The corporate group has established a "Disaster Countermeasure Manual" and "Business Continuity Plan" (BCP) that stipulate procedures to minimize damage when disasters occur and procedures for restoration, as well as a safety confirmation system for employees to be used in case of an emergency in order to deal with risks that present a significant impact to business continuity, such as earthquakes and fire. The Committee is continuously engaged in activities to increase the responsive capabilities for critical disasters, by conducting periodical training and the like to effectively operate these procedures. An "International Crisis Management Manual" has been formulated for personnel safety management at overseas sites in order to share information and secure a rapid response in emergencies during ordinary times.

### Notes on defective chemical solution problem that occurred during FY2015

The problem with a defective chemical solution that occurred in FY2015 at Polar Semiconductor LLC, which is a consolidated subsidiary, impacted the business performance of our company in a substantially negative manner. Detection of the problem began in October of 2015, when a large number of defects were found during the electrical characteristic inspections of wafers.

The problem was attended to in a rapid manner, as described above, taking about four months from the initial discovery of the problem until the accounting process. This problem brought about operational losses to Polar Semiconductor LLC and opportunity losses to Allegro MicroSystems LLC.

The corporate group has implemented precise measures to prevent the risk of further occurrences. Firstly, the supplier of the hydrogen peroxide solution, which was the direct cause of the incident, has been changed and a supplier that has a stronger emphasis on quality has been selected. Secondly, the framework has been enhanced to take into account the occurrence of similar incidents. More specifically, know-how relating to the estimated causes, based on identical failure modes, has been built and a mechanism implemented to make it possible to detect such issues early on through inspection equipment increases and enhancements. In addition, a framework for closer consultation with various suppliers, who are the sources of raw materials, has been established to ensure issues are detected and resolved quickly to minimize risk.

A comprehensive analysis was also carried out by a consultation firm and the activities that take into consideration the need to reflect the findings from such an analysis for the management framework of the corporate group as a whole will be conducted.

End of October 2015	A large number of defects were detected during the electrical characteristic inspections of wafers; an investigation was initiated.
End of November 2015	The cause was identified as an impurity contaminating the hydrogen peroxide solution, which is purchased from an external supplier and used to cleanse the wafers (identification of the cause and identification of the extent of damage).
End of January 2016	The amount of damage was calculated.
February 2016	An extraordinary loss was appropriated for the settlement of accounts in the third quarter.

### **Information Security**

Information security is an issue that applies to all corporate secrets, including the terms and conditions of contracts with customers, technical information and manufacturing requirements. To strengthen its protection and control of information assets, Sanken has prepared Information Management Rules that it has fully implemented throughout the entire Group. Moreover, from time to time the Company prepared manuals defining the scope of information that must be protected, as well as control procedures, in accordance with the Act on the Protection of Personal Information and Unfair Competition Prevention Act. riodically at the respective departments. The status of implementation for education and information management procedures is being monitored by the CSR Office as well, the results of which are used for enhancing the information management framework of the respective departments.

Preventive measures against unauthorized access have been enhanced for the communication network connected to external networks, while communication records are protected and monitored with the formulation of guidelines for the use of networks, utilizing measures that have been implemented to secure their effectiveness.

Information security education is taught pe-

#### Introduction of External Directors and External Auditors

External Director Richard R. Lury	Mr. Lury has been a partner at a law firm in the United States for many years, with experience and knowledge in international corporate law. We consider him to be a good source of valuable advice and suggestions from the perspective of promoting global management. We also believe that he will be able to significantly contribute to enhancing the supervisory functions of our board of directors, by monitoring the corporate management from the objective viewpoint of an attorney, as well as an individual with an independent standpoint.
External Director Noriharu Fujita	Mr. Fujita is a certified public accountant in Japan, as well as in the United States. He has many years of auditing experience and possesses considerable knowledge relating to financial affairs and accounting. He also has plenty of international experience, including working as a partner at an auditing corporation in the United States. We believe he will be a good source of valuable advice and suggestions from the perspective of promoting global management. We also believe that he will be able to significantly contribute to enhancing the supervisory functions of our board of directors, by monitoring the corporate management from the objective viewpoint of a certified public accountant, as well as an individual with an independent standpoint.
External Auditor Mikihiko Wada	Mr. Wada has copious amounts of experience and a broad knowledge as a corporate manager. He spent many years working at a financial institution and possesses extensive knowledge in financial affairs and accounting, based on practical experiences. We believe he is a suitable person to fill the role of an external auditor from an independent standpoint, with a broad and specialized perspective.
External Auditor Jin Takeda	Mr. Takeda has the specialized knowledge and experience of an attorney. We believe that he is capable of pursuing his duties as an external auditor from the independent standpoint of a law specialist, to secure the validity of audits.

# 3 Environmental Initiatives

Sanken and its Group companies have placed as a critical part of our CSR activities the basic philosophy of a union between business and environmental activities. Accordingly, we are promoting environmental activities with the catch phrase, "Contributing to Global Environment with Cutting Edge Eco-friendly and Energy-Saving Products."

### The Sanken Group Environmental Charter and Action Plan

Together with introducing an environmental management system (EMS) in fiscal 1998, Sanken Electric enacted The SG Environmental Charter in 2000 as an environmental vision for the Sanken Group, and has pledged to act in an environmentally friendly manner, with sincerity and ingenuity, in every aspect of its corporate activities. In addition, the Company formulates

### **Environmental Management Organization**

To efficiently and accurately promote environmental management, Sanken has established a CSR Committee as a parent entity reporting directly to the Company's president, and created a Groupwide, cross-functional environmental protection organization.

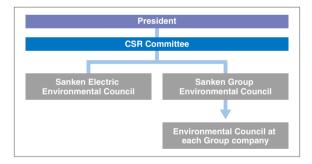
Sanken currently has established environmental management systems for its production bases at domestic and overseas manufacturing sites, all of which have obtained ISO14001 certification. Actions are currently being taken systematically towards the acquisition of the new ISO14001 certification (2015

### **Conservation Activities**

To improve its environmental activities, the Company conducts its own environmental audit annually to determine, for example, whether it is in compliance with all relevant regulations and has made sufficient progress on its yearly plan. In addition, annual inspections by third-party organizations are conducted each year to verify the effectiveness of the Company's environmental management system.

Periodical patrols are carried out at locations where chemicals are used and stored, in order to reduce the risks associated with chemical substances. The decomposition chamber has been relocated to a and implements an SG Environmental Action Plan each year as its specific program for action. Each Group company also establishes an Environmental Policy and undertakes ongoing measures to reduce its negative environmental impact, while taking into consideration its business attributes and regional characteristics.

version) and sequential acquisition of certifications at sites is planned to start from March 2017.



site with a proper working environment in FY2015 and access is controlled with an electronic lock to prevent incidents from occurring.

Appropriate measures were implemented in compliance with the Revised Fluorocarbons Law, enforced since April 2015. Several hundred units of the targeted equipment were extracted for statutory inspection.

An "Energy Conservation Promotion Council" has been established as a council that is structured across organizations to undertake energy conservation strategies, with recognition on the importance of reducing the emission of carbon dioxide, which is a greenhouse gas. The Council horizontally implements solutions for issues that are being improved by the respective corporate organizations, as well as measures that can be implemented by other corporate organizations, while verifying the operational status and extracting aspects for improvement through periodical patrols.

An Energy Administrator has been selected according to the "Energy Conservation Law" and the "Act on Promotion of Global Warming Countermeasures." All business locations subject to performance reporting obligations have been submitting medium to long-term plans, as well as periodical reports to the competent authorities.

# **Environmental Responsiveness of Products**

In order to respond to international regulations governing hazardous substances, the Company has been implementing such measures as the promotion of environmentally friendly designs of products and green procurements. Products that comply with the "Euro6" standard, an exhaust gas emissions regulation in

### Waste Volume and Recycling Progress



Europe, have been developed for our core market the automotive industry, as well as the development of products that comply with the "Top Runner Standards" for motor related markets, primarily for white goods, as our ongoing contribution to environmental measures.

#### Sanken awarded Gold Prize for ECO-VC Activities (\*) from Panasonic Corporation.

# Topics

Sanken was awarded the "Gold Prize for ECO-VC Activities" from the Panasonic Corporation at the

Eighth Panasonic Excellent Partners Meeting, held in November 2015. This award is presented to entities (corporations) exhibiting case examples with the topmost evaluation. 1,000 entrants applied for the award on this occasion, however only six corporations were awarded the Gold Prize and as such, this is a very prestigious award.

Although there are calls for improvements to achieve energy conservation, expectations are high for a reduction in standby power consumption. Improvements have been made nevertheless we have been engaged in further improving the average efficiency of products when they are in actual use. We developed a "highly efficient and low standby power consumption AC power adapter," which incorporates a new circuit configuration. This made it possible to comply with the new energy conservation standard of EPS Level VI (DoE), as well as complying ahead of time with the ErP Tier 2, scheduled for implementation in 2018, thereby earning positive evaluations for a technology that can significantly reduce carbon dioxide emissions.



\*ECO-VC activities are activities conducted by suppliers and Panasonic to promote the "rationalization of costs," "carbon dioxide reductions," "minimization of invested resources," "utilization of reusable resources" and "enhancement of product appeal."

Sanken Electric Co., Ltd. and Consolidated Subsidiaries Years ended March 31, 2016, 2015, 2014, 2013, 2012 and 2011

			Million	s of yen		
	2016	2015	2014	2013	2012	2011
Statements of income						
Net sales	¥ 155,919	¥ 160,724	¥ 144,467	¥ 126,386	¥ 131,803	¥ 144,882
Cost of sales	115,113	116,834	108,656	98,211	104,820	114,741
Gross profit	40,806	43,889	35,810	28,174	26,982	30,141
Selling, general and administrative expenses	34,003	32,689	28,033	23,549	22,934	23,991
Operating income (loss)	6,803	11,199	7,777	4,625	4,048	6,149
Other income (expenses), net	(4,734)	375	(2,308)	(526)	(1,502)	(5,004)
Profit before income taxes	2,068	11,575	5,468	4,099	2,545	1,144
Profit attributable to owners of parent	171	7,942	5,029	2,272	436	(922)
Balance sheets						
Total current assets	¥ 112,204	¥ 116,183	¥ 100,764	¥ 92,077	¥ 84,280	¥ 84,414
Total investments and long-term receivables	4,820	5,317	5,404	3,803	3,624	3,724
Property, plant and equipment, net	62,015	65,795	54,975	50,945	47,301	43,430
Other assets	5,671	5,971	3,618	1,691	922	813
Total assets	184,711	193,267	164,762	148,517	136,130	132,384
Total current liabilities	79,499	87,353	71,376	76,948	65,930	68,469
Total long-term liabilities	51,252	42,892	44,277	32,132	36,906	30,394
Total net assets	53,959	63,021	49,108	39,436	33,293	33,520
Total liabilities and net assets	184,711	193,267	164,762	148,517	136,130	132,384

			%			
Financial indicators						
Return on assets	2.05	5.35	4.84	2.84	2.25	3.76
Return on equity	0.31	14.35	11.44	6.30	1.32	(2.62)
Return on sales	0.11	4.94	3.48	1.80	0.33	(0.63)
Equity ratio	29.0	32.4	29.6	26.4	24.3	25.1
Current ratio	141.1	133.0	141.2	119.7	127.8	123.3

	Yen					
Per share						
Total net assets per share	¥ 441.96	¥ 516.22	¥ 401.75	¥ 322.92	¥ 272.21	¥ 274.05
Net income (loss) per share	1.41	65.50	41.47	18.73	3.60	(7.60)
Cash dividends per share	3.50	6.50	6.00	6.00	3.00	6.00

# **Financial Section**

# Contents

Management's Discussion and Analysis
Consolidated Balance Sheets
Consolidated Statements of Income
Consolidated Statements of Comprehensive Income41
Consolidated Statements of Changes in Net Assets
Consolidated Statements of Cash Flows45
Notes to Consolidated Financial Statements
Independent Auditor's Report65

Sanken Electric Co., Ltd. and Consolidated Subsidiaries Years ended March 31, 2016 and 2015

### **OVERVIEW**

#### Management Strategy

Our corporate group is advancing the globalization of our business operations by implementing proprietary technologies, while striving to achieve innovations with our technological and creative capabilities, according to our "Management Philosophy," which states our mission of providing an optimum solution for power electronics and peripheral domains, with semiconductors as the core business. We are also striving to secure a strong management base to maximize the value of the corporate group through steady efforts in response to the needs of society, while achieving harmony with the environment.

We formulated our medium-term management plan that spans three years from the fiscal term ending in March 2016 to the fiscal term ending in March 2018 and our medium to longterm management strategy. Two basic policies, "sales growth in strategic markets" and the "creation of cash flow through the maintenance of optimized production," were established and the entire corporate group has been working towards achieving such objectives during this current fiscal term (fiscal term ending in March 2016), which was the first fiscal year of the mediumterm management plan. More specifically, the effective market introduction of products in existing fields, timely participation in mature markets and the like were performed to expand our sales volume while action taken in a steady manner led to an increased production capacity, improved productivity, enhanced quality control and strengthened financial constitution.

#### Fund procurement and liquidity

The means used to procure funds for the corporate group include the issuing of corporate bonds, the issuing of commercial papers, the signing of committed lines of credit agreements and bank loans. The balance of accounts as of March 31, 2016 was ¥20.635 billion for short-term loans, ¥4 billion for commercial papers, ¥55.9 billion for corporate bonds and ¥12.5 billion for long-term loans. Funds for working capital and capital investments were basically procured from internal resources, however it was considered possible to procure the funds necessary for working capital and capital investments, required to sustain the growth of the corporate group, from the capacity to create cash flow through sales activities, as well as from ¥26 billion of unused commercial paper issuance facilities, ¥19.1 billion of unused overdraft and about ¥12.8 billion in committed lines of credit agreements.

#### **Dividend policy**

The Company regards the returning of profits to shareholders as the basic policy for distributing profits and recognizes this as one of the most important management priorities. It is therefore the intention of the corporate group to provide stable and steady dividends by improving our earning capabilities, while maintaining the internal reserves necessary to develop our businesses improve our financial constitution and strengthen our overall management foundation for the future.

As a basic policy the distribution of capital surplus to shareholders is realized twice each year, as interim and yearend dividends. The Board of Directors is the decision-making body for the interim dividends and the General Meeting of Shareholders for the year-end dividends.

In terms of distribution of the dividends, an unfavorable decision was made to pass over the year-end dividends, although the interim dividends per share were ¥3.50. The total annual dividends therefore were ¥3.50. The reasons for passing over the year-end dividends were based on a consideration for the overall situation, with regards to the individual net assets that provide funds for dividends and the amount of funds available for investments that would be needed to improve business performances in the future, as they were impacted by a significant reduction in the current net profit, which has been attributed to the shareholders of the parent company, in comparison with the previous year. This was due to such reasons as the contamination of purchased chemical solutions and disposal expenses for the defective wafers, which incurred as a result, as well as the allocation of extraordinary losses associated with the structural reforms of various types that were implemented throughout the corporate group.

### **RESULTS OF OPERATIONS**

#### Summary

In the electronics industry, to which our corporate group belongs, automotive electronic components exhibited a steady trend with an increased number of vehicles sold primarily in North America and Europe, however demand in office equipment and industrial machinery markets declined, while growth for the white goods market was sluggish, due to the stagnant economy and inventory adjustments of air conditioners in China and the like.

Under such circumstances our corporate group sought to enter into growth markets, enhance activities and introduce products in a timely manner in order to increase sales, while utilizing the new enterprise IT system, which started operations in the current fiscal term, as well as optimizing an efficient production with a focused effort on reducing fixed expenses to improve the financial situation, citing our basic policies of "sales growth in strategic markets" and the "creation of cash flow through the maintenance of optimized production."

The consolidated business performance for the current term, in terms of sales was ¥155.919 billion, which is a 3.0% reduction from the previous term, due in part to such issues as the transition of sales for semiconductor device business operations at levels that remained lower than the business performance from the previous term, as a result of the sluggish Chinese market, as well as the drop in sales of the PS business operations, which was impacted by the downscaling of mobile phone base station related facilities.

A reduction in profits occurred, due to a reduction in the amount of sales, as well as a decrease in the manufacturing plant operating rate at our subsidiaries associated with a reduction in inventory, a reduction in profits arising from the processing defects of wavers that occurred, as a result of the contamination of purchased chemical solutions and the expenses for the disposal of defective wafers, which were incurred as a result, along with the allocation of extraordinary losses associated with the structural reforms of various types that were implemented throughout the corporate group. As a result, the operating income was ¥6.803 billion, which is a reduction by 39.3% in comparison with the previous term and the current net profit attributable to the parent company shareholders was ¥171 billion, which is a reduction by 97.8% in comparison with the previous term.

### Results of Operations by Business Segment Semiconductor Devices Business

Consolidated sales for the semiconductor device segment were  $\frac{125.117}{1.13}$  billion, which was a decrease by  $\frac{1.431}{1.431}$  billion (1.1%) in comparison with the previous term.

A boosting effect occurred from the depreciation of the yen and the amount of sales increased for automotive products in comparison with the previous term, however, the sales for white goods, office equipment, industrial machinery and AV products declined.

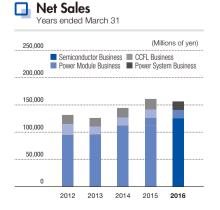
In terms of income, in addition to the sluggish sales, a reduction in profits associated with the contamination problem of the purchased chemical solutions, as well as expenses for a new enterprise IT system, on top of increased expenses relating to the manufacturing plant of Allegro in Thailand, had an impact, in conjunction with the effects from the currency exchange for ¥700 million, which led to an ordinary profit of ¥9.247 billion, a reduction by ¥3.489 billion (27.4%) in comparison with the previous term.

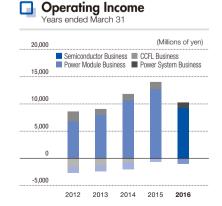
#### **Power Module Business**

Net sales for the power module business were ¥15.922 billion, which was an increase of ¥367 million (2.4%) over the previous term.

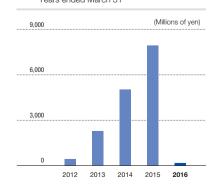
Although there was a reduction in the sale of products intended for printers used in offices and even though the products for industrial machinery transitioned at more or less the same level as the previous term, the sale of adapter products for television sets increased.

In terms of income, however, an increase was seen in the number of unprofitable products and a general decline in sales prices that led to a deterioration in the cost rate, even though efforts were focused to increase sales in strategic core





# Net Income Years ended March 31



markets, such as automotive and industrial machinery markets, whereas business operational reforms were implemented by reducing production costs, but they were not sufficient to make up for the deterioration. The ordinary loss was ¥973 million (ordinary loss was ¥594 million for the previous term).

#### **Power System Business**

Net sales for the power system business were ¥14.879 billion, a reduction of ¥3.739 billion (20.1%) when compared with the previous term.

The sale of power supply products for telecommunications, which is our core business, declined in association with a reduction in the scale of facility investments for mobile phone base stations, although the sale of new energy fields, in which efforts have been focused for this growing market, increased.

Even in terms of income, the ordinary profit was ¥973 million, which was a reduction by ¥353 million (26.6%) when compared with the previous term.

#### Other income (expenses)

Other income (expenses) consisted of profits amounting to ¥375 million for the previous term, but the current term ended with expenses of ¥4.734 billion. Our performance for the current term was affected by foreign exchange losses of ¥1.058 billion, the business structure reform cost of ¥621 million, losses of ¥1.032 billion for countermeasures against the abnormal properties of chemicals and the like.

### **FINANCIAL POSITION**

#### Assets

Total assets as at the end of the current fiscal year were ¥184.711 billion, an increase of ¥8.555 billion when compared

with the end of the previous term. The current assets are \$112.204 billion, an increase of \$3.979 billion when compared with the end of the previous term. This was due primarily to the reduction of notes and accounts receivable by \$3.489 billion and inventory by \$1.312 billion. Investments and long-term receivables were \$4.820 billion, which was a decrease of \$497 million when compared with the end of the previous term. This was primarily due to the assets for retirement benefits, which were accounted for in the previous term but absent for the current term. Net property, plant and equipment added up to \$62.015 billion, a reduction by \$3.78 billion when compared with the end of the previous term. This was due primarily to a reduction in construction in progress, though the buildings increased.

#### Liabilities

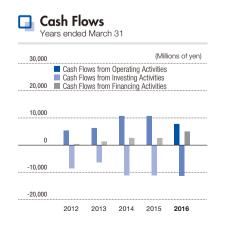
Liabilities at the end of the current term were ¥79.499 billion, a reduction by ¥7.854 billion when compared with the end of the previous term. This was due primarily to an increase in the current portion of the long-term debt by ¥16.8 billion, while short-term bank loans decreased by ¥935 million and commercial papers decreased by ¥18.5 billion.

Long-term liabilities at the end of the current term were ¥51.252 billion, an increase by ¥8.360 billion when compared with the end of the previous term. This was due primarily to an increase in the long-term debts by ¥9.1 billion.

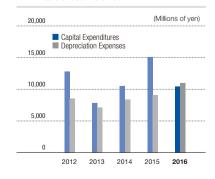
#### **Net Assets**

Total assets as of the end of the current fiscal year were ¥53.959 billion, a reduction by ¥9.062 billion when compared with the end of the previous term. The total shareholders' equity was ¥54.641 billion, a reduction by ¥690 million when compared with the previous term. This was due to a decrease









in retained earnings by ¥677 million, translation adjustments by ¥4.089 billion and the retirement benefit liability adjustments related to retirement benefit plans by ¥4.109 billion. Furthermore, the equity ratio at the end of the current term was 29.0%, which was a reduction by 3.4 points when compared with the end of the previous term.

## **Cash Flows**

The funding situation of our corporate group, in terms of cash flow from operating activities, resulted in an income of ¥7.799 billion (reduction in income by ¥2.174 billion when compared with the previous term) due to a reduction in income before income taxes and minority interests, as well as a decrease in notes and accounts payable. In terms of "cash flow from investing activities" the results indicated an expenditure of ¥11.344 billion (reduction in expenditure by ¥2.889 billion when compared with the previous term), due in part to a reduction in the purchases of property, plant and equipment. As for "cash flow from financing activities" the results indicated an income of ¥5.044 billion (reduction in income by ¥647 million when compared with the previous term), due in part to the redemption of commercial papers and corporate bonds in association with the issuance of corporate bonds. As a result of the above, the balance of cash and cash equivalents at the end of the current term were ¥17.646 billion, an increase of ¥421 million when compared with the end of the previous term.

## **Capital Expenditures**

The total amount of capital investments made by our corporate group during the current term totaled ¥10.154 billion and primarily consisted of purchases for production, testing and research equipment.

In the semiconductor business the corporate group had

a capital expenditure of ¥164 million for the purchase of production, testing and research facilities, while consolidated subsidiaries, including Ishikawa Sanken Co., Ltd., Yamagata Sanken Co., Ltd., Fukushima Sanken Co., Ltd., Dalian Sanken Electric Co., Ltd., Allegro MicroSystems, Inc., as well as Polar Semiconductor, Inc., had a capital expenditure of ¥9.496 billion to enhance facilities.

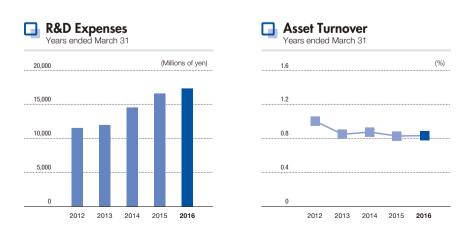
In the PM business, the capital expenditure of our Company was ¥5 million for items such as product molds, while consolidated subsidiaries, including P.T. Sanken Indonesia, the capital expenditure was ¥261 million for production facilities, as well as for the purchase of molds and the like.

In the PS business, the capital expenditure for the Company was ¥97 million for the purchase of items, such as product molds, while consolidated subsidiaries, including Sanken L.D. Electric (Jiang Yin) Co., Ltd., the capital expenditure was ¥56 million, including the purchase of production facilities.

The funds for capital expenditure were provided principally from internal funds and loans.

# **BUSINESS RISKS**

Management has identified the following issues as posing potential risks to the Company's business performance and financial condition. Concerning risks to business strategy, forecasts regarding the future presented here are judgments made as of the end of the consolidated fiscal year under review (March 31, 2016). It is important to keep in mind that actual outcomes may deviate considerably from these forecasts due to inherent uncertainties.



#### 35

## Strategy risk

## New product development

Sanken has to develop and introduce products that correspond to market needs in the electronics industry, which is characterized by drastic changes in the pace of technical progress and product life cycles. Although the Company conducts R&D while continually monitoring market trends, its profitability, earnings, and financial condition could suffer if the Company fails to introduce products in a timely manner or its products fail to win acceptance in the marketplace.

## **Price competition**

Price competition in the electronics industry is escalating. The emergence of competitors using production bases in Southeast Asia, and particularly China, has had a major impact on the determination of prices for the Company's products. While price competition is expected to continue escalating, the Company is responding by working to further reduce its cost of goods sold and to introduce high-value-added products that leverage its inherent technologies. However, the Company's profitability, earnings, and financial condition could suffer due to the emergence of products made by companies with a greater ability to respond to price reductions or to changes in demand by its customers.

## **Fund procurement**

The Company procures funds necessary for capital investment and R&D through the issue of corporate bonds, the issue of commercial paper, and through commitment lines of credit and bank loans. In the event the Company's credit standing is judged to have declined by the bond market or by financial institutions, there may be restrictions on fund procurement methods or an increase in procurement costs, which could adversely affect the earnings and financial condition of the Company.

## Intellectual property

The Company takes steps to differentiate its products from those of competitors by using proprietary technologies and know-how. Although the Company files and registers intellectual property rights as necessary to protect these technologies, such protections are inadequate in some nations and regions. As such, in some cases it may be impossible to effectively prohibit third parties from manufacturing analogous products that use the Company's intellectual property. Should a third party gain intellectual property rights related to the Company's business or possess such intellectual property rights without the Company's knowledge, the Company may be requested to pay royalties, prohibited from using the applicable intellectual property rights, or have a lawsuit brought against it by a third party asserting infringement of intellectual property rights. Such actions could give rise to an increase in costs and may limit the development and sales of products.

## **External risk**

#### **Economic environment**

In addition to Japan, the Company produces products in several other nations and regions, including Asia, North America, and Europe. Overseas production value accounted for 50.5% of consolidated production value for the year ended March 31, 2014, 52.3% for the year ended March 31, 2015 and 56.4% for the year ended March 31, 2016. Overseas sales on a consolidated basis as a proportion of total sales were 56.0% for the year ended March 31, 2015 and 61.4% for the year ended March 31, 2014, 58.3% for the year ended March 31, 2016 respectively. As a consequence, the Company's earnings and financial condition could be adversely affected by changes in the operating environment, including economic trends, in the relevant areas.

#### **Exchange rates**

The Company derives a portion of its earnings from production and sales in nations and regions outside of Japan, and related accounts are settled in U.S. dollars or the local currencies of the corresponding nations or regions. Consequently, exchange rates prevailing at the time of conversion into Japanese yen may affect earnings.

Exports as a share of the Company's sales were 36.8% for the year ended March 31, 2014, 39.0% for the year ended March 31, 2015 and 41.1% for the year ended March 31, 2016. Of these exports, the proportion denominated in foreign currencies were 91.2% for the year ended March 31, 2014, 91.6% for the year ended March 31, 2015 and 91.0% for the year ended March 31, 2016. To manage the exchange risk associated with transactions, the Company engages in risk hedging, including through the hedging of the balances of payables, receivables, and turnover, by expanding overseas procurement of products and raw materials and through the use of forward currency contracts. By doing so, the Company aims to minimize the impact of short-term fluctuations in the exchange rates of major currencies, including the U.S. dollar and the Japanese yen.

Additionally, appreciation of the currencies in the regions and nations where the Company has production bases

may drive up manufacturing and procurement costs. Higher costs would have the impact of lower margins and diminished price competitiveness, which may adversely affect earnings.

## Internal risk

# Legal restraints

The Company has production and sales bases in 14 regions and nations, including Japan, and establishes businesses subject to the application of various laws, ordinances, and regulations (hereinafter "legal restraints") specified in each region or nation. In addition, with respect to the export and import of technology, products, and materials necessary for sales and production by the Company around the world, business activities are subject to legal restraints relating to tariffs, trade, foreign currency, strategic materials, specific technologies, antitrust, patents, the environment, and other areas in each region and nation. Failure to comply with these legal restraints could result in restrictions on the Company's business activities or undermine public confidence, which may adversely affect the Company's earnings and financial condition.

## **Quality issues**

The Company provides a variety of products that satisfy its own internal quality standards, as well as those of its customers. To sustain and improve its quality control system, the Company has acquired ISO 9001 certification, an international standard for quality management and, when necessary, acquires certification for product safety based on relevant standards, including those of Underwriters Laboratories Inc. However, these efforts do not guarantee that any or all products will not be defective, recalled, or require repair. Large-scale recalls, repairs, or product defects that result in liability for damage could potentially lead to substantial costs and diminished public confidence, which in turn could adversely affect the Company's earnings and financial condition.

## **Environmental problems**

The Company complies with all legal restraints pertaining to the prevention of environmental damage and pollution in the nations and regions where it has production bases. As part of its own environmental activities, the Company pursues ISO 14001 certification, an international standard for environmental management systems. Also, the Company works to better understand and reduce the use of substances that carry environmental burdens and that are used in its production processes or contained in its products. Failure to comply with these restraints, the occurrence of an accident that results in the discharge of a large volume of hazardous substances, or the accidental residue of prohibited substances in products could result in substantial costs to rectify these situations. In addition, this could result in restrictions on business activities, liability for reparations to customers, and loss of public confidence, all of which could adversely affect the Company's earnings and financial position.

In addition to the risks described above, there is a possibility that demand for the Company's products will decrease because of a sudden change in the trend of electronics products, technologies used in the Company's products or in the market environment. Furthermore, in addition to a sharp increase in the cost of raw materials and the possible occurrence of a calamity such as natural disaster or fire at a production plant or materials supplier or damage to social or telecommunications infrastructure, there may be unforeseeable country risks such as a war, terrorist attack, epidemic of infectious disease, or significant changes to laws or the taxation system in a particular country or region.

Alternatively, there is the risk of legal action or the obligation to make compensation payments that could arise from a product defect causing the loss of life or impacting society, the environment, or business activities. Other risks include potential changes to the compulsory corporate contribution to retirement benefits and the increasing risk of improper or illegal use of company information, including personal information, as the use of information systems expand.

If any one or more of these potential risks occurs, and such an occurrence results in a lowering of public trust, suspension of business operations, or significant financial loss, there could be a detrimental impact on business performance.

	As of March 31,							
	2016	2015	2016					
Assets	(Millions o	(Thousands of U.S. dollars) (Note 3)						
Current assets:								
Cash and deposits (Notes 4 and 6)	¥ 17,924	¥ 17,443	\$ 159,056					
Notes and accounts receivable (Notes 5 and 6):								
Trade and other	35,782	41,264	317,530					
Less allowance for doubtful receivables	(10)	(19)	(92)					
	35,772	41,244	317,438					
Inventories (Note 9)	52,589	53,901	466,672					
Deferred tax assets (Note 18)	2,095	1,201	18,591					
Other current assets	3,823	2,393	33,930					
Total current assets	112,204	116,183	995,688					

# Investments and long-term receivables:

Total investments and long-term receivables	4,820	5,317	42,776
Less allowance for doubtful receivables	(244)	(242)	(2,168)
Other long-term receivables	3,656	2,852	32,445
Deferred tax assets (Note 18)	204	286	1,811
Assets for retirement benefits (Note 17)	—	1,022	—
Investments in other securities (Notes 6 and 7)	1,204	1,397	10,687

# Property, plant and equipment, at cost (Note 10):

Property, plant and equipment, net	62,015	65,795	550,317
Less accumulated depreciation and impairment losses	(145,827)	(144,620)	(1,294,057)
	207,842	210,416	1,844,374
Construction in progress	4,921	10,308	43,670
Machinery and equipment	133,106	132,861	1,181,171
Buildings	64,776	61,982	574,816
Land	5,039	5,263	44,716

Other assets (Note 10)		5,671		5,971	50,332
Total assets	¥	184,711	¥	193,267	\$ 1,639,114

			As o	f March 31,			
		2016		2015	2016		
Liabilities and net assets		(Millions	of yen	)	(Thousands of U.S. dollars) (Note 3)		
Current liabilities:							
Short-term bank loans (Notes 6 and 10)	¥	20,635	¥	21,570	\$	183,115	
Current portion of long-term debt (Notes 6 and 10)		25,900		9,100		229,834	
Commercial paper (Note 6)		4,000		22,500		35,495	
Notes and accounts payable (Note 6):							
Trade and other		16,120		20,847		143,047	
Construction				62		_	
		16,120		20,909		143,047	
Accrued expenses		9,490		9,926		84,222	
Lease obligations		924		1,233		8,207	
Income taxes payable		423		186		3,754	
Deferred tax liabilities (Note 18)		1		0		15	
Other current liabilities		2,003		1,926		17,776	
Total current liabilities		79,499		87,353		705,467	
		,				,	
Long-term liabilities:							
Long-term debt (Notes 6 and 10)		42,500		33,400		377,140	
Lease obligations		329		1,253		2,921	
Accrued retirement benefits for directors		17		25		156	
Liabilities for retirement benefits (Note 17)		4,104		2,993		36,425	
Deferred tax liabilities (Note 18)		2,668		1,930		23,676	
Other long-term liabilities		1,633		3,288		14,491	
Total long-term liabilities		51,252		42,892		454,811	
Net assets (Note 18):							
Shareholders' equity:							
Shareholders equily.							
Common stock:							
Common stock: Authorized – 257,000,000 shares		20,896		_		185,436	
Common stock:		20,896 		 20,896		185,436 —	
Common stock: Authorized – 257,000,000 shares Issued and outstanding: 2016 – 125,490,302 shares 2015 – 125,490,302 shares		_		,		185,436 — 91,410	
Common stock: Authorized – 257,000,000 shares Issued and outstanding: 2016 – 125,490,302 shares 2015 – 125,490,302 shares Capital surplus		 10,301		10,301		 91,410	
Common stock: Authorized – 257,000,000 shares Issued and outstanding: 2016 – 125,490,302 shares 2015 – 125,490,302 shares Capital surplus Retained earnings.		_		,			
Common stock: Authorized – 257,000,000 shares Issued and outstanding: 2016 – 125,490,302 shares 2015 – 125,490,302 shares Capital surplus Retained earnings Less treasury stock, at cost: 4,275,417 shares				10,301 28,114			
Common stock: Authorized – 257,000,000 shares Issued and outstanding: 2016 – 125,490,302 shares 2015 – 125,490,302 shares Capital surplus Retained earnings Less treasury stock, at cost: 4,275,417 shares in 2016 and 4,253,173 shares in 2015				10,301 28,114 (3,981)		91,410 243,478 (35,444)	
Common stock: Authorized – 257,000,000 shares Issued and outstanding: 2016 – 125,490,302 shares				10,301 28,114			
Common stock: Authorized – 257,000,000 shares Issued and outstanding: 2016 – 125,490,302 shares				10,301 28,114 (3,981)		91,410 243,478 (35,444) 484,881	
Common stock: Authorized – 257,000,000 shares Issued and outstanding: 2016 – 125,490,302 shares				10,301 28,114 (3,981) 55,331 371		91,410 243,478 (35,444) 484,881 2,213	
Common stock: Authorized – 257,000,000 shares Issued and outstanding: 2016 – 125,490,302 shares				10,301 28,114 (3,981) 55,331 371 5,778		91,410 243,478 (35,444) 484,881 2,213 14,989	
Common stock: Authorized – 257,000,000 shares Issued and outstanding: 2016 – 125,490,302 shares				10,301 28,114 (3,981) 55,331 371 5,778 1,102		91,410 243,478 (35,444) 484,881 2,213 14,989 (26,687)	
Common stock: Authorized – 257,000,000 shares Issued and outstanding: 2016 – 125,490,302 shares				10,301 28,114 (3,981) 55,331 371 5,778 1,102 7,252		91,410 243,478 (35,444) 484,881 2,213 14,989 (26,687) (9,483)	
Common stock: Authorized – 257,000,000 shares Issued and outstanding: 2016 – 125,490,302 shares				10,301 28,114 (3,981) 55,331 371 5,778 1,102		91,410 243,478 (35,444) 484,881 2,213	

	For the year ended March 31,							
		2016	2015	2016				
		(Million	(Thousands of U.S. dollars) (Note 3)					
Net sales	¥	155,919	¥	160,724	\$ 1,383,618			
Cost of sales (Notes 17, 20 and 22)		115,113		116,834	1,021,503			
Gross profit		40,806		43,889	362,115			
Selling, general and administrative expenses								
(Notes 12, 17, 20 and 22)		34,003		32,689	301,741			
Operating income		6,803		11,199	60,373			

# Other income (expenses):

Interest expense	(843)	(783)	(7,484)
Interest and dividend income	52	52	466
Foreign exchange gains (losses)	(1,058)	251	(9,395)
Gain on insurance adjustment	110	43	979
Product warranting costs	(646)	(50)	(5,736)
Commission income for insurance office work	74	61	663
Gain on sales of fixed assets (Note 13)	—	488	_
Gain on sales of securities (Note 7)	—	776	_
Loss on sales of fixed assets	(24)	_	(221)
Loss on valuation of securities (Note 7)	(4)	_	(42)
Business structure reform cost (Note 14)	(621)	_	(5,512)
Loss on countermeasures against abnormal properties of chemicals (Note 15)	(1,032)	_	(9,161)
Other, net	(740)	(462)	(6,571)
	(4,734)	375	(42,015)

Profit before income taxes		2,068		11,575	18,358
Income taxes (Note 18):					
Current		1,886		2,509	16,739
Deferred		13		1,113	123
Profit		168		7,952	1,494
Profit (loss) attributable to non-controlling interests		(3)		10	(27)
Profit attributable to owners of parent (Note 23)	¥	171	¥	7,942	\$ 1,521

		For	the yea	r ended March	1 31,		
·		2016		2015		2016	
		(Millions	s of yen	)	`U.	ousands of S. dollars) (Note 3)	
Profit	¥	168	¥	7,952	\$	1,494	
Other comprehensive income (loss):							
Unrealized holding gain (loss) on securities		(121)		(90)		(1,082)	
Translation adjustments		(4,132)		7,433		(36,674)	
Retirement benefit liability adjustments		(4,109)		(458)		(36,471)	
Total other comprehensive income (loss) (Note 16)		(8,364)		6,884		(74,227)	
Comprehensive income (loss)	¥	(8,196)	¥	14,837	\$	(72,732)	
Breakdown:							
Comprehensive income (loss) attributable to:							
Owners of parent	¥	(8,150)	¥	14,787	\$	(72,323)	
non-controlling interests		(46)		50		(409)	

				For the y	/ear e	nded March	n 31, 2	2016		
				S	Shareh	nolders' equ	iity			
	Common stock					Retained earnings			sha	Total areholders' equity
					(Mill	ions of yen)				
Balance at April 1, 2015	¥	20,896	¥	10,301	¥	28,114	¥	(3,981)	¥	55,331
Changes during the year										
Cash dividends paid (other capital surplus)						(848)				(848)
Profit attributable to owners of parent						171				171
Acquisition of treasury stock								(13)		(13)
Disposition of treasury stock				(0)				0		0
Net changes in items other than shareholders' equity										_
Total changes during the year		_		(0)		(677)		(13)		(690)
Balance at March 31, 2016	¥	20,896	¥	10,301	¥	27,437	¥	(3,994)	¥	54,641

				F	or th	e year ende	ed Ma	rch 31, 201	6													
		Accu	mula	ted other c	ompr	ehensive in	come															
	ho gain			translation adjustments		Retirement benefit liability adjustments		other i omprehensive c		Non-controlling interests in consolidated subsidiaries		interests in consolidated		interests in consolidated		interests in consolidated		interests in consolidated		interests in consolidated		Total et assets
						(Million	s of ye	en)														
Balance at April 1, 2015	¥	371	¥	5,778	¥	1,102	¥	7,252		¥437	1	¥63,021										
Changes during the year																						
Cash dividends paid (other capital surplus)								_				(848)										
Profit attributable to owners of parent								_				171										
Acquisition of treasury stock								_				(13)										
Disposition of treasury stock								_				0										
Net changes in items other than shareholders' equity		(121)		(4,089)		(4,109)		(8,321)		(49)		(8,371)										
Total changes during the year		(121)		(4,089)		(4,109)		(8,321)		(49)		(9,061)										
Balance at March 31, 2016	¥	249	¥	1,689	¥	(3,007)	¥	(1,068)	¥	387	¥	53,959										

			For the y	ear ended Marc	h 31, 2016							
	Shareholders' equity											
	Common Capital stock surplus		Retained earnings	Treasury stock, at cost	Total shareholders' equity							
			(Thousar	ids of U.S. dollar	s) (Note 3)							
Balance at April 1, 2015	\$ 185,436	\$	91,413	\$ 249,487	\$ (35,327)	\$ 491,009						
Changes during the year												
Cash dividends paid (other capital surplus)				(7,530)		(7,530)						
Profit attributable to owners of parent				1,521		1,521						
Acquisition of treasury stock					(122)	(122)						
Disposition of treasury stock			(2)		5	3						
Net changes in items other than shareholders' equity						_						
Total changes during the year	_		(2)	(6,009)	(117)	(6,128)						
Balance at March 31, 2016	\$ 185,436	\$	91,410	\$ 243,478	\$ (35,444)	\$ 484,881						

					For the	e year ende	d Ma	arch 31, 201	6		
		Accu	mula	ated other o	ompre	hensive in	come	9			
	r gair	nrealized olding n (loss) on ecurities		Total Retirement accumulated Non-controlling benefit other interests in translation liability comprehensive consolidated idjustments adjustments income subsidiaries		erests in solidated	Total net assets				
					(Thous	ands of U.S	S. do	llars) (Note 3	3)		
Balance at April 1, 2015	\$	3,296	\$	51,282	\$	9,784	\$	64,362	\$	3,878	\$ 559,249
Changes during the year											
Cash dividends paid (other capital surplus)								_			(7,530)
Profit attributable to owners of parent								_			1,521
Acquisition of treasury stock								_			(122)
Disposition of treasury stock								_			3
Net changes in items other than shareholders' equity		(1,082)		(36,292)		(36,471)		(73,845)		(441)	(74,286)
Total changes during the year		(1,082)		(36,292)		(36,471)		(73,845)		(441)	(80,414)
Balance at March 31,2016	\$	2,213	\$	14,989	\$	(26,687)	\$	(9,483)	\$	3,437	\$ 478,835

				For the y	/ear e	nded March	n 31, 2	2015				
				5	Shareh	olders' equ	ity					
	C	Common stock		Capital surplus				Retained earnings		sury stock, at cost	sha	Total reholders' equity
					(Mill	ions of yen)						
Balance at April 1, 2014	¥	20,896	¥	11,028	¥	20,340	¥	(3,954)	¥	48,310		
Cumulative effect of changes in accounting principle						(158)				(158)		
Restated balance at April 1, 2014		20,896		11,028		20,181		(3,954)		48,152		
Changes during the year												
Effect of change of the fiscal year-end of consolidated subsidiaries						(8)				(8)		
Cash dividends paid (other capital surplus)				(727)						(727)		
Profit attributable to owners of parent						7,942				7,942		
Acquisition of treasury stock								(26)		(26)		
Disposition of treasury stock				0				0		0		
Net changes in items other than shareholders' equity										_		
Total changes during the year				(727)		7,933		(26)		7,179		
Balance at March 31, 2015	¥	20,896	¥	10,301	¥	28,114	¥	(3,981)	¥	55,331		

			I	or th	e year ende	d Ma	arch 31, 201	5			
	Aco										
	Unrealized holding gain (loss) on securities		anslation		etirement benefit liability justments		Total ccumulated other nprehensive income	in co	-controlling terests in nsolidated bsidiaries		Total t assets
					(Millions	s of y	ren)				
Balance at April 1, 2014	¥461		¥(1,615)		¥1,561		¥407		¥390	¥	49,108
Cumulative effect of changes in accounting principle							—				(158)
Restated balance at April 1, 2014	461		(1,615)		1,561		407		390		48,950
Changes during the year											
Effect of change of the fiscal year-end of consolidated subsidiaries							_				(8)
Cash dividends paid (other capital surplus)							_				(727)
Profit attributable to owners of parent							_				7,942
Acquisition of treasury stock							_				(26)
Disposition of treasury stock							_				0
Net changes in items other than shareholders' equity	(90)		7,394		(458)		6,845		46		6,892
Total changes during the year	(90)		7,394		(458)		6,845		46		14,071
Balance at March 31, 2015	¥ 371	¥	5,778	¥	1,102	¥	7,252	¥	437	¥	63,021

	For	31,	
	2016	2015	2016
	(Millions	s of yen)	(Thousands of U.S. dollars) (Note 3)
Operating activities			
Profit before income taxes	¥ 2,068	¥ 11,575	\$ 18,358
Depreciation and amortization	11,593	9,130	102,876
Decrease in allowance for doubtful receivables	(6)	(46)	(58)
Decrease (increase) in net defined benefit assets	(1,326)	—	(11,773)
ncrease (decrease) in provision for retirement benefits for employees	(652)	(1,300)	(5,786)
nterest and dividend income	(52)	(52)	(466)
nterest expense	843	783	7,484
Loss (gain) on sales of property, plant and equipment	24	(488)	221
_oss (gain) on sales of investment securities	_	(776)	_
Decrease (increase) in notes and accounts receivable	2,509	(1,703)	22,268
Decrease (increase) in inventories	(152)	(4,685)	(1,357)
ncrease (decrease) in notes and accounts payable	(3,880)	654	(34,430)
Dther	462	122	4,102
Subtotal	11,431	13,212	101,437
nterest and dividends received	47	52	419
nterest paid	(818)	(785)	(7,259)
ncome taxes paid	(2,860)	(2,505)	(25,383)
Net cash provided by operating activities	7,799	9,973	69,214
nvesting activities			
Purchases of property, plant and equipment	(10,239)	(14,801)	(90,867)
Proceeds from sales of property, plant and equipment	172	908	1,531
Purchases of intangible assets	(1,042)	(1,736)	(9,246)
Proceeds from sales of investment securities	_	1,476	_
ncrease in loans receivable	(1)	(11)	(9)
Proceeds from loans receivable	5	6	46
Other	(239)	(77)	(2,126)
Net cash used in investing activities	(11,344)	(14,234)	(100,671)
Financing activities			
ncrease (decrease) in short-term bank loans	(110)	238	(977)
ncrease (decrease) in commercial paper	(18,500)	7,500	(164,167)
Proceeds from issuance of long-term debt	5,000	7,500	44,369
Repayment of long-term debt	(5,000)	(7,500)	(44,369)
Proceeds from issuance of corporate bonds	29,867	—	265,040
Redemption of corporate bonds	(4,100)	_	(36,382)
Repayment of finance lease obligations	(1,249)	(1,293)	(11,089)
Proceeds from share issuance to non-controlling shareholders	0	0	2
Purchase of treasury stock	(13)	(26)	(116)
Cash dividends paid	(849)	(726)	(7,537)
Net cash provided by financing activities	5,044	5,692	44,766
Effect of exchange rate changes on cash and cash equivalents	(1,078)	1,051	(9,571)
Net increase in cash and cash equivalents	421	2,482	3,738
Cash and cash equivalents at beginning of the year	17,225	14,820	152,855
	,		_,,
Effect of change of the fiscal year-end of consolidated subsidiaries	_	(77)	_

## Summary of Significant Accounting Policies

#### (a) Basis of Presentation

The accompanying consolidated financial statements of Sanken Electric Co., Ltd. (the "Company") and consolidated subsidiaries (collectively, the "Group") have been prepared in accordance with accounting principles generally accepted in Japan, which are different in certain respects as to the application and disclosure requirements of International Financial Reporting Standards, and are compiled from the consolidated financial statements prepared by the Company as required by the Financial Instruments and Exchange Law of Japan.

The accompanying consolidated financial statements for the year ended March 31, 2016 have been prepared by using the accounts of foreign consolidated subsidiaries prepared in accordance with either International Financial Reporting Standards (IFRS) or accounting principles generally accepted in the United States as adjusted for certain items including goodwill, actuarial differences and capitalized development costs.

Certain amounts in the prior year's financial statements have been reclassified to conform to the current year's presentation.

As permitted by the Financial Instruments and Exchange Law, amounts of less than one million yen have been omitted. As a result, the totals shown in the accompanying consolidated financial statements (both in yen and in U.S. dollars) do not necessarily agree with the sums of the individual amounts.

#### (b) Principles of Consolidation

The accompanying consolidated financial statements include the accounts of the Company and all its subsidiaries. As of March 31, 2016, the number of consolidated subsidiaries was 33 (33 in 2015). Significant intercompany transactions and account balances have been eliminated in consolidation. Generally, the differences, if significant in amounts, between the cost and the equity in the underlying net assets at fair value of consolidated subsidiaries at the date acquired are capitalized in the year of acquisition and amortized principally over a five-year period.

#### (c) Securities

The accounting standard for financial instruments requires that securities be classified into three categories: trading, held-tomaturity or other securities. Trading securities are carried at fair value and held-to-maturity securities are carried at amortized cost. Marketable securities classified as other securities are carried at fair market value with any changes in unrealized gain or loss, net of the applicable income taxes, included directly in net assets. Non-marketable securities classified as other securities are carried at cost. The cost of securities sold is determined by the moving average method.

#### (d) Inventories

Inventories held for sale in the ordinary course of business are stated at cost using the moving-average method. The carrying amounts in the accompanying consolidated balance sheets are written down to reflect any decreased profitability.

## (e) Property, Plant and Equipment; Intangible Assets; Leased Assets; and Depreciation and Amortization

Property, plant and equipment are recorded at cost. Depreciation at the Company and its subsidiaries is computed principally by the straight-line method over the estimated useful lives of the respective assets. The estimated useful lives are as follows:

Buildings	8 – 60 years
Machinery and equipment	3 – 12 years

Intangible assets are amortized over a period of 5 or 10 years by the straight-line method.

Leased assets under finance lease transactions that stipulate the transfer of ownership of the leased assets to the lessee are depreciated principally over the estimated useful lives of similar-owned assets by the straight-line method.

Leased assets under finance lease transactions that do not stipulate the transfer of ownership of the leased assets to the lessee are depreciated over their lease periods by the straight-line method with a residual value of zero.

#### (f) Allowance for Doubtful Receivables

Estimated uncollectible amounts are calculated using historical data for trade receivables and individually considering the probability of collection of doubtful receivables.

#### (g) Accrued Bonuses for Directors and Corporate Auditors

Accrued bonuses for directors and corporate auditors are calculated based on estimated bonus payments attributable to the fiscal year.

## (h) Bond Issuance Costs

Bond issuance costs are charged to income when incurred.

#### (i) Employees' Retirement Benefits

The retirement benefit obligation for employees is attributed to each period by the benefit formula method.

Prior service cost is amortized from the year in which the gain or loss is recognized primarily by the declining-balance method over various periods (principally 10 through 18 years) which are shorter than the average remaining years of service of the employees.

Net unrecognized actuarial gain or loss is amortized from the year following the year in which the gain or loss is recognized

primarily by the declining-balance method over various periods (principally 10 through 18 years) which are shorter than the average remaining years of service of the employees.

Certain consolidated subsidiary uses a simplified method for calculating retirement benefit expenses and liabilities based on the assumption that the benefits payable approximates the retirement benefit obligation at year-end.

#### (j) Retirement Benefits for Directors

To prepare for the payment of retirement benefits to directors and corporate auditors, a reserve for retirement benefits has been provided at the estimated amounts required at the year-end based on the Company's internal rules.

The retirement benefits system for directors and corporate auditors of the Company was abolished in June 23, 2006.

#### (k) Foreign Currency Translation

All monetary assets and liabilities of the Company denominated in foreign currencies are translated into yen at the exchange rates prevailing as of the fiscal year end, and the resulting gain or loss is credited or charged to income.

Assets and liabilities of overseas consolidated subsidiaries are translated into yen at the fiscal year-end exchange rates. Income statements of overseas consolidated subsidiaries are translated into yen at average exchange rates. Differences arising from the translation are presented as translation adjustments and minority interests as components of net assets in its consolidated financial statements.

#### (I) Derivatives

The Company has entered into various derivatives transactions in order to manage its risk exposure arising from adverse fluctuation in foreign currency exchange rates and interest rates. Derivatives positions are carried at fair value with any changes in unrealized gain or loss charged or credited to income.

#### (m) Cash Equivalents

All highly liquid investments, generally with a maturity of three months or less when purchased, which are readily convertible into known amounts of cash and are so near maturity that they represent only an insignificant risk of any change in value attributable to changes in interest rates, are considered cash equivalents.

## (n) Consumption Taxes

Transactions subject to consumption taxes are recorded at amounts exclusive of consumption taxes.

## (o) Consolidated Taxation System

The Company and its domestic consolidated subsidiaries have applied the consolidated taxation system.

## 2. Accounting Changes

## (a) Change in accounting policy associated with revisions of accounting standards ,etc.

Effective from the year ended March 31, 2016, the Company and its domestic consolidated subsidiaries adopted the Accounting Standard for Business Combinations (ASBJ Statement No. 21, revised September 13, 2013; hereinafter the "Accounting Standard for Business Combinations"), Accounting Standard for Consolidated Financial Statements (ASBJ Statement No.22, revised September 13, 2013: hereinafter the "Accounting Standard for Consolidated Financial Statements"), and Accounting Standard for Business Divestitures (ASBJ Statement No.7, revised September 13, 2013; hereinafter the "Accounting Standard for Business Divestitures"), etc. In accordance with the changes in these standards, the Company records differences arising from changes in its equity interest in subsidiaries that remain under its control in capital surplus and charges acquisition-related costs for business combinations to expenses in the years in which such costs are incurred. With regard to any business combination made on or after April 1, 2015, any adjustment of an allocated amount of acquisition costs arising from a determination of provisional treatment is reflected in the consolidated financial statements for the year in which the business combination occurs. Furthermore, the Company has changed the presentation of net income, etc. and the presentation of minority interests to non-controlling interests.

When applying the accounting standards, etc., the Company follows the transitional treatment set forth in Paragraph 58-2 (4) of the Accounting Standard for Business Combinations, Paragraph 44-5 (4) of the Accounting Standard for Consolidated Financial Statements, and Paragraph 57-4 (4) of the Accounting Standard for Business Divestitures. The accounting standards, etc. are applied to periods from April 1, 2015 onward.

There was no impact on the consolidated financial statements for the fiscal year ended March 31 2016 as a result of this change.

## (b) Change in method for valuing inventories

Inventories of the Company and some of its domestic consolidated subsidiaries, which were previously stated mainly at cost by the first-in, first-out method (the carrying amounts in the accompanying consolidated balance sheets are written down to reflect any decreased profitability), are now stated mainly at cost using the moving-average method (the carrying amounts in the accompanying consolidated balance sheets are written down to reflect any decreased profitability), effective from the year ended March 31, 2016.

This change was implemented for the purpose of conducting inventory valuation and periodic profit and loss accounting more fairly and accurately, in conjunction with the introduction of the new Sanken ERP system in the Company and some of its domestic consolidated subsidiaries.

As the impacts of this change on the consolidated financial statements for the year ended March 31, 2016 were negligible, this change was not applied retroactively.

# **3**. U.S. Dollar Amounts

The translation of yen amounts into U.S. dollar amounts is included solely for convenience and has been made, as a matter of arithmetic computation only, at ¥112.69 = U.S.\$1.00, the approximate exchange rate prevailing on March 31, 2016. This translation should not be construed as a representation that yen have been, could have been, or could in the future be, converted into U.S. dollars at that or any other rate.

## 4. Supplementary Cash Flow Information

The following table represents a reconciliation of cash and deposits with cash and cash equivalents as of March 31, 2016 and 2015:

	As of March 31,							
		2016		2015		2016		
		(Millions of yen)			•	ousands of .S. dollars)		
Cash and deposits	¥	17,924	¥	17,443	\$	159,056		
Restricted cash		(277)		(218)		(2,462)		
Cash and cash equivalents	¥	17,646	¥	17,225	\$	156,593		

The following table represents significant non-cash transactions as of March 31, 2016 and 2015:

	2	2016	2	2015	:	2016
		(Millions	s of yen)		•	sands of dollars)
Assets and obligations relating to finance lease transactions	¥	28	¥	168	\$	249

## 5. Notes and Accounts Receivable

The retroactively adjusted liability upon transfer of export receivables was ¥167 million (\$1,482 thousand) and ¥183 million at March 31, 2016 and 2015, respectively.

## **6.** Financial Instruments

## a. Summary of financial instruments

(1) Policy for financial instruments

The Group raises funds necessary for capital investments, R&D, etc. by bond issuances and bank loans. It manages temporary surplus funds through highly secure financial instruments, and also raises short-term operating funds by issuing commercial paper and obtaining bank loans. The Group follows a policy of using derivatives to hedge foreign currency exchange fluctuation risks and avoids any speculative dealings.

(2) Financial instruments and their risks

Receivables resulting from the ordinary course of business, such as notes and accounts receivable-trade, are exposed to credit risk of customers. Receivables denominated in foreign currencies derived from global business operations are also exposed to foreign currency exchange fluctuation risks. The Group hedges these risks mainly through the use of forward exchange contracts against positions after netting payables denominated in the same foreign currencies, in principle.

Investment securities are mainly composed of the shares of corporations with which the Group has business relationships and therefore are exposed to the risk of market price fluctuations.

Payables from the ordinary course of business such as notes and accounts payable-trade are mostly to be settled in one year. As some of them are denominated in foreign currencies due to importing materials and exposed to foreign currency exchange fluctuation risks, they are constantly maintained within the range of receivables in the same currencies. Short-term bank loans and commercial paper are used for financing mainly in relation to operating funds, while long-term

bank loans and bonds are used for the purpose of financing capital investments. Some have floating interest rates and are therefore exposed to the risk of interest rate fluctuation.

Forward exchange contracts are derivative transactions that are entered into in order to hedge foreign currency exchange fluctuation risks associated with foreign currency denominated receivables and payables arising from the ordinary course of business.

- (3) Risk management for financial instruments
  - <1> Management of credit risk (risk of customer default)

The sales division of the Group regularly monitors the financial position of main customers and manages due dates and outstanding balances due from each customer in accordance with provisions of credit management regulations to minimize the risk of defaults resulting from the deterioration of a customer's financial position.

<2> Management of market risk (foreign exchange risk, interest rate risk and others)

For receivables and payables denominated in foreign currencies, the Group identifies the foreign currency exchange fluctuation risks by currency each month and enters into forward exchange contracts to hedge such risk. Regarding the market price risk of investment securities, the Group regularly monitors the fair value of such securities as well as financial positions of the issuers. The Group also continuously reviews the status of possessing such securities taking into consideration business relationships with the issuers. When borrowing a bank loan with a floating interest rate, the Group reduces the risk by limiting the loan term to within three years in principle, monitoring the remaining term until the interest rate renewal date, monitoring the interest rate fluctuation trends, and responding in consideration of the balances between short-term loans and long-term loans or between fixed interest rates and floating interest rates.

In regard to derivative transactions, the finance division enters into contracts, confirms balances and keeps accounts based on the corporate policy. The status of derivative transactions is reported monthly to the management meeting.

<3> Management of liquidity risk (risk of failure to repay obligations)

The finance division manages liquidity risk in a timely manner by updating the cash-flow budget based on reports from each business division.

(4) Supplemental explanation of the fair value of financial instruments Fair values of financial instruments are measured based on the quoted market price, if available, or are reasonably estimated if a quoted market price is not available. The fair value of financial instruments for which a quoted market price is not available is calculated based on certain assumptions, and the fair value might differ if different assumptions are used.

In addition, the contract amounts of the derivative transactions described below in "b. Fair value of financial instruments" do not represent the market risk of the derivative transactions.

## b. Fair value of financial instruments

The carrying amounts on the consolidated balance sheets, fair value, and difference as of March 31, 2016 and 2015 are as follows. Financial instruments, for which it is extremely difficult to measure the fair value, are not included. (Please see "Note 2: Financial instruments for which the fair value is extremely difficult to measure," below)

					,	As of Marc	h 31, 2016				
		Carrying amount	F	air value	Dif	ference	Carrying amount	Fair value	Di	ifference	
			(Milli	ions of yen)			(Thou	isands of U.S. do	Jollars)		
Assets											
(1) Cash and deposits	¥	17,924	¥	17,924	¥		\$ 159,056	\$ 159,056	\$	_	
(2) Notes and accounts receivable- trade		33,999		33,999			301,712	301,712		_	
(3) Investment securities Other securities		1,120		1,120			9,945	9,945		_	
Total	¥	53,044	¥	53,044	¥		\$470,713	\$470,713	\$		
Liabilities											
(1) Notes and accounts payable- trade	¥	16,120	¥	16,120	¥	_	\$143,047	\$143,047	\$	_	
(2) Short-term bank loans	Ť	20,635	*	20,635	+	_	183,115	183,115	Ψ	_	
(3) Commercial paper		4,000		4,000		_	35,495	35,495		_	
(4) Bonds		55,900		56,053		(153)	496,051	497,416		(1,365)	
(5) Long-term debt (except for bonds)		12,500		12,631		(131)	110,923	112,087		(1,164)	
(6) Lease obligations		1,254		1,248		5	11,129	11,077		51	
Total	¥	110,409	¥	110,688	¥	(279)	\$979,762	\$982,239	\$	(2,477)	
Derivative transactions (*)	¥	698	¥	698	¥	_	\$ 6,197	\$ 6,197	\$	_	

(\*) Derivative transactions are shown at the net value of the assets and liabilities arising from the transactions.

	Carr	ying amount	Fair value		Di	fference
			(Mil	lions of yen)		
Assets						
(1) Cash and deposits	¥	17,443	¥	17,443	¥	_
(2) Notes and accounts receivable-trade		37,489		37,489		_
(3) Investment securities Other securities		1,313		1,313		_
Total	¥	56,246	¥	56,246	¥	_
Liabilities						
(1) Notes and accounts payable-trade	¥	20,909	¥	20,909	¥	_
(2) Short-term bank loans		21,570		21,570		_
(3) Commercial paper		22,500		22,500		_
(4) Bonds		30,000		30,294		(294)
(5) Long-term debt (except for bonds)		12,500		12,501		(1)
(6) Lease obligations		2,487		2,447		39
Total	¥	109,967	¥	110,224	¥	(256)
Derivative transactions (*)	¥	(599)	¥	(599)	¥	_

(\*) Derivative transactions are shown at the net value of the assets and liabilities arising from the transactions.

Note 1: Methods to measure the fair value of financial instruments, investment securities, and derivative transactions Assets

- (1) Cash and deposits, and (2) Notes and accounts receivable-trade The carrying amount approximates fair value because of the short maturities of these instruments.
- (3) Investment securities

The fair value of equity securities equals quoted market prices, if available. Information on investment securities classified by holding purpose is described in "Note 7. Securities."

Liabilities

(1) Notes and accounts payable-trade, (2) Short-term bank loans and current portion of long-term debt, and (3) Commercial paper The carrying amount approximates fair value because of the short maturities of these instruments.

(4) Bonds

The fair value equals quoted market prices.

(5) Long-term debt (except for bonds)

The fair value of long-term debt on floating interest rates is nearly equal to the carrying value as market rate is reflected in a short period. The fair value of long-term debt on fixed interest rates is based on the present value of the total amount of principal and interest discounted by the interest rates that would presumably apply to similar debt.

(6) Lease obligations

The fair value of lease obligations is based on the present value of the total amount of payments discounted by the interest rates that would presumably apply to similar lease contract.

#### Derivative transactions

Contract amounts and estimated fair value are described in "Note 8. Derivatives"

Note 2: Financial instruments for which the fair value is extremely difficult to measure

		As of M	larch 31,			
	(Millions	s of yen)		•		
¥	83	¥	83	\$	742	
			2016 20 Carrying amount Carrying (Millions of yen)	2016     2015       Carrying amount     Carrying amount       (Millions of yen)	2016     2015     2015       Carrying amount     Carrying amount     Carrying amount       (Millions of yen)     U.S.	Carrying amount         Carrying amount         Carrying amount           (Millions of yen)         U.S. dollars)         U.S. dollars)

The above are not included in "Assets (3) Investment securities" because no quoted market price is available and it is extremely difficult to measure the fair value.

Note 3: The redemption schedule for receivables and investment securities with maturities subsequent to the consolidated closing date

				As of Marc	ch 31, 2016	6						
	Wi	Within 1 year		Within 1 year		Within 1 year		er 1 year n 5 years		5 years 10 years	Over	10 years
				(Million	s of yen)							
Cash and deposits	¥	17,924	¥	_	¥	_	¥	_				
Notes and accounts receivable-trade		33,999		_		_		_				
Investment securities												
Other securities with maturities				—		—		—				
Total	¥	51,923	¥	_	¥	_	¥	_				

			As of Marc	h 31, 201	6		
	W	ithin 1 year	er 1 year in 5 years		5 years 10 years	Over	10 years
			 (Thousands c	of U.S. dol	lars)		
Cash and deposits	\$	159,056	\$ 	\$	_	\$	_
Notes and accounts receivable-trade		301,712	_		_		_
Investment securities Other securities with maturities		_	_		_		_
Total	\$	460,768	\$ 	\$	_	\$	

				As of Marc	h 31, 201	5		
	Wi	thin 1 year		r 1 year n 5 years		5 years 10 years	Over	10 years
				(Millions	s of yen)			
Cash and deposits	¥	17,443	¥	_	¥	_	¥	_
Notes and accounts receivable-trade		37,489		_		_		_
Investment securities Other securities with maturities		_		_		_		_
Total	¥	54,932	¥	_	¥	_	¥	_

# Note 4: The redemption schedule for bonds, long-term debt and lease obligations and other liabilities with maturities subsequent to the consolidated closing date

					A	As of Marc	h 31, 20	016				
		Due in 1 year 1 ye		ue after ar through 2 years	2 year	e after rs through years	3 years	s through 4 ye		Due after 4 years through 5 years		e after vears
						(Millions	of yen	)				
Short-term bank loans	¥	20,635	¥		¥	_	¥		¥	_	¥	_
Commercial paper		4,000		_				_		_		_
Bonds		25,900		_		15,000		_		15,000		_
Long-term debt (except for bonds)		_		7,500				_		5,000		_
Lease obligations		924		126		130		7		16		49
Total	¥	51,460	¥	7,626	¥·	15,130	¥	7	¥	20,016	¥	49

				As	of Marc	h 31, 20	016				
	Due in 1 year or less	Due after 1 year through 2 years		2 years	after through ears	ough 3 years through		Due after 4 years through 5 years			e after /ears
		(Thousands of U.S. dollars)									
Short-term bank loans	\$183,115	\$		\$	_	\$		\$	_	\$	_
Commercial paper	35,495		_		_		_		_		_
Bonds	229,834		_	13	3,108		_	13	3,108		_
Long-term debt (except for bonds)	_		66,554		—		_	4	4,369		_
Lease obligations	8,207		1,119		1,155		65		145		435
Total	\$456,652	\$	67,673	\$134	4,264	\$	65	\$17	7,623	\$	435

						As of Marc	h 31, 2	015				
		e in 1 Year or Less	Due after 1 Year through 2 Years		1 Year through 2 Years through		3 Year	e after s through Years	4 Year	e after s through ⁄ears		e after Vears
			(Millions of yen)									
Short-term bank loans	¥	21,570	¥		¥	_	¥		¥	_	¥	_
Commercial paper		22,500		_		_		_		—		_
Bonds		4,100		25,900		_		_		_		_
Long-term debt (except for bonds)		5,000		_		7,500		_		—		_
Lease obligations		1,233		924		208		87		9		23
Total	¥	54,404	¥	26,824	¥	7,708	¥	87	¥	9	¥	23

# **7.** Securities

## (1) Other securities

Marketable securities classified as other securities at March 31, 2016 and 2015 are summarized as follows:

						As of Marc	h 31,	2016				
		arrying Imount		uisition cost		inrealized n (loss)		Carrying	Ac	quisition cost		unrealized ain (loss)
			(Millio	ns of yen)	)		(Thousands of U.S. dollars)					
Securities whose carrying amount exceeds their acquisition cost:												
Equity securities	¥	926	¥	532	¥	393	\$	8,219	\$	4,724	\$	3,495
Securities whose acquisition cost exceeds their carrying amount:												
Equity securities		194		229		(35)		1,725		2,036		(311)
	¥	1,120	¥	761	¥	358	\$	9,945	\$	6,760	\$	3,184

			As of Ma			
		Carrying amount		uisition cost		nrealized n (loss)
			(Millio	ns of yen)	)	
Securities whose carrying amount exceeds their acquisition cost: Equity securities Securities whose acquisition cost exceeds their carrying amount:	¥	1,305	¥	757	¥	548
Equity securities		7		9		(1)
	¥	1,313	¥	766	¥	546

(2) Sales of other securities

Sales of securities classified as other securities for the year ended March 31, 2015 are summarized as follows:

	As of March 31, 2015									
		oceeds m sales	Gain	on sales	Loss o	on sales				
			(Millio	ns of yen)						
Securities	¥	1,468	¥	776	¥	_				

(3) Impairment of other securities

Impairment losses on securities classified as other securities for the year ended March 31, 2016 amounted to ¥4 million (\$42 thousand).

# 8. Derivatives

Summarized below are the contract amounts and estimated fair value of the Company's open derivatives positions at March 31, 2016 and 2015, for which deferral hedge accounting has not been applied:

	20	16		20	15		20	016	
	Contract amount		imated r value	Contract amount		mated value	Contract amount	Estimated fair value	
			(Millions of yen)				(Thousands of U.S. dollars)		
Forward foreign exchange contracts:									
Sell U.S. dollars	¥ 15,297	¥	<b>698</b>	¥ 14,522	¥	(599)	\$135,752	\$ 6,197	

## 9.

# Inventories

		2016		2015	2016
		(Millions	s of yen	)	(Thousands of U.S. dollars)
Finished products	¥	17,971	¥	16,963	\$ 159,479
Work in process		24,778		24,351	219,881
Raw materials and supplies		9,839		12,585	87,311
	¥	52,589	¥	53,901	\$ 466,672

The book values of inventories were written down to reflect the decline in profitability by ¥652 million (\$5,790 thousand) and ¥347 million for the years ended March 31, 2016 and 2015, respectively. The inventory write-downs were included in "Cost of sales."

## 10. Short-Term Borrowings and Long-Term Debt

Short-term bank loans generally represent notes and overdrafts. The related weighted average interest rates at March 31, 2016 and 2015 were approximately 0.85% and 0.74%, respectively. The weighted average interest rates applicable to the current portion of long-term debt (excluding lease obligations) were approximately 1.36% at March 31, 2015. The weighted average interest rates applicable to commercial paper at March 31, 2016 and 2015 were approximately 0.17% and 0.28%, respectively. The weighted average interest rates applicable to the current portion of lease obligations at March 31, 2016 and 2015 were approximately 2.38% and 2.32%, respectively.

Long-term debt at March 31, 2016 and 2015 is summarized as follows:

	2016	2015	2016
	(Million	s of yen)	(Thousands of U.S. dollars)
Loans payable in yen with a weighted average rate of 0.52% at March 31, 2016 and 0.84% at March 31, 2015	¥ 12,500	¥ 12,500	\$ 110,923
1.80% bonds due 2015	—	4,100	—
0.60% bonds due 2017	5,900	5,900	52,356
1.81% bonds due 2016	10,000	10,000	88,739
1.10% bonds due 2016	10,000	10,000	88,739
0.80% bonds due 2020	15,000	—	133,108
0.59% bonds due 2019	15,000	—	133,108
Lease obligations with a weighted average rate of 2.22% at March 31, 2016 and 2.39% at March 31, 2015	1,254	2,487	11,129
	69,654	44,987	618,104
Less current portion	(26,824)	(10,333)	(238,042)
	¥ 42,829	¥ 34,653	\$ 380,062

As is customary in Japan, both short-term and long-term bank loans are made under general agreements which provide that collateral and guarantees (or additional collateral or guarantees as appropriate) for present and future indebtedness be given at the request of the bank, and that the bank has the right, as the obligations become due, or in the event of default thereon, to offset cash deposits against any such obligations due to the bank. Under certain loan agreements relating to long-term debt, the creditors may require the Company to submit proposals for appropriations of retained earnings (including the payment of dividends) for the creditors' review and approval prior to their presentation to the shareholders. None of the creditors has ever exercised these rights.

	2	016		2015		016		
	(Thousar (Millions of yen) U.S. dol							
Land	¥	_	¥	638	\$	_		
Buildings		80		2,741		712		
Other assets		9		10		80		
	¥	89	¥	3,390	\$	793		

At March 31, 2016 and 2015, the assets pledged as collateral for short-term bank loans and long-term debts were as follows:

At March 31, 2016 and 2015, short-term bank loans and long-term debt secured by collateral were as follows:

	2	016		2015		016
		(Millions	s of yen)		(Thousands of U.S. dollars)	
Short-term bank loans and current portion of long-term debt	¥	86	¥	5,096	\$	771

# 11. Lines of Credit

The Company and certain overseas subsidiaries have committed line-of-credit agreements and have entered into overdraft agreements with certain financial institutions in order to raise operating funds efficiently. The balances of credit available at March 31, 2016 and 2015 are summarized as follows:

	2016		<b>2016</b> 2015		2016
		(Millions	(Thousands of U.S. dollars)		
Total committed lines of credit and overdraft	¥	42,880	¥	41,541	\$ 380,513
Outstanding balance		10,866		11,886	96,428
Remaining balance	¥	32,013	¥	29,654	\$ 284,085

## **12.** Selling, General and Administrative Expenses

The principal components of selling, general and administrative expenses for the years ended March 31, 2016 and 2015 are summarized as follows:

	2016	2015	2016
	(Millions	s of yen)	(Thousands of U.S. dollars)
Salaries and bonuses	¥ 13,434	¥ 13,016	\$ 119,219
Packing and shipping expenses	1,247	838	11,073
Outside services	2,535	2,984	22,496
Provision for doubtful receivables	17	(19)	154
Provision for directors' bonuses	_	30	—
Provision for directors' retirement benefits	6	6	55
Retirement benefit expenses	(145)	(117)	(1,294)

# **13.** Gain on Sales of Fixed Assets

Gain on sales of fixed assets for the years ended March 31, 2015 primarily resulted from the sales of land in the amounts of ¥488 million.

## 14. Business Structure Reform Cost

Business structure reform cost was incurred in relation to personnel rationalization, etc. at Polar Semiconductor, LLC and other subsidiaries whose profitability has deteriorated, and mainly consisted of special retirement benefits.

# **15.** Loss on Countermeasures Against Abnormal Properties of Chemicals

Loss on countermeasures against abnormal properties of chemicals was incurred in relation to quality problems with chemicals purchased for processing semiconductor wafers by a consolidated subsidiary, and mainly consisted of loss on valuation of inventories.

Related insurance and compensation through insurance claims and other claims for damages are not determined at present and therefore have not been recorded in the consolidated financial statements.

# 16. Reclassification Adjustments and Tax Effect Relating to Other Comprehensive Income

Reclassification adjustments and tax effect relating to other comprehensive income for the years ended March 31, 2016 and 2015 are summarized as follows:

	2016		<b>2016</b> 2015		2016	
	(Millions of yen)				(Thousands of U.S. dollars)	
Net unrealized gain on securities		(WILLION	s or yerry		0.	0. donars,
Change during the year	¥	(183)	¥	608	\$	(1,626)
Reclassification adjustments		(4)		(776)		(42)
Amount before tax effect		(188)		(167)		(1,669)
Tax effect		66		77		587
Net unrealized gain on securities	¥	(121)	¥	(90)	\$	(1,082)
Translation adjustments						
Change during the year	¥	(4,132)	¥	7,433	\$	(36,674)
Translation adjustments	¥	(4,132)	¥	7,433	\$	(36,674)
Retirement benefit liability adjustments						
Change during the year	¥	(3,850)	¥	(281)	\$	(34,172)
Reclassification adjustments		(219)		(251)		(1,943)
Amount before tax effect		(4,069)		(533)		(36,116)
Tax effect		(39)		74		(354)
Retirement benefit liability adjustments	¥	(4,109)	¥	(458)	\$	(36,471)
Total other comprehensive income	¥	(8,364)	¥	6,884	\$	(74,227)

## **17.** Retirement Benefit Plans

The Company and its domestic consolidated subsidiaries have defined benefit pension plans and lump-sum payment plans, covering substantially all employees who are entitled to lump-sum or annuity payments, the amounts of which are determined by reference to their basic rates of pay, length of service, and the conditions under which termination occurs. The Company and certain domestic subsidiaries have a defined contribution plan and an advance payment plan. The Company and certain domestic subsidiaries have adopted a cash balance plan.

The overseas consolidated subsidiaries principally have defined contribution pension plans.

Certain consolidated subsidiary uses a simplified method for calculating retirement benefit expenses and liabilities.

## Defined benefit plans

The changes in the retirement benefit obligation during the years ended March 31, 2016 and 2015 are as follows (excluding plans for which the simplified method is applied):

	2016		<b>2016</b> 2015		2016
		(Millions of yen)			(Thousands of U.S. dollars)
Balance at the beginning of the year	¥	28,976	¥	26,790	\$ 257,133
Cumulative effect of change in accounting principle		—		158	—
Restated balance at the beginning of the year		_		26,948	_
Service cost		1,330		1,261	11,809
Interest cost		372		437	3,307
Actuarial loss		1,790		1,292	15,888
Retirement benefit paid		(1,337)		(1,120)	(11,871)
Other		(183)		157	(1,630)
Balance at the end of the year	¥	30,948	¥	28,976	\$ 274,636

The changes in plan assets during the years ended March 31, 2016 and 2015 are as follows (excluding plans for which the simplified method is applied):

	2016	2015	2016
	(Milli	(Thousands of U.S. dollars)	
Balance at the beginning of the year	¥ 27,104	¥ 23,775	\$ 240,524
Expected return on plan assets	1,939	1,872	17,212
Actuarial gain	(2,106)	993	(18,688)
Contributions by the Company	1,425	1,454	12,647
Retirement benefit paid	(1,333)	(1,114)	(11,829)
Other	(85)	124	(760)
Balance at the end of the year	¥ 26,944	¥ 27,104	\$ 239,106

The following table sets forth the funded and accrued status of the plans, and the amounts recognized in the accompanying consolidated balance sheet at March 31, 2016 and 2015 for the Company's and the consolidated subsidiaries' defined benefit plans:

	2016		<b>2016</b> 2015			2016
	(Millions of yen)				(Thousands of U.S. dollars)	
Retirement benefit obligation	¥	30,338	¥	28,406	\$	269,219
Plan assets at fair value	(26,944)		<b>(26,944)</b> (27,104)		(	239,106)
		3,393		1,302		30,112
Unfunded retirement benefit obligation		711		668		6,312
Net liability for retirement benefits in the balance sheet	¥	4,104	¥	1,970	\$	36,425
Liability for retirement benefits		4,104		2,993		36,425
Asset for retirement benefits		_		(1,022)		_
Net liability for retirement benefits in the balance sheet	¥	4,104	¥	1,970	\$	36,425

	2016		<b>2015</b>		2016	
		(Millions	s of yen)	)	ousands of S. dollars)	
Service cost	¥	1,330	¥	1,261	\$ 11,809	
Interest cost		372		437	3,307	
Expected return on plan assets		(1,939)		(1,872)	(17,212)	
Amortization of actuarial loss		103		118	922	
Amortization of prior service cost		(323)		(370)	(2,866)	
Retirement benefit expenses calculated using simplified method		17		17	155	
Retirement benefit expense for defined benefit plans	¥	(437)	¥	(408)	\$ (3,884)	

The components of retirement benefit expense for the years ended March 31, 2016 and 2015 are outlined as follows:

The components of retirement benefit liability adjustments included in other comprehensive income (before tax effect) for the years ended March 31, 2016 and 2015 are outlined as follows:

	2016		2015			2016
		(Millions	s of yen)		•	usands of 6. dollars)
Prior service cost	¥	(312)	¥	(368)	\$	(2,772)
Actuarial gain and loss		(3,757)		(165)		(33,344)
Total	¥	(4,069)	¥	(533)	\$	(36,116)

The components of retirement benefit liability adjustments included in accumulated other comprehensive income (before tax effect) as of March 31, 2016 and 2015 are outlined as follows:

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	2016		<b>2016</b> 2015			2016
		(Millions	(Thousands of U.S. dollars)			
Unrecognized prior service cost	¥	(1,728)	¥	(2,040)	\$	(15,338)
Unrecognized actuarial gain and loss		4,783		1,026		42,449
Total	¥	3,055	¥	(1,014)	\$	27,111

The fair values of plan assets, by major categories, as percentages of total plan assets as of March 31, 2016 and 2015 are as follows:

	2016	2015
Bonds	<b>48%</b>	42%
Stocks	21%	26%
General accounts of life insurance companies	10%	9%
Other	<b>21%</b>	23%
Total	100%	100%

The expected return on plan assets has been estimated based on the anticipated allocation to each asset class and the expected long-term returns on assets held in each category.

The weighted-average actuarial assumptions used in accounting for the above plans were as follows:

	2016	2015
Discount rate	0.8%	1.3%
Expected rate of return on plan assets	7.1%	7.8%

#### Defined benefit plans accounted for using simplified method

The changes in the retirement benefit obligation calculated by the simplified method during the years ended March 31, 2016 and 2015 are as follows:

	2016		2016		2	015	2	2016
		(Millions	(Thousands of U.S. dollars)					
Balance at the beginning of the year	¥	99	¥	72	\$	880		
Retirement benefit expenses		17		17		155		
Retirement benefit paid		(6)		_		(58)		
Other		(9)		8		(81)		
Balance at the end of the year	¥	100	¥	99	\$	895		

## **Defined Contribution plans**

For the years ended March 31, 2016 and 2015, contributions to the defined contribution pension plan and the advance payment plan, which are recognized as expenses, totaled ¥830 million (\$7,368 thousand) and ¥641 million, respectively.

# 18. Income Taxes

Income taxes applicable to the Company comprise corporation, enterprise and inhabitants' taxes, which, in the aggregate, resulted in statutory tax rates of approximately 32.8% and 35.4% for the years ended March 31, 2016 and 2015, respectively.

The reconciliation between the effective tax rates reflected in the consolidated statements of operations and effective statutory tax rates for the years ended March 31, 2016 and 2015 were as follows:

	2016	2015
Effective statutory tax rates	32.8%	35.4%
Effect of:		
Non – deductible expenses for income tax purposes	2.3	5.7
Non – taxable dividend income	(1.6)	(13.1)
Inhabitants' per capita taxes	1.2	0.3
Foreign tax rate difference	10.1	4.7
Changes in valuation allowance	47.3	(2.2)
Other, net	(0.2)	0.5
Effective tax rates	91.9%	31.3%

The "Act for Partial Revision of the Income Tax Act etc." (Act No. 15 of 2016) and the "Act for Partial Revision of the Local Tax Act etc." (Act No. 13 of 2016) were enacted on March 29, 2016, as a result, the rate of corporate tax etc. will be reduced for fiscal years beginning on or after April 1, 2016.

As a result, the effective statutory tax rate used to measure the Company's deferred tax assets and liabilities was changed from 32.1% to 30.7% and 30.5% for the temporary differences expected to be realized or settled in the fiscal year beginning April 1, 2016 and for the temporary differences expected to be realized or settled from April 1, 2018, respectively. The effect of the announced reduction of the effective statutory tax rate was not material as of and for the year ended March 31, 2016.

	2016	2015	2016
	(Millions	(Thousands of U.S. dollars)	
Deferred tax assets:			
Net operating loss carryforwards	¥ 13,490	¥ 12,133	\$ 119,711
Liabilities for retirement benefits	324	939	2,881
Inventories	3,094	2,905	27,458
Accrued bonuses	596	895	5,289
Net unrealized holding gain	328	344	2,911
Tax credit carryforwards	_	213	_
Impairment losses	369	611	3,275
Other	922	1,514	8,182
Gross deferred tax assets	19,124	19,557	169,711
Valuation allowance	(17,611)	(18,145)	(156,280)
Total deferred tax assets	1,513	1,411	13,430
Deferred tax liabilities:			
Fixed assets	(1,555)	(1,518)	(13,801)
Reserve for special depreciation	_	(5)	_
Net unrealized gains on securities	(110)	(175)	(977)
Other	(218)	(155)	(1,940)
Total deferred tax liabilities	(1,884)	(1,855)	(16,718)
Net deferred tax assets (liabilities)	¥ (370)	¥ (443)	\$ (3,288)

The significant components of the Company's deferred tax assets and liabilities as of March 31, 2016 and 2015 were as follows:

Note: Net deferred tax assets (liabilities) as of March 31, 2016 and 2015 are reflected in the following accounts in the consolidated balance sheet:

		2016	2015			2016
		(Millions	s of yen)		•	ousands of 6. dollars)
Current assets – deferred tax assets	¥	2,095	¥	1,201	\$	18,591
Investments and other assets - deferred tax assets		204		286		1,811
Current liabilities – deferred tax liabilities		(1)		(0)		(15)
Long-term liabilities – deferred tax liabilities		(2,668)		(1,930)		(23,676)

## 19. Shareholders' Equity

The Japanese Corporate Law ("the Law") became effective on May 1, 2006, replacing the Japanese Commercial Code ("the Code"). The Law is generally applicable to events and transactions occurring after April 30, 2006 and for fiscal years ending after that date.

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 prices of the new shares as additional paid-in capital, which is included in capital surplus.

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

Under the Code, companies were required to set aside an amount equal to at least 10% of the aggregate amount of cash dividends and other cash appropriations as a legal earnings reserve until the total of the legal earnings reserve and additional paid-in capital equaled 25% of common stock.

Under the Code, the legal earnings reserve and additional paid-in capital could be used to eliminate or reduce a deficit by a resolution of the shareholders' meeting or could be capitalized by a resolution of the Board of Directors. Under the Law, both of these appropriations generally require a resolution of the shareholders' meeting.

Additional paid-in capital and the legal earnings reserve may not be distributed as dividends. Under the Code, however, on the condition that the total amount of the legal earnings reserve and additional paid-in capital remained equal to or exceeded 25% of common stock; they were available for distribution by resolution of the shareholders' meeting.

Under the Law, all additional paid-in capital and all legal earnings reserves may be transferred to other capital surplus and retained earnings, respectively, which are potentially available for dividends.

The maximum amount that the Company can distribute as dividends is calculated based on the non-consolidated financial statements of the Company in accordance with the Law.

At the Board of Directors, meeting held on November 5, 2015, the directors resolved cash dividends amounting to ¥424 million (\$3,765 thousand).

At the Board of Directors, meeting held on November 6, 2014, the directors resolved cash dividends amounting to ¥363 million. At the annual shareholders' meeting held on June 26, 2015, the shareholders resolved cash dividends amounting to ¥424 million.

## 20. Research and Development Expenses

Research and development expenses for the years ended March 31, 2016 and 2015 were ¥17,356 million (\$154,019 thousand) and ¥16,667 million, respectively.

## 21. Leases

Future minimum lease payments subsequent to March 31, 2016 and 2015	<b>2016</b> 2015 <b>20</b>							
		(Millions	of yen)		(Thousands of U.S. dollars)			
Due in 1 year or less	¥	635	¥	613	\$	5,635		
Due after 1 year		1,484		1,833		13,173		
	¥	2,119	¥	2 447	\$	18,809		

## 22. Segment Information

#### a. Outline of reportable segments

The reportable segments of the Company are the business units for which the Company is able to obtain respective financial information separately in order for the Board of Directors to conduct periodic analysis to determine the distribution of management resources and evaluate their business results.

The Company has its business units identified by products. Each business unit plans its comprehensive domestic and overseas strategy for its products, and operates its business activities. Therefore, the Company consists of its business units, identified by principal products, which are the three reportable segments of the "Semiconductor Devices Business," the "Power Module Business" and the "Power System Business."

The Semiconductor Devices Business mainly manufactures and sells power ICs, control ICs, Hall-effect ICs, bipolar transistors, MOSFET, IGBT, thyristors, rectifier diodes and light emitting diodes (LEDs). The Power Module Business mainly manufactures and sells switching mode power supply units and transformers. The Power System Business mainly manufactures and sells uninterruptible power supplies (UPS), inverters, DC power supplies, airway beacon systems and general purpose power supplies.

#### b. Calculation methods of the reportable segment sales, income (loss), assets, and other items

The accounting methods applied for reportable segments are the same as the basis of preparation for the consolidated financial statements. Intersegment sales and transfers are based on the prices in arm's-length transactions.

# c. Information about sales and segment income (loss) by reportable segments

			Reportable	e segr	nents						
	Semiconductor Devices Business	P	ower Module Business	P	ower System Business		Total	Adjustments			Consolidated
					(Million	s of y	en)				
As of and for the year ended March 31, 2016											
Sales:											
(1) Sales to customers	¥ 125,117	¥	15,922	¥	14,879	¥	155,919	¥	_	¥	155,919
(2) Intersegment sales											
and transfers	725		495		0		1,220		(1,220)		_
Total sales	125,842		16,417		14,880		157,140		(1,220)		155,919
Segment income (loss)	¥ 9,247	¥	(973)	¥	973	¥	9,247	¥	(2,444)	¥	6,803
Segment assets	¥ 140,645	¥	16,194	¥	11,902	¥	168,742	¥	15,969	¥	184,711
Others:											
Depreciation and											
amortization	10,676		111		144		10,932		660		11,593
Impairment losses	—		107		_		107		_		107
Increase in property,											
plant, equipment and											
intangible assets	10,070		269		176		10,515		306		10,821
					(Thousands o	of U.S	. dollars)				
As of and for the year ended March 31, 2016											
Sales:											
(1) Sales to customers	\$ 1,110,283	\$	141,294	\$	132,040	\$	1,383,618	\$	_	\$	1,383,618
(2) Intersegment sales											
and transfers	6,434		4,396		3		10,833		(10,833)		
Total sales	1,116,717		145,690		132,044		1,394,452		(10,833)		1,383,618
Segment income (loss)	\$ 82,062	\$	(8,641)	\$	8,641	\$	82,061	\$	(21,688)	\$	60,373
Segment assets	\$ 1,248,072	\$	143,705	\$	105,624	\$	1,497,402	\$	141,711	\$	1,639,114
Others:											
Depreciation and											
amortization	94,740		992		1,279		97,012		5,863		102,876
Impairment losses	_		954		—		954		_		954
Increase in property,											
plant, equipment and intangible assets	89,361		2,387		1,564		93,314		2,718		96,032

Notes:

1. Adjustments for segment income (loss) of ¥(2,444) million (\$(21,688) thousand) include corporate expenses. They are mainly general and administrative expenses, which are not allocable to the reportable segments.

2. Adjustments for segment assets of ¥15,969 million (\$141,711 thousand) include corporate assets, which are not allocable to the reportable segments. The corporate assets are mainly surplus operating capital (cash and deposits), long-term investments (investment securities) and assets related to administrative departments of the Company.

3. Adjustments for depreciation and amortization of ¥660 million (\$5,863 thousand) are mainly administrative expenses.

4. Adjustments for increase in property, plant, equipment and intangible assets of ¥306 million (\$2,718 thousand) are assets related to administrative departments of the Company.

				Reportable	e segm	ients						
		miconductor ices Business		wer Module Business		wer System Business		Total	A	djustments	С	onsolidated
						(Million	s of y	en)				
As of and for the year ended March 31, 2015												
Sales:												
(1) Sales to customers	¥	126,549	¥	15,555	¥	18,619	¥	160,724	¥	_	¥	160,724
(2) Intersegment sales and transfers		1,041		598		1		1,641		(1,641)		_
Total sales		127,590		16,153		18,621		162,365		(1,641)		160,724
Segment income (loss)	¥	12,737	¥	(594)	¥	1,326	¥	13,469	¥	(2,270)	¥	11,199
Segment assets	¥	145,168	¥	19,077	¥	12,891	¥	177,136	¥	16,131	¥	193,267
Others:												
Depreciation and amortization		8,722		69		118		8,910		329		9,239
Impairment losses		_		181		—		181		—		181
Increase in property, plant, equipment and intangible assets		15,040		417		267		15,725		1,738		17,463

Notes:

- 1. Adjustments for segment income (loss) of ¥(2,270) million include corporate expenses. They are mainly general and administrative expenses, which are not allocable to the reportable segments.
- 2. Adjustments for segment assets of ¥16,131 million include corporate assets, which are not allocable to the reportable segments. The corporate assets are mainly surplus operating capital (cash and deposits), long-term investments (investment securities) and assets related to administrative departments of the Company.
- 3. Adjustments for depreciation and amortization of ¥329 million are mainly administrative expenses.
- 4. Adjustments for increase in property, plant, equipment and intangible assets of ¥1,738 million are assets related to administrative departments of the Company.

## d. Related information

Information about geographical area

- As of and for the year ended March 31, 2016
- (1) Sales

	Japan		Asia	Nor	th America		Europe	C	Others		Total
					(Millions	s of yen)					
¥	60,153	¥	59,821	¥	18,999	¥	16,817	¥	127	¥	155,919
					(Thousands o	f U.S. do	lars)				
\$	533,796	\$	530,851	\$	168,601	\$	149,233	\$	1,135	\$	1,383,618
2) Pro	perty, plant an	d equip	ment								
	Japan	Nor	th America		Asia		Others		Total		

	•					-				
				(Milli	ons of yen)					-
¥	24,218	¥	26,140	¥	11,214	¥	440	¥	62,015	
(Thousands of U.S. dollars)										
\$	214,915	\$	231,971	\$	99,517	\$	3,912	\$	550,317	

## As of and for the year ended March 31, 2015

## (1) Sales

	Japan		Asia	Nort	h America	E	urope	0	thers		Total
					(Millions	s of yen)					
¥	66,955	¥	58,811	¥	18,623	¥	16,216	¥	116	¥	160,724
(2) Proj	perty, plant an	d equipi	ment								
	Japan	Nor	th America		Asia	C	Others	٦	Total		
				(Milli	ons of yen)						
¥	25,705	¥	30,642	¥	9,044	¥	403	¥	65,795		

# 23. Amounts per Share

Amounts per share as of and for the years ended March 31, 2016 and 201	5 wer	e as follows:					
		2016		2015	:	2016	
		(Ye	en)		(U.S. dollars		
Profit attributable to owners of parent – basic	¥	1.41	¥	65.50	\$	0.01	
Net assets		441.96		516.22		3.92	

Diluted profit attributable to owners of parent per share for the years ended March 31, 2016 and 2015 are not disclosed as there were no dilutive shares.

Profit attributable to owners of parent per share was calculated on the following basis:

	2016	2015	2016	
·	(Million) except num	(Thousands of U.S. dollars, except number of shares)		
Profit attributable to owners of parent	¥ 171	¥ 7,942	\$ 1,521	
Amounts not available to shareholders of common stock	_	_	_	
Profit attributable to owners of common stock of parent	171	7,942	1,521	
Average number of shares outstanding during the year (Thousands of shares)	121,225	121,252	_	

Net assets per share were calculated on the following basis:

	2016	2015	2016
	(Million) except numl	(Thousands of U.S. dollars, except number of shares)	
Net assets	¥ 53,959	¥ 63,021	\$478,835
Amounts deducted from net assets:	387	437	3,437
Non-controlling interests	(387)	(437)	(3,437)
Net assets attributable to shareholders	53,572	62,584	475,398
Number of shares outstanding at the end of the year (Thousands of shares)	121,214	121,237	_

# Independent Auditor's Report

The Board of Directors Sanken Electric Co., Ltd.

We have audited the accompanying consolidated financial statements of Sanken Electric Co., Ltd. and its consolidated subsidiaries, which comprise the consolidated balance sheet as at March 31, 2016, and the consolidated statements of income, comprehensive income (loss), changes in net assets, and cash flows for the year then ended and a summary of significant accounting policies and other explanatory information, all expressed in Japanese yen.

# Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for designing and operating such internal control as management determines is necessary to enable the preparation and fair presentation of the 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 audit. We conducted our audit in accordance with auditing standards generally accepted in Japan. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. The purpose of an audit of the consolidated financial statements is not to express an opinion on the effectiveness of the entity's internal control, but in making these risk assessments the auditor considers internal controls 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. 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 referred to above present fairly, in all material respects, the consolidated financial position of Sanken Electric Co., Ltd. and its consolidated subsidiaries as at March 31, 2016, and their consolidated financial performance and cash flows for the year then ended in conformity with accounting principles generally accepted in Japan.

## Convenience Translation

We have reviewed the translation of these consolidated financial statements into U.S. dollars, presented for the convenience of readers, and, in our opinion, the accompanying consolidated financial statements have been properly translated on the basis described in Note 3.

June 24, 2016 Tokyo, Japan

Ernst & young Skin Tihon LLC

As of June 24, 2016

## **Directors and Auditors**

Representative Director, President	Takashi Wada	
Directors	Masao Hoshino	Yoshihiro Suzuki
	Kazunori Suzuki	Takeshi Soroji
	Hideo Takani	
External Directors	Richard R. Lury	Noriharu Fujita
Standing Statutory Auditor	Akira Ota	
Statutory Auditor	Noboru Suzuki	
External Auditors	Mikihiko Wada	Jin Takeda

# **Corporate Officers**

Executive Vice President	Masao Hoshino	
Senior Vice Presidents	Yoshihiro Suzuki	Kazunori Suzuki
Senior Corporate Officers	Hiroyuki Ouchi	Takeshi Soroji
	Hideo Takani	
Corporate Officers	Masahiro Sasaki	Yukiyasu Taniyama
	Kiyoshi Murakami	Shigeru Ito
	Kiyonori Orito	Hideki Nakamichi
	Masaki Kanazawa	Makoto Iwata
	Myungjun Lee	Yasunobu Murano
	Tetsuo Bannai	



# **Investor Information**

As of March 31, 2016

Company name	Sanken Electric Co., Ltd.	Distribution by type of shareholders		
Founded	September 5, 1946	Financial Institutions	33.54%	
Headquarter	3-6-3 Kitano, Niiza-shi, Saitama-ken 352-8666, Japan	Individuals	32.53%	
	Phone : +81-48-472-1111	Foreigners	23.16%	
	Facsimile : +81-48-471-6249	Other	10.77%	
Employees	10,044	Distribution by number of shares owned		
Common stock	Authorized : 257,000,000 shares	1,000,000 or more	40.89%	
	Issued : 125,490,302 shares	100,000 or more	24.66%	
Shareholders	14,147	10,000 or more	14.42%	
		Less than 10,000	20.03%	

# **Principal Shareholders**

Shareholders	Number of shares held (in thousands)	Percentage of ownership
Japan Trustee Services Bank, Ltd. (Trust Account)	11,736	9.35%
The Master Trust Bank of Japan, Ltd. (Trust Account)	7,128	5.68%
Saitama Resona Bank, Limited	6,011	4.79%
CBNY - Government of Norway	2,735	2.18%
Barclays Bank PLC A/C Client Segregated A/C PB Cayman Clients	2,091	1.66%
Chase Manhattan Bank GTS Clients Account Escrow	1,865	1.48%
The Hachijuni Bank, Ltd.	1,556	1.24%
Sompo Japan Nipponkoa Insurance Inc.	1,386	1.10%
BNY GCM Client Account JPRD AC ISG (FE-AC)	1,289	1.02%
Trust & Custody Services Bank, Ltd. (Securities investment trust account)	1,215	0.96%

Note : The Company holds 4,275,417 (3.40%) shares of treasury stock but is excluded from the principal shareholders listed above.

## Bonds

Type of bonds	Date of issue	Balance of bonds (in Yen)
The 6th unsecured bonds	March 25, 2013	5,900,000,000
The 7th unsecured bonds	June 17, 2013	10,000,000,000
The 8th unsecured bonds	December 13, 2013	10,000,000,000
The 9th unsecured bonds	June 17, 2015	15,000,000,000
The 10th unsecured bonds	March 15, 2016	15,000,000,000



# Sanken Electric Co., Ltd.

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