Interview with the President

You became president in November 2015. Please tell us your views on the medium- to long-term market environment, and your approach to leading TAIYO YUDEN going forward to meet the challenges you see.

We aim to capture growth markets in anticipation of ongoing advances in the use of electronics and continually transform our business model to build a stronger and sustainable earnings structure.

Smartphones have become widespread mainly in developed countries, and growth in unit sales has slowed down. Even in such trend, we expect the number of electronic components used in each unit to increase steadily, backed by a shift to higher performance and greater functionality. In addition, the automotive electronic component market is expected to see strong growth, from approximately ¥18 trillion in 2012 to ¥30 trillion in 2020, reflecting the development of electronic and fuel-cell vehicles as well as the rapid progress in the practical application of self-driving systems. Furthermore, as the spread of IoT shifts into high gear, the number of devices connected to networks along with the number of sensors in those devices will surge, leading to an explosive increase in the need for ultra-small and ultra-thin electronics components.

With this outlook for the market environment, the Company will step up its efforts focusing on growth strategies to realize our vision to "become an excellent company that enjoys the trust and highest regard from our customers." Trust is earned through our basic business stance of always living up to the expectations of our customers. Moreover, as a company at the forefront of technological innovation, we hope to continue to be an excellent company that proactively creates smart and inspiring products beyond the expectations of our customers.

As an electronic components manufacturer, we also aim to continually transform our business model to build a stronger earnings structure. Specifically, we will increase the sales ratio of super high-end and high-reliability products making use of our strengths in product development that starts from the development of materials. Along with these efforts, we will concentrate our management resources on creating new businesses that range from high value-added modules combined with software, solution proposals backed up by our accumulated technological achievements, to after-sales service.



Change the business model to establish a more profitable business structure

Please talk about the growth potential in the capacitor business and specific initiatives in this area.

We will enhance our product lineup that responds to wide ranging market needs.

The four main needs of the market for capacitors are 1) smaller and lower profile (thinner), 2) higher capacitance, 3) higher voltage resistance, and 4) larger and atypical forms. Global annual shipments in the market for multilayer ceramic capacitors (MLCCs) are currently estimated at 2.5 trillion units. The number is expected to reach 4 trillion by around 2020.

One of the Company's strengths in the capacitor business is materials technology where the development of ceramic materials is a key focus. Leveraging that strength, we have expanded the business based on development of small, low-profile, high-capacitance MLCCs to handle high density mounting that simultaneously achieves downsizing along with higher performance and greater functionality.

The capacitor market has been experiencing a trend toward the phasing out of electrolytic capacitors and film capacitors and a corresponding increase in demand for MLCCs. As MLCC capacitance increases, the market for MLCCs, which are not only smaller and lower profile as compared to other capacitors but also have superior product life and reliability, is expanding steadily. High-reliability products that deliver high capacitance and high voltage resistance are required to support this market trend particularly in the automotive and industrial equipment markets where the use of electronics is advancing. The Company therefore makes high capacitance a priority for product development with hopes to introduce a 1,000µF MLCC in 2017. If we can increase capacitance to this level, it will be possible to replace a considerable part of the existing electrolytic capacitor market.

Moreover, the semiconductor industry is experiencing a shift in materials from silicon toward the chemical compounds GaN (gallium nitride) and SiC (silicon carbide). The features of MLCCs work effectively with these compact, high-speed and high-voltage-resistant semiconductors. As we anticipate growing demand for MLCCs associated with the growth in next-generation semiconductors, we will concentrate on using our development capabilities in materials technology to develop MLCCs featuring high capacitance and high voltage resistance.





- **1** Small, low-profile: For smaller form factors
- Increasing capacitance: For demand to switch from electrolytic capacitors (plan to launch 1,000µF products in 2017)
- High voltage resistance: For energy market (high-reliability market)
- 4 Large, atypical forms: For demand to switch from film capacitors

۹ A Sales of inductors and communications devices are also expanding. What are your future growth strategies in these areas?

We will enhance our inductor lineup through advances in materials and process technologies. We will also accelerate the development of products aimed at the 5G next-generation communication standard and at the automotive market in communications devices.



Inductor products include those made of metal materials and ferrite (ceramics whose main component is iron oxide). As with MLCCs, the Company develops inductor products from the materials development stage and has enhanced its product lineup including small wire-wound and multilayered types to handle smaller information and communications devices and high density mounting. However, when considering future growth and market trends, our lineup of large wire-wound products for the automotive and industrial equipment markets needs to further expand. As a response to these market trends and in order to introduce competitive products for the automotive and industrial equipment markets, we plan to strengthen our wire-wound process technologies and enhance our large products and high-reliability products that handle larger rated currents. In response to the spread of the LTE high-speed communications standard in the worldwide market, we are expanding the communications devices business by providing products optimal for higher frequencies and narrow adjacent bandwidths. We provide products responding to all current standard frequencies by leveraging our strengths as a developer and producer of both high-performance FBAR and SAW filters. We are preparing for the future launch of 5G (fifth generation mobile communications) services scheduled for around 2020 by developing dielectric multilayer filters and FBAR filters that can handle even higher frequencies. We will also accelerate development of high-reliability products in the millimeter bandwidth for the automotive market.



Future direction of communications device business



*3 MIMO: Multiple input, multiple output is a wireless communication technology that expands data transceiver bandwidth by combining multiple antennas.





It is said that IoT will bring about a fourth industrial revolution. What are your thoughts on IoT?

In addition to being an attractive market, we believe the trend IoT is generating is an important tool for innovation that will make our own value chain smarter.

We recognize that IoT will act as a major driving force that propels growth in demand for our super high-end products. Advances in IoT will lead to a rapid increase in the number of devices connected to the Internet, and the number of sensors used in those devices will also increase significantly. The Company is already involved in developing a variety of sensors and actuators and other products needed to support IoT market. The IoT market offers significant potential for us.

At the same time, IoT will be a vital tool in evolving our manufacturing capabilities to handle an unprecedented increase in production volume that is expected in the near future. About 15 years ago, we introduced a system that enabled us to monitor the operating status of our capacitor production bases from a distance in real time. At this point, however, the uses of the system are still limited to help get confirming data such as the operating rate of equipment used in various processes and in checking on equipment downtime.

We believe that when the technology to analyze big data gathered through the use of IoT is established, the search range and speed of fundamental problem solving will improve remarkably. For example, we will be able to foresee the occurrence of problems automatically and with high accuracy, and thus take timely preventive action. The Company expects that IoT has a revolutionary effect in improving production lines to eliminate muda (wastefulness), mura (inconsistency), and muri (excessive burden) and in shortening delivery times.

Ultimately, we hope to make use of IoT not only at manufacturing sites, but also in areas such as procurement, R&D, and sales. By visualizing and centrally managing enormous amounts of information from various worksites in real time, we will be able to swiftly trace the causes of problems and deliver solutions. Furthermore, we will use these enhanced systems and processes to better manage risk avoidance and improvement activities with the aim of building a smart value chain in which all activities are organically synchronized.



Continuing investment in facilities



IoT market predicted to grow explosively

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Please tell us about the Company's earnings forecasts, investment strategy, and plans for returning profits to shareholders for the fiscal year ending March 31, 2017.

Although we are forecasting declines in sales and profit, we expect to stay on track for growth on a volume basis. We plan to continue investing in growth while enhancing return of profits to shareholders targeting a total return ratio of 30%.

We are forecasting year-on-year decreases of 6.4% in consolidated net sales to ¥225.0 billion, 57.2% in operating income to ¥10.0 billion, and 72.9% in net income attributable to owners of parent company to ¥4.0 billion for the fiscal year ending March 31, 2017. The amounts are based on the assumption the yen will rise significantly for an average exchange rate of ¥105 to the U.S. dollar during the term (compared to ¥120.75 to the dollar in the previous fiscal year). We expect expansion in sales volume of super high-end products mainly for smartphones, and steady progress in cultivating automotive and industrial equipment markets through high-reliability products. Even so, we are forecasting decreases in sales and profit overall resulting from the impact of the strong yen and increased fixed costs due to strengthening production capacity.

We shifted to an aggressive approach to capital investment from the fiscal year ended March 31, 2016 in order to respond to future demand. We are successively raising capacitor production capacity, including construction of a new plant at NIIGATA TAIYO YUDEN CO., LTD. For the fiscal year ending March 31, 2017 as well, we are planning investments of ¥30.0 billion in order to increase production capacity for capacitors, inductors, and communications devices, and to promote manufacturing reforms including the use of IoT. We have earmarked ¥10.0 billion for R&D expenses to accelerate development of new technologies and products.

With regard to returning profits to shareholders, the Company kept total annual dividends at ¥10 per share until the fiscal year ended March 31, 2015 to prioritize improvement of the earnings structure and financial position. For the fiscal year ended March 31, 2016, however, we raised our annual dividend per share to ¥15, having fortified our financial foundation to maintain a positive net cash position while making the necessary investments for growth. The Company plans an annual dividend per share of ¥20 for the fiscal year ending March 31, 2017, comprising interim and year-end dividend payments of ¥10 each with a target of total return ratio of 30%.

Capital investment



Depreciation and amortization



R&D expenses

