



HOYA REPORT 2017

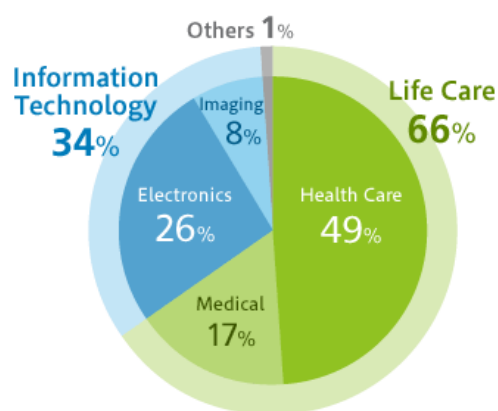


Business Overview

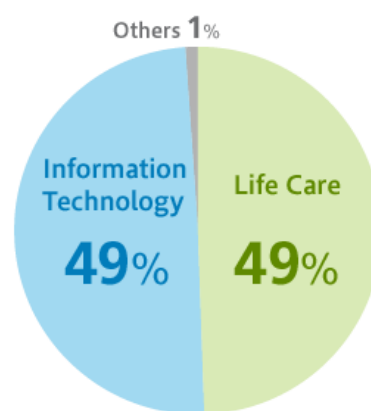
➤ Performance in FY2017

Sales: 478.9 billion yen, Profit before tax: 110.7 billion yen

Sales Breakdown



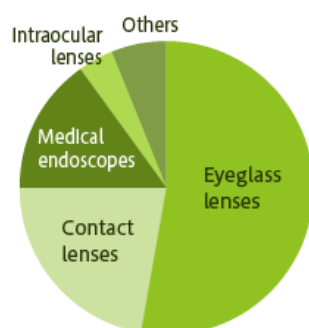
Profit before Tax Breakdown



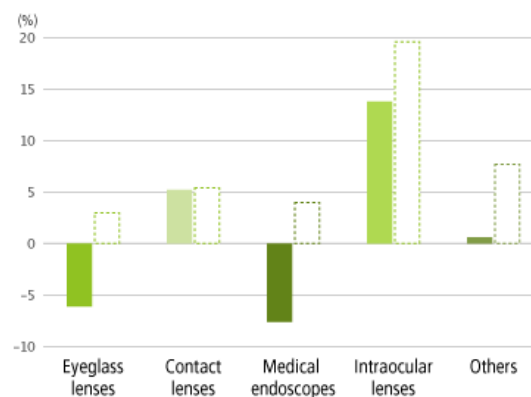
➤ Life Care

Sales: 314.4 billion yen, Profit before tax: 54.7 billion yen

Life Care Sales Breakdown



Percentage Increase (Decrease) in Sales by Product in the Life Care Segment



*Dotted lines indicate figures after exclusion of the effects of foreign exchange fluctuations.

Health Care



(Information on HOYA's products may be found in the "Business Domains" section of its website. Please refer to this section for further information.)

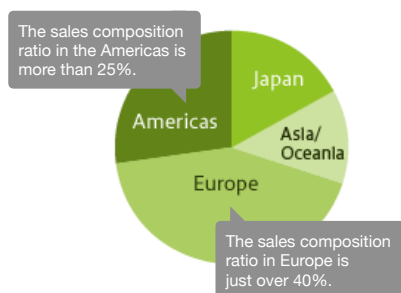
Eyeglass Lenses

Performance in the year ended March 31, 2017

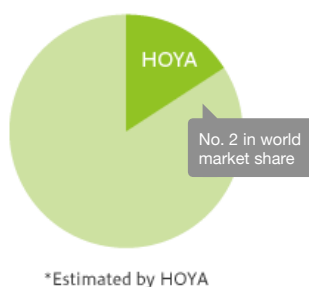
Sales of eyeglass lenses declined at rates in the first half of the single-digit range compared with the previous fiscal year (When the effects of foreign currency exchange rate fluctuations are excluded, sales expanded in the lower half of the single-digit range.). The trend in the Japanese eyeglass lens retail market continues to be one of contraction due to the inroads made by low-priced products and prolonged customer purchasing cycles. However, HOYA's sales were on par with the previous fiscal year due to the Company's ability to maintain sales volume and average sales prices by expanding sales of high-value-added products. In Europe, sales grew in the first half of the single-digit range overall (on a local currency basis, which excludes the effects of foreign currency exchange rate fluctuations) compared with the previous fiscal year due to steady growth in sales to independent small and medium-sized eyeglass stores. In addition to the strong sales of both small and medium-sized eyeglass stores and large-scale retail chains, in the Americas, there was the added effect from the fourth quarter of the fiscal period under review of having acquired 3M's prescription safety eyewear business. As a result, sales in the Americas grew by double digits (on a local currency basis, which excludes the effects of foreign currency exchange rate fluctuations) against the previous fiscal year. In Asia and Oceania, HOYA was able to return to a rising sales trend from the second quarter onward by strengthening its in-house structure, and overall regional sales grew at rates in the first half of the single-digit range (on a local currency basis, which excludes the effects of foreign currency exchange rate fluctuations). Profitability was maintained on par with the previous fiscal year.

During the fiscal year under review, the Americas drove performance, and HOYA was able to attain stable business growth overall. From fiscal 2017 onward, HOYA will continue to expand its market share by continuing to implement marketing activities closely tailored to each customer channel in its existing businesses; at the same time, HOYA will proceed with the integration of the prescription safety eyewear business acquired in fiscal 2016 and of Performance Optics, LLC, which the Company also decided to acquire, maintain high growth in the Americas mainly by realizing synergies in sales, and accelerate the growth of its entire eyeglass lens business. Expansion in sales of high-value-added products, such as progressive lenses, will bring about continued improvement to the product mix. Also, HOYA will improve profitability by increasing the capacity utilization rates at its production bases along with expansion in the volume of sales through further market development.

Sales of Eyeglass Lenses by Region in Fiscal 2017



Market Share of the Eyeglass Lenses Market in Fiscal 2017



*Estimated by HOYA

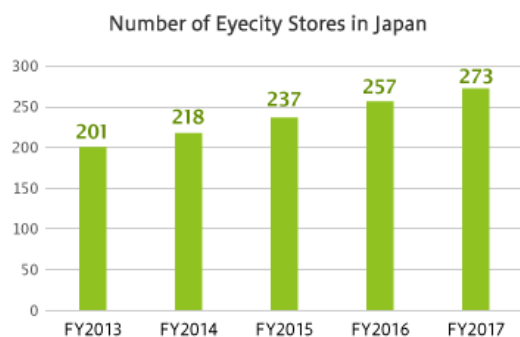


Contact Lenses

Performance in the year ended March 31, 2017

During the fiscal year under review, Eyecity, HOYA's contact lens specialty retail store chain, actively opened new stores mainly in urban areas while working to strengthen its sales promotion activities at existing stores. At the end of the fiscal year, Eyecity had 273 stores in Japan. In addition to sales growth at existing stores (those that have been open for more than one year), HOYA was able to continue stable growth by adding the contributions from the new stores. Compared with the previous fiscal year, sales grew at rates in the first half of the single-digit range. Eyecity features a consulting-style sales approach, whereby employees interview customers about their lifestyles as well as hopes and concerns about wearing contact lenses before they accordingly make product recommendations. HOYA thinks that, as a result of this approach, Eyecity wins the trust of customers and, as the No. 1 contact lens specialty store in terms of the number of users, has been able to secure a high share of the market. Profitability was on par with the previous fiscal year.

In addition to sales growth at existing stores, in the years to come, HOYA will work to maintain stable sales growth throughout its entire contact lens business by continuously opening new stores. For new store openings, HOYA will closely analyze an area—its contact lens-wearing population, market growth rate, and competitive situation—and will look for opportunities to open stores mainly in city centers, regional cities, and large shopping centers.



Medical



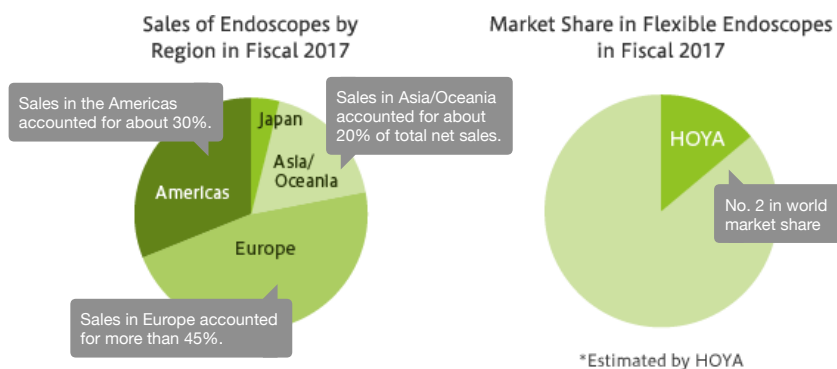
(Information on HOYA's products may be found in the "Business Domains" section of its website. Please refer to this section for further information.)

Medical Endoscopes

Performance in the year ended March 31, 2017

Endoscope sales declined at rates in the latter half of the single-digit range compared with the previous fiscal year (but expanded in the middle of the single-digit range when the effects of foreign currency exchange rate fluctuations are excluded). In Japan, as the environment is intensely competitive, sales declined at rates in the latter half of the single-digit range. In Europe, new products launched in the first quarter resulted in an improved product lineup and led to HOYA's increased competitiveness in its bidding business. The contribution made to sales expansion resulted in an increase in the middle of the single-digit range (on a local currency basis, which excludes the effects of foreign currency exchange rate fluctuations). By country, sales in the United Kingdom and Spain were favorable. In the Americas, HOYA strengthened sales activities to the joint purchasing organizations called group purchasing organizations (GPOs) and integrated delivery networks (IDNs), which are becoming common in the United States, and, as a result, was able to acquire major transactions in the fourth quarter. Overall, sales in the Americas increased at rates in the first half of the single-digit range (on a local currency basis, which excludes the effects of foreign currency exchange rate fluctuations) compared with the previous fiscal year. In Asia and Oceania, HOYA is making aggressive investments in anticipation of market growth due to improved access to medical care, and sales increased in the middle of the single-digit range. When foreign exchange rate fluctuations are excluded, HOYA maintained profitability at the same level as the previous fiscal year.

In the fiscal year under review, HOYA was able to return growth momentum to its overall medical endoscope business performance by the effects of the new products launched in Europe in the first quarter and strengthening its sales activities with GPOs and IDNs in the United States. In the years to come, HOYA will work on overall endoscope sales growth by assuredly capturing increases in demand, by market development through the strengthening of sales to GPOs and IDNs in the United States, and by improving access to medical treatment in Asian markets.



Intraocular Lenses

Performance in the year ended March 31, 2017

Sales of intraocular lenses for the fiscal year under review increased in the midteens (by about 20% when the effects of foreign currency exchange rate fluctuations are excluded), as sales volumes increased both in Japan and overseas. As a result of this improvement, HOYA's market share improved to third in the world and first in Japan. An increase in the sales volume of the new material product Vivinex™, which was launched in fiscal 2015, drove overall growth and accounted for about half of global sales. Vivinex™ is statistically superior in that there is little occurrence of late cataracts, and the incision width can be reduced with an easy-to-use injector.

In the years to come, HOYA will carry out enhancements to its product lineup and sales network, conduct the strengthening of its production system, and work on further sales growth.

With regard to products, in addition to the current single focus, and besides the adding of designs, such as for astigmatism and for distance, HOYA will try to set its intraocular lenses apart from those of other companies by improving the convenience of devices, such as injectors.

In the case of sales, HOYA is working to expand its sales areas by direct sales according to the region, sales by agents, and OEM sales.

With regard to manufacturing, in order to respond to strong demand, HOYA will nearly double its production capacity in 2019 compared with fiscal 2016 by starting operations of a new factory in Thailand in the first half of fiscal 2018 and bring about improvements in its competitiveness from the manufacturing costs aspect.

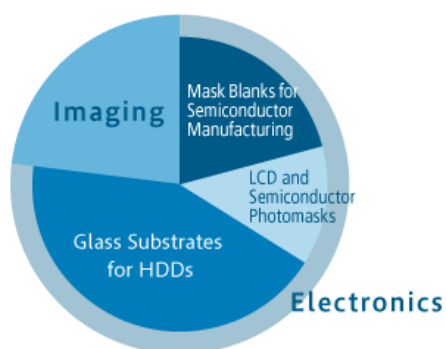
Through these measures, HOYA will increase intraocular lens sales in the medium term and improve profitability.



➤ Information Technology

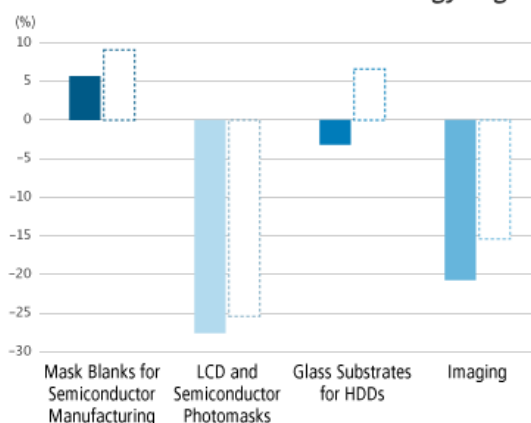
Sales: 160.6 billion yen, Profit before tax: 54.5 billion yen

Sales Breakdown of the IT Business



*Composition of sales in photomasks is the total of LCD and semiconductor use.

Percentage Increase (Decrease) in Sales by Product in the Information Technology Segment



*Dotted lines indicate figures after exclusion of the effects of foreign exchange fluctuations.
*Percentage increase (decrease) in photomasks is the total of LCD and semiconductor use.

Electronics

(Information on HOYA's products may be found in the "Business Domains" section of its website. Please refer to this section for further information.)

Mask Blanks for Semiconductors

Performance in the year ended March 31, 2017

Mainly for high-precision products, including for extreme ultraviolet (EUV) purposes, HOYA mask blanks are used not only in the mass production processes for semiconductors but also at the R&D stage. HOYA captured firm demand for its mask blanks by incorporating active R&D demand for cutting-edge products for semiconductor manufacturers. As a result, sales of mask blanks rose at rates in the middle of the single-digit range compared with the previous fiscal year. (When the effects of foreign currency exchange rate fluctuations are excluded, sales expanded at rates in the latter half of the single-digit range.) Regarding the composition of the product mix for mask blanks, the value of high-precision product sales, including EUV items, accounted for around 45% of the total, and the ratio of these products increased compared with the previous fiscal year. In accordance with the further miniaturization of semiconductor circuits, the technical requirements that customers are demanding with regard to mask blanks—such as greater smoothness and flatness as well as the absence of flaws, higher exposure resolution, and durability—are increasing. By responding to the technical demands from customers and incorporating customers' development demand for its cutting-edge products, HOYA can continue its stable business growth. With regard to EUV applications, semiconductor manufacturers are expecting to apply EUV to a number of layers in the mass production of 5–7nm node products from 2018 to 2019, and, as a preparation stage for that, strong R&D demand for semiconductor manufacturers is continuing. As a result, HOYA's sales of EUV products grew, and the EUV product sales ratio was about 10%, double that of the previous fiscal year.

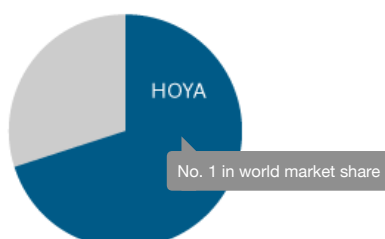
With regard to profitability, the product mix improved due to the increase in sales composition of cutting-edge products, including EUV items, and profitability of mask blanks as a whole improved compared with the previous fiscal year.

In accordance with ongoing semiconductor miniaturization, HOYA believes that demand for high-precision blanks will remain firm from fiscal 2017 onwards. HOYA will work for stable business growth by continuing to respond to the technical requests of customers in a timely manner. Since sales of mask blanks change greatly depending on the development speeds of customers, the making of accurate predictions is beset with difficulties, but, in the case of sales for EUV products, HOYA anticipates that they will have doubled on a value basis against fiscal 2016 in two years' time.

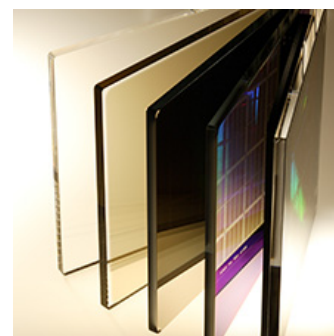
Share of High-Precision Mask Blanks in Mask Blanks Sales in Fiscal 2017



Share of Market for Mask Blanks for Semiconductor Manufacturing in Fiscal 2017



*Estimated by HOYA



Photomasks for LCDs

Performance in the year ended March 31, 2017

HOYA's Kumamoto factory was damaged, and LCD photomask production capacity reduced, by the Kumamoto Earthquake that occurred in April 2016. As the production facilities at the Kumamoto factory had suffered extensive damage, as a result of conducting a review of the production system from the beginning, HOYA decided to transfer the Kumamoto factory's production operations to its production bases in Taiwan and South Korea. HOYA is making progress step by step in the recovery of its production capacity, but, in the fiscal year under review, was unable to return to pre-earthquake levels, and the effects of the disaster remained. As a result, sales declined in the vicinity of 25% compared to the previous term (a decrease of just over 20% when the effects of foreign currency exchange rate fluctuations are excluded).

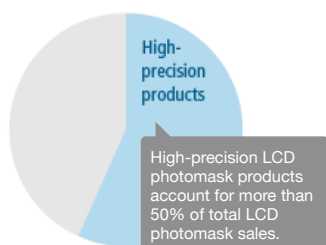
In addition, as a contributing market factor, LCD panel manufacturers continued to prioritize their mass production aims over developments on the production line from the second quarter onward. As a result of the decrease in R&D demand, the sales volumes of HOYA products decreased.

Profitability declined compared with the previous fiscal year due to the decrease in sales and losses relating to the Kumamoto Earthquake.

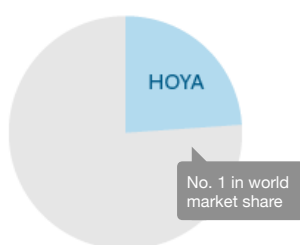
In fiscal 2018, HOYA expects increases in demand associated with a smartphone-centered increase in OLED production capacity at panel manufacturers and ongoing developments toward even greater precision and higher resolution.

With regard to the recovery of production capacity, HOYA is gradually implementing the installation and relocation of new mask writers and plans to return to the pre-earthquake levels in the second half of fiscal 2018.

Sales Composition of High-precision LCD Photomask Products in Fiscal 2017



Share of Market for LCD Photomasks in Fiscal 2017



*Estimated by HOYA



Glass Substrates for HDDs Business

Performance in the year ended March 31, 2017

HOYA supplies the glass substrates used for 2.5-inch hard disk drives (HDDs), but this market is seeing slippage in demand for notebook PCs, and the replacement of HDDs with solid state drives (SSDs) in multiple applications is under way. HOYA forecasts that, taken as a whole, double-digit declines will continue over the medium term.

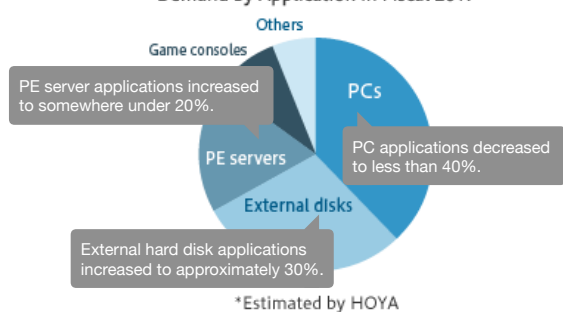
On the other hand, in continuing to take measures to increase its market share in the 2.5-inch market in order to curb the decline in its sales volume, HOYA was able to make gains in the third quarter and increased its market share to 85% (100% if limited to glass).

In addition, supplies of NAND flash memories were tight from the second half onward, and HDD demand improved. As a result, sales of glass substrates for HDDs declined in the lower half of the single-digit range compared with the previous fiscal year (When the effects of foreign currency exchange rate fluctuations are excluded, sales increased at rates in the first half of the single-digit range.).

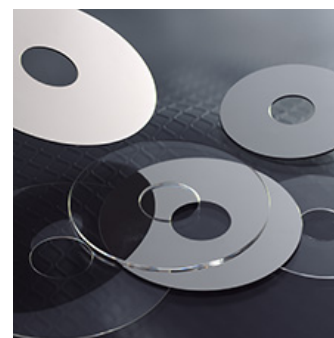
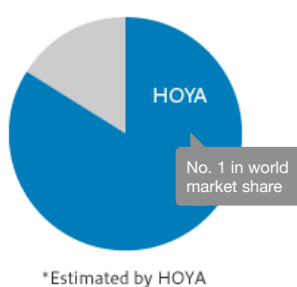
By application, demand for substrates for notebook PCs was on par with the previous fiscal year, but demand increased for applications other than PCs, including external HDDs and performance enterprise (PE) servers, and overall demand increased. For 2.5-inch substrates, the composition ratios by application were about 40% for notebook PCs, about 30% for external HDD applications, and about 20% for PE server applications. Compared with the previous fiscal year, the share of usage in notebook PCs decreased by about 10 percentage points, while the share of usage in both external HDDs and PE servers rose by about five percentage points. Profitability was maintained at the same level as the previous fiscal year.

HOYA is expecting that the shortage of supply of NAND flash memories will continue until around December 2017. After that time and over the medium term, HOYA forecasts that the harsh conditions in the 2.5-inch HDD market will continue and that, impacted by SSD market penetration, substrate demand for notebook PC, PE server, and other usages will decrease. HOYA will work to stabilize its business performance by entering and acquiring a share of the 3.5-inch substrate market for the near-line server HDDs used at cloud data centers, substrates that HOYA is not currently supplying.

Composition of 2.5-inch HDD Glass Substrate Demand by Application in Fiscal 2017



Share of 2.5-inch HDD Glass Substrate Market in Fiscal 2017



Imaging-related Products



(Information on HOYA's products may be found in the "Business Domains" section of its website. Please refer to this section for further information.)

Imaging-related Products (Including optical glass, optical lenses, camera lens modules, and lasers)

Performance in the year ended March 31, 2017

The market for digital cameras, which are the main uses for HOYA's imaging-related products, continued to shrink, and sales declined by about 20% compared with the previous fiscal year (When the effects of foreign currency exchange rate fluctuations are excluded, the sales decrease was around 15%).

By application, of the sales for digital cameras, those for compact digital cameras declined by about 45% compared with the previous fiscal year due to the shrinkage of the market. Although sales for interchangeable lenses used with single-lens reflex cameras were shifted to high-value-added products even as the market shrank, sales declined in the first half of the fiscal year.

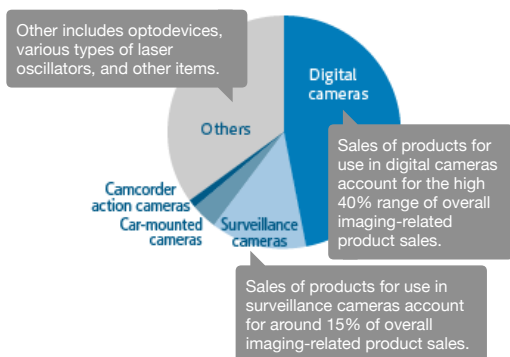
With regard to profitability, HOYA strove to optimize the scale of its business, but profitability deteriorated compared with the previous fiscal year due to a more-than-expected sales shrinkage.

Toward fiscal 2017 and beyond

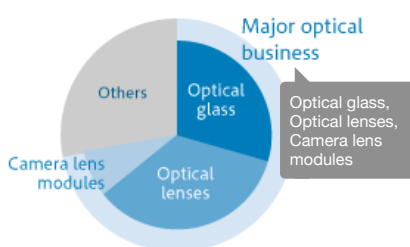
In the digital camera market, HOYA expects that the shrinking market for compact digital cameras will ease and that sales for interchangeable lenses used with single-lens reflex cameras will cease to shrink. In contrast, HOYA expects the markets for surveillance and car-mounted cameras to expand. HOYA's strengths are deemed to lie in high-value-added glass materials and aspherical glass lenses, but, additionally, there is the possibility to make proposals that embody customer needs in the form of lens units. Leveraging these strengths, HOYA will advance product sales promotions in growth markets, such as for surveillance cameras and car-mounted cameras, thereby offsetting the decrease in products for digital cameras and stabilizing the business as a whole.

HOYA will gradually improve its profitability by, for example, improving yield, reviewing transactions from the profitability viewpoint, and optimizing the scale of its business.

Sales of the Imaging-related Products by Use in Fiscal 2017



Composition of the Imaging-related Products Business in Fiscal 2017





President & CEO **Hiroshi Suzuki**

➤ Reviewing FY2017 Results



In FY2017, we faced adverse external circumstances that were not a fundamental part of the Company's operations. One factor was the earthquake in Kumamoto that affected part of our business. We have a factory in Kumamoto in which a fire broke out, and we ended up shutting down that factory and relocating this production outside of Japan. Another adverse factor was the foreign exchange rate. Our sales and bottom line were impacted.

Excluding those effects, we performed satisfactorily. The IT business was marked by steady cash flow. We recorded growth in the Life Care business. We moved in the right directions but must further accelerate progress.

➤ Mid-term Outlook



Overall, we must continue to refine our business portfolio. We need to have a robust locomotive driving future growth.

Profitability will almost certainly improve compared to where we are today because we have heavily invested and have done so early. Thoughtful strategic investment will contribute to healthy profitability in due time. We will not sacrifice profitability merely for the sake of growth.

The important things for us are healthy cash flow and healthy profitability. These are both priority number one. In fact, we will most likely generate more cash than what we need for growth, and we will continue to return cash back to shareholders. A healthy cash situation is perhaps the most-critical requirement for the success and sustainability of HOYA.

➤ Governance



Our external directors are businesspeople who have experience in running sizable businesses. They are all exposed to all aspects of our business and have an oversight role. While outside directors seems a recent trend in Japan, we have had outside directors since 2003. In a sense, governance flows from the external directors representing 80% of our board, rather than from within the Company.

In practice, we officers and division heads must explain our plans and decisions to the Board of Directors. We must explain in an objective manner why and what we are going to do makes sense as a company and not just for the short term, but for the long term as well. Opinions and questions are actively raised by external directors at the board meetings, aiming enhancement of corporate value. We believe that going through this process itself is truly valuable for our company.

➤ Global Management



In order to secure sustainability, we should not limit ourselves to the Japanese market and need to expand globally. HOYA is truly global in terms of sales; about 70% of sales are generated outside Japan; about 90% of employees are non-Japanese, and 62% of shareholders are non-Japanese. In terms of managerial capability, we still have far to go. It's easy to say "global management," but the reality is very difficult. As we expand into different markets or go deeper into existing markets, we will need different managerial skills, organizational flexibility, and coherent mechanisms to accommodate differences and diversity. The response is an ongoing challenge, which we need to continually strengthen to truly globalize management.

➤ Management Philosophy



As a first rule: We must always have flexibility of changing ourself or tweaking our portfolio to have a portfolio of the business that is in the right place at the right time. If we are in the wrong businesses, we will never be able to be successful. It's not just the management as such, but the right circumstances in terms of being in the right place at the right time.

As a second rule: We must have focus on something what we are good at. Otherwise, we're not going to be successful regardless of our strategies. At the same time, even if our strategy is somewhat lousy, if we really work on it, and if we can concentrate on it, we will likely generate tangible benefits. Defining the way we're good at and trying

to work very hard on it, that's the kind of culture we have; that's the sort of mechanism that was built in this Company. This is something we can beat our competitors with. If we try to be a global company, the best way to measure how strong we are is just look at our profitability. We can slice our business into small segments, by products, by markets, or whatever it is; simply look at the profitability of each of those slices or segments. Discovering what really works is something we can really concentrate on.

The most-important rule is to assure our Company is truly sustainable in every sense of the word. I am grateful to be playing a small part in the long history of this Company.

Hiroshi Suzuki
President & CEO

HOYA's Growth Strategy Growth Potential in Eyeglass Lens Business



“

The U.S. market is a huge opportunity for HOYA's eyeglass lens business. There is plenty of space for us to expand.

”

Girts Cimermans

Executive Officer
Vision Care Company President

» Eyeglass Lenses' FY2017 Performance

While our performance was strong, we undoubtedly have the potential to do even better.

The key growth driver was North America, with the United States our largest single-country Eye Care market, where we grew roughly 8% before accounting for acquisitions. Canada grew in double digits.

Europe is our largest market. We were able to achieve stable growth despite strong local competition. For the past two years, we have been focusing on sales force effectiveness and have rolled out integrated sales, management, and customer relationship management (CRM) programs across Europe.

» Key Market Trends

There is a major consolidation under way in the U.S. retail space as private equity has entered the optical segment. As long as we remain true to our strategy to serve our customers, we can benefit quite well. Europe is following a few years behind the United States in terms of retail consolidation, and we also see private equity entering the market.

In Asia and Oceania, our two key markets are China and Australia. Our sales are now outpacing market growth, and the outlook is rather positive. We are building an organizational structure to sustain and boost growth.

The market is now trending towards different applications for eyewear, with consumers having different eyewear for different situations. Accordingly, we are focusing on a so-called lifestyle concept.

We believe in the future the consumer will have a bigger say. We are upgrading marketing, consumer engagement, and branding strategies in addition to our strengths in manufacturing, technology, and quality.

➤ Manufacturing and R&D

These remain as some of our core strengths. Worldwide, we work on a four-day lead time, and actually implemented a 48-hour lead time project in our main Japan manufacturing site and in Thailand. In fact, about two-thirds or more of our lenses are shipped within 48 hours.

One of our significant innovations is *Yuniku*, meaning “unique”, which is the world’s first vision-centric individually customized 3D eyewear. Advanced software calculates the ideal position of the lenses in relation to our eyes, and then 3D prints the frame based on those unique parameters. We rolled it out in Europe in 2016 and we are going to expand it in other markets.

➤ Growth in the United States

Our market share in the United States is comparatively low, which is an opportunity for expansion. To improve our market share in the small and medium-sized retailers segment, we will continue our consumer engagement strategy to develop an even more-compelling value proposition. For chains, we will revalue our partnerships to see where we can find some more-common ground for cooperation in the future.

We implemented an M&A strategy to accelerate growth in the United States. For example, the acquisition of Performance Optics, LLC is a very exciting addition to HOYA for several reasons. To be successful in the United States, you need to have what we call the “3Ps” in place, namely, polycarbonate lenses, polarized lenses, and photochromic technology. The first “P” is polycarbonate lenses because the United States and, to a large extent, Latin America are using polycarbonate lenses, which are sturdy and less prone to breakage. The second “P” refers to polarized lenses that reduce glare, and the third “P” stands for photochromic where the lens is changing—reacting to UV light and becoming dark.

Performance Optics has a robust R&D team specializing in polycarbonate, polarized lenses, and different technology solutions around those factors. Further, HOYA is well positioned with small and medium-sized independent retailers in the United States, while Vision Ease is strong in the chain retail space. On balance, our integration with Performance Optics fits together like a hand and a glove.

➤ Outlook



I am optimistic. We are in an excellent place because we have a very strong balance sheet and cash-generation capabilities that allow us to fund R&D and acquisitions, to capitalize on our track record of highest-quality manufacturing and rapid delivery, and to have a strategic focus on consumer lifestyle opportunities.



HOYA's Growth Strategy

Growth Potential of the Intraocular Lens Business



“

Organically, we will once again double the Company over the span of the next three to four years.

”

John Goltermann Lassen
HOYA Surgical Optics, CEO

» Intraocular Lens Performance in FY2017

It was another great year for our Intraocular Lens (IOL) business. We have grown the business by more than 20% from the previous year and are, once again, the fastest-growing IOL company globally. We have captured close to 30% of the global IOL growth in cataract surgeries, and HOYA Surgical Optics (HSO) is now first in Japan and third globally in terms of market share.

We have also seen strong growth not only in a particular market or region but across several markets in the United States, Europe, India, China, and Japan. There is a huge potential to continue on our strong growth trajectory in the coming year and penetrate into markets where we have yet to create a presence, e.g., South America will soon come into focus as we expand capacity via our new factory in Lamphun, Thailand, to accommodate growing demand for our lenses. Concurrently, we will continue to hone our capabilities in established markets such as the United States, Europe, India, China, and Japan to further increase our market share.

» Our Competitive Business Edge

Products

Having a product toolkit that consists of several well-defined product platforms has allowed us to cater to different needs and markets. Our premium product platform, Vivinex™, offers unrivalled clarity of vision, while our AF-1 lenses are reliable and have been implanted by more than five million surgeons globally. We have a strong R&D pipeline and will continue to expand the product offerings across all our product platforms.

Channel

Our unique commercial model comprises direct, distributor, and private label sales channels. This has proven to be optimal in ensuring that our products are accessible in all regions and markets, and in allowing us to effectively create inroads into new territories while at the same time expanding our footprint in established markets.

Production

In August 2017, we officially opened our second manufacturing facility in Lamphun, Thailand. This is a significant milestone for HSO and is key to supporting the future growth of the Company. The new factory, once fully completed, is expected to strengthen production capacity by threefold and will feature state-of-the-art manufacturing capabilities and technologies. Being the first global IOL company to set up a manufacturing facility in Thailand, we have received strong support from the Board of Investment in Thailand and are looking forward to collaborative opportunities with the Thai government, hospitals, clinics, and surgeons.

People

Supporting our commercial teams is a group of highly committed customer service and marketing staff that is always ready to support and assist in any query that our customers may have. On the manufacturing front, our production teams across the Singapore and Thailand factories undergo regular training to ensure that we uphold the highest international requirements and standards for medical device companies.

➤ Key Strategies to Boost Sales

Every country is in our line of sight because the key to boosting sales is to integrate our commercial capabilities, production capacity, and product offerings. This will enable us to not only address each specific market segment but also establish partnerships wherein we sell our products through private labels. In markets where we have a strong direct presence, we will continue to expand our footprint by recruiting more commercial talents. In markets where we sell mainly through a distributor, we will continue to grow our network of distributors and look for potential partners that we could possibly collaborate with. There are also white spots where we are virtually not present, mainly in Latin and South America, where we intend to create inroads and establish a presence. We have recently started selling our lenses in Brazil, laying the foundation for future growth and expansion.

There are ample opportunities for partnerships. In 2016, we have entered into an exclusive agreement with Bausch + Lomb wherein Bausch + Lomb will distribute and commercialize our portfolio of IOLs and injector systems in the United States. We are leveraging their footprint, and they are leveraging our technology, creating a win-win situation.

We will seek out similar partnerships either with manufacturers or distributors who seek to enhance their capabilities in the IOL space.

➤ Product Lineup Strategies Tied to Doctor and Patient Needs

Cataracts are, by far, one of the most-established and commonly performed surgical procedures globally. Even within this space, there are opportunities. One is “multifocality”, which refers to allowing patients to have multiple focal points (distance and near vision) so that they can be spectacle-free after a cataract surgery. Within cataract surgery, whether from a procedural point of view, patient point of view, or surgeon preference point of view, we have identified needs we still have to fulfill. Some are very clear; some are near term. Some are much longer-term and exploratory. We have a firm pipeline in place allowing us to address those needs.

➤ Outlook



New production facility in Lamphun, Thailand opened in August 2017

We continue doing what we have been doing successfully. Organically, we will once again double the Company over the span of the next three to four years. We will be a company with a truly global footprint, either with a direct presence or with very strong partnerships in all major markets globally. We will have multiple active product platforms, serving different needs in the market. Finally, we aim to have made meaningful acquisitions allowing entry into either new disease or new technology segments.



HOYA's Growth Strategy Growth Potential in the Mask Blanks for the Semiconductor Business

“

Focusing on cutting-edge, high-precision products including EUVs as a part of efforts to secure an increased share of the market.

”

Hisao Shirasugi

Blanks Division, President



➤ The Strengths of Our Mask Blanks for the Semiconductor Business

The strength of our mask blanks business can be traced to three sources: the ability to handle the full lineup of mask blanks, from standard mask blanks to advanced mask blanks, including those compatible with EUV lithography technology, stable product quality in our mass-produced items, and the ability to develop cutting-edge products. We believe our strength lies in our ability to handle the entire scope of our customers' needs, something no other company can match.

The development of our cutting-edge products involves technical meetings with our customers on a daily basis, with requests received via feedback at these meetings immediately conveyed to our development departments so that the products can reflect the needs of our customers. We believe it is vital to respond to customer requests with all due speed so that the customer's development speed is not in any way delayed. While it used to take one to two months from a customer's request to shipment of the product, our enhanced structure has reduced that time span to only a few days.

Our products do not merely meet given product quality standards, but are designed to fall within the middle of the product quality range standards, and our customers appear very pleased with the stable level of quality in our products. In addition to our factory in Japan, HOYA also has manufacturing facilities in Singapore, where the Company has also been able to successfully produce high-quality products on a stable basis. We believe this has been possible thanks to not only the Company's solid technologies, but also to the strengths of the local employees.

Given its long history in the manufacture of optical glass, HOYA has proven adept in not only basic technologies such as polishing, cleaning, and flattening, but also other technologies, including those related to the sputtering deposition of film up to dozens of layers deep. We are using our command of these basic technologies to develop entirely new and innovative technologies for the manufacture of products compatible with EUV lithography technologies.

➤ Developing Products Compatible with EUV Lithography Technologies

EUV lithography technology is the next-generation technology for use in the further miniaturization of semiconductor circuits. HOYA has almost 20 years of experience in researching products compatible with EUV lithography technologies. However, innovation in EUV lithography over the past few years has indeed been remarkable, and, as we believe the period up to 2019 represents a peak period of technological innovation throughout the industry, our focus is fixed upon which direction of development is best for the Company.

As a key focus for development at HOYA, EUV lithography is providing the means to control foreign particles that cannot be addressed through optical lithography. With the goal of improving quality, we are introducing new inspection machines.

In optical lithography, the standard is no foreign particles of 80nm or more, but the standard for EUV lithography is no foreign particles of 23nm or more. Moreover, when using optical lithography, there can be at most 10 layers of film formed on the mask blank, but EUV lithography allows about 40 film layers. Add to this the fact that there can be no foreign particles 23nm or more. While the technical issues are indeed complex, we are making steady progress.

In order to maintain our present lead, we believe it important to maintain focus on technological changes and avoid falling behind when those changes are indeed substantial. We accordingly maintain focus on information coming from semiconductor manufacturing customers and conduct our business with an eye toward industry trends three to five years ahead. The same applies to the development plans of equipment manufacturers. We conduct weekly meetings with these manufacturers, and our employees around the world remain active in the industry. The headquarters of the business is located in Singapore, but employees do not work at the headquarters alone, and, with these employees confirming the latest cutting-edge information at offices and the factory of material manufacturers, semiconductor manufacturers, and equipment manufacturers, we can effectively plan our business activities.

We are also discussing future technologies in the EUV sector with materials manufacturers, equipment manufacturers, and semiconductor manufacturers. As a pioneer in mask blanks compatible with EUV lithography technologies, HOYA is enjoying the spotlight in terms of expectations in the EUV sector. In order to live up to these expectations, we are playing close attention to the timing for mass-production plans, including investment plans.

➤ Our Outlook for the Future



While a limited number of semiconductor companies are focusing development on the manufacture of semiconductors using EUV lithography, we believe the spread to other companies is likely to take some time. At present, cutting-edge semiconductors are limited to use in smartphones, artificial intelligence, and data storage as companies at the forefront of development can cover demand in those areas. When EUV lithography technology is used in the manufacture of semiconductors for other purposes, we believe demand for our products will likely increase, as other semiconductor firms begin making semiconductors using EUV lithography technologies.

Amid such an environment, we aim to expand profits and reduce manufacturing costs on all products, including high-precision products, and expand our market share through the reinvestment of earnings in the research and development of advanced and high-precision products.



“

We will stabilize the business by entering the growth field 3.5-inch near-line server market.

”

Takemi Miyamoto
MD Division, President



➤ HDD Glass Substrate Business

HOYA's hard disk drive (HDD) glass substrate business mainly manufactures and sells the 2.5-inch glass substrates for the HDDs used in notebook PCs, external HDDs, performance enterprise servers, and game consoles. As far as the glass is concerned, the Company's market share is 100%.

➤ Market Trends

In the 2.5-inch substrate market, HDD demand is decreasing due to the replacement of HDDs with solid state drives (SSDs). In 2016, there was a 10 percentage point decrease compared with the previous year, and, in 2017, a slight increase, but, from 2018 onward, double-digit decreases are again expected.

The market for 3.5-inch substrates is similarly expected to remain unchanged due to decreases in desktop PC applications and other factors, uniquely, double-digit growth is expected in the near line (NL) server applications used at data centers and elsewhere due to the increase in the amounts of data being generated worldwide.

The amount of data being generated worldwide is steadily following an upward curve, increasing from 16 zettabytes (see Note) in 2016, 22 zettabytes in 2017, to 29 zettabytes in 2018. On the other hand, the storage capacity was 4.6% as of 2016 and will remain at more than 3% in 2017–18. Data center capacity cannot keep pace with the increase in the amount of data being generated worldwide, and the shortage situation is expected to continue.

Historically, HDD manufacturers have launched new models together with bringing about increases in HDD storage capacity. Conventionally, HDD storage capacity has been increased by increasing the recording density per unit area of media, but that trend is slowing down. In the years to come, the trend will be to increase HDD storage capacity by increasing the number of substrates.

As an HDD's standard size is fixed, it will be necessary to make the substrates thinner in order to increase their number. Because of the problem of rigidity, however, aluminum substrates is limited to eight discs, and the method of increasing that number has presented a number of challenges.

➤ Entry into 3.5-inch Market

This business has not only the 2.5-inch diameter substrate currently being produced, but also substrates with diameters ranging from 1.0 to 3.5 inches and thicknesses from 0.381mm to 1.27mm. If it is a glass substrate for HDDs, we can produce all the sizes and thicknesses that customers need. It is also possible for us to mass produce as many as one hundred million in three months while maintaining consistent quality.

Because of this situation, we entered the market for 3.5-inch substrate for NL servers, which has growth potential, to compensate for the decreases brought about by the shrinking 2.5-inch glass substrate market.

➤ Future Prospects

In 2017, a company that manufactures HDDs will start a model fitted with our eight-sheet glass substrates, but we predict that there will be an increase to 9 or 10 sheets over the next few years. Eventually, we think that we can handle up to 12 sheets and are showing samples to makers of HDDs and PCs as well as other manufacturers.

Sales of 2.5-inch glass substrates are expected to decrease from fiscal 2018, but those of 3.5-inch glass substrates for near line servers will increase and gain momentum from fiscal 2018. In the medium term, from fiscal 2018 onwards, we anticipate that our overall business performance will be stable due to our having compensated for the shrinking sales for the 2.5-inch market with the growing sales for NL server applications in the 3.5-inch market.

Apart from this, when the technology—such as heat-assisted magnetic recording (HAMR)—that increases the storage capacity per unit area is developed, it will be possible to bring about a further increase in recording capacity per HDD unit. Also, as glass substrates are essential in terms of heat resistance, we can expect an increase in demand for glass products.

Note: zetta=1,000⁷, exa=1,000⁶, peta=1,000⁵, tera=1,000⁴

Financial Review

➤ Scope of Consolidation



As of March 31, 2017, the HOYA Group consisted of HOYA CORPORATION, 122 consolidated subsidiaries (11 of which are domestic and 111 overseas), and 8 affiliates (4 of which are domestic and the other 4 overseas).

The HOYA Group has adopted a business management structure where the Information Technology and Life Care business segments control subsidiaries around the world based on their respective responsibilities. Regional headquarters in the Americas, Europe, and Asia support business operations by strengthening relationships with countries and areas in the respective regions, such as by providing legal support and conducting internal audits. The HOYA Group has its Financial Headquarters (FHQ) at its Europe Regional Headquarters (Netherlands).

➤ Adoption of the International Financial Reporting Standards



Beginning with the fiscal year ended March 31, 2011, the HOYA Group prepares its consolidated financial statements and other documents in compliance with the International Financial Reporting Standards (IFRS) pursuant to the paragraph (1), Article 120 of the Ordinance on Company Accounting. With respect to reportable segments presented in the overview of operation by business category, the HOYA Group divides its business into three reportable segments, based on IFRS. These segments are Information Technology, Life Care, and Other Businesses.

The Information Technology segment handles electronics-related products used for the production of semiconductors, liquid crystals and hard disk drives (HDDs), and imaging-related products such as digital camera lenses. The Life Care segment deals in health care related products such as eyeglass lenses and contact lenses, as well as medical-related products such as intraocular lenses and endoscopes. The Other Businesses segment offers mainly information system services.

➤ Review of Performance in FY2017



Sales of continuing operations for the consolidated fiscal year ended March 2017 amounted to ¥478,927 million, a 5.3% decrease year on year. In addition to the loss on disaster by the Kumamoto Earthquake, the gain on sales of property, factory and equipment amounted to ¥4,270 million and was recorded for the preceding consolidated fiscal year, so pretax profit and profit for the year decreased, compared with the preceding consolidated fiscal year, by 7.0%, to ¥110,795 million and 6.9%, to ¥86,852 million, respectively.

The pretax profit ratio for the consolidated fiscal year ended March 2017 was 23.1%, a 0.5 percentage point decrease from 23.6% in the preceding consolidated fiscal year.

Sales of the Life Care segment decreased by 2.6% from the preceding consolidated fiscal year, to ¥314,442 million, and segment profit decreased by 5.2% from the preceding consolidated fiscal year, to ¥54,718 million due to the impact of yen appreciation.

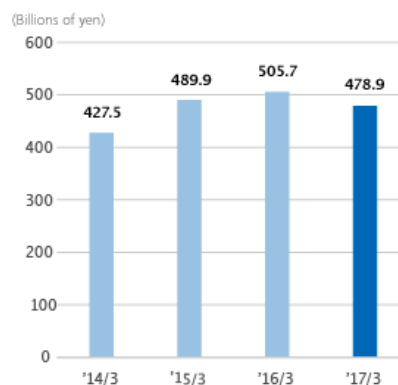
The Company's sales of eyeglass lenses continued to grow sluggishly due to the shrinking retail market in Japan. In overseas markets, although sales on a local currency basis increased steadily in the Americas thanks to the continued robust growth, as well as in Europe and Asia, overall sales decreased compared to the preceding consolidated fiscal year due to the heavy impact of yen appreciation.

As for contact lenses, the HOYA Group continued to work on opening new "Eyecity" retail stores and enhancing promotion in existing stores; so, sales of contact lenses increased compared to the preceding consolidated fiscal year.

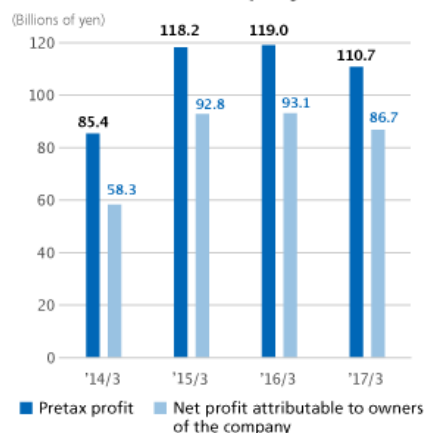
Sales of medical endoscopes in the Americas shifted to increase on a local currency basis over the preceding consolidated fiscal year. In Europe and Asia, meanwhile, sales grew as a result of the contribution of new products and strengthening sales capabilities. However, overall sales of medical endoscopes decreased compared to the preceding consolidated fiscal year due to the impact of yen appreciation.

Overall sales of intraocular lenses for cataracts grew and significantly increased over the preceding consolidated fiscal year as a result of strong sales of new products in the Japanese market as well as firm growth of both direct sales and sales for dealers overseas.

Sales



Pretax profit, Net profit attributable to owners of the company



Sales of the Information Technology segment decreased by 10.1% from the preceding consolidated fiscal year, to ¥160,617 million, and segment profit decreased by 16.8% from the preceding consolidated fiscal year, to ¥54,507 million, due to the loss related to disaster caused by the Kumamoto Earthquake as well as the gain on sales of property, plant and equipment for the preceding consolidated fiscal year.

Sales of mask blanks for semiconductors of the Company increased compared to the preceding consolidated fiscal year as the adverse effect of yen appreciation was absorbed by taking in robust research and development demand related to leading-edge products. Sales of photomasks for semiconductors decreased compared to the preceding consolidated fiscal year after the decision was made to shut down the Kumamoto Factory due to damage from the Kumamoto Earthquake of April 2016, which decreased production capacity.

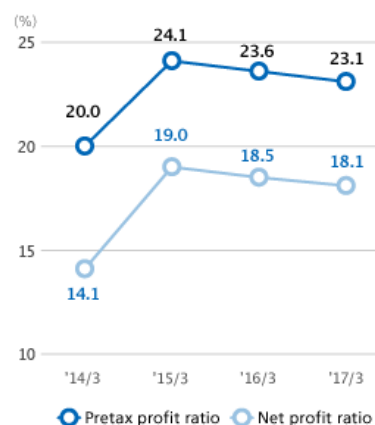
Sales for photomasks for liquid crystal displays decreased compared to the preceding consolidated fiscal year due to a slowing down of research and development demand for higher precision and higher resolution for small and medium-sized photomasks for smartphone panels, and for larger and 4K screens for large masks for TV panels and to continued effects of decreased capacity caused by the closure of the Kumamoto Factory.

As for glass substrates for hard disk drives, sales decreased compared to the preceding consolidated fiscal year due to the impact of yen appreciation, despite a sales increase on a local currency basis thanks to a slowdown of the trend of decrease in overall demand and an expansion of market share of the Company.

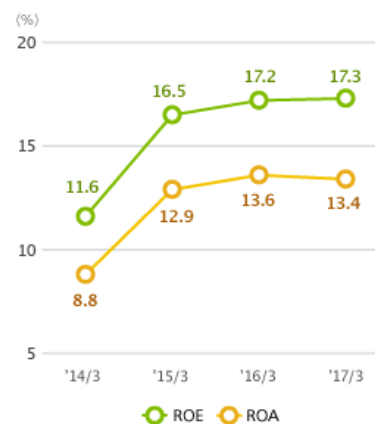
Looking at imaging-related products, the digital camera market continued to shrink. Under such conditions, although the Company continued its efforts to expand sales of products for new applications such as for security cameras and car-mounted cameras, they were not sufficient to make up for the decrease in sales of digital cameras, and, due to the impact of yen appreciation, overall sales decreased compared to the preceding consolidated fiscal year.

(For further information on performance by product, please refer to the [Business Overview](#) Section.)

Profit margins



Profitability



➤ Financial Position

Total assets at March 31, 2017 increased by ¥20,576 million from the end of the preceding consolidated fiscal year, to ¥659,583 million.

Non-current assets decreased by ¥823 million, to ¥164,263 million. This is primarily due to increases of ¥5,088 million in goodwill and ¥10,095 million in intangible assets despite decreases of ¥5,022 million in property, plant and equipment – net, ¥8,463 million in long-term financial assets, and ¥1,831 million in deferred tax assets. The decrease in long-term financial assets is primarily due to transfers to current assets.

Current assets increased by ¥21,399 million, to reach ¥495,321 million. This was primarily due to increases in trade and other receivables by ¥5,428 million, other short-term financial assets by ¥6,804 million, and cash and cash equivalents by ¥10,559 million. The increase in other short-term financial assets is primarily due to transfers from non-current assets.

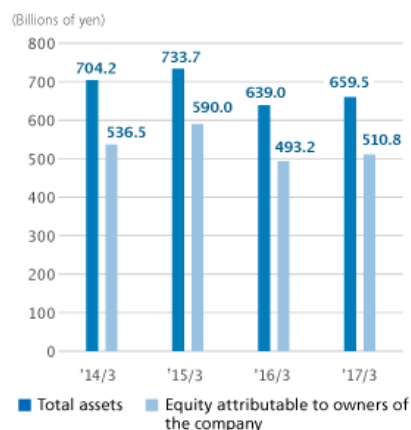
Total equity increased by ¥17,231 million, to ¥515,405 million. This is primarily due to a decrease in treasury shares, a deduction item from equity, by ¥27,817 million.

Equity attributable to owners of the Company increased by ¥17,622 million, to ¥510,887 million.

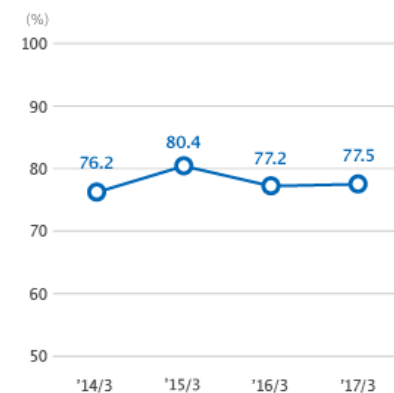
Liabilities increased by ¥3,345 million, to ¥144,178 million.

The ratio of equity attributable to owners of the Company to total assets at March 31, 2017 increased by 0.3 percentage point from the end of the preceding consolidated fiscal year and reached 77.5%, which was 77.2% in the preceding consolidated fiscal year.

Total assets, Equity attributable to owners of the company



Ratio of assets attributable to owners of the Company



➤ Cash Flow



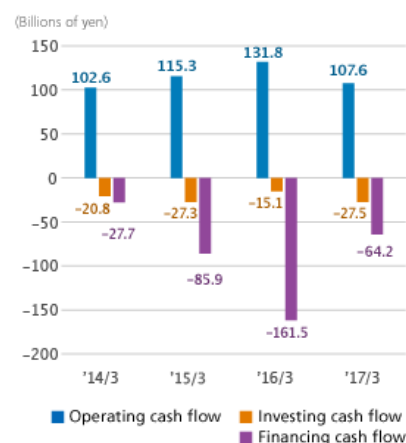
Cash and cash equivalents at the end of fiscal 2017, inclusive of ¥5,307 million due to fluctuations in foreign currency rates, were ¥296,851 million, an increase of ¥10,559 million compared with the end of the previous fiscal year.

Net cash generated from operating activities was ¥107,662 million (representing a decrease in net cash generated from operating activities of ¥24,227 million compared with the previous fiscal year). Factors contributing to cash from operating activities included pretax profit of ¥110,795 million (a decrease of ¥8,304 million compared with the previous fiscal year) and depreciation and amortization of ¥29,777 million (a decline of ¥3,747 million compared with the previous fiscal year). On the other hand, factors resulting in cash outflow included an increase in trade and other receivables of ¥5,528 million (a turnaround of ¥8,269 million from the decrease in trade and other receivables in the previous fiscal year), a decrease in trade and other payables of ¥859 million (again a turnaround of ¥1,215 million from the increase in trade and other payables in the previous fiscal year), and income taxes paid of ¥26,614 million (an increase in income taxes paid of ¥3,408 million compared with the previous fiscal year).

Net cash used in investing activities came to ¥27,507 million (representing an increase in net cash used in investing activities of ¥12,346 million compared with the previous fiscal year). In the fiscal year under review, the principal cash inflow comprised proceeds from sales of investment of ¥5,818 million (an increase of ¥5,689 million compared with the previous fiscal year). This was more than offset by major cash outflows including payments for acquisition of property, plant and equipment of ¥21,528 million (an increase of ¥3,344 million compared with the previous fiscal year), payments for acquisition of subsidiaries of ¥6,360 million (an increase of ¥4,568 million compared with the previous fiscal year), and payments for business transfer of ¥6,193 million (an increase of ¥6,082 million compared with the previous fiscal year).

Net cash used in financing activities amounted to ¥64,289 million (representing a decrease in net cash used in financing activities of ¥97,230 million compared with the previous fiscal year). Major factors resulting in cash outflow included dividends paid to owners of the Company of ¥29,447 million (a decrease of ¥2,048 million compared with the previous fiscal year) and payments for purchase of treasury shares of ¥35,007 million (a decrease of ¥95,145 million compared with the previous fiscal year).

Cash flow



➤ Capital Expenditures/Depreciation and Amortization



The total capital expenditures of all operations of the HOYA Group amounted to ¥22,863 million during the consolidated fiscal year ended March 2017, an increase of ¥2,535 million over the preceding consolidated fiscal year.

In the consolidated fiscal year ended March 2017, investment in the Information Technology business amounted to ¥10,202 million and investment in the Life Care business amounted to ¥12,512 million, which account for 44.6% and 54.7%, respectively, of the total capital expenditures by the Group.

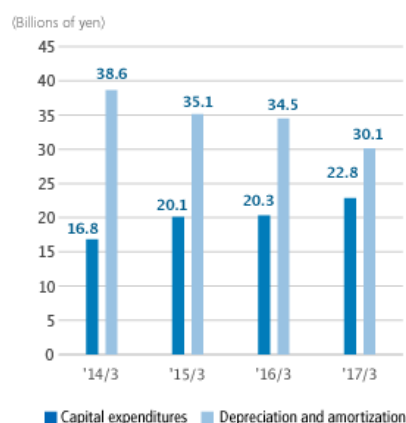
The investment was covered by internally generated funds.

During the consolidated fiscal year ended March 2017, in the Information Technology business, the HOYA Group invested mainly in production facilities for high-value-added products of semiconductor and liquid-crystal display-related products.

In the Life Care business, for mainly eyeglass lenses, the HOYA Group invested in increasing capacity in production plants and optimizing. For intraocular lenses for cataracts, since sales of products, which had been placed on markets at the beginning of the consolidated fiscal year ended March 2016, increased, the HOYA Group invested in increasing production capacity to meet the growing demand.

Depreciation and amortization (including impairment losses) for the fiscal year under review were ¥30,111 million, 12.7% lower than in the previous fiscal year.

Capital expenditures, Depreciation and amortization



➤ Policy Concerning Decisions on Appropriation of Retained Earnings, etc.



The Company aims to maximize the HOYA Group's corporate value by developing businesses globally and changing the business portfolio to conform to the changing times and environments.

With respect to capital policy, the Company's basic policy is to adopt decisions that strike the optimum balance between ensuring internal reserves for the future growth of the HOYA Group and returning profits to shareholders, while pursuing the optimum capital structure for the Company that includes financial soundness and capital efficiency.

In addition, by promoting management that gives priority to capital efficiency by realizing maximum profitability from the assets entrusted to the Company by the shareholders, and taking further steps toward management that gives priority to SVA (Shareholder Value Added), which is measured as the profit generated by the Company's operating activities minus the cost of capital, i.e. the profit expected by shareholders, the Company aims for "Maximization of Corporate Value."

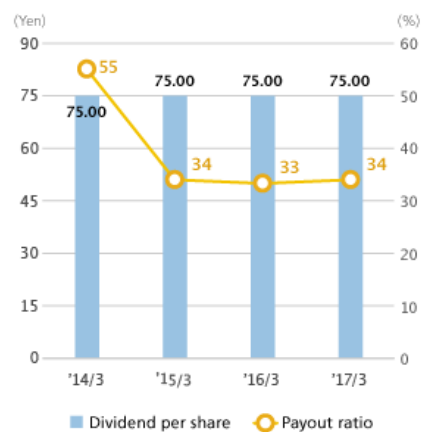
With respect to internal reserves for future growth, resources will be preferentially appropriated to investment in the growing businesses for market share expansion, entry into untapped markets, and nurturing and obtaining new technologies. In addition to growth of existing businesses, the Company will also proactively pursue possibilities including mergers and acquisitions to further enrich our business portfolio. As for the Information Technology segment, which has been positioned as a steady earnings business, we will continue to make capital investment that further reinforces the technological abilities that become the source of competitiveness, and development investment that will contribute to developing next-generation technologies and new products.

With respect to returning profit to shareholders, the Company's policy is to proactively return profit to shareholders through using excess cash for dividends and the share buybacks while giving comprehensive consideration to the operating performance of the current term, level of internal reserves, and the medium-to-long term capital demands and capital structure, among other factors.

Coupled with the interim dividend of ¥30 per share already paid, the annual dividend was ¥75 per share. The consolidated dividend payout ratio was 33.8%.

Based on the aforementioned policy, the Company resolved to repurchase its shares at the price equal to ¥30,000 million in this consolidated fiscal year.

Dividend per share, Payout ratio



HOYA REPORT 2017