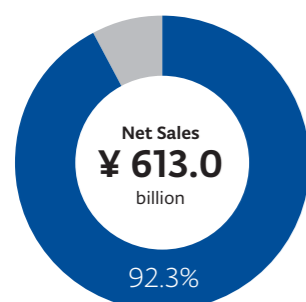


Review of Operations and Business Outlook

Semiconductor Production Equipment

Share of Net Sales



Business Environment

In 2015, demand for memory was firm. Specifically, demand grew for higher capacity memory as a result of the ongoing sophistication of smartphones and data center servers, and global server shipments increased. However, because PC and smartphone shipment volumes were less than robust, demand for cutting-edge logic semiconductors was weak.

Given these circumstances, capital investment by foundries and logic chip manufacturers was more restrained than in the previous year, but capital investment by memory manufacturers grew. Investment in DRAM miniaturization grew significantly, while the majority of investment in NAND was aimed at new memory utilizing 3D structure. As a result, 2015 global capital investment in wafer fab equipment held steady year on year, at US\$31.5 billion.

Business Overview

- ▶ Segment net sales grew 6.4% year on year to ¥613.0 billion, reflecting growth in sales of deposition and cleaning systems, which Tokyo Electron has been focusing on expanding.
- ▶ In deposition systems, a key part of Tokyo Electron's growth strategy, sales of ALD* systems for cutting-edge miniaturization grew by about 50% year on year.
- ▶ Sales of cleaning systems grew by about 30% year on year, reflecting the steady development of business with customers of strategic products.
- ▶ By region, sales in Japan, China and Taiwan grew, reflecting booming investment in memory.
- ▶ Sales in the field solutions business rose approximately 8% year on year, reflecting rising demand for used equipment and parts certified by highly reputable equipment manufacturers.

* ALD (Atomic Layer Deposition): An atomic level film deposition technique

Business Outlook

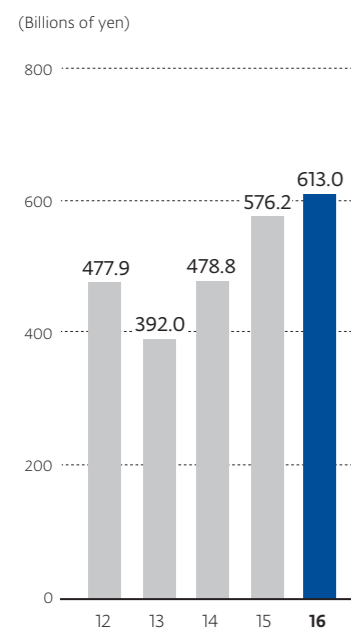
With the arrival of the internet of things (IoT), simple semiconductors, such as sensors to collect all kinds of data, will be needed in great quantity, and demand for advanced semiconductors used in artificial intelligence (AI) and big data analytics and information processing is also expected to rise. This expansion of applications of both cutting-edge and older generations of semiconductors will create new opportunities in the market for semiconductor production equipment, which is thus expected to see ongoing growth in demand.

In products for cutting-edge semiconductors, Tokyo Electron will continue to effectively combine its wealth of semiconductor technologies to accelerate the development and release of next generation products. As the miniaturization of circuits continues and we approach such technological inflection points as the adoption of 3D structure devices, we are especially focusing efforts on etch, deposition and cleaning systems, for which markets are expected to grow. Tokyo Electron aims to firmly establish a leading position and raise its market share with differentiated, cutting-edge products, such as etch systems that achieve high precision processing and deposition systems that realize both exceptional productivity and film quality.

With regard to simple semiconductors produced with older generations of equipment, Tokyo Electron will leverage its installed base of over 59,000 units—among the largest in the industry—to swiftly meet demand for older equipment sales and upgrades. At the same time, we will offer comprehensive solutions including parts and services to improve customer productivity. By doing so, we will further increase sales in the field solutions business.

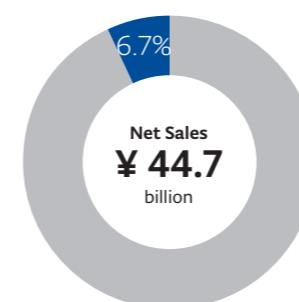
By meeting needs related to both cutting-edge and older technologies, Tokyo Electron will contribute to the creation of the IoT while achieving continuous growth in sales and profit.

Sales by Segment



FPD Production Equipment

Share of Net Sales



Business Environment

Demand for flat panel displays (FPDs) for both TVs and mobile devices each grew more than 10% (area basis) year on year in 2015. In these circumstances, capital investment in FPD production equipment for thin-film transistor (TFT) array processes grew more than 20% year on year, driven mainly by investment in small- and medium-sized panels. By region, capital investment in China was firm, and investment in Japan and Taiwan grew.

Business Overview

- ▶ Segment net sales rose 36.6% to ¥44.7 billion.
- ▶ By region, China continues to account for the majority of sales, but sales in Taiwan recovered.
- ▶ Tokyo Electron's etch systems, which have a competitive edge among products for high definition, large-sized panels, gained market share.
- ▶ Sales of inkjet printing system for manufacturing OLED panels in customer's development lines were recorded.

Business Outlook

Total area-basis FPD demand is forecast to continue expanding, reflecting rising average screen sizes of televisions and smartphones. Going forward, OLED TVs and digital signage are also expected to see growth in usage.

Under these circumstances, the overall market for FPD production equipment for TFT array processes is expected to see continued growth of 20%, with capital investment for large-sized panels rising, and that for small- and medium-sized panels growing considerably.

For large-sized panels, we will continue to increase sales of technologically superior etch systems compatible with metal oxide semiconductors—such as indium gallium zinc oxide (IGZO)—that feature low power consumption and high resolution. In China, capital investment in production lines for generation 10.5 ultra-large panels is planned. Using our track record in providing products for mass production of generation 10 panels, we aim to seize this opportunity to improve profitability.

At the same time, in small- and medium-sized panels, as the adoption of low-temperature polysilicon (LTPS) for high-definition panels continues, we aim to increase the market share of our new etch system released last year that is energy efficient and significantly improves process uniformity.

In terms of OLED displays, which are gathering attention for offering high contrast and enabling the adoption of flexible displays, Tokyo Electron's inkjet printing systems are being adopted in the organic luminescent layer formation processes of customers' development lines for large-sized panels. Going forward, we will continue to contribute to the panel manufacturing technologies and productivity of our customers, aiming to promote the use of this product for mass production.

Sales by Segment

