

**Market Forecast Report
Semiconductor and FPD Manufacturing Equipment
Released in January 2025
(Fiscal years 2024 to 2026)**

January 16, 2025

Semiconductor Equipment Association of Japan

Overview

This report provides trend forecasts for semiconductor and FPD manufacturing equipment. The comprehensive results included in this forecast report are based on demand forecasts by the Semiconductor Research and Statistics subcommittee and the FPD Research and Statistics subcommittee of the Semiconductor Equipment Association of Japan (hereinafter called SEAJ, Chairman: Mr. Toshiaki Kawai) as well as market trend research by the 20 companies represented on the Board of Directors and auditors.

We forecast sales of semiconductor manufacturing equipment made in Japan for fiscal 2024 to be 4.44 trillion yen, an increase of 20% from the previous year, due to continued strength of the Chinese market from the previous year and a recovery in memory investment, particularly in AI-related areas. Although there will be strengths and weaknesses in each of the logic/foundries and DRAM projects in fiscal 2025, overall investment is expected to be strong, as we forecast 4.66 trillion yen, an increase of 5%. For fiscal 2026, we forecast sales of 5.12 trillion yen, an increase of 10%, as demand for AI-related semiconductors is expected to continue to grow.

As for FPD manufacturing equipment, we forecast sales of 3.35 billion yen in fiscal 2024, an increase of 30%, owing to the start of Organic Light Emitting Diode (OLED) investment using G8.6-class boards in South Korea and the steady recovery of the market. For fiscal 2025, we forecast sales of 345 billion yen, an increase of 3%, based on a close examination of G8.6 board OLED investment timing in China. For fiscal 2026, we forecast sales of 380 billion yen, an increase in 10%, in anticipation of full-scale investment in G8.6 board OLEDs in both South Korea and China.

- | | |
|-------------------------|--|
| (1) Forecast period | Three years from fiscal year 2024 to 2026 (FY2024: From April 2024 to March 2025) |
| (2) Forecast items | Sales of Japanese-made semiconductor manufacturing equipment and sales for the Japanese market Sales of Japanese-made FPD manufacturing equipment |
| (3) Forecast background | |

(Semiconductor Manufacturing Equipment)

According to WSTS (World Semiconductor Trade Statistics), the global semiconductor market in 2024 (the cumulative total up to November) saw a significant recovery of 19.8% year-on-year, reaching a record high \$626.8 billion, with the rise in memory prices being a major factor. In 2025, both the memory and logic markets are expected to continue to grow steadily, and according to a December 2024 announcement, the overall market is expected to grow by 11.2% in 2025.

The performance of memory companies has largely continued to rise since bottoming out in the first

quarter of 2023 (January to March), and profit margins have also improved significantly. On the other hand, the recovery in demand for non-AI servers has been sluggish at present, and the prices of general-purpose DRAM and NAND have temporarily started to decline due to inventory adjustments, but inventory adjustments are expected to be completed with the recovery in demand from the second half of 2025 onward, and prices are expected to rise again. In terms of servers, there is extremely strong demand for GPUs for AI servers, and it is essential to move to next-generation products in order to increase computing power while reducing data center power consumption. Currently, demand for GPUs is concentrated in a few companies, but we expect the options to gradually expand.

On-device (edge/local) AI, which incorporates AI functions into PCs and smartphone devices, combines the CPU, GPU, and NPU (Neural Processing Unit) into a single chip to optimize advanced AI processing with low power consumption. By 2027, it is expected that software that makes the most of AI functions will become widespread and applications will expand, and the market is expected to launch in earnest at the same time as mass production of 2nm logic processes takes off. Since higher capacity and higher speed are required for DRAM to enhance its AI functions, the impact of on-device AI on the semiconductor market is expected to be positive for both logic and memory.

For FY2025, there are concerns about a slowdown in investment in automotive and power semiconductors, and while emerging Chinese manufacturers are expected to focus on starting up purchased equipment and improving the operating rate of purchased equipment rather than purchasing new equipment, the demand for semiconductors for AI is expected to increase, and GAA, Backside PDN (Power Delivery Network) for the higher performance, lower power consumption, and higher capacity required for this will increase. Advancement investment is expected to expand in line with technological advances such as high-stacked memory, and positive growth is expected for this fiscal year.

In FY2026, investment is expected to increase demand for semiconductors for PCs and smartphones due to the expansion of on-device AI applications in addition to AI servers.

The global semiconductor market is expected to reach \$1 trillion by 2030 from USD 526.8 billion in 2023, and semiconductor manufacturing equipment is also expected to see a high growth rate in the medium term.

(FPD Manufacturing Equipment)

As far as the business environment surrounding FPD manufacturing equipment is concerned, many panel companies saw improvement in their business performance since the second quarter of 2023 (April to June), but the profit level remains difficult, with the exception of one Korean company. LCD panel prices for TVs rose in the spring of 2024 but declined in the summer, and now prices are picking up, thanks in part to a subsidy program for energy-efficient home appliances in China, the largest market.

Capital investment for the calendar year 2023 fell to a level half that of the same period last year. Sales of FPD manufacturing equipment made in Japan in fiscal 2023 fell 39.8%. In reaction, FPD manufacturing equipment made in Japan is expected to make a strong recovery in fiscal 2024.

In South Korea, investment in G8.6 boards for OLEDs in IT products has begun, starting with its adoption in tablets (11.1, 13-inch, etc.), with future plans to install OLED panels in PCs (14.2, 16.2, 13.6, 15.3-inch models, etc.). In China, investment in G8.6 substrate OLEDs will begin in fiscal 2025. The plan to use OLEDs in IT panels has been pushed back slightly from the original forecast, and part of the investment plan for fiscal 2025 is expected to be carried over to fiscal 2026.

Compared to smartphones (6.1 to 6.9 inches), IT panels are 6 to 7 times larger per unit, therefore, if LCDs are replaced by OLEDs going forward, we may expect to see an increase in the construction of factories using G8.6 boards.

(4) Forecast results

【Sales forecasts for semiconductor/FPD manufacturing equipment made in Japan】

For fiscal 2024, we forecast overall sales of 4.77 trillion yen, an overall 20.7% increase, assuming that semiconductor manufacturing equipment will increase by 20%, and sales of FPD manufacturing equipment will increase by 30%. For fiscal 2025, the growth rate is expected to be moderate compared to the previous year, with a 5% increase in semiconductors and a 3% increase in FPDs, as we forecast overall sales of 5.00 trillion yen, an overall increase of 4.9%. For fiscal 2026, both semiconductors and FPDs are expected to ramp up by 10% respectively, as we forecast overall sales of 5.50 trillion yen, an overall increase of 10%.

【Sales forecasts for semiconductor manufacturing equipment made in Japan】

For fiscal 2024, the market is expected to grow by 20% to 4.44 trillion yen, five percentage points higher than the forecast announced in July last year, due to the continued strength of the Chinese market from the previous year and a recovery in memory investment, particularly in AI-related areas. It marks the first time that the figure has exceeded 4 trillion yen. For fiscal 2025, we forecast a 5% increase to 4.66 trillion yen as a result of a decrease in the ratio of investment in China and a close examination of the strength of investment stance in advanced logic foundries excluding Taiwan, and DRAM projects. For fiscal 2026, we forecast a 10% increase to 5.12 trillion yen, owing to demand boost effect of AI-related semiconductors, which are expected to be in full swing in all sectors.

【Sales forecasts for semiconductor manufacturing equipment in the Japanese market】

For fiscal 2024, we forecast a 7% increase from the previous year to 1.22 trillion yen, taking into account the effect of government subsidies and firm investment by major foundries, while considering the situation with power semiconductors and other sectors that have turned into a cautious investment

stance. For fiscal 2025, we forecast a 30% increase to 1.59 trillion yen due to the combination of several major foundry investments and a significant recovery that is expected in memory investment. For fiscal 2026, we forecast a 20% increase to 1.91 trillion yen, as investment will continue to grow at a high rate.

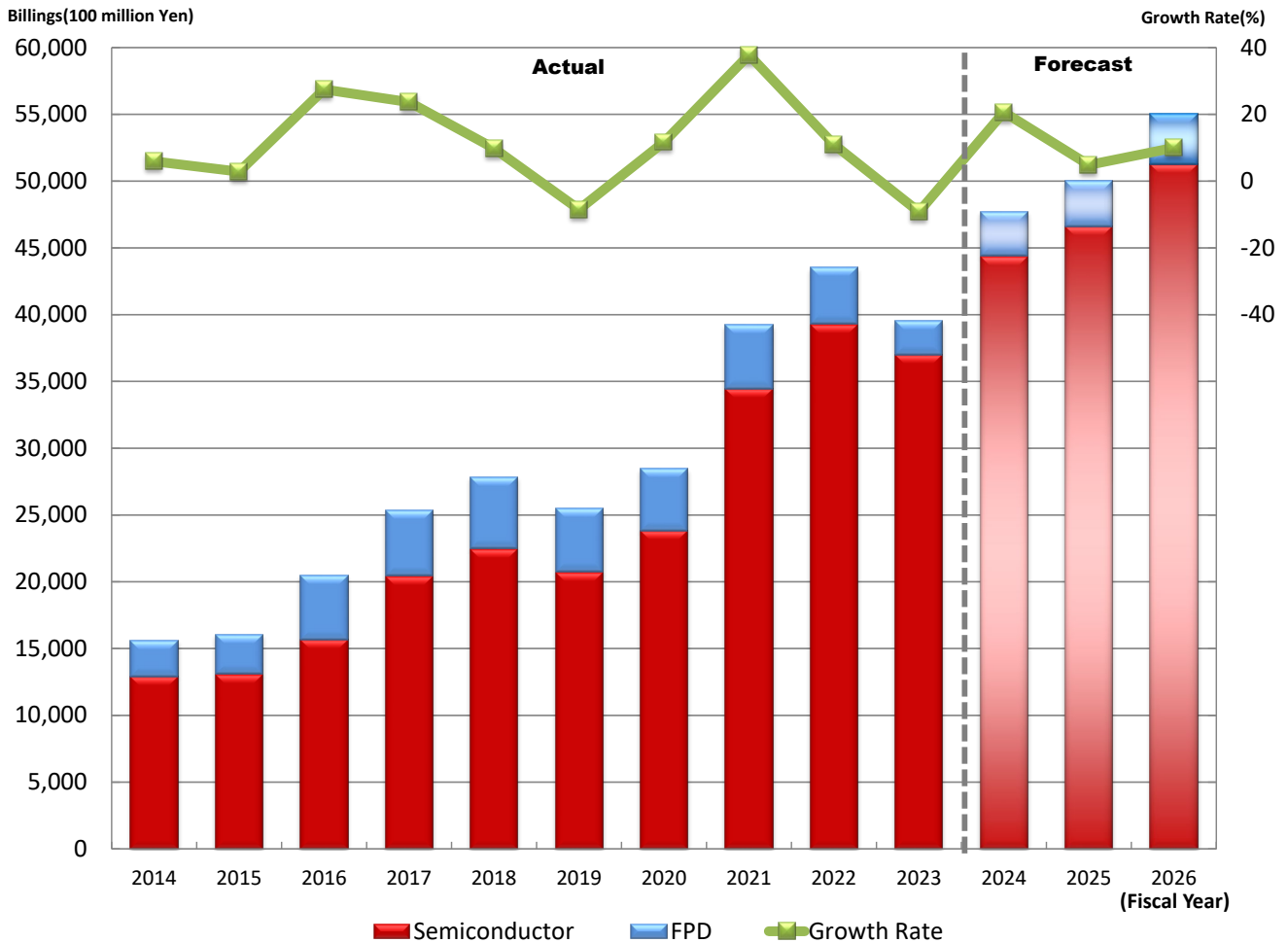
【Sales forecasts for FPD manufacturing equipment made in Japan】

For fiscal 2024, we forecast a 30% increase to 335 billion yen due in part to factors such as the start of OLED investment using G8.6 boards in South Korea and a rebound from the sluggish performance in fiscal 2023. For fiscal 2025, OLED investment in G8.6 boards will begin in China in addition to South Korea, but since the plan to adopt OLEDs in IT panels has been pushed back slightly from the initial assumption, we forecast a 3% increase to 345 billion yen by carefully examining the actual timing of investment. For fiscal 2026, we expect G8.6-class OLED investment in South Korea and China to be in full swing, leading to a 10% increase in our forecast of 380 billion yen.

January 2025 Forecast for Semiconductor and FPD Manufacturing Equipment

■ 1. Semiconductor and FPD Manufacturing Equipment 【Forecast for Japanese Equipment Billing】

* "Japanese Equipment Billing" = Japanese manufacturers Domestic and Oversea Billing.



(CAGR : 2023-2026)

| Fiscal Year | Actual | | | | | | | | | | Forecast | | | CAGR |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|--------|-------|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | |
| Semiconductor | 12,921 | 13,089 | 15,642 | 20,436 | 22,479 | 20,730 | 23,835 | 34,430 | 39,275 | 36,976 | 44,371 | 46,590 | 51,249 | 11.6% |
| FPD | 2,717 | 2,993 | 4,857 | 4,916 | 5,364 | 4,758 | 4,638 | 4,809 | 4,282 | 2,577 | 3,351 | 3,451 | 3,796 | |
| Total (100 million yen) | 15,638 | 16,082 | 20,499 | 25,352 | 27,843 | 25,488 | 28,473 | 39,239 | 43,556 | 39,553 | 47,722 | 50,041 | 55,045 | |
| Growth Rate (%) | 5.9 | 2.8 | 27.5 | 23.7 | 9.8 | -8.5 | 11.7 | 37.8 | 11.0 | -9.2 | 20.7 | 4.9 | 10.0 | |

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* FPD statistics participating companies have changed since FY2019.

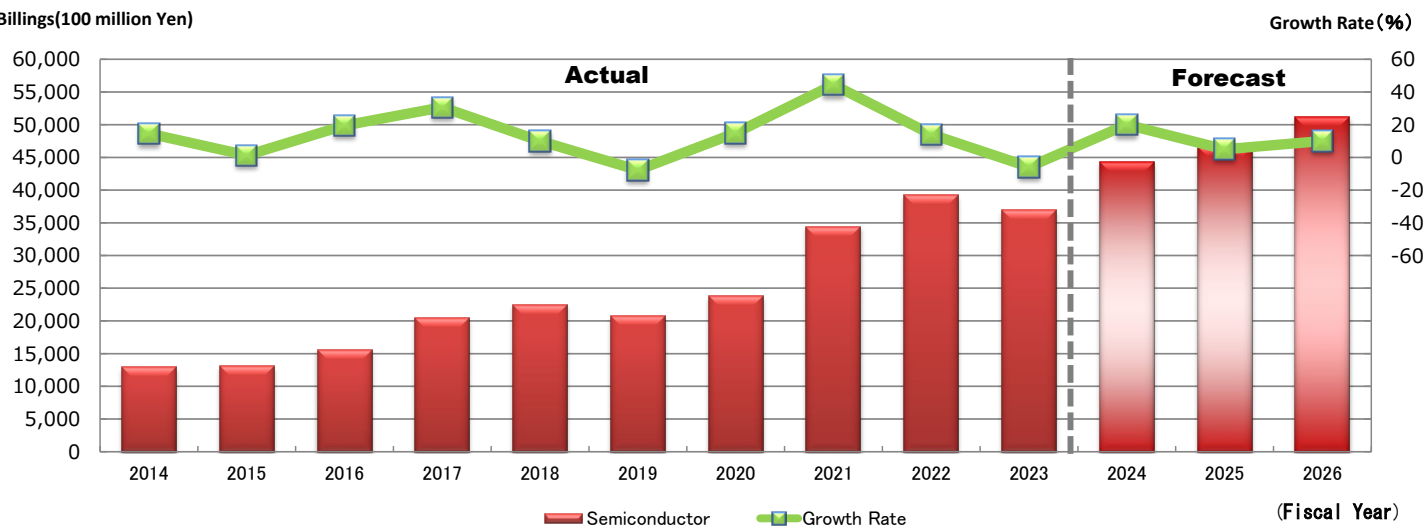
* The names and amounts of the companies participating in the statistics are not disclosed.

January 2025 Forecast for Semiconductor and FPD Manufacturing Equipment

■ 2. Semiconductor Manufacturing Equipment 【Forecast for Japanese Equipment Billing】

* "Japanese Equipment Billing" = Japanese manufacturers Domestic and Oversea Billing.

Billings(100 million Yen)



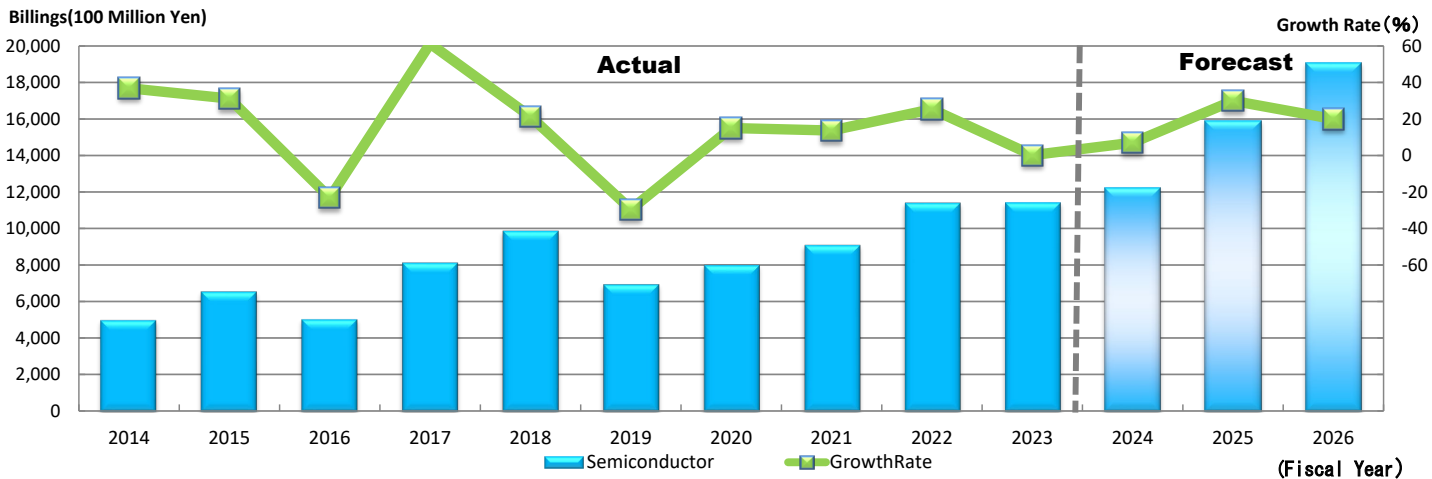
(CAGR : 2023-2026)

| Fiscal Year | Actual | | | | | | | | | | | Forecast | | | CAGR |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|-------|------|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | | |
| Total (100 million yen) | 12,921 | 13,089 | 15,642 | 20,436 | 22,479 | 20,730 | 23,835 | 34,430 | 39,275 | 36,976 | 44,371 | 46,590 | 51,249 | 11.5% | |
| Growth Rate (%) | 14.6 | 1.3 | 19.5 | 30.6 | 10.0 | -7.8 | 15.0 | 44.4 | 14.1 | -5.9 | 20.0 | 5.0 | 10.0 | | |

【Forecast for Japanese Market Billing】

* "Japanese Market Billing" = Domestic Billing of Japanese and Foreign manufacturers.

Billings(100 Million Yen)



(CAGR : 2023-2026)

| Fiscal Year | Actual | | | | | | | | | | | Forecast | | | CAGR |
|-------------------------|--------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|----------|--------|-------|------|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | | |
| Total (100 million yen) | 5,000 | 6,562 | 5,047 | 8,138 | 9,878 | 6,961 | 8,009 | 9,103 | 11,412 | 11,432 | 12,232 | 15,902 | 19,084 | 18.6% | |
| Growth Rate (%) | 36.9 | 31.2 | -23.1 | 61.3 | 21.4 | -29.5 | 15.1 | 13.7 | 25.4 | 0.2 | 7.0 | 30.0 | 20.0 | | |

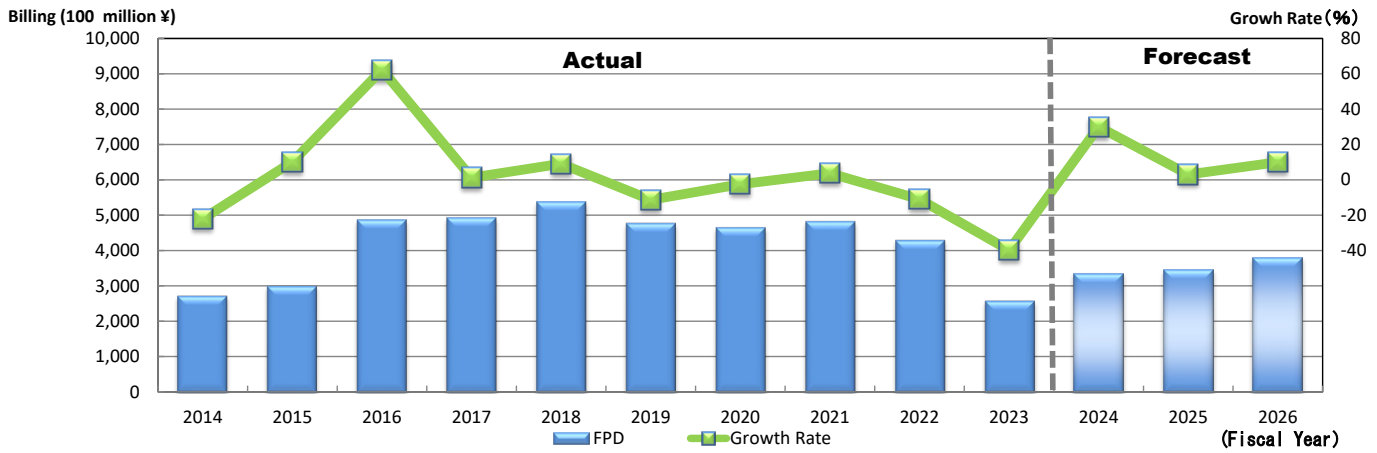
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January 2025 Forecast for Semiconductor and FPD Manufacturing Equipment

■ 3. FPD Manufacturing Equipment

【Forecast for Japanese Equipment Billing】

* "Japanese Equipment Billing " = Japanese manufacturers Domestic and Oversea Billing.



(CAGR : 2023-2026)

| Fiscal Year | Actual | | | | | | | | | | Forecast | | | CAGR |
|-------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|------|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | |
| Total (100 million yen) | 2,717 | 2,993 | 4,857 | 4,916 | 5,364 | 4,758 | 4,638 | 4,809 | 4,282 | 2,577 | 3,351 | 3,451 | 3,796 | |
| Growth Rate (%) | -22.0 | 10.2 | 62.3 | 1.2 | 9.1 | -11.3 | -2.5 | 3.7 | -11.0 | -39.8 | 30.0 | 3.0 | 10.0 | 13.8 |

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