

**Market Forecast Report**  
**Semiconductor and FPD Manufacturing Equipment**

**[2015-2017 fiscal year]**

**January 14, 2016**

**SEAJ**

**Semiconductor Equipment Association of Japan**

## [Overview]

This report provides a forecast trend for Semiconductor and FPD manufacturing equipment. The fully-considered results made in this forecast report are by the Semiconductor Research and Statistics sub-committee and the FPD Research and Statistics sub-committee of the Semiconductor Equipment Association of Japan (hereinafter called SEAJ, Chairman Mr. Kazuo Ushida), and as the result of market trend research from both the Board of Directors and auditors (total 19 companies) by SEAJ consensus.

Because of the growth of the semiconductor manufacturing equipment sector as well as that of the FPD manufacturing equipment sector that was in a correction phase, the sales will be 1 trillion and 679.5 billion yen, an increase of 7.4% in total in 2015, although the forecast in July was revised downward. We expect sales of semiconductor manufacturing equipment to slightly increase but sales of FPD manufacturing equipment to continuously increase in 2016. Accordingly, we expect that sales in 2016 will increase by 5.5%, resulting in sales volume of 1 trillion and 772.2 billion yen. Sales in 2017, on the other hand, will increase by 0.4% in total, which is expected to be 1 trillion and 779 billion yen due to a slowdown in the FPD manufacturing equipment sector.

- (1) **Forecast period**            The fiscal year of 2015 to 2017 for three years
- (2) **Forecast items**            Japanese Equipment and Japanese Market for Semiconductor and  
   Japanese Equipment for FPD manufacturing equipment
- (3) **Forecast results**

### [Forecast of Japanese Equipment Billings for Semiconductor Manufacturing Equipment]

Because foundries and logic manufacturers that had been heavily investing in semiconductor manufacturing equipment every year in the past postponed their investment, we revised the forecast of a 12.7% increase downward to a 6.0% increase, which will be 1 trillion and 369.7 billion yen in sales in 2015. We predict that the sales in 2016 will be 1 trillion and 397.5 billion yen, which is a slight increase in sales of 2.0%. Because a gradual recovery of the growth of macro economy and electronics/semiconductors sectors is expected in 2017, we predict that demand for equipment will also recover, and thus sales will increase by 4.4%, which will be 1 trillion and 459 billion yen.

### [Forecast of Japanese Market Billings for Semiconductor Manufacturing Equipment]

Because of the positive investment not only by memory manufacturers but also by image sensor manufacturers in particular in 2015, we have revised our forecast of sales increase of 20.1% upward to 39.0%, which is calculated to be 695.4 billion yen in sales. We predict that the investment will continue to increase in 2016, and accordingly, we expect that the sales will increase by 4.5% and the sales volume will be 726.6 billion yen. In 2017, we expect a slight sales increase of 2.9%, resulting in 747.7 billion yen showing demand for equipment will continue to increase.

### [Forecast of Japanese Equipment billings for FPD Manufacturing Equipment]

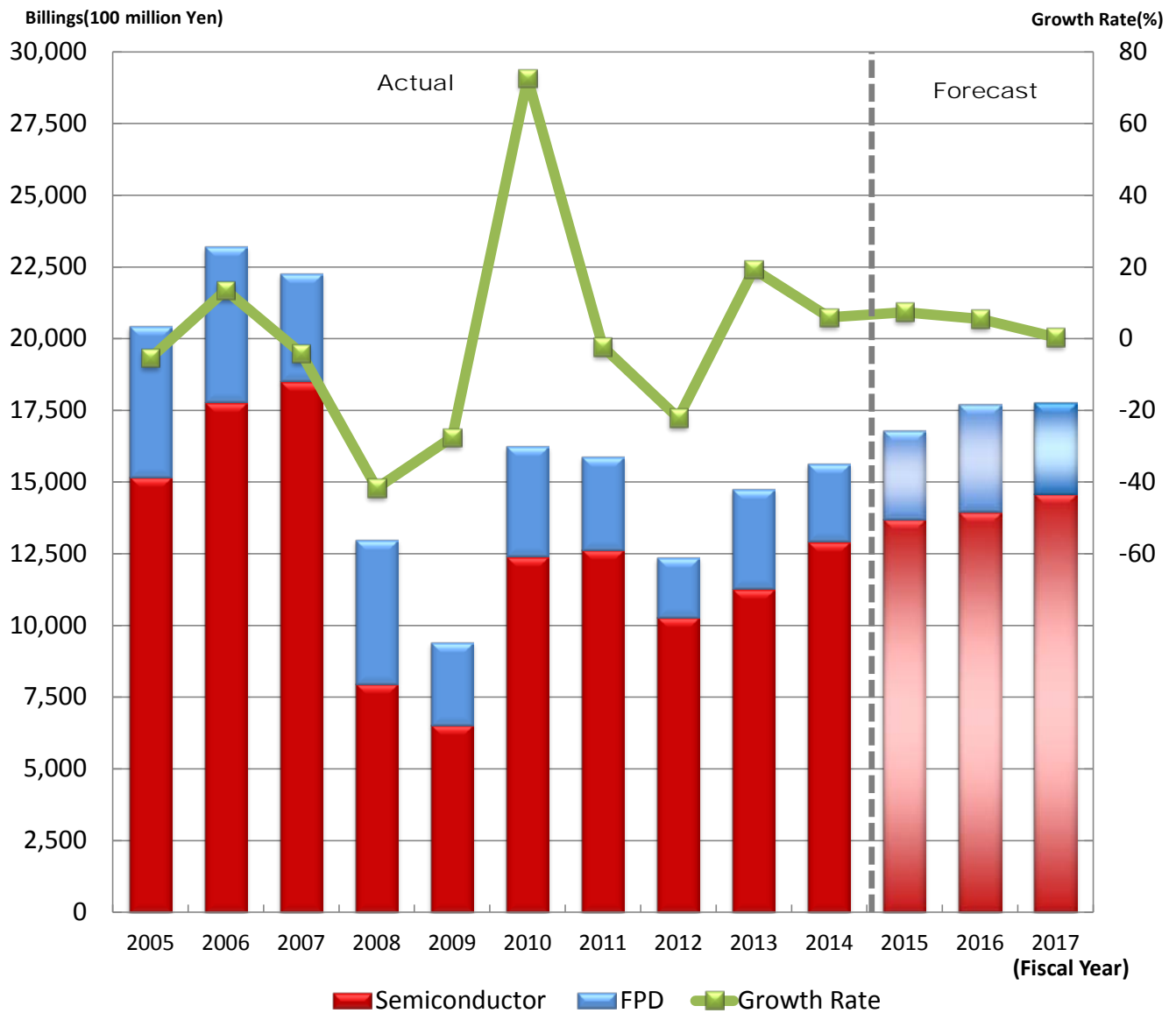
Investment in equipment for large panels in China continues in 2015, and investment in equipment for small to medium-sized panels has accelerated as planned since the second half of the year. However, because the flow from receipt of order to the time the sale is made is getting longer than in normal years, we have revised the 30.6% increase in sales we had predicted in July downward to a 14.0% increase, which is calculated to be 309.8 billion yen. Our forecast for 2016 is 374.7 billion yen showing sales increase of 20.9% because of the increasing investment in small to medium-sized panels including OLED and carry-over from 2015. In 2017, the investment in small to medium-sized panels for OLED will continue to increase but that in large panels will decrease. Accordingly, we predict that sales will decrease by 14.6% and the amount will be 320 billion yen.

# January 2016 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 : 2014-2017)

Fiscal Year	Actual										Forecast			CAGR
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Semiconductor	15,169	17,778	18,510	7,954	6,528	12,415	12,637	10,284	11,278	12,921	13,697	13,975	14,590	4.4%
FPD	5,272	5,429	3,761	5,031	2,887	3,840	3,250	2,089	3,485	2,717	3,098	3,747	3,200	
Total (100 million yen)	20,441	23,206	22,271	12,985	9,415	16,255	15,887	12,373	14,763	15,638	16,795	17,722	17,790	
Growth Rate (%)	-5.3	13.5	-4.0	-41.7	-27.5	72.7	-2.3	-22.1	19.3	5.9	7.4	5.5	0.4	

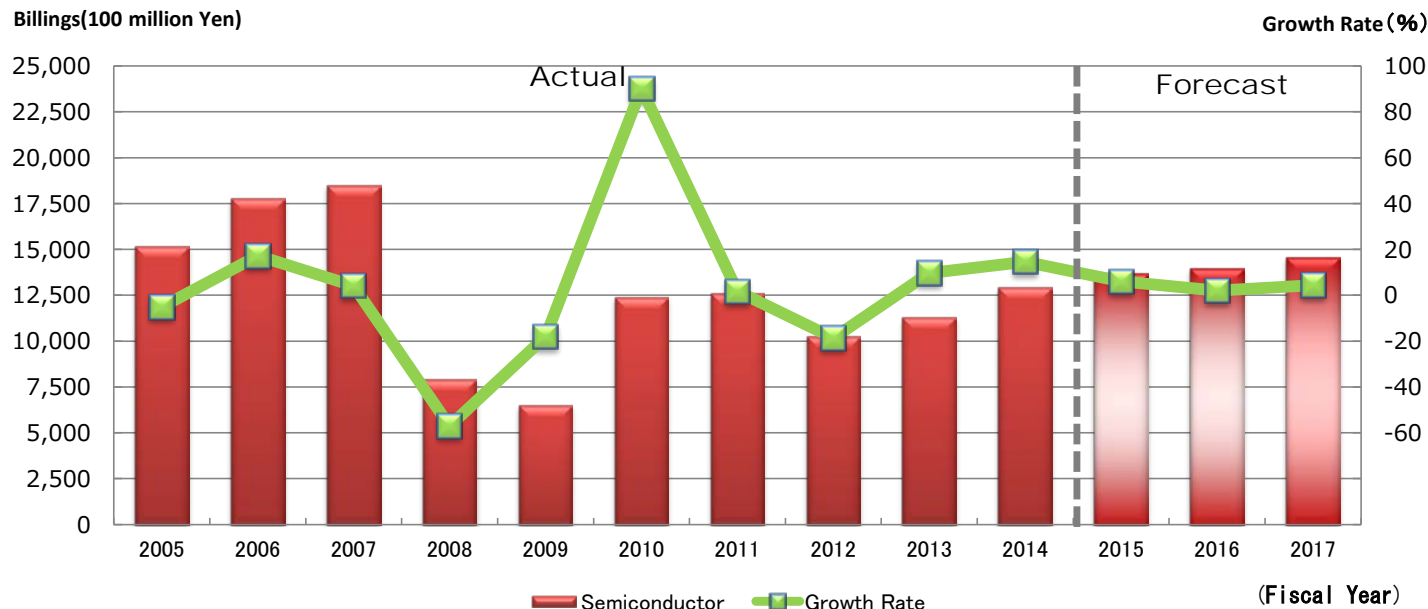
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# January 2016 Forecast for Semiconductor Manufacturing Equipment

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

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

Billings(100 million Yen)



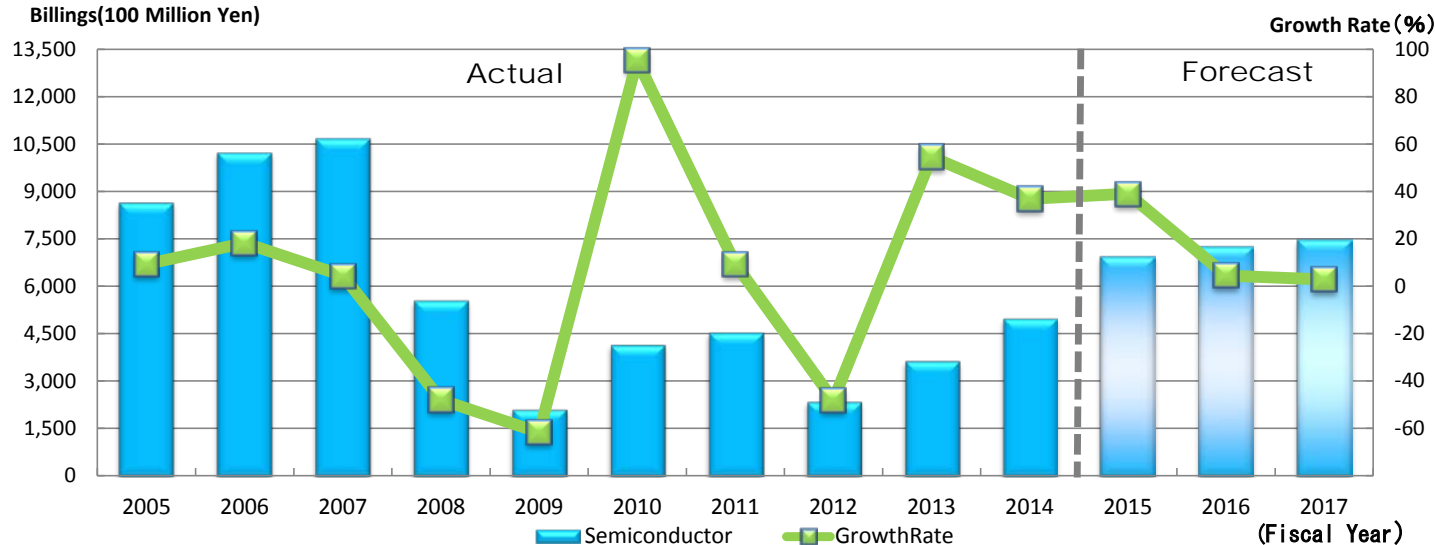
(CAGR : 2013-2016)

Fiscal Year	Actual										Forecast			CAGR
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Total (100 million yen)	15,169	17,778	18,510	7,954	6,528	12,415	12,637	10,284	11,278	12,921	13,697	13,975	14,590	
Growth Rate (%)	-5.1	17.2	4.1	-57.0	-17.9	90.2	1.8	-18.6	9.7	14.6	6.0	2.0	4.4	4.1%

## 【Forecast for Japanese Market Billing】

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

Billings(100 Million Yen)



(CAGR : 2014-2017)

Fiscal Year	Actual										Forecast			CAGR
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Total (100 million yen)	8,658	10,241	10,694	5,567	2,130	4,162	4,552	2,363	3,653	5,003	6,954	7,266	7,477	
Growth Rate (%)	9.3	18.3	4.4	-47.9	-61.7	95.4	9.4	-48.1	54.6	36.9	39.0	4.5	2.9	14.3%

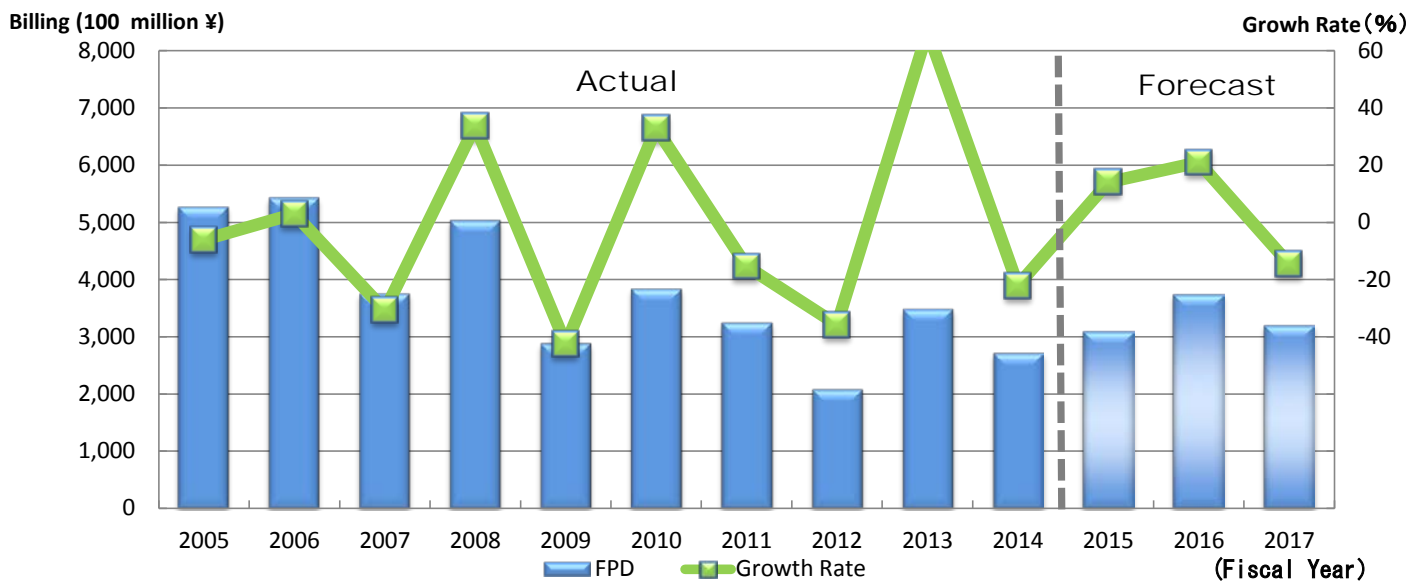
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# January 2016 Forecast for Semiconductor and FPD Manufacturing Equipment

## ■3. FPD Manufacturing Equipment

### 【Forecast for Japanese Equipment Billing】

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



(CAGR : 2014-2017)

Fiscal Year	Actual										Forecast			CAGR
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Total (100 million yen)	5,272	5,429	3,761	5,031	2,887	3,840	3,250	2,089	3,485	2,717	3,098	3,747	3,200	
Growth Rate (%)	-6.1	3.0	-30.7	33.8	-42.6	33.0	-15.4	-35.7	66.8	-22.0	14.0	20.9	-14.6	5.6%

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