

Market Forecast Report
-Semiconductor and FPD Manufacturing Equipment-
[2013-2015 fiscal year]

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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. Toshio Maruyama), and as the result of market trend research from both the Board of Directors and auditors (total 17 companies) by SEAJ consensus.

For Semiconductor manufacturing equipment, as expected memory makers equipment investment was reduced in first half of 2013, though improved in the second half. 2013 fiscal year sales are forecasted to increase by 8.5 percent to 1,115.8 billion yen, which is lower than the July 2013 forecast from 10.2 percent. 2014 fiscal year sales are forecasted to increase by 11.6 percent to 1,245.2 billion yen due to the recovery in memory makers' investments from second half of 2013 and the foundries and major logic makers' steady investments into 2014. As a result, this means two consecutive years of positive growth for the semiconductor equipment market. In 2015, the fiscal year sales are estimated to slightly continuously increase by 2.7 percent.

For FPD manufacturing equipment, new large business investments in China are planned beginning in 2013 and continuing into 2014. The high-definition and the small and medium sized type panels' investments are continuously contributing to equipment sales. In 2013, the fiscal year sales are estimated to increase by 35.0 percent to 282.0 billion yen. In 2014, the fiscal year sales are forecasted to slightly increase by 1.4 percent to 286.0 billion yen. In 2015, the fiscal year sales are estimated to grow by 5.6 percent due to on-going investments for new panel production.

(1) **Forecast period:** the fiscal year of 2013 to 2015 for three years

(2) **Forecast items:** Japanese Equipment and Japanese Market for Semiconductor and Japanese Equipment for FPD manufacturing equipment

(3) Forecast Background

(Semiconductor Industry)

The International Monetary Fund (IMF) World Economic Outlook published in October 2013 remarked that global economic activity is forecasted to increase by 2.9 percent in 2013, though this is a drop from the 3.2 percent forecasted in July 2013. While the U.S. economy has remained in a growth phase due to the both personal consumption and private consumption, growth in the euro area will remain stagnant. Developing economies are projected fall below high levels achieved in the last few years. In 2014, global economic activity is estimated to steadily increase by 3.6 percent.

Negative growth is forecasted in the electronics market in 2013 because the PC market demand will drop significantly. Meanwhile, demand for mobile appliances, which have led in market such as smart phones and tablets, continue to achieve high growth rates. These products are especially expected to experience strong growth in emerging market. The information and telecommunications infrastructure field has a high future growth potential.

According to World Semiconductor Trade Statistics (WSTS) Semiconductor Market Forecast Autumn 2013, an upward revision to the 2013 outlook was announced, to 4.4 percent from 2.1 percent announced last spring. While MOS micro sales are forecasted to decline by 2.6 percent due to the sluggish sales of PC, logic sales are expected to increase by 3.8 percent. Memory sales, which maintain a recovery in pricing, are expected to increase by 18.1 percent. In the second half of 2013, sales are expected to contribute following years. Therefore, sales in 2014 are expected to

grow by 4.1 percent and sales in 2015 are forecasted to be up by 3.4 percent.

Leading device makers continue to gain significant prominence in the market in terms of investments and capital spending. The top three semiconductor companies represent 60 percent of all industry capital spending in 2013. Investments of logic miniaturization and high integration for memory will continue to make progress.

(FPD Industry)

The global TV market, the largest application for large flat panels, remains in a slow growth phase. While panel pricing is in sharp decline, smart phone and tablet PC sales and units for both high-definition viewing and both small and medium-sized type panel applications continuously increases for both panel price and sales. This shows positive growth in terms of panel revenues, therefore the top five panel maker's operating profit returned back into the black in the third quarter of 2013. From 2013 into 2014, new large business investments in China are planned. Organic EL displays for smart phone market are also growing, and not only in Korea, but manufacturers in Taiwan and China are expected to make new investment in this field as well.

(4) Summary

[Forecast of Japanese Equipment Billings for Combined Semiconductor and FPD Manufacturing Equipment]

In 2012, total semiconductor and FPD equipment sales decreased by 22.1 percent to 1,237.3 billion yen. In 2013, total semiconductor and FPD equipment sales are forecasted to grow by 13.0 percent to 1,397.8 billion yen and in 2014, sales are expected to increase by 9.5 percent to 1,531.2 billion yen because of expected to recovery in industry investments from 2013 into 2014. In 2015, sales are forecasted to increase by 3.2 percent to 1,580.8 billion yen approximately the same investment level of 2011.

[Forecast of Japanese Equipment Billings for Semiconductor Manufacturing Equipment]

In 2012, sales decreased by 18.6 percent to 1,028.4 billion yen. In 2013, equipment sales are forecasted to increase by 8.5 percent to 1,115.8 billion yen for investment of memory growth from second half of 2013, while test and assembly process equipment are slow growth in the first half of 2013. With continuous growth expected into 2014, sales are forecasted to increase by 11.6 percent to 1,245.2 billion yen. In 2015, sales are estimated to grow by 2.7 percent to 1,278.8 billion yen, which means for three consecutive years of sales growth.

[Forecast of Japanese Market Billings for Semiconductor Manufacturing Equipment]

In 2012, sales decreased by 48.1 percent to 236.3 billion yen. In 2013, sales are expected to increase by 53.8 percent to 363.5 billion yen due to the recovery of the investment for memory makers. In 2014, sales are forecasted to increase by another 6.0 percent to 385.3 billion yen. In 2015, sales are estimated to decrease by 5.0 percent to 366.0 billion yen.

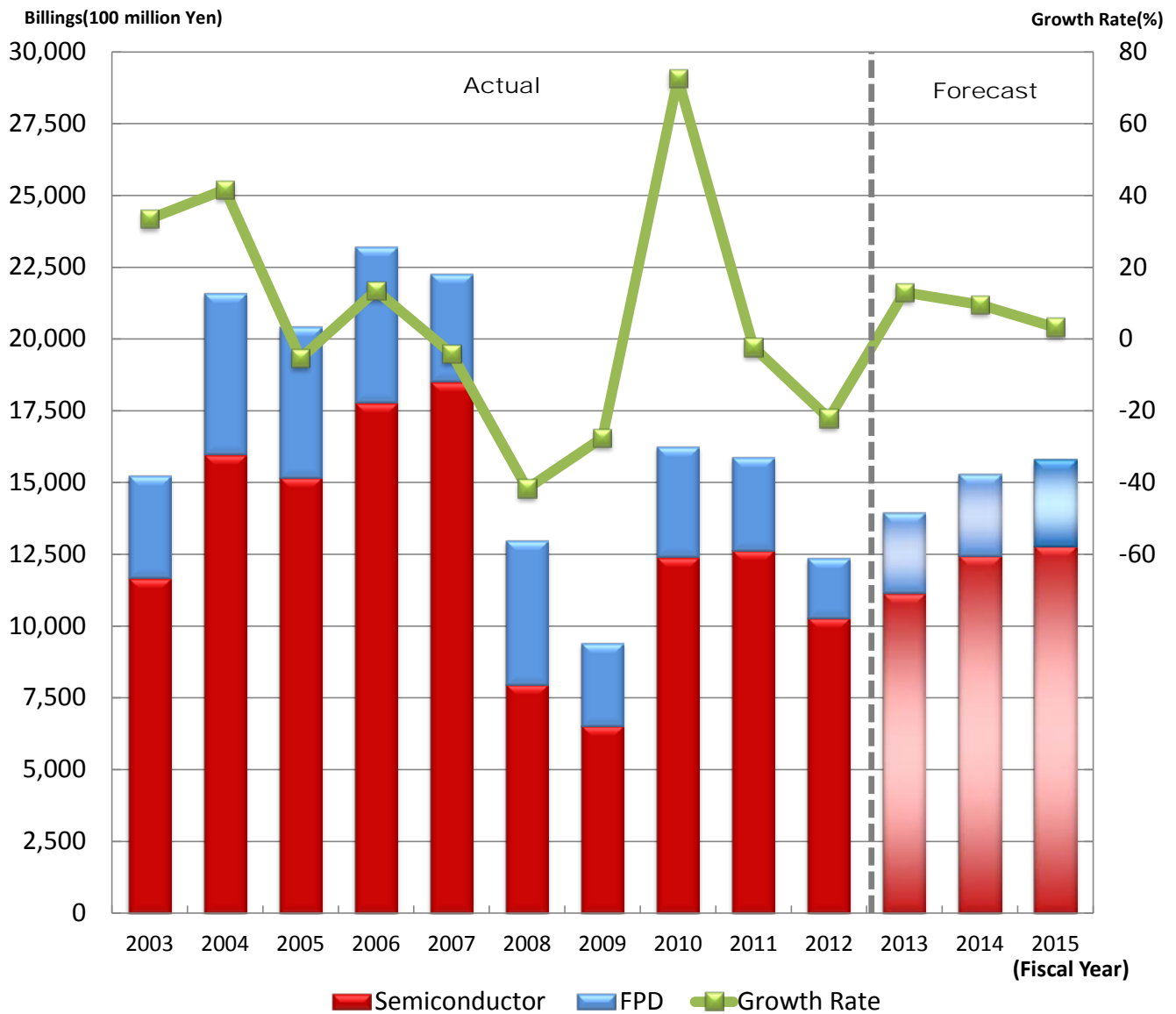
[Forecast of Japanese Equipment billings for FPD Manufacturing Equipment]

In 2012, sales decreased by 35.7 percent to 208.9 billion yen. In 2013, equipment sales are estimated to grow rapidly by 35.0 percent to 282.0 billion yen due to new large business investments that are planned from the second half of 2013 into 2014. In 2014, sales will slightly increase by 1.4 percent to 286.0 billion yen. In 2015, sales are forecasted to increase continuously by 5.6 percent to 302.0 billion yen, which means for three consecutive years of sales growth.

January 2014 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 : 2012-2015)

	Actual										Forecast			
Fiscal Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	CAGR
Semiconductor	11,671	15,981	15,169	17,778	18,510	7,954	6,528	12,415	12,637	10,284	11,158	12,452	12,788	8.5%
FPD	3,575	5,614	5,272	5,429	3,761	5,031	2,887	3,840	3,250	2,089	2,820	2,860	3,020	
Total (100 million yen)	15,246	21,596	20,441	23,206	22,271	12,985	9,415	16,255	15,887	12,373	13,978	15,312	15,808	
Growth Rate (%)	33.5	41.6	-5.3	13.5	-4.0	-41.7	-27.5	72.7	-2.3	-22.1	13.0	9.5	3.2	

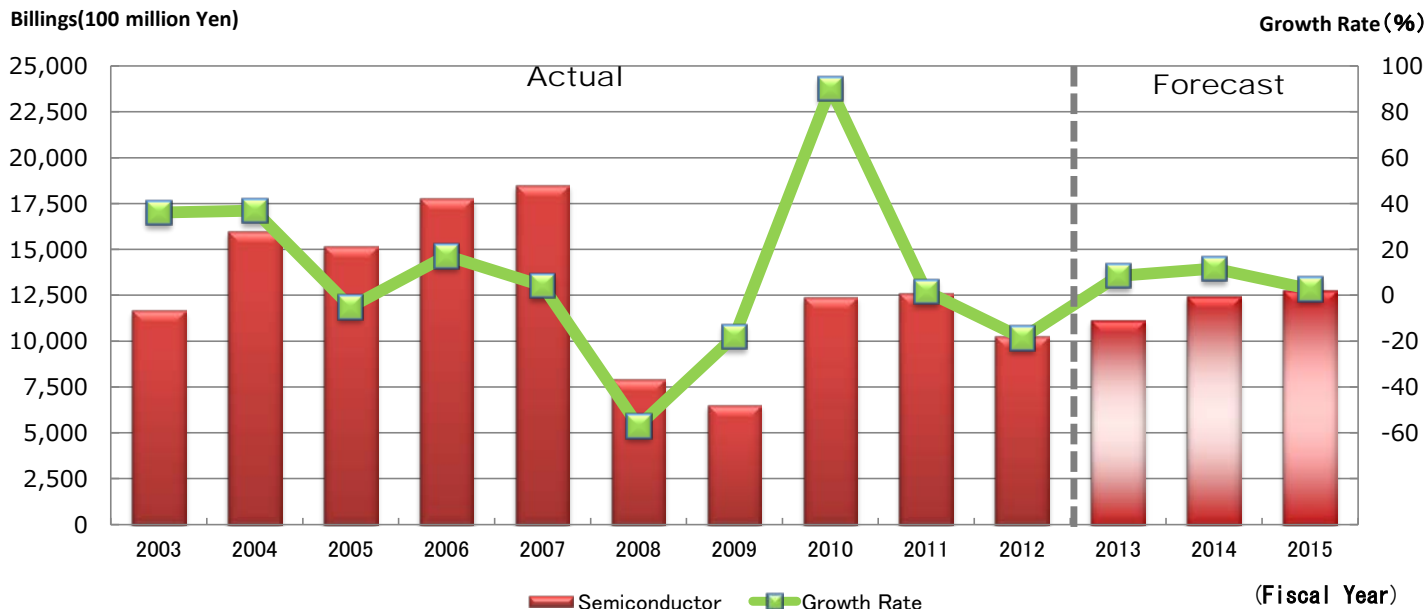
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January 2014 Forecast for Semiconductor Manufacturing Equipment

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

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

Billings(100 million Yen)



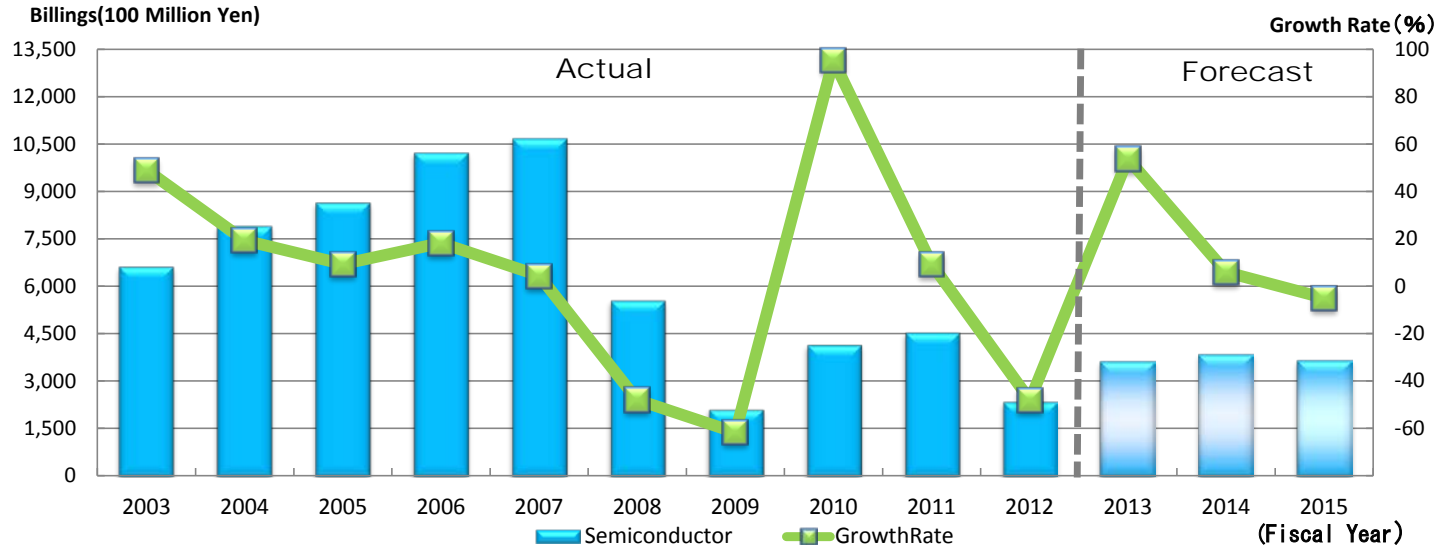
(CAGR : 2012-2015)

Fiscal Year	Actual										Forecast			CAGR
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Total (100 million yen)	11,671	15,981	15,169	17,778	18,510	7,954	6,528	12,415	12,637	10,284	11,158	12,452	12,788	7.5%
Growth Rate (%)	36.1	36.9	-5.1	17.2	4.1	-57.0	-17.9	90.2	1.8	-18.6	8.5	11.6	2.7	

【Forecast for Japanese Market Billing】

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

Billings(100 Million Yen)



(CAGR : 2012-2015)

Fiscal Year	Actual										Forecast			CAGR
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Total (100 million yen)	6,634	7,918	8,658	10,241	10,694	5,567	2,130	4,162	4,552	2,363	3,635	3,853	3,660	15.7%
Growth Rate (%)	49.0	19.4	9.3	18.3	4.4	-47.9	-61.7	95.4	9.4	-48.1	53.8	6.0	-5.0	

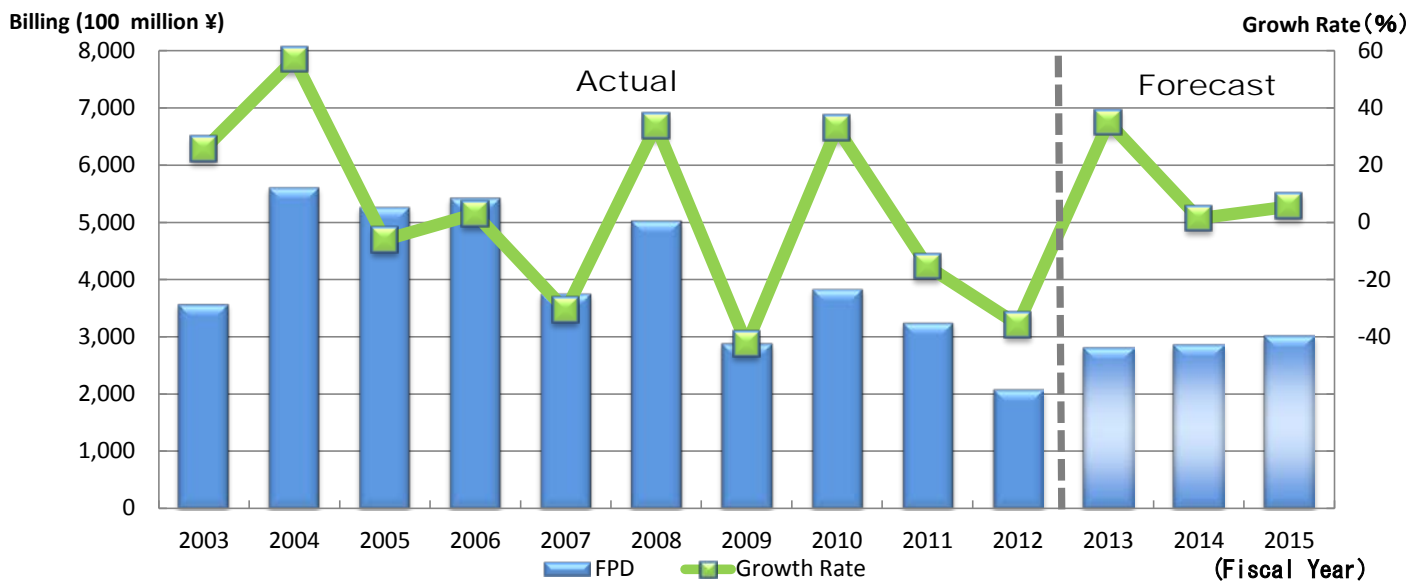
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January 2014 Forecast for Semiconductor and FPD Manufacturing Equipment

■3. FPD Manufacturing Equipment

【Forecast for Japanese Equipment Billing】

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



(CAGR : 2012-2015)

Fiscal Year	Actual										Forecast			CAGR
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Total (100 million yen)	3,575	5,614	5,272	5,429	3,761	5,031	2,887	3,840	3,250	2,089	2,820	2,860	3,020	
Growth Rate (%)	25.6	57.1	-6.1	3.0	-30.7	33.8	-42.6	33.0	-15.4	-35.7	35.0	1.4	5.6	13.1%

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