

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, it is expected that memory makers investment will recover due to recovery in average selling prices and strong demand for devices consumed in mobile electronics. In addition, continuous positive investment by the foundry makers will boost the equipment market. 2013 fiscal year sales are forecasted to increase by 10.2 percent to 1,132.8 billion yen and 2014 fiscal year sales are forecasted to increase by 11.6 percent to 1,264.8 billion yen due to continuing recovery in investments. As a result, this means two consecutive years of double-digit positive growth for the semiconductor equipment market. In 2015, the fiscal year sales are estimated to slightly increase by 4.7 percent.

For FPD manufacturing equipment, new large business investments in China and Korea are planned in second half of 2013 into 2014. The high-definition and 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 6.4 percent to 300.0 billion yen though new large panel investments will slow down some.

(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 April 2013 remarked that global economic activity is forecasted to increase by 3.3 percent, though this is a drop from the 3.5 percent forecasted in January 2013. The economy in euro area is still unsettled, while the economy in the U.S. is starting to make a mild recovery. The advanced economies and emerging market economies which are significantly blunted in 2012 are expected to further acceleration of recovery. In 2014, global economic activity is estimated to steadily increase by 4.0 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, continues to achieve high growth rates especially low-priced appliances in emerging countries. Investment in communications infrastructures is also expected to contribute to growth in the electronics market

According to World Semiconductor Trade Statistics (WSTS) Semiconductor Market Forecast Spring 2013, a downward revision to the 2013 outlook was announced, to 2.1 percent from 4.5 percent announced last autumn. While MOS micro sales are forecasted to decline by 2.9 percent, logic sales are expected to increase by 4.3 percent. Memory sales, which maintain price stability and are recovering, are expected to increase by 5.9 percent. In the second half of 2013, sales are expected to rapidly recover. Therefore, in 2014, sales are expected to grow by 5.1 percent and in 2015; sales are forecasted to be up by 3.8 percent.

Leading companies 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 spending in 2013; especially for research and development investment directed toward miniaturization, and for MPU and the 450mm transition will continue to make progress. The memory market demand is also expected to recover its investment from the second half of 2013.

(FPD Industry)

The global TV market, the largest application for large flat panels, remains on single-digit growth path as the market has entered a period of maturation. While panel pricing is in sharp decline, smart phone and tablet PC sales and units for both high-definition viewing and small and medium-sized type panel applications continuously increases. This shows positive growth in terms of panel revenues, therefore the revenue of the top panel makers will grow. From the second half of 2013 into 2014, new large business investments in China and Korea are planned. Organic EL displays for smart phone market are also growing rapidly, and not only in Korea as Taiwan and China are expected to make new investment in this field.

(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 recover by 14.4 percent to 1,414.8 billion yen and in 2014, sales are expected to increase by 10.6 percent to 1,564.8 billion yen because of expected to recovery in industry investments from 2013 to 2014. In 2015, sales are forecasted to slightly increase by 0.9 percent to 1,579.3 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 10.2 percent to 1,132.8 billion yen for investment of memory growth from second half of 2013. With continuous growth expected in 2014, sales are forecasted to increase by 11.6 percent to 1,264.8 billion yen. In 2015, sales are estimated to grow by 4.7 percent to 1,324.3 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 27.1 percent to 300.4 billion yen due to the recovery of the investment for memory makers. In 2014, sales are forecasted to increase by another 11.6 percent to 335.4 billion yen. In 2015, sales are estimated to grow by 1.7 percent to 341.1 billion yen.

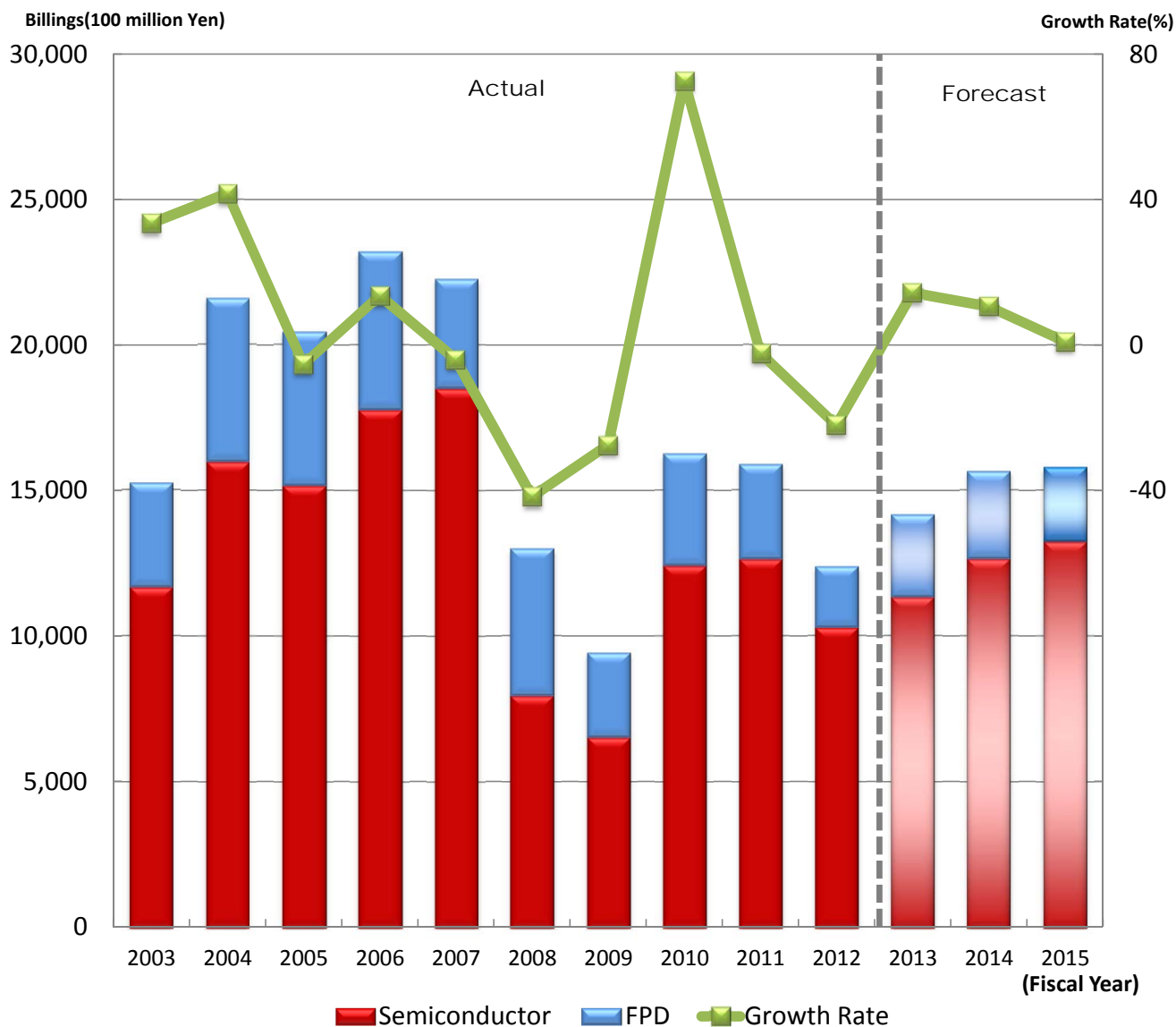
[Forecast of Japanese Equipment billings for FPD Manufacturing Equipment]

In 2012, sales decreased by 35.7 percent to 208.9 billion yen. In 2013, equipment sales are estimated to grow considerably by 35.0 percent to 282.0 billion yen and in 2014, sales will increase by 6.4 percent to 300.0 billion yen due to new large business investments in China and Korea that are planned from the second half of 2013 into 2014. In 2015, sales are forecasted to decrease by 15.0 percent to 255.0 billion yen as new large panel investments will slow down some.

July 2013 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)

Fiscal Year	Actual										Forecast			CAGR
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Semiconductor	11,671	15,981	15,169	17,778	18,510	7,954	6,528	12,415	12,637	10,284	11,328	12,648	13,243	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	3,000	2,550	
Total (100 million yen)	15,246	21,596	20,441	23,206	22,271	12,985	9,415	16,255	15,887	12,373	14,148	15,648	15,793	
Growth Rate (%)	33.5	41.6	-5.3	13.5	-4.0	-41.7	-27.5	72.7	-2.3	-22.1	14.4	10.6	0.9	

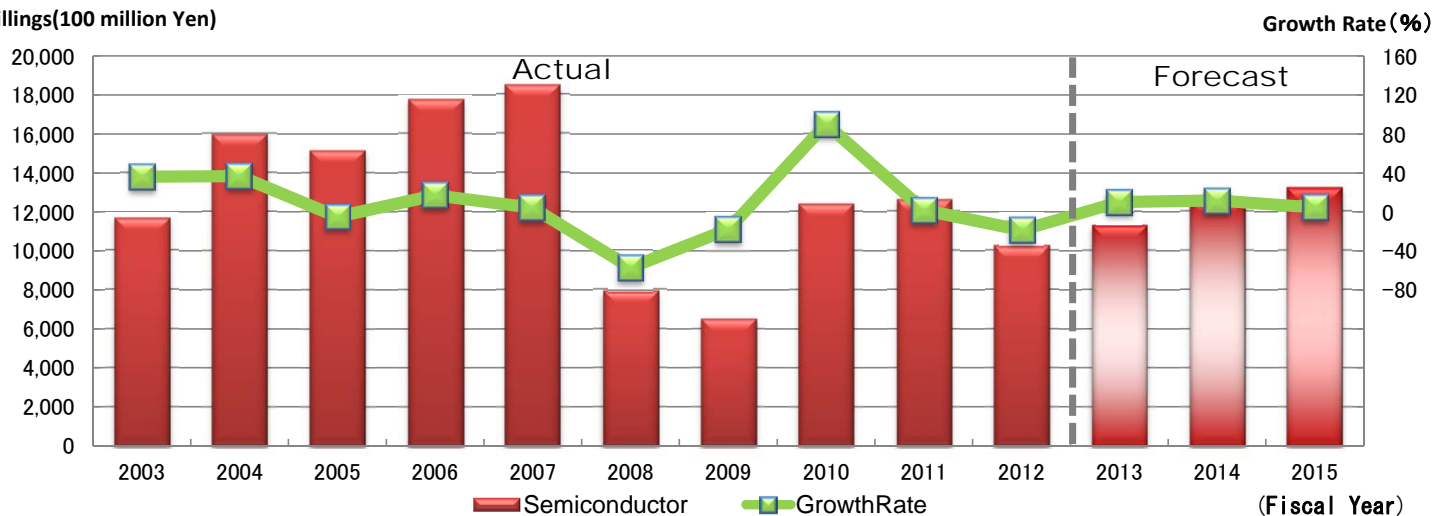
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July 2013 Forecast for Semiconductor Manufacturing Equipment

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

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

Billings(100 million Yen)



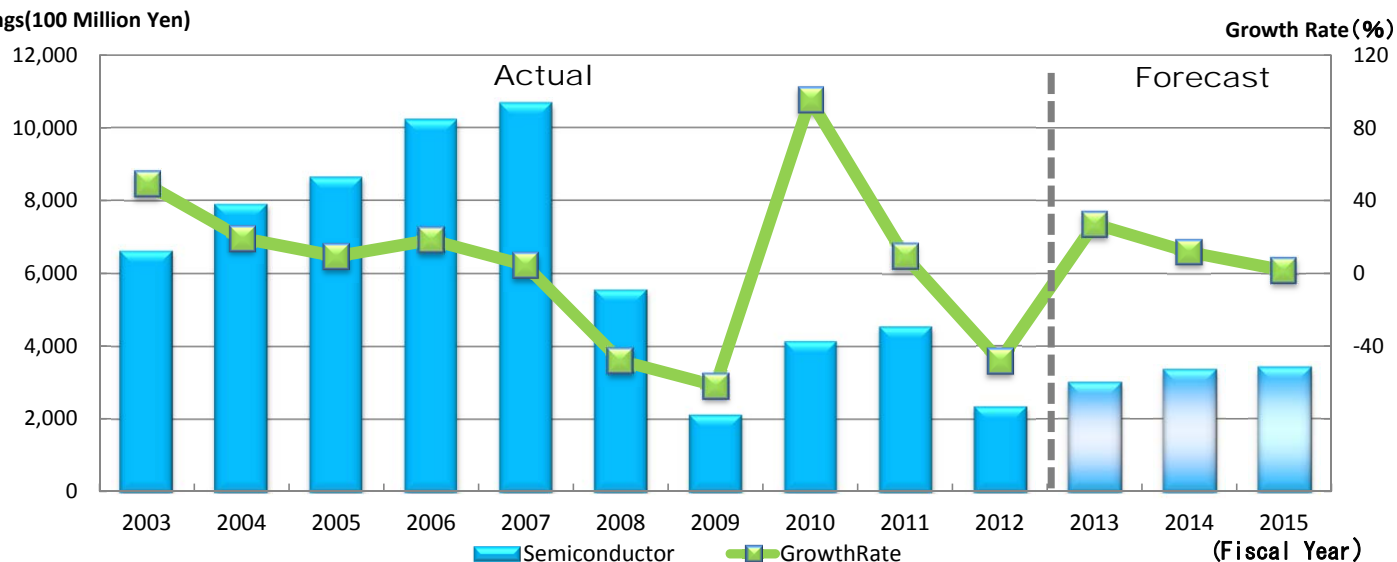
(CAGR : 2012-2015)

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	11,328	12,648	13,243	
Growth Rate (%)	36.1	36.9	-5.1	17.2	4.1	-57.0	-17.9	90.2	1.8	-18.6	10.2	11.6	4.7	8.8%

【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	3,004	3,354	3,411	
Growth Rate (%)	49.0	19.4	9.3	18.3	4.4	-47.9	-61.7	95.4	9.4	-48.1	27.1	11.6	1.7	13.0%

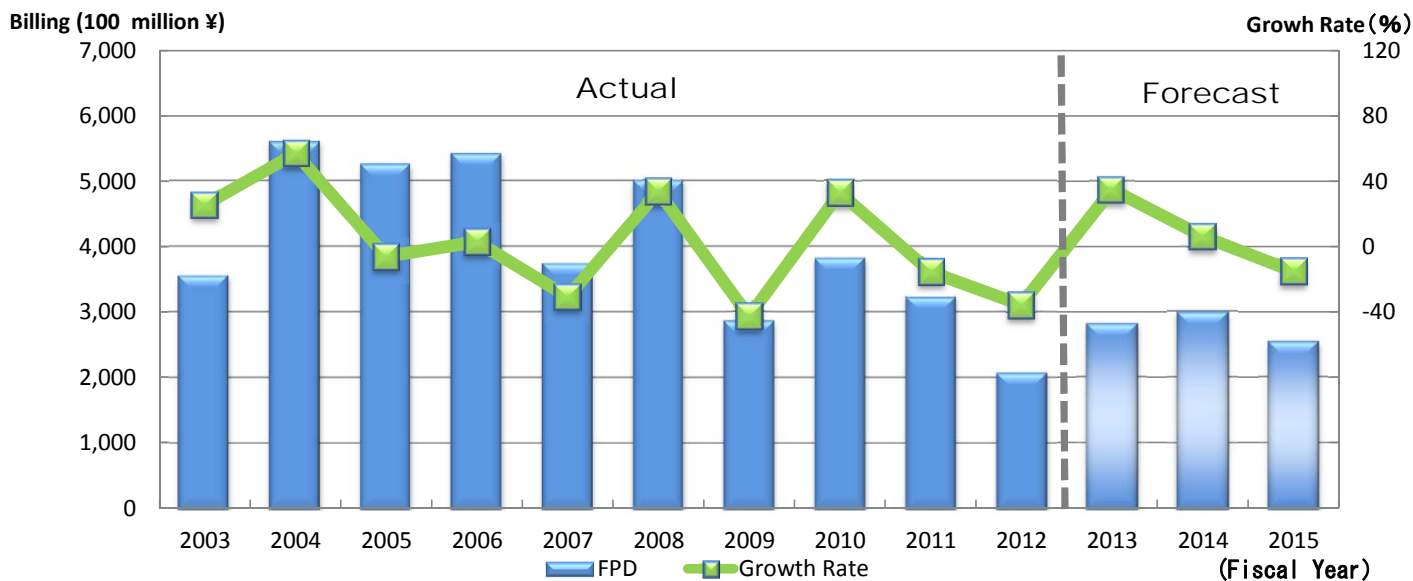
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July 2013 Forecast for Semiconductor and FPD Manufacturing Equipment

■ 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	3,000	2,550	6.9%
Growth Rate (%)	25.6	57.1	-6.1	3.0	-30.7	33.8	-42.6	33.0	-15.4	-35.7	35.0	6.4	-15.0	

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