Global and China Foundry Industry Report, 2014-2015

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STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

REPORT OBJECTIVES

- To establish a comprehensive, factual, annually updated and costeffective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- To help company to succeed in a competitive market, and

METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

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Abstract

Global and China Foundry Industry Report, 2014-2015 highlights the followings:

- 1. Analysis of global semiconductor market and industry
- 2. Analysis of Chinese semiconductor market and industry
- 3. Analysis of global and China foundry industry
- 4. Study of 16 foundry vendors

Global foundry industry was worth about USD46.1 billion in 2014, up 18.2% from 2013, and is expected to reach USD52.8 billion in 2015, a year-on-year growth of 14.5%, and USD58.3 billion in 2016, rising by 6.4% against 2015, and increase by just 3.7% in 2017.

Substantial decline in growth rate of global foundry market in 2016 can be attributable to following aspects. First, markets for main electronic products like smartphone, tablet PC and laptop computer peaked in 2014 and has stalled or slid in 2015, with notable drop having been seen in tablet PC market. Device market lags slightly and will experience slowdown in 2016. Second, worldwide deflation and price slump of bulk commodities led by oil and iron ore may trigger a ripple effect, causing a fall in prices of semiconductor equipment. Third, global economic recovery could come to a standstill, as US Q1 GDP contracted 0.7% and China's GDP growth slowed down sharply.

Revenue of Major Global Foundries, 2013-2015

| Unit: USD mln | 2013 | 2014 | 2015 |
|--|--------|--------|--------|
| ТЅМС | 20,113 | 25,175 | 35,008 |
| UMC | 4,172 | 4,621 | 5,310 |
| Global Foundries | 4,550 | 4,400 | 4,100 |
| SMIC | 2,069 | 1,970 | 2,228 |
| DongbuHiTek | 464 | 540 | 510 |
| VIS | 712 | 790 | 880 |
| MagnaChip | 367 | 360 | 365 |
| IBM | 495 | 519 | |
| SAMSUNG | 3,950 | 2,412 | 1,080 |
| TOWERJAZZ | 505 | 828 | 910 |
| HHNEC | 555 | 665 | 680 |
| X-FAB | 290 | 345 | 380 |
| ASMC | 116 | 132 | 139 |
| CSMC/ China Resources Microelectronics | 279 | 318 | 338 |
| SSMC | 225 | 243 | 260 |
| Powerchip | 862 | 917 | 1,006 |
| Fujitsu | 459 | 653 | 720 |
| LFoundry GmbH | 298 | 399 | 502 |
| Shanghai Huali | 111 | 296 | 320 |
| Wuhan Xinxin Semiconductor | 157 | 174 | 290 |

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Despite expansion in overall market size, for most companies, the market maybe contract after 2016. Growth comes mainly from the industry leader-TSMC. In spite of competition from Samsung, Global Foundries and even Intel, TSMC will further raise its market share. The one that is in the most dangerous situation is Global Foundries, which is backed by UAE's sovereign fund. Prolonged low oil price is not a good thing for UAE that relies heavily on oil, and it is inevitable that the country's fiscal revenue will go down. Global Foundries will finally become an abyss, as its losses are widening. Nearly ten billion dollar investment in Global Foundries will not be appreciated obviously. If oil price remains below USD40 for a long time, UAE's sovereign fund will surely sell Global Foundries and buyers are likely to be Chinese investors.

It was rumored recently that Chinese investors intended to acquire Global Foundries. If this became true, TSMC will have one less tough competitors. As Samsung's profit from mobile phone business drops, Memory has become main source of Samsung's profit. Moreover, Foundry makes meager profits or even losses, so Samsung will be more focused on Memory rather than Foundry. As to Intel, it has been groping in Foundry field with technologies that are the most advanced but not recognized by customers, showing that the most advanced is not necessarily the best.

It is very unlikely that Samsung will succeed in Foundry, as most of global electronics companies are direct or indirect rivals of Samsung, and no one will support its competitor for a long time. Furthermore, Samsung gets involved in legal battles with a large number of electronics companies over patent or other aspects, like patent dispute between the world's largest Graphic IC vendor NVIDIA and Samsung. NVIDIA only symbolically places orders with Samsung, but the number of orders to Samsung could be ignored, just a strategy for NVIDIA to bargain with TSMC, which is adopted by majority of electronic companies, especially during economic downturn, when they put more orders with TSMC.

In Foundry field, advanced technology doesn't always deliver good business performance. Take Global Foundries for example, technologically staying at same level with Samsung and IBM, Global Foundries recorded a widened net loss from USD900 million in 2013 to USD1.5 billion in 2015. EBITDA was much worse, down from USD1 billion in 2012 to more than USD400 million in 2014. EBITDA margin stood at only 11%, below the industry average.

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