

23 April 2015 | Sector Update

Semiconductor Sector *Industry growth remains intact*

Maintain POSITIVE

- **Semiconductor players are more cost-conscious leading to a more competitive product pricing**
- **The middle class segment is the largest consumer of communication devices**
- **The integrated circuit industry is highly correlated with the growth in global GDP**
- **Reiterate POSITIVE on the semiconductor sector**

Key highlights from SEMICON Southeast Asia 2015 - Southeast Asia's biggest microelectronics manufacturing event.

A more cost-conscious approach... Semiconductor companies are now more cost-conscious in selecting the type of materials to be incorporated in the product offering. An example of this relates to the wire bonding process. Wire bonding is one of the methods used to assemble the vast majority of semiconductor packages. It is a method of making interconnections between an integrated circuit (IC) with other semiconductor devices. Bond wires usually consist of either aluminium, copper, silver or gold. Gold is the preferred choice due to: i) resistance to tarnish and corrosion, ii) high electrical conductivity, and iii) ease of bonding between the active components in semiconductor devices. Predominantly, 77% of the bond wires are made up of gold. This has since drops to 40%. On another note, there has been a gradual increase in the usage of copper. This is mainly due to the rising cost of gold and comparatively stable, and much lower, cost of copper. In addition, copper wire has the ability of being used at smaller diameters providing the same performance as gold without the high material cost. This shows that semiconductor companies are more cost-conscious in deciding the type of materials.

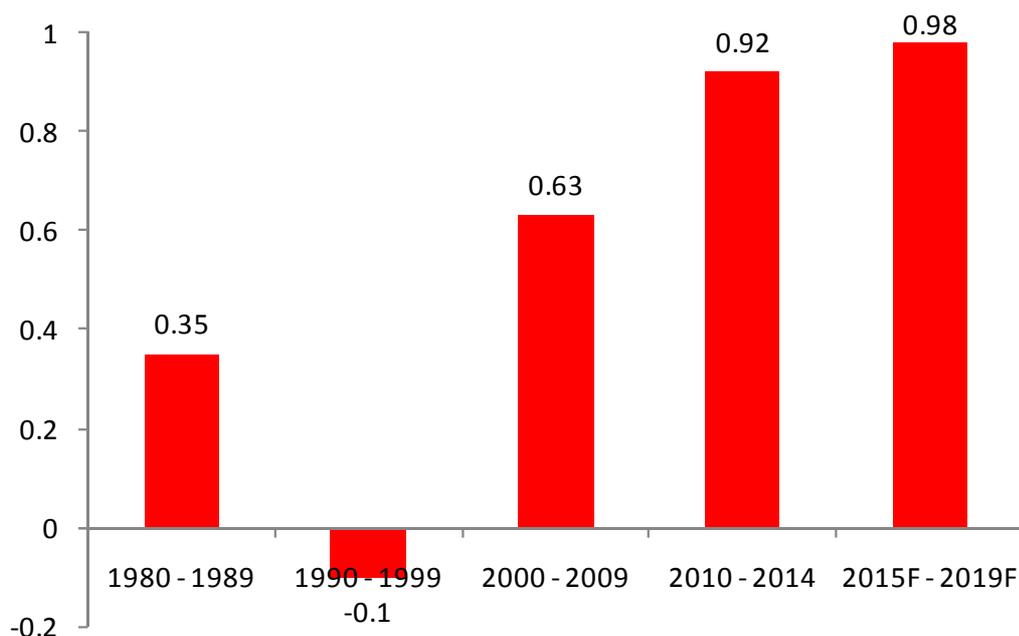
...leading to a competitive product pricing. By lowering the production cost of electronics parts, electronic companies are able to pass down lower cost to the consumers. This would bode well to consumers who are price sensitive. The importance of getting the right product pricing is more crucial as the market has now shifted to the end-consumer. Historically, demand of semiconductor products are dictated by business purchases which made up 60% of the market. However, the consumer now made up 60% of the market while that of business purchases has reduced to 40%.

Middle-class population is the market mover. Under the sub-segment of the population, the middle-class is the largest segment of the population, especially in the 'developing Asia' region. Middle-class is defined by the Asian Development Bank as those with a daily consumption of between USD2 to USD10. In the 'developing Asia' region, the middle class made up 80% of the population. Moreover, 75% of the expenditure came from the middle class. It was observed that there has been a strong interest and intention among the middle class consumers to spend on communication devices with mobility. This is mainly attributable to the need to gain access to the internet to stay connected and to acquire information.

Correlation with gross domestic product (GDP) growth. Companies in the IC industry have been monitoring closely the pace at which the world economies grow. This is mainly attributable to the high correlation between the growth in IC industry and the global economy (*refer to chart 1*). Making reference to the chart below, the correlation starts to be seen more distinctively from the year 2000 onwards. The correlation intensified in the previous 10 years (from 2010 to 2014) to 0.92x.

The correlation is expected to strengthen further in the next 5 years to 0.98x. As mentioned in our previous report dated 8th April 2015, the growth in semiconductor sales reflects the underlying growth in economic activity. In this respect, growth performance of global semiconductor sales from the Europe and Japan markets has been declining since middle of 2014. For 2015, the World Semiconductor Trade Statistics (WSTS) projected that sales from Europe and Japan will drop by -2.0%yoy and -3.7%yoy respectively before picking up in 2016.

Chart 1: Worldwide GDP and IC market growth correlation coefficient (x)



Source: IC Insights, MIDFR

Maintain positive. Demand for communication devices will be supported by the middle-class consumer who seeks to stay connected and be at the forefront of the latest cutting edge technological product offering. This will be in favour of electronic companies who are able to offer the end-product at a competitive price, thus, advocating a high volume business strategy. Semiconductor companies that positioned themselves in the right production value chain will in turn benefit from the high volume orders. On another note, given the high correlation, we expect uninterrupted growth in the semiconductor industry for as long as the global economy continues to grow. All in, we reiterate our **Positive** stance on the Semiconductor sector. 

Selected Semiconductor Stock

Stocks	Recomd'n	Price @22 April 2015 (RM)	Target Price (RM)	EPS (sen)		EPS (% change)		PER		DPS (sen)		Yield (%)	
				14	15E	14	15E	14	15E	14	15E	14	15E
UNISEM	BUY	2.50	2.37	8.6	13.9	nm	37.5	29.1	18.0	6.0	8.5	2.4	3.4
OBETRON	NEUTRAL	6.00	5.45	22.9	28.7	20.7	25.1	26.2	20.9	23.0	23.0	3.2	3.8

Source: Bloomberg and MIDFR

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MIDF AMANAH INVESTMENT BANK : GUIDE TO RECOMMENDATIONS

STOCK RECOMMENDATIONS

BUY	Total return is expected to be >15% over the next 12 months.
TRADING BUY	Stock price is expected to <i>rise</i> by >15% within 3-months after a Trading Buy rating has been assigned due to positive newsflow.
NEUTRAL	Total return is expected to be between -15% and +15% over the next 12 months.
SELL	Total return is expected to be <-15% over the next 12 months.
TRADING SELL	Stock price is expected to <i>fall</i> by >15% within 3-months after a Trading Sell rating has been assigned due to negative newsflow.

SECTOR RECOMMENDATIONS

POSITIVE	The sector is expected to outperform the overall market over the next 12 months.
NEUTRAL	The sector is to perform in line with the overall market over the next 12 months.
NEGATIVE	The sector is expected to underperform the overall market over the next 12 months.