

Sector View

Semiconductors

Automotive sector remains a catalyst for semiconductor industry

	1 M	3 M	6 M	31/12/15
Semiconductors	-4.9%	19.6%	19.0%	14.8%
DJ Stoxx 600	-1.1%	2.8%	0.0%	-6.4%

*Stoxx Sector Indices

Companies covered

ams		NEUTRA	CHF29
Last Price	CHF30.2	Market	CHF2,217m
ASML		SELL	EUR81
Last Price	EUR90.94	Market	EUR39,407m
DIALOG SEMICONDUCTOR		BUY	EUR37
Last Price	EUR30.845	Market	EUR2,402m
INFINEON		BUY	EUR16
Last Price	EUR14.315	Market	EUR16,211m
MELEXIS		SELL	EUR48
Last Price	EUR58.22	Market	EUR2,352m
SOITEC		NEUTRAL	EUR0.5
Last Price	EUR0.8	Market	EUR485m
STMICROELECTRONICS		NEUTRAL	EUR6.5
Last Price	EUR6.684	Market	EUR6,089m
u-blox		BUY	CHF255
Last Price	CHF212	Market	CHF1,443m

On the back of the initiation of coverage of Car Part Manufacturers (**full report out today**), we note that in our semiconductors reports, we regularly point out that the automotive sector is a growth sector. Global sales of semiconductors for automotive amounted to c. USD30bn in 2015 or about 10% of total semiconductor sales. While we expect a slow growth rate for the semiconductor industry (CAGR 15/18e of +0.6%), we see the content increase per car as a long term driver for growth and expect the automotive segment to enjoy a CAGR of +6.8% over the same period. Both, autonomous and electric vehicles are well-identified catalysts for semiconductors manufacturers. Among our Semiconductor coverage, we believe Infineon (Buy, FV EUR16) and u-blox (Buy, FV CHF255) are the best stocks to play these two catalysts.

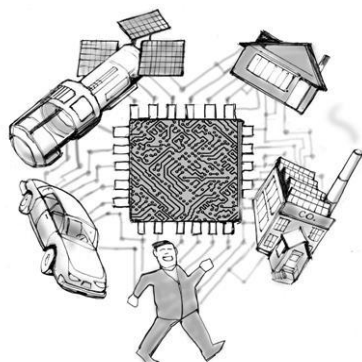
ANALYSIS

- **In our semi-conductors reports** (see [our latest sector report](#)), we regularly point out that the **automotive sector is a growth sector**. The role of semi players in the automotive value chain is changing. For a few years now, we have noted that chip manufacturers are regularly consulted by carmakers and car parts suppliers during the development phases for new car models. This makes sense since the technologies developed in R&D centres at Infineon, NXP, STMicroelectronics and others are set to determine the technological change provided by each car model, especially with two strong long term trends: electronic vehicles (HEV/EV) and autonomous driving (ADAS).
- **Electric vehicles:** on average, a vehicle sold in 2016 has more than USD350 worth of electronic components on-board. In a hybrid or electric vehicle, the components bill is closer to USD720. This is primarily due to an increase in the number of power semi-conductors, namely the components responsible for management of electric engines and batteries (charging, discharging, conversion etc.).
- **Autonomous vehicles:** in the average price per vehicle described above, the share of electronic components associated with autonomous driving remains marginal in 2016. As such, in order to assess the opportunity, we should bear in mind that a vehicle currently sold as being "partly autonomous" (such as the Tesla Model S), only has USD100 worth of sensors on-board. A fully autonomous vehicle embeds more than USD550 worth of components for its ADAS systems or more than 5x more components. Similarly, for the electric vehicle, we have noted a degree of caution in messages from components manufacturers concerning the rise in momentum and delivery of significant production volumes (post-2020).
- **Semiconductor manufacturers should benefit from two positive sources of leverage:** that of an increase in contents per vehicle and hence the average price-tag and that of market share gains in electric and autonomous vehicles in coming years. In all, we value the additional opportunity created by this wave of innovation at almost USD4bn out to 2020.

VALUATION

- Within the Bryan Garnier semi-conductors universe, the stocks most exposed to the auto sector are **Infineon (Buy, FV of EUR16)**, **Melexis (Sell, FV of EUR48)**, **STMicroelectronics (Neutral, FV of EUR6.5)** and **u-blox (Buy, FV of CHF255)**. Note that IFX and STM are among the Top Five global players with market share of 11% and 8% respectively and ranking no. 3 and no. 4 respectively. Among this list, our key investment ideas would be Infineon and u-blox, as both enjoy strong momentum and trade at attractive valuations (2016e PEG ratio of 1.1x and 1.2x respectively).

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Distribution of stock ratings

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