

Sector View

Semiconductors

Strong October sales – year-end momentum boosted by low comps as expected

	1 M	3 M	6 M	31/12/15
Semiconductors	4.9%	10.9%	30.7%	29.3%
DJ Stoxx 600	5.1%	0.8%	2.1%	-3.8%

*Stoxx Sector Indices

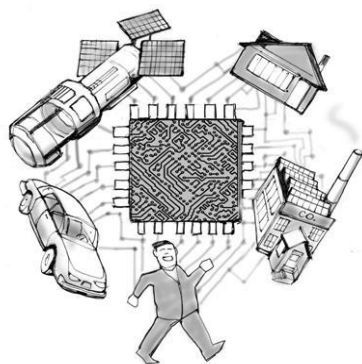
Companies covered

ams	NEUTRAL	CHF27
Last Price	CHF30.55	Market Cap. CHF2,243m
ASML	SELL	EUR83
Last Price	EUR97.41	Market Cap. EUR42,782m
DIALOG	NEUTRAL	EUR40
Last Price	EUR37.5	Market Cap. EUR2,920m
INFINEON	BUY	EUR18.5
Last Price	EUR16.405	Market Cap. EUR18,583m
MELEXIS	SELL	EUR48
Last Price	EUR63.13	Market Cap. EUR2,550m
SOITEC	BUY	EUR1.25
Last Price	EUR1.24	Market Cap. EUR752m
STMICROELECTRONICS	NEUTRAL	EUR7.3
Last Price	EUR10.13	Market Cap. EUR9,229m
u-blox	BUY	CHF255
Last Price	CHF183.2	Market Cap. CHF1,250m

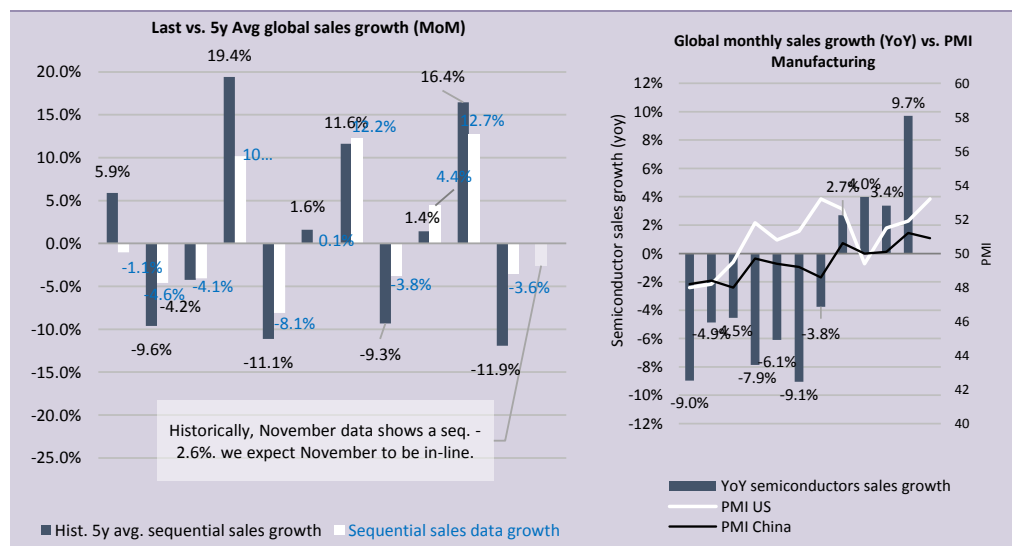
Worldwide semiconductor sales growth for October came out above the usual seasonal average growth. According to SIA reporting WSTS data, unadjusted global semiconductor sales stood at USD30.9bn, down 3.6% on a sequential basis and up 9.7% on a yearly basis. This is 830ppts above our 5-year historical benchmark, pointing to a sequential decline of 11.9% in October. Overall, 10-month aggregated sales are down 1.6% yoy so far in 2017 which continues to highlight a strong recovery over H2 as expected (H1 sales were down 6.0% yoy). Again, we remind that this is mainly due to easier comparable in virtually all market segments including automotive, industrial sector and home appliances.

ANALYSIS

- October sales confirm the continuous momentum improvement.** Unadjusted global semiconductor sales increased by 9.7% on a yearly basis to USD30.9bn in October. On a sequential basis, October sales were down 3.6% compared to September. This is well above our 5-year historical benchmark showing an historical seasonal decline of 11.9% in October compared to September. As a result, 2017 10-month sales declined by 1.6% compared to 2016. This is now falling perfectly in the range of our FY16 expectation of -2% to 0%. Given easier comps on most of the market segment, we remain confident in most of the market segments however, we also remain cautious regarding overheat in the smartphone market, especially the Apple supply chain (Dialog, ams and ST in our coverage).
- November and beyond: we expect November to be in-line.** October sales growth came out above the usual seasonal average growth, and above our expectations. In view of current visibility, we expect November sales momentum to be in line with historical seasonality (i.e. a sequential decline of 2.6%, +/-300bp). Except for the Apple supply chain, other market segments shows strong key indicators. Indeed, 10-month vehicle production remains a tailwind, with production of light vehicles up 10.4% yoy (of which down 6.7% in China, down 1.2% in Europe and up 20.4% in the U.S.). In addition, we note that U.S. ISM PMI Manufacturing data for November was particularly supportive with the US PMI Manufacturing index at 53.2 compared with 51.9 in October. Chinese and euro zone PMI Manufacturing data were up 1.1ppts and up 0.9ppts respectively in November (to 50.9 and 53.7) while the German Industrial production (IFO) index declined by 0.1ppts to 110.4.



We expect November sales to come out in line with historical seasonality



Sources: WSTS; ISM; Markit; Bryan, Garnier & Co ests.

VALUATION

- **Semiconductor average valuation metrics increased in November.** Our semiconductor valuation table shows that the overall valuation of the six main sub-sectors increased in November. As of today, Intellectual Property & EDA and Fabless groups have the highest valuation metrics with average 2017e P/E ratios of 20.9x (up from 19.5x a month ago) and 20.5x (up from 17.7x a month ago) respectively. Conversely, Memory IDM and Foundry groups have the lowest valuation metrics with average 2017e P/E ratio of 10.7x (up from 10.5x a month ago) and 11.6x (down from 12.3x a month ago) respectively. Currently, Logic & Analog IDM and Semi Equipment & Materials shows P/E ratios of 15.8x (up from 15.2x a month ago) and 14.7x (up from 14.5x a month ago) respectively.

BG semiconductor sub-sector valuation table

Subsector average (# of comp.)	YTD price return		2016e			
	Avg. / Median	High / Low	EV/Sales	EV/EBITDA	EV/EBIT	P/E
Fabless (14)	30.0% / 14.9%	178.8% / -27.7%	2.5x	9.3x	12.9x	20.5x
Logic & Analog IDM (16)	20.7% / 15.3%	74.2% / -10.9%	3.3x	9.0x	11.6x	15.8x
Memory IDM (4)	46.7% / 40.4%	74.6% / 31.4%	1.0x	3.5x	6.4x	10.7x
Foundry (5)	16.6% / 26.6%	36.3% / -7.4%	1.5x	4.0x	11.3x	11.6x
Semi Equipmt & Materials (11)	22.1% / 17.4%	68.9% / -5.5%	2.1x	8.5x	10.7x	14.7x
Intellectual Property & EDA (9)	53.6% / 36.8%	103.6% / 22.7%	3.6x	12.4x	15.6x	20.9x

Numbers between brackets represent the number of companies in each category; green/red numbers are higher/lower per group.
Sources: valuation metrics based on consensus ests from Thomson Reuters; updated on 06/12/16

NEXT CATALYSTS

- November 2016 WSTS global billing reports, expected for early January.

[Click here to download document](#)



Analyst :
Dorian Terral
33(0) 1.56.68.75.92
dterral@bryangarnier.com

Sector Team :
Richard-Maxime Beaudoux
Thomas Coudry
Gregory Ramirez

Bryan Garnier stock rating system

For the purposes of this Report, the Bryan Garnier stock rating system is defined as follows:

Stock rating

BUY	Positive opinion for a stock where we expect a favourable performance in absolute terms over a period of 6 months from the publication of a recommendation. This opinion is based not only on the FV (the potential upside based on valuation), but also takes into account a number of elements that could include a SWOT analysis, momentum, technical aspects or the sector backdrop. Every subsequent published update on the stock will feature an introduction outlining the key reasons behind the opinion.
NEUTRAL	Opinion recommending not to trade in a stock short-term, neither as a BUYER or a SELLER, due to a specific set of factors. This view is intended to be temporary. It may reflect different situations, but in particular those where a fair value shows no significant potential or where an upcoming binary event constitutes a high-risk that is difficult to quantify. Every subsequent published update on the stock will feature an introduction outlining the key reasons behind the opinion.
SELL	Negative opinion for a stock where we expect an unfavourable performance in absolute terms over a period of 6 months from the publication of a recommendation. This opinion is based not only on the FV (the potential downside based on valuation), but also takes into account a number of elements that could include a SWOT analysis, momentum, technical aspects or the sector backdrop. Every subsequent published update on the stock will feature an introduction outlining the key reasons behind the opinion.

Distribution of stock ratings

BUY ratings 55.6%

NEUTRAL ratings 34%

SELL ratings 10.5%

Research Disclosure Legend

1	Bryan Garnier shareholding in Issuer	Bryan Garnier & Co Limited or another company in its group (together, the "Bryan Garnier Group") has a shareholding that, individually or combined, exceeds 5% of the paid up and issued share capital of a company that is the subject of this Report (the "Issuer").	No
2	Issuer shareholding in Bryan Garnier	The Issuer has a shareholding that exceeds 5% of the paid up and issued share capital of one or more members of the Bryan Garnier Group.	No
3	Financial interest	A member of the Bryan Garnier Group holds one or more financial interests in relation to the Issuer which are significant in relation to this report	No
4	Market maker or liquidity provider	A member of the Bryan Garnier Group is a market maker or liquidity provider in the securities of the Issuer or in any related derivatives.	No
5	Lead/co-lead manager	In the past twelve months, a member of the Bryan Garnier Group has been lead manager or co-lead manager of one or more publicly disclosed offers of securities of the Issuer or in any related derivatives.	No
6	Investment banking agreement	A member of the Bryan Garnier Group is or has in the past twelve months been party to an agreement with the Issuer relating to the provision of investment banking services, or has in that period received payment or been promised payment in respect of such services.	No
7	Research agreement	A member of the Bryan Garnier Group is party to an agreement with the Issuer relating to the production of this Report.	No
8	Analyst receipt or purchase of shares in Issuer	The investment analyst or another person involved in the preparation of this Report has received or purchased shares of the Issuer prior to a public offering of those shares.	No
9	Remuneration of analyst	The remuneration of the investment analyst or other persons involved in the preparation of this Report is tied to investment banking transactions performed by the Bryan Garnier Group.	No
10	Corporate finance client	In the past twelve months a member of the Bryan Garnier Group has been remunerated for providing corporate finance services to the issuer or may expect to receive or intend to seek remuneration for corporate finance services from the Issuer in the next six months.	No
11	Analyst has short position	The investment analyst or another person involved in the preparation of this Report has a short position in the securities or derivatives of the Issuer.	No
12	Analyst has long position	The investment analyst or another person involved in the preparation of this Report has a long position in the securities or derivatives of the Issuer.	No
13	Bryan Garnier executive is an officer	A partner, director, officer, employee or agent of the Bryan Garnier Group, or a member of such person's household, is a partner, director, officer or an employee of, or adviser to, the Issuer or one of its parents or subsidiaries. The name of such person or persons is disclosed above.	No
14	Analyst disclosure	The analyst hereby certifies that neither the views expressed in the research, nor the timing of the publication of the research has been influenced by any knowledge of clients positions and that the views expressed in the report accurately reflect his/her personal views about the investment and issuer to which the report relates and that no part of his/her remuneration was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in the report.	Yes
15	Other disclosures	Other specific disclosures: Report sent to Issuer to verify factual accuracy (with the recommendation/rating, price target/spread and summary of conclusions removed).	No

A copy of the Bryan Garnier & Co Limited conflicts policy in relation to the production of research is available at www.bryangarnier.com

London	Paris	New York	Munich	New Delhi
Beaufort House	26 Avenue des Champs Elysées	750 Lexington Avenue	Widenmayerstrasse 29	The Imperial Hotel Janpath
15 St. Botolph Street	75008 Paris	New York, NY 10022	80538 Munich	New Delhi 110 001
London EC3A 7BB	Tel: +33 (0) 1 56 68 75 00	Tel: +1 (0) 212 337 7000	Germany	Tel +91 11 4132 6062
Tel: +44 (0) 207 332 2500	Fax: +33 (0) 1 56 68 75 01	Fax: +1 (0) 212 337 7002	+49 89 2422 62 11	+91 98 1111 5119
Fax: +44 (0) 207 332 2559	Regulated by the	FINRA and SIPC member		Fax +91 11 2621 9062
Authorised and regulated by the	Financial Conduct Authority (FCA) and the			Geneva
Financial Conduct Authority (FCA)	Autorité de Contrôle prudentiel et de			rue de Grenus 7
	resolution (ACPR)			CP 2113
				Genève 1, CH 1211
				Tel +4122 731 3263
				Fax+4122731 3243
				Regulated by the FINMA

Important information

This document is classified under the FCA Handbook as being investment research (independent research). Bryan Garnier & Co Limited has in place the measures and arrangements required for investment research as set out in the FCA's Conduct of Business Sourcebook.

This report is prepared by Bryan Garnier & Co Limited, registered in England Number 03034095 and its MIFID branch registered in France Number 452 605 512. Bryan Garnier & Co Limited is authorised and regulated by the Financial Conduct Authority (Firm Reference Number 178733) and is a member of the London Stock Exchange. Registered address: Beaufort House 15 St. Botolph Street, London EC3A 7BB, United Kingdom

This Report is provided for information purposes only and does not constitute an offer, or a solicitation of an offer, to buy or sell relevant securities, including securities mentioned in this Report and options, warrants or rights to or interests in any such securities. This Report is for general circulation to clients of the Firm and as such is not, and should not be construed as, investment advice or a personal recommendation. No account is taken of the investment objectives, financial situation or particular needs of any person.

The information and opinions contained in this Report have been compiled from and are based upon generally available information which the Firm believes to be reliable but the accuracy of which cannot be guaranteed. All components and estimates given are statements of the Firm, or an associated company's, opinion only and no express representation or warranty is given or should be implied from such statements. All opinions expressed in this Report are subject to change without notice. To the fullest extent permitted by law neither the Firm nor any associated company accept any liability whatsoever for any direct or consequential loss arising from the use of this Report. Information may be available to the Firm and/or associated companies which are not reflected in this Report. The Firm or an associated company may have a consulting relationship with a company which is the subject of this Report.

This Report may not be reproduced, distributed or published by you for any purpose except with the Firm's prior written permission. The Firm reserves all rights in relation to this Report.

Past performance information contained in this Report is not an indication of future performance. The information in this report has not been audited or verified by an independent party and should not be seen as an indication of returns which might be received by investors. Similarly, where projections, forecasts, targeted or illustrative returns or related statements or expressions of opinion are given ("Forward Looking Information") they should not be regarded as a guarantee, prediction or definitive statement of fact or probability. Actual events and circumstances are difficult or impossible to predict and will differ from assumptions. A number of factors, in addition to the risk factors stated in this Report, could cause actual results to differ materially from those in any Forward Looking Information.

Disclosures specific to clients in the United Kingdom

This Report has not been approved by Bryan Garnier & Co Limited for the purposes of section 21 of the Financial Services and Markets Act 2000 because it is being distributed in the United Kingdom only to persons who have been classified by Bryan Garnier & Co Limited as professional clients or eligible counterparties. Any recipient who is not such a person should return the Report to Bryan Garnier & Co Limited immediately and should not rely on it for any purposes whatsoever.

Notice to US investors

This research report (the "Report") was prepared by Bryan Garnier & Co Limited for information purposes only. The Report is intended for distribution in the United States to "Major US Institutional Investors" as defined in SEC Rule 15a-6 and may not be furnished to any other person in the United States. Each Major US Institutional Investor which receives a copy of this Report by its acceptance hereof represents and agrees that it shall not distribute or provide this Report to any other person. Any US person that desires to effect transactions in any security discussed in this Report should call or write to our US affiliated broker, Bryan Garnier Securities, LLC, 750 Lexington Avenue, New York NY 10022. Telephone: 1-212-337-7000.

This Report is based on information obtained from sources that Bryan Garnier & Co Limited believes to be reliable and, to the best of its knowledge, contains no misleading, untrue or false statements but which it has not independently verified. Neither Bryan Garnier & Co Limited and/or Bryan Garnier Securities LLC make no guarantee, representation or warranty as to its accuracy or completeness. Expressions of opinion herein are subject to change without notice. This Report is not an offer to buy or sell any security.

Bryan Garnier Securities, LLC and/or its affiliate, Bryan Garnier & Co Limited may own more than 1% of the securities of the company(ies) which is (are) the subject matter of this Report, may act as a market maker in the securities of the company(ies) discussed herein, may manage or co-manage a public offering of securities for the subject company(ies), may sell such securities to or buy them from customers on a principal basis and may also perform or seek to perform investment banking services for the company(ies).

Bryan Garnier Securities, LLC and/or Bryan Garnier & Co Limited are unaware of any actual, material conflict of interest of the research analyst who prepared this Report and are also not aware that the research analyst knew or had reason to know of any actual, material conflict of interest at the time this Report is distributed or made available.