5th April 2016

TMT

ASML

Price EUR89.49

Unattractive risk/reward line crossed

Fair Value EUR81 vs. EUR85 (-9%) **SELL vs. BUY**

Bloomberg	ASML NA
Reuters	ASML.AS
12-month High / Low (EUR)	103.8 / 71.8
Market Cap (EURm)	38,779
Ev (BG Estimates) (EURm)	36,998
Avg. 6m daily volume (000)	1,309
3y EPS CAGR	21.8%

	1 M	3 M	6 M	31/12/15
Absolute perf.	3.4%	11.8%	15.9%	8.4%
Semiconductors	2.9%	2.8%	10.9%	-0.4%
DJ Stoxx 600	-2.1%	-6.2%	-3.8%	-8.6%

YEnd Dec. (EURm)	2015	2016e	2017e	2018e
Sales	6,287	6,485	7,419	8,742
% change		*3.1%*	*14.4%*	*17.8%*
EBITDA	1,864	1,920	2,345	3,031
EBIT	1,565	1,615	2,025	2,666
% change		*3.2%*	*25.4%*	*31.6%*
Net income	1,387	1,390	1,765	2,353
% change		*0.2%*	*27.0%*	*33.3%*

	2015	2016e	2017e	2018e
Operating margin	24.9	24.9	27.3	30.5
Net margin	22.1	21.4	23.8	26.9
ROE	16.5	16.8	19.7	23.5
ROCE	22.9	21.6	27.2	28.0
Gearing	-27.2	-21.5	-26.6	-15.4

(EUR)	2015	2016e	2017e	2018e
EPS	3.21	3.31	4.27	5.80
% change	-	*3.0%*	*29.1%*	*35.8%*
P/E	27.9x	27.1x	21.0x	15.4x
FCF yield (%)	3.8%	2.7%	4.6%	1.2%
Dividends (EUR)	0.70	1.05	1.21	1.39
Div yield (%)	0.8%	1.2%	1.3%	1.6%
EV/Sales	5.8x	5.7x	4.9x	4.3x
EV/EBITDA	19.6x	19.3x	15.5x	12.3x
EV/EBIT	23.3x	22.9x	18.0x	14.0x

In January, we upgraded ASML to Buy vs. Neutral to take advantage of improving NT momentum thanks to orders from 10nm capacity build starting from Q2 2016. After a ~17% stock price increase, we now adopt a Sell recommendation as 1/ we believe this NT momentum is fully priced in, 2/ we start to worry about high market expectations regarding DUV and 3/ we start to have doubts about the introduction of EUV technology by 2017. Indeed, with a slowdown in new node introduction and the adoption of 10nm tools starting in Q2, risks are higher for a delay in the 7nm introduction (which is seen as the trigger for EUV adoption). As a result, we believe ASML's risk/reward profile has moved into negative territory and recommend that investors seek a better opportunity (ARM/DLG/IFX). We downgrade our recommendation to Sell vs. Buy and cut our FV to EUR81 vs. EUR85.

ANALYSIS

- **Improving momentum in DUV in the NT is already priced while the LT picture looks less attractive.** From its low point of EUR72 per share in February, the stock then rallied 25%, on the back of the prospect of better momentum in the core DUV business thanks to the introduction of 10nm at the largest Logic IDM and foundries (Intel, TSMC and Samsung) starting from Q2 2016. We expected this move (described in our initiation report published in September 2015) which explains why we adopted a Buy recommendation in January 2016. After this attractive performance, we now believe that all positive impacts of 10nm introduction are priced in leading us to look back at LT catalysts. Regarding the overall semiconductor market, we believe that the softening smartphone market and flat PC segment could weigh on leading edge chip demand and then on investments into leading edge capacities (recent trends and market expectations: capacities for new nodes are 10% lower than previous nodes). As a result, this could put pressure on 10nm front-end production capacity and lead the market to lower its expectations regarding demand for DUV lithography tools at foundries and Logic customers for FY16 and FY17 (BG ests. FY16/FY17 revenue of EUR6.49bn/EUR7.42bn vs. cons. EUR6.59bn/EUR7.45bn). Finally, in Memory, we believe that a potential uptick in investments by NAND manufacturers should not be considered as a strong catalyst for ASML since the current trend is multi-layer NAND which is not a litho-intensive production. As a result, we struggle to find unpriced catalysts in the current core business.
- **EUV performance continues to improve but the EUV introduction point might be delayed.** Lately, ASML announced it had achieved a 1,368 wafer per day output (in-house) with its new machine, the NXE3350B. As a reminder, the group announced in December 2015 an output of 1,300 wafers per day. Today, the group is particularly confident in achieving 1,500 wafers per day by the end of 2016, which seems to be a fair assumption in our view given the recent improvements. In addition, the group recently announced that availability had reached 80% in some instances, i.e. the 2016 target is already achieved while availability was the main concern in 2015. Overall, EUV technology seems to be maturing and it should achieve a production level by 2017 as expected before. However, we start to worry about 1/ the timing of the 7nm ramp (expected to start from H2-17) given that orders for 10nm are expected to ramp by Q2-16 (i.e. about 1.5 years later) and 2/ the interest and readiness to start 7nm production with EUV tools given that the output would be significantly reduced with EUV while 10nm DUV tools could be reused for 7nm. Indeed, there is a risk that 10nm overall capacity remains limited after 7nm introduction given the reducing number of customer able to afford leading edge production while the industry would then focus on 7nm, as a result there is a higher risk that foundries reuse 10nm tools to ramp 7nm production while keeping a tight control on capex and moving slowly production (and capex) to EUV. This scenario would add pressure to both EUV and DUV tools demand in 2017 and 2018.
- **An unattractive risk/reward**. The standalone company performance remains exceptional so far but we start to have some doubts regarding demand. Market momentum in leading edge manufacturing is clearly weakening (smartphone slowing down and PC flat) and although semiconductor end-market momentum does not directly affect front-end investments in the short term, we believe it rules LT investment strategies at Logic and Memory players. As a result, we see the group moving closer to our bear case scenario (see our initiation report, page 33) implying a slowdown in Moore's law and a delay in EUV adoption implying a failure to deliver the EUR10bn revenue target by 2020. All things being equal, using our bear scenario, the DCF-based valuation would be EUR60 (-33% downside) while using our bull case scenario (implying the EUR10bn

revenue target one year earlier in 2019) points to a DCF-based valuation of EUR95 (+6% upside) and our main scenario points to a FV of EUR83 or a downside of -8%. In addition, looking deeper into consensus expectations, we observe that FY2016 and FY2017 consensus' EPS decreased by -31% and -26% respectively over a one-year period (from EUR4.58 to EUR3.30 and EUR5.80 to EUR4.27) while the share price moved down by only 6% which adds further pressure to the group's current valuation. **As a result, our base case scenario appears to be fully priced in and it seems to us that the current risk/reward is negative on the stock, as a result we adopt a Sell recommendation and favour other stocks in the semiconductor industry such as ARM Holdings (Buy, FV 1,340p), Dialog (Buy, FV EUR39) and Infineon (Buy, FV EUR15) offering a better opportunity in our view.**

VALUATION

- **We have updated our model for FX and WACC assumptions.** We now use a EUR/USD exchange rate of 1.13 (vs. 1.09) and apply changes in our opex expectations (now stable vs. Q4 over FY16). The combination of these two adjustments has resulted in a 4% cut in EPS on average (FY16e/FY17e/FY18e). In addition, we now use new Bryan Garnier's risk free rate and equity risk premium assumptions of 1.6% and 7.0% respectively, leading to a WACC of 9.3% (vs. 9.0% used previously, we keep our 1.1 beta).
- **Our new FV is EUR81 vs. EUR85**. This new Fair Value of EUR81 stems from an equi-weighted average between a DCF valuation (FV of EUR84) and peer comparison taking account of ASML's historical premium to peers (FV of EUR78).
- **Based on our estimates, the share is trading on 2016e EV/EBIT of 22.9x and 2016e P/E of 27.0x.** Over 2016/18e our estimates show average annual **EPS growth of 22%**, pointing to **2016e PEG of 1.2x**.

NEXT CATALYSTS

- 29th April 2016, General Meeting of shareholders.
- 20th April 2016, Q1 2016 results (before market opening).

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

Sector Team :
Richard-Maxime Beaudoux
Thomas Coudry
Gregory Ramirez

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London
Beaufort House
15 St. Botolph Street
London EC3A 7BB
Tel: +44 (0) 207 332 2500
Fax: +44 (0) 207 332 2559
Authorised and regulated by the Financial Conduct Authority (FCA)

Paris
26 Avenue des Champs Elysées
75008 Paris
Tel: +33 (0) 1 56 68 75 00
Fax: +33 (0) 1 56 68 75 01
Regulated by the Financial Conduct Authority (FCA) and the Autorité de Contrôle prudential et de resolution (ACPR)

New York
750 Lexington Avenue
New York, NY 10022
Tel: +1 (0) 212 337 7000
Fax: +1 (0) 212 337 7002
FINRA and SIPC member

Geneva
rue de Grenus 7
CP 2113
Genève 1, CH 1211
Tel +4122 731 3263
Fax+4122731 3243
Regulated by the FINMA

New Delhi
The Imperial Hotel
Janpath
New Delhi 110 001
Tel +91 11 4132 6062
+91 98 1111 5119
Fax +91 11 2621 9062