

October 20, 2017

Nanometrics, Inc.: NANO

Nicholas Matzelevich

Sector: Technology

Industry: Semiconductor Equipment & Materials

Current Price: \$27.77

Target Price: \$33.52

Company Description: Nanometrics, Inc. manufactures film thickness and overlay metrology systems used for integrated circuit, flat panel display, and magnetic head manufacturing. These metrology systems are used to measure thickness and consistency of film materials in various electronic devices, such as semiconductors. In addition to manufacturing these machines, Nanometrics also develops their own software for implementation in their machines, and provides servicing for both the machines and software.

BUY

Current Price: \$27.77
 Target Price: \$33.52
 Market Cap: \$716.2M
 EBITDA Margin
 T12M: 16.59%
 Debt/Asset Ratio: 0.1531

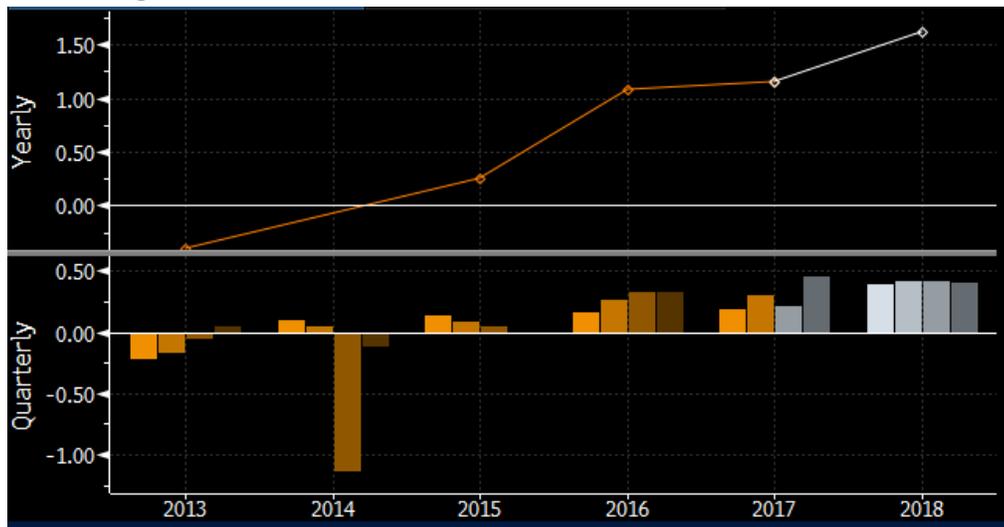


Thesis: Nanometrics is an industry leader in metrology systems and software used to measure consistency in producing semiconductors and other electronic devices. Nanometrics has experienced a growth in customer base over the past several years, leading to an increase in revenue. If Nanometrics can continue to increase their revenue and EBITDA margin, then double digit stock can be expected in the coming months.

Catalysts: Forward looking projections that call for positive/negative outlook that will strengthen your thesis. Example:

- Short Term(within the year): Atlas product line is being adopted by leasing memory chip manufacturers.
- Mid Term(1-2 years): Micron announces 2018 capex spending of \$7.5B
- Long Term(3+): Continued usage of microchips in various electronics.

Earnings Performance:



Nanometrics has beaten 5 out of their past 8 projected earnings, continuing the overall growth trend since 2013. Most recently, the company announced its preliminary revenue and EPS for Q3 2017 will miss their projections and fall in the range of \$56M-\$57M

and \$0.20-\$0.22 respectively. This miss in projections is due to the delay in revenue recognition on multiple systems sold to Japanese companies, all of which require customer acceptance. As a result, the stock price fell by \$0.90 since the announcement, which occurred approximately a week ago. The upside to these missed projections is that the delayed revenue recognition will be fully recognized in Q4 2017, leading to projections of EPS in the \$0.40-\$0.50 range and revenue in the \$72M-\$80M range. Furthermore, the fall in stock price has made Nanometrics a more desirable stock to buy, as the price will rebound and continue to grow in Q4 2017.

Business Description:

Nanometrics, Inc. is a leading manufacturer of process control metrology and inspection systems for the fabrication of semiconductors, optoelectronic devices, high-brightness LEDs, and data storage components. These systems are comprised of a physical measuring device and accompanying software, both developed by the company, that measure critical dimensions, device structures, topography, and various thin film properties, such as thickness and electrical properties. These systems are deployed throughout fabrication process, from actual manufacturing to wafer-level packaging of the product. In addition to manufacturing these systems, the company also provides servicing for their products. This servicing comprises 16.3% of revenue as of FYE 2016, while the manufacturing of the systems makes up 83.7% of revenue as of FYE 2016.

Nanometrics operates in a global economy, distributing the bulk of their products to Asia and the United States. Asia is the largest geographical segment, making up 81% of revenue. The United States comprises 13.5% of revenue, and the rest of the world 5.5%.

Nanometrics' flagship product line, Atlas, has several sub-lines, the Atlas III, II+, XP+, and M. All of these products are automated standalone metrology systems. To accompany these systems, Nanometrics has developed the NanoCD Suite, accompanying software that optimizes the full capability of the Atlas system

NANO: Leading Solutions for In-Line Process Control

Comprehensive Suite of Highly-Differentiated Systems and Solutions

Atlas* IMPULSE* NanoCD* T3* UniFire*

Utilizing High-Speed, Non-Destructive In-Line Technologies

Ellipsometry Scatterometry Interferometry Photoluminescence Inspection

Technology Inflection Points Expanding Our Market, Footprint and Share

FinFET 3D-NAND Novel Memory Structures Advanced 3D Packaging

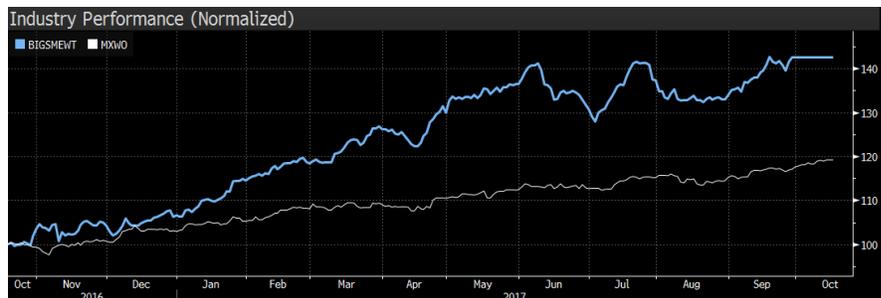
through modeling methods, regression capability, and sensitivity analysis tools in order to accurately assess and measure their customers' products. The Atlas system also falls under the category of capital expenditure for Nanometrics' customers.

Industry Overview and Outlook:

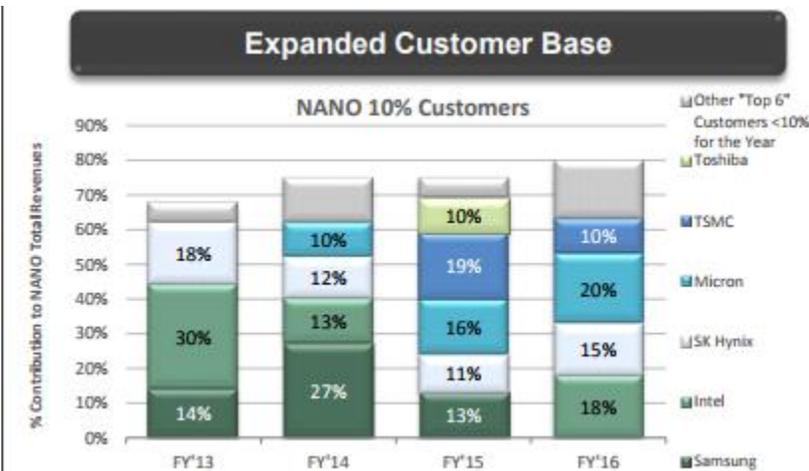
Nanometrics operates in a niche industry, the manufacturing and support of optical critical dimension metrology for semiconductor manufacturing. These semiconductors are used throughout the electronic device manufacturing process. The industry's end customers manufacture different types of integrated circuits, such as information processing and management, memory storage, and analog devices.

Demand for the optical critical dimension metrology industry is driven by the semiconductor manufacturers. The semiconductor manufacturers want to constantly improve their chip performance. This includes improvements in power efficiency, logic processing capability, and data storage volume. Since Nanometrics' industry is tightly tied to the semiconductor manufacturing industry, it naturally follows that the semiconductor chip business cycle affects Nanometric's industry. The semiconductor industry is highly cyclical and based around the timing of integrated electronic manufacturer's chip purchases. Often times, semiconductor manufacturers will exceed the global demand for semiconductor chips, causing a slow-down in chip production and the eventual lagging behind global chip demand. As a result, the price for chips can vary greatly depending on the stage of the business cycle. Nanometrics experiences these trends through the purchases of their metrology equipment. If the business cycle is in a boom, more orders will come in and vice versa.

Currently, the semiconductor chip market is in a boom, as shown by the increase in semiconductor indices in the graph above and the numerous orders Nanometrics and its competitors have received since the beginning of 2017. This trend is expected to continue through the end of this year at a minimum.



Customer Growth:



Since 2013, Nanometrics has been expanding its customer base to include some of the top semiconductor manufacturers in the industry, such as Samsung, Toshiba, and Intel. As shown in the graph above, Nanometrics' top ten percent of customers have grown from three customers to five since 2013. This customer growth can be attributed to the adoption of the Atlas MPU and Atlas III systems, which deliver higher productivity and improved thin metrology performance.

Micron, one of Nanometrics' top customers, recently announced a significant increase in capital expenditure for 2018 to \$7.8B, which exceeds analyst estimates of \$6B. Furthermore, this is a large increase from capital expenditure in 2017, which is estimated to be \$4.8B-\$5.2B. This spending will be equally divided between DRAM and NAND chip manufacturing. As Nanometrics' products both support DRAM and NAND manufacturing systems, there is little doubt that Micron will return to Nanometrics for additional metrology systems, increasing revenues and growing the stock price of Nanometrics.

Revenue Growth:

Since 2013, Nanometrics has been consistently growing their revenue, from \$144.3M in 2013 to \$221.1M in 2016. This can be attributed to the wide adoption of their Atlas product line by numerous leading chip manufacturers. Of particular interest is the \$33.8M increase in revenue from 2015 to 2016, their largest growth since 2013, which is an 18% growth. This growth can be most attributable to an industry-wide improvement in 3D NAND- related semiconductor capital spending. This trend is expected to continue in 2017 and 2018, highlighted by Micron's announcement of \$7.8B in capital expenditure for 2018 and Nanometrics' expected revenue of \$288.3M.

Quarterly, Nanometrics has been improving their revenue growth over the past twelve months, from \$55.8M in Q2 2016 to \$64.4M in Q2 2017. Recently, the company announced a missed earnings in revenue for Q3 2017. While the company was expected to earn \$62.5M for the quarter, the preliminary Q3 earnings report suggests only \$56M-\$57M. This miss in revenue is attributable to a delay of revenue recognition on multiple systems in Japan that required customer acceptance. While this miss in earnings has caused a small drop in stock price since the announcement, around \$1.20, the revenue is expected to be fully realized in Q4 2017. In fact, analysts are expecting revenues of \$75.9M for the quarter. Furthermore, this slight drop in stock price provides a unique mispricing opportunity in the market, in that there is already known additional revenue in Q4 2017 that will cause the stock price to increase at the end of the quarter.

Improving EBITDA Margin:

Name	Mkt Cap (USD)	Last Px	Rev - 1 Yr Gr:Y	ROE	T12M EBITDA Mrgn:Y	T12M EBITDA Mrgn:Q
Median	1.02B	27.77	1.38%	11.22%	7.83%	11.43%
100) NANOMETRICS INC	708.01M	27.77	18.02%	11.94%	16.59%	17.12%
101) ELECTRO SCIENTIFIC INDS INC	562.33M	16.97	-12.67%	-8.94%	-5.77%	-2.82%
102) VEECO INSTRUMENTS INC	852.20M	17.60	-30.31%	-2.58%	-3.33%	1.69%
103) AXCELIS TECHNOLOGIES INC	1.02B	32.75	-11.45%	13.80%	7.83%	11.43%
104) ULTRA CLEAN HOLDINGS INC	1.10B	32.69	19.96%	21.38%	6.39%	10.12%
105) FORMFACTOR INC	1.27B	17.45	35.96%	1.88%	9.28%	16.11%
106) BROOKS AUTOMATION INC	2.27B	32.49	1.38%	11.22%	8.76%	14.33%

In addition to growing their revenues from 2013-2016, Nanometrics has also been growing their EBITDA margin to be a leader among their competitors. In 2014, Nanometrics' EBITDA margin was only 0.2%. Since then, their EBITDA has improved to an LTM margin of 16.59% yearly and LTM margin of 17.12% quarterly. In both cases, Nanometrics is the leader among their competitors, as shown in the chart above. An EBITDA margin that continues to improve coupled with the margin being an industry leader provides a strong outlook for Nanometrics, which will cause the price of their stock to rise.

Little Total Debt:

NANOMETRICS INCORPORATED
CONSOLIDATED BALANCE SHEETS
(In thousands except share and per share amounts)

	December 31, 2016	December 26, 2015
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 47,062	\$ 38,154
Marketable securities	82,899	44,931
Accounts receivable, net of allowances of \$73 and \$150, respectively	39,457	37,832
Inventories	38,837	47,749
Inventories-delivered systems	2,457	2,856
Prepaid expenses and other	5,667	6,592
Total current assets	216,379	178,114
Property, plant and equipment, net	44,226	44,493
Goodwill	8,940	9,415
Intangible assets, net	412	1,867
Deferred income tax assets	17,399	1,118
Other assets	474	533
Total assets	\$ 287,830	\$ 235,540
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 11,342	\$ 11,675
Accrued payroll and related expenses	12,656	10,097
Deferred revenue	9,168	12,790
Other current liabilities	8,047	8,878
Income taxes payable	813	1,771
Total current liabilities	42,026	45,211
Deferred revenue	816	827
Income taxes payable	841	775
Deferred tax liability	20	521
Other long-term liabilities	353	878
Total liabilities	44,056	48,212

Nanometrics also has little debt compared to their assets, only furthering their position as a strong company. As of FYE 2016, Nanometrics has \$44.06M in total liabilities, some of this debt stems from accrued payroll, accounts payable, and deferred revenue. Additionally, the company has several long term open purchase agreements with their suppliers, as shown in the provided balance sheet. As of FYE 2016, this commitment is estimated to be \$30.6M, with \$30.5M expected to be paid in 2017; however, the actual expenditure amount may vary based

on transaction volume, length, renegotiation, or cancellation. As a result of their small debt, Nanometrics has a debt to asset ratio of 0.1531.

Conclusion:

Nanometrics' premier Atlas product line has led to significant customer acquisition and revenue growth since 2013. This wide adoption of Atlas by leading microchip manufacturers is expected to continue through 2017 and into 2018, as shown by Micron's 2018 capital expenditure announcement of \$7.8B, which will cause an increase in Nanometrics' stock price. This announcement follows the overall semiconductor equipment industry boom, which will also cause Nanometrics' stock price to increase. Furthermore, Nanometrics' miss in Q3 2017 revenue has caused a \$1.20 decrease in stock price, causing a mispricing opportunity for an otherwise successful company that must be capitalized upon before Q4 2017's revenues are reported.

Nanometrics Incorporated (NANO)

CENTER FOR GLOBAL FINANCIAL STUDIES

NEUTRAL

Analysis by Nick Matzelevich
10/25/2017

Current Price: **\$28.66**
Dividend Yield: **0.0%**

Intrinsic Value: **\$30.51**
Target Price: **\$33.52**

Target 1 year Return: **16.97%**
Probability of Price Increase: **98%**

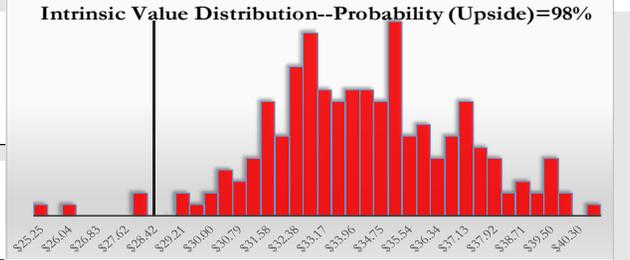


Description	
Nanometrics Incorporated provides process control metrology and inspection systems for use primarily in the fabrication of semiconductors and other solid-state devices worldwide.	
General Information	
Sector	Information Technology
Industry	Semiconductors and Semiconductor Equipment
Last Guidance	November 3, 2015
Next earnings date	October 28, 2017
Estimated Country Risk Premium	8.35%
Effective Tax rate	24%
Effective Operating Tax rate	25%

Market Data	
Market Capitalization	\$730.70
Daily volume (mil)	0.06
Shares outstanding (mil)	25.50
Diluted shares outstanding (mil)	25.71
% shares held by institutions	84%
% shares held by investments Managers	70%
% shares held by hedge funds	10%
% shares held by insiders	4.79%
Short interest	2.79%
Days to cover short interest	4.58
52 week high	\$32.42
52-week low	\$18.65
Volatility	30.83%

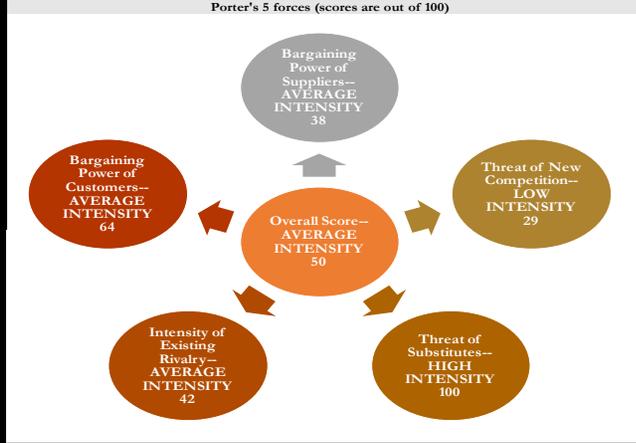
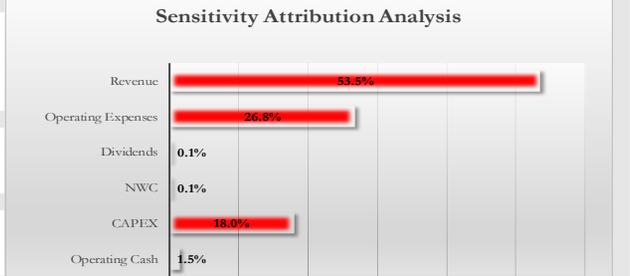
Past Earning Surprises	
Quarter ending	Revenue
6/25/2016	-0.42%
9/24/2016	1.23%
12/31/2016	1.82%
4/1/2017	-2.12%
7/1/2017	-3.84%
Mean	-0.66%
Standard error	1.1%

EBITDA	
6/25/2016	N/A
9/24/2016	1.83%
12/31/2016	3.03%
4/1/2017	-32.46%
7/1/2017	-13.64%
Mean	-10.31%
Standard error	8.3%



Management	
Stultz, Timothy	Chief Executive Officer, Pre
Andreson, Jeffrey	Chief Financial Officer
Borowicz, Stanislaw	Executive Vice President of
Taylor, Janet	General Counsel
Koehler, Rollin	Senior Vice President of Com
Ziman, Philip	Vice President of Global Hum

Total compensations growth	
25.41% per annum over 5y	
13.77% per annum over 2y	
41.98% per annum over 1y	
21.67% per annum over 1y	
N/M	
N/M	



Period	Revenue Growth Forecast
Base Year	26%
7/1/2018	13%
7/1/2019	12%
7/1/2020	11%
7/1/2021	10%
7/1/2022	9%
7/1/2023	8%
7/1/2024	6%
7/1/2025	5%
7/1/2026	4%
7/1/2027	3%
Continuing Period	2%

Valuation	Revenue to Capital Forecast
NOPAT Margin Forecast	
13.7%	0.69
20.3%	0.72
21.2%	0.68
21.7%	0.63
21.8%	0.59
21.9%	0.55
22.3%	0.51
22.4%	0.47
22.5%	0.44
22.6%	0.41
22.7%	0.38
22.8%	0.35

