

BUY

Price Target: \$61.73

Key Statistics as of 04/11/2015

Market Price:	\$26.47
Industry:	Semi-conductors
Market Cap:	\$1.54B
52-Week Range:	\$17.92 -.\$28.95
Beta:	0.83

Thesis Points

- CMOS market growth opportunities
- Commitment to innovation
- Strong financials
- Buyout decision

Company Description

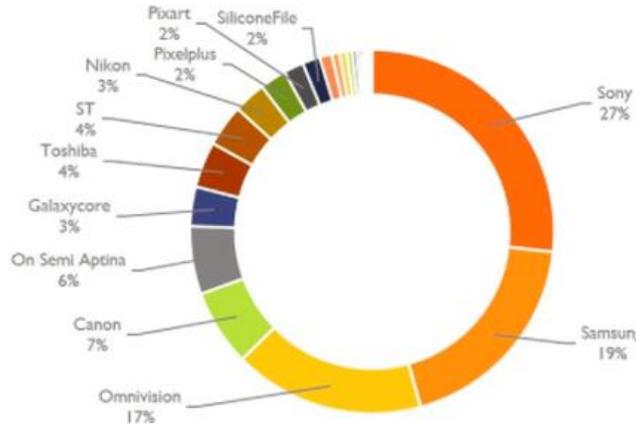
OmniVision Technologies, Inc. was founded in 1995 and is headquartered in Santa Clara, California. The company manufactures and markets semiconductor image-sensor devices. Its principal products include CameraChip image sensors, which capture an image electronically and are used in various consumer and commercial applications; and CameraCubeChip imaging devices that are image sensors with integrated wafer-level optics. In addition, it designs and develops software drivers for Linux, Mac OSX, and Microsoft Windows, as well as for embedded operating systems, such as Android, Blackberry OS, Symbian, Windows CE, Windows Embedded, and Windows Mobile. The company sells its products to equipment manufacturers and indirectly through distributors.



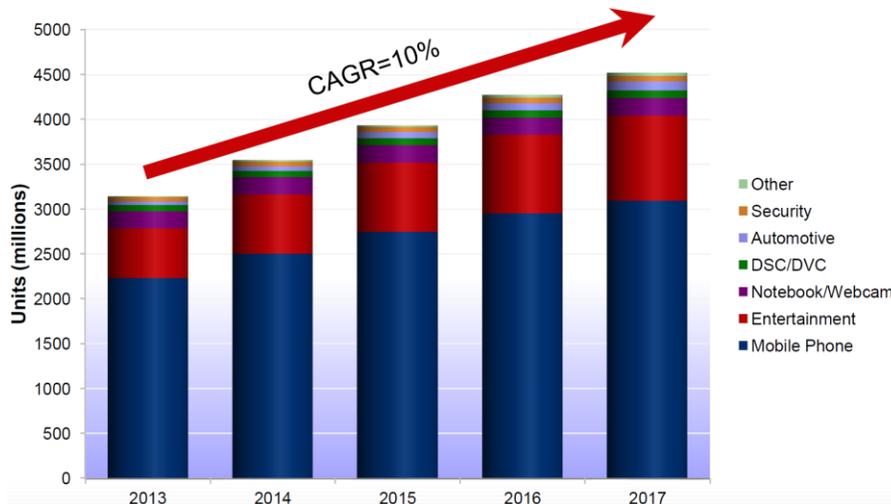
Thesis

OmniVision Technologies is one of the leaders in providing the industry with CMOS sensors that are used in cameras. It has historically innovated a lot to set new industry standards and become the reference in this market. Especially, this industry is currently diversifying a lot because it constantly produces new products. The company is well positioned to take advantage of a market that is expected to grow at a 10% CAGR over the next 5 years. Estimates improved earnings estimates recently, which means that they are confident about the company's growth. Finally, OmniVision has strong financials, almost no-debt and plenty of cash on hand. The proforma shows that the company's stock price has a potential return of more than 100%.

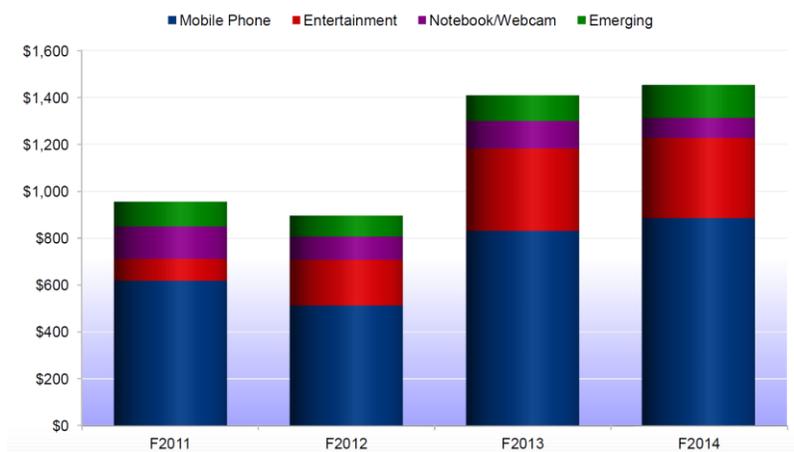
CMOS market growth opportunities



As of 2014, OmniVision is one of the market leaders in the CMOS market, just behind two much bigger companies: Sony and Samsung. The company is the smallest company to be in the top 4 of this ranking, which means that it offers something different from big players, otherwise it would have been far behind. Additionally, the fifth player in the industry, Aptina, had a 16% market share in 2009. This market share has been reduced to only 6% today. It means that other companies are losing ground to the detriment of OmniVision, Sony and Samsung. OmniVision also lost a little bit of market share over the past 2 years, but it is holding much better thanks to a focus on innovation. A CMOS imaging chip is a type of active pixel sensor made using the CMOS semiconductor process. Today, most of the digital cameras on the market use this technology. The aim of a CMOS chip is to capture light and convert it into electrical signals. The company has the advantage to be the first on the market to commercialize CMOS image sensors. It has a higher technological knowledge than its main competitors. That will be a key success for the company in the near future because the CMOS market is expected to tremendously increase soon.¹ Currently valued at about \$10 billion, the CMOS market is expected to reach \$16 billion by 2020. This is mainly due to an increasing demand and additional market opportunities.



The chart above displays the market segmentation of the market. The market is expected to grow at a 10% CAGR over the next 5 years. Historically OmniVision has been focusing on mobile phones. Nevertheless, it has been able to take advantage of new market opportunities. Their products now have a wider range of application. The main segment is the CMOS market is mobile phone. OmniVision supplies several high-performance phone manufacturers with its products. However, automotive segment is the big story this year. Car manufacturers like Tesla, Nissan, and Ford are now installing CMOS image sensors in many of their cars. Total revenue for this segment should reach \$800 million in 2020. Car manufacturers use CMOS sensors as an advanced driver assistance system (ADAS). This system uses about five to six cameras per vehicle in order to enhance road safety. This has been one of the main innovations in the automotive market during the past couple of years. We can expect that this feature will be adopted by many other companies in the future. Additionally, some companies such as Google have been tremendously investing in autonomous cars, which means cars that are capable of running without a driver. These cars require many cameras in order to properly operate. By supplying CMOS sensors to this market, OmniVision could see a huge rise in profits. The company also tries to focus on a new application for the LCOS market. LCOS is a miniature liquid crystal display. LCOS devices are used in near-eye applications such as electronic viewfinders for digital cameras. The main device in this industry is the Google Glasses, which found an enormous success at launch. OmniVision is one of the leaders in the industry in terms of miniaturizing its products. Therefore, its CMOS sensor could be very attractive if companies develop similar projects to Google Glasses. The company also produces products for the following markets: entertainment, notebooks and security. Each of these segments also has a potential for further increase. Indeed, IP security cameras have a bright future because they enable people to control security cameras over the internet. Additionally, the entertainment segment, which includes tablets, as well as laptops, will always need CMOS sensors for their front cameras.



The graph above shows the market segmentation of the company. In 2011, OmniVision relied almost entirely on the sale of CMOS sensors for the mobile phone industry. We can see that it has been able to diversify its production to meet new industry trends. Nowadays, it relies on slightly more than 50% on mobile phones. The company has taken advantage of the development of new products, as it was explained previously in this report.

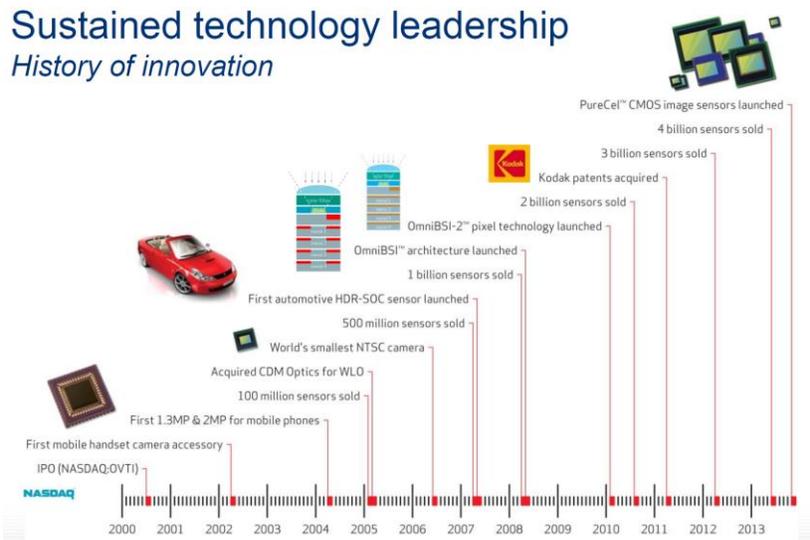
Commitment to innovation

OmniVision has been recognized in the industry by its huge investments to develop new products and innovate. The timeline above displays the history of the company since its IPO, back in 2000. We can see that each year it has been able to develop a product that revolutionized the market. Some of the most famous examples are:

- **2004:** first 2MP cameras for mobile phones
- **2007:** First automotive sensors launched
- **2013:** PureCell sensor launched

At the end of 2013, OmniVision launched PureCell. PureCell is a CMOS sensor image that delivers the best pixel performance in the industry. This component is able to capture detailed images and produce high quality videos even in environments with very low or very high brightness. It also drastically reduces power consumption compared to previous products. This product is the future of imaging solutions. This product is the new flagship of the company. It has the advantage of increasing full-well

capacity. Full well capacity (FWC) defines “the amount of charge an individual pixel can hold before saturating.”² Every company in the industry strives to increase FWC, but OmniVision is the one that currently holds the top of this ranking. This can only benefit OmniVision, as the higher end of the space has less competitors and higher prices.



On April 7, 2015, OmniVision announced a partnership with VIA Technologies in order to provide the market with wireless high-definition monitoring solutions. This means that the company is always in track to invent cutting edge products and be a leader in innovation.

Strong financials



The table above show the revenues of OmniVision from 2002 to 2014. We can see that the company performed very well in the past decade. Its revenues increased almost every year since then. The company managed well to take advantage of new market trends and opportunities.



² <http://www.photometrics.com/resources/learningzone/fwellcapacity.php>

Additionally, the company is almost debt-free. It has only a 2% debt to market capitalization ratio. The company does not need to borrow money to invest. This is due to a tremendous amount of cash OmniVision has on hand. It has currently about \$450 million of cash on its balance sheet, which represents about one third of its total market capitalization, which is very high. This makes the company fully able to meet any financial requirement in the future and enables it to pursue its acquisition strategy. Finally the company has been improving a lot its margins. The gross margin jumped from about 17% to 21% over the past two years because OmniVision has been able to reduce costs and make economies of scale. Additionally, the company currently trades at a 14.97 P/E ratio. The market currently trades at a 20.55, which is way above the P/E of OmniVision. It means that the company is currently cheap and attractive to investors. OmniVision has seen solid earnings estimate revision over the past month, which means that analysts are becoming more bullish on both short and long term growth.

Buyout decision

Last year, a Chinese investment group, headed by Hua Capital Management, announced that it proposed \$29 per share to buy OmniVision. OmniVision said nothing about this buyout over the past eight months except that it acknowledge receipt of the offer. Therefore, rumors spread last week that the Chinese investment group will increase this offer to \$30 per share. Considering the current price of OmniVision at \$26.47, this constitutes a more than 13% increase if they agree on a deal. Also, rumors about the buyout will make the price of the company go higher in the near future because of speculations. In overall, OmniVision is considered as a strong buyout opportunity given its huge cash on hand and very low debt. An acquisition is always beneficial for the target. Since one company usually pays a premium to another to acquire it, the stock price of the target will usually if not always move up.

CENTER FOR GLOBAL FINANCIAL STUDIES

Omnivision Technologies, Inc.	OVTI	Analyst GUILLAUME VALENTIN	Current Price \$26.47	Intrinsic Value \$52.42	Target Value \$61.73	Dividend Yield 0%	Target Return 1-y Return: 133.19%	BULLISH	
General Info		Peers	Market Cap.	Management					
Sector	Information Technology	Synaptic Inc	\$3,206.51	Professional	Title	Comp. FY2012	Comp. FY2013	Comp. FY2014	
Industry	Semiconductors and Semiconductor Equipment	Atmel Corporation	\$3,405.80	Hong, Shaw	Co-Founder, Chairman and Chief	\$ 5,367,014.00	\$ 2,643,746.00	\$ 3,639,513.00	
Last Guidance	Feb-26-2015	Qorvo, Inc	\$10,924.35	Chan, Anson	Chief Financial Officer, Principal	\$ 1,677,562.00	\$ 941,071.00	\$ 1,224,840.00	
Next earnings date	5/28/2015	Skyworks Solutions Inc	\$19,034.73	Yang, Henry	Chief Operating Officer and Director	\$ 2,554,180.00	\$ 1,320,703.00	\$ 1,850,864.00	
Market Data		Xilinx Inc	\$11,458.78	Chou, Y.	Senior Vice President of Global	\$ 2,547,453.00	\$ 1,302,317.00	\$ 1,833,413.00	
Enterprise value	\$1,059.49	Altera Corp.	\$13,399.85	Li, John	Vice President of System Techno	\$ -	\$ -	\$ 1,794,676.00	
Market Capitalization	\$453.51	Fairchild Semiconductor International Inc	\$2,171.84	Wu, Raymond	Co-Founder and President	\$ -	\$ 1,621,243.00	\$ -	
Daily volume	0.41	Linear Technology Corporation	\$11,121.33	10y-Median Performance					
Shares outstanding	58.11	Microchip Technology Inc	\$10,072.45	OVTI		Peers		Industry	
Diluted shares outstanding	58.12	Analog Devices, Inc	\$20,017.36	Growth	13.8%	5.0%	8.0%	All U.S. firms	
% shares held by institutions	73.98%	Current Capital Structure			ROIC	11.4%	8.6%	12.8%	14.3%
% shares held by insiders	1.63%	Total debt/market cap	2.25%	NOPLAT Margin	9.0%	19.6%	14.7%	10.4%	
Short interest	2.00%	Cost of Borrowing	6.11%	REV./Invested Capital	126.8%	43.7%	87.4%	137.4%	
Days to cover short interest	2.14	Interest Coverage	502.47%	Excess Cash / Rev.	49.3%	75.2%	13.5%	12.9%	
52 week high	\$28.95	Altman Z	5.02	Total Cash / Rev.	49.3%	75.2%	12.3%	15.2%	
52-week low	\$17.92	Debt Rating	A	Unlevered Beta	1.52	1.32	1.28	0.95	
3y Beta	1.37	Levered Beta	1.45	TEV/REV	0.8x	4.1x	3.2x	2.5x	
6-month volatility	32.45%	WACC (based on market value weights)	9.26%	TEV/EBITA	4.5x	20.2x	11.5x	13.1x	
Past Earnings Surprises				PE	11.1x	24.4x	26.0x	23.5x	
	Revenue	EBITDA	Nom. EPS	P/BV	0.9x	2.5x	1.6x	2.2x	
Last Quarter	0.4%	61.2%	31.0%	Non-GAAP Adjustments in estimates computations					
Last Quarter-1	4.4%	29.3%	17.6%	Operating Leases Capitalization	100%	Straightline		10 years	
Last Quarter-2	6.2%	34.1%	71.7%	R&D Exp. Capitalization	100%	Straightline		10 years	
Last Quarter-3	13.3%	0.0%	48.1%	Expl./Drilling Exp. Capitalization	0%	N/A		N/A	
Last Quarter-4	8.0%	0.0%	97.1%	SG&A Capitalization	0%	N/A		N/A	
Proforma Assumptions				Forecast					
	\$	-	Rev. Growth	Adj. Op. Cost/Rev	Invested Capital	NOPLAT Margin	ROIC	WACC	
Money market rate as of today	0.52%	LTM	3.3%	89.1%	\$1,244.10	9%	11.4%	9.3%	
Annual increase (decrease) in interest rates	0.1%	NTM	3.6%	83.0%	\$1,306.92	16%	18.8%	9.7%	
Yield Spread acceleration	1.2	NTM+1	3.8%	80.0%	\$1,349.30	17%	19.9%	9.8%	
Marginal Tax Rate	37.3%	NTM+2	3.9%	78.5%	\$1,390.13	18%	20.7%	10.0%	
Risk-Free rate	2.5%	NTM+3	4.0%	77.8%	\$1,428.92	18%	21.2%	10.1%	
Tobin's Q	1.00	NTM+4	4.0%	77.4%	\$1,465.30	18%	21.6%	10.2%	
Op. Cash/Rev.	2%	NTM+5	4.0%	77.2%	\$1,500.59	18%	21.9%	10.3%	
Growth in PPE	NPPE Growth tapers to zero until continuing period	NTM+6	4.0%	77.1%	\$1,534.68	18%	22.2%	10.4%	
Long term Growth	4.0%	NTM+7	4.0%	77.0%	\$1,567.37	18%	22.6%	10.5%	
Long term EBITDA Margin	23.0%	NTM+8	4.0%	77.0%	\$1,593.48	18%	22.9%	10.7%	
Long term NOPLAT Margin	20.0%								
Long term ROIC	12.0%								
Most recent Unlevered Beta	1.42								
Long term Unlevered Beta	1.31								
Valuation									
	Invested Capital x (ROIC-WACC)	Enterprise Value (UFCF Valuation only)	Total Debt	Other claims	Equiv Value	UDCF Valuation	Relative Valuation	Weighted Price Per Share	
LTM	\$26.86	\$2,393.68	\$34.54	-\$506.05	\$2,865.19	\$50.32	\$62.57	\$53.38	
NTM	\$118.11	\$2,540.09	\$34.54	-\$661.87	\$3,167.42	\$55.29	\$84.03	\$62.48	
NTM+1	\$135.82	\$2,565.20	\$34.54	-\$825.24	\$3,355.90	\$58.39	\$95.26	\$67.61	
NTM+2	\$149.37	\$2,567.49	\$34.54	-\$1,015.47	\$3,548.42	\$61.64	\$103.98	\$72.22	
NTM+3	\$158.98	\$2,548.96	\$34.54	-\$1,207.22	\$3,721.64	\$64.62	\$111.41	\$76.32	
NTM+4	\$166.79	\$2,511.70	\$34.54	-\$1,416.99	\$3,894.16	\$67.76	\$118.94	\$80.56	
NTM+5	\$174.08	\$2,457.35	\$34.54	-\$1,640.77	\$4,063.58	\$70.42	\$126.66	\$84.48	
NTM+6	\$181.15	\$2,384.44	\$34.54	-\$1,864.46	\$4,214.36	\$72.99	\$134.42	\$88.35	
NTM+7	\$188.24	\$2,290.99	\$34.54	-\$2,099.56	\$4,356.01	\$75.39	\$142.46	\$92.16	
NTM+8	\$468.48	\$2,169.15	\$34.54	-\$2,351.87	\$4,486.47	\$77.21	\$150.91	\$95.64	
Monte Carlo Simulation Assumptions					Monte Carlo Simulation Results				
	Base	Stddev	Min	Max	Distribution	Intrinsic Value		ly-Target	
Revenue Variation	0	10%	N/A	N/A	Normal	Mean est.	\$53.38	\$62.48	
Op. Costs Variation	0	10%	N/A	N/A	Normal	σ(e)	\$0.32	\$0.25	
Country Risk Premium	6%	N/A	5%	7%	Triangular	3 σ(e) adjusted price	\$52.42	\$61.73	
Long term Growth	4%	N/A	3%	14%	Triangular	Current Price	\$26.47		
							Analysts' median est.	\$29.33	