



January 5, 2017

CURRENT PRICE: \$4.90
RATING: BUY
PRICE TARGET: \$10
CURRENT YIELD: N/A

EPS Estimates - GAAP

	DEC 15A	DEC 16E
1Q	(\$0.32)	(\$0.22)A
2Q	(\$0.31)	\$0.07A
3Q	(\$0.05)	(\$0.21)A
4Q	(\$0.05)	(\$0.24)
	(\$0.73)	(\$0.60)

Trading Data

52-WEEK PRICE RANGE: \$7.20-\$4.20
SHARES OUTSTANDING: 32.0(M)
MARKET CAP: \$156.8(M)
AVG. DAILY TRADING VOLUME: 0.2(M)
S&P 500: 2,269

Valuation Data

BOOK VALUE: \$3.53
PRICE TO BOOK: 1.39x
DIVIDEND: n/a

MAXWELL TECHNOLOGIES, Inc. (NSDQ: MXWL)

“Still Waiting” & lowering price target

Highlights

- 3Q16 GAAP earnings of (\$0.21)/share vs.(\$0.05)/share
- Chinese subsidy uncertainty impacts revenues
- Earnings turnaround delayed
- Potential of higher revenues & profitability in 2018
- Maintain BUY rating & lowering price target to \$10/share

Investment Thesis

The recent sell-off in this stock has created an attractive entry point for speculative/aggressive investors seeking above average appreciation potential, from MXWL’s shares during the next 6-18 months. We believe MXWL is a revenue/earnings growth story, based on rising demand for the company’s products on both a short-term and long-term basis. Specifically, increased demand for the company’s ultracapacitor products could drive earnings growth as auto/truck/rail industries move towards “greener” options to increase mileage and lower vehicle emissions.

Company Summary

Maxwell Technologies (MXWL-\$4.90), headquartered in San Diego CA, develops, manufactures, and markets advanced energy storage/power delivery products. These products are used in the transportation, renewable energy, industrial, information technology sectors and the company also offers microelectronic products for space/satellite applications. MXWL’s produces two primary items; ultracapacitors and high-voltage capacitors. Internal manufacturing is done at facilities in Phoenix AZ and Rossens Switzerland. Low-cost offshore assembling of MXWL’s ultracapacitor products is done by Belton Technology (Hong Kong China) and Lishan Battery Company (Tianjin China). Sales offices are located in San Diego CA, Norfolk UK, Rossens Switzerland, Munich Germany, and Shanghai China.

For Important Disclosure information regarding the Firm’s rating system, valuation methods and potential conflicts of interest, please refer to the last two pages of this report.



BUSINESS OVERVIEW

MXWL has two primary products: Ultracapacitors and High-Voltage Capacitors.

Ultracapacitors (UC) are energy storage devices which possess high power density (having the ability to charge/discharge energy at a fast rate) and a long operational life. MXWL's ultracapacitor cells and multi-cell packs/modules supply high energy storage/power delivery solutions for application in many industries. These products are used in the transportation, energy, consumer, industrial electronics, and information technology industries. Ultracapacitors are the "lion's share" of MXWL's business comprising 62% of 2011's sales.

High-Voltage Capacitors (HVC) are devices designed/manufactured to perform reliably in all types of climates for electric utility infrastructures for long periods of time. This product group includes grading/coupling capacitors and capacitive voltage dividers used for safety, and reliability, in electric utility infrastructures. Other applications for this product group are used in the transmission, distribution, and measurement of high-voltage electrical energy.

MXWL recently sold its Radiation-Hardened Microelectronic Products business which includes high-performance/high-density power modules, memory modules, and single board computers. This unit was sold to Data Device Corporation for approximately \$21 million in cash and MXWL recognized a pre-tax gain of \$6.66 million.

MXWL TRANSITIONING SALES/GROWTH EFFORTS

During the past 3 years there has been a change in MXWL's management team and sales strategy with the objective of diversifying its targets markets and grow revenues. CEO, Dr. Franz Fink joined the company in May 2014 and hired a new CFO, David Lyle, and employed new people for key/strategic positions. Recently Jorg Buckheim was named Senior Vice President/Chief Sales Officer after spending 13 years at Hella, a global leading in lighting/electronic components and systems for the automotive industry, where he had been serving as CEO/President of Hella China. Dr. Henning Hauenstein became MXWL's Vice President of Strategy/Marketing after working at Infineon Technologies for 10 years as Senior Vice President /General Manager of the automotive business segment.

MXWL's new management group saw the need to shift MXWL away from the Chinese government subsidy-dependent hybrid bus business and diversify into other sectors moving towards mandated energy efficient standards set for 2020. These other sectors include electric/utility grid systems, wind generation, railroad systems, automotive, and truck sectors. To this end, plans are to work with existing customers and establish new strategic



partnerships to assist funding of key technologies/ solutions to accelerate the broader commercialization of MXWL's products.

One example of this was the recent agreement with Corning Industries geared to enhance performance of MXWL's electrode technology and new IP potentially allowing ultracapacitors to withstand extreme hot and cold temperatures. Also, the electrification of automobiles, or "emobility" with electric/hybrid vehicles, also creates another potential future revenue stream.

Another example, Duke Energy's (DUK-\$77.95) and Win Inertia commissioned the use of MXWL's hybrid energy storage system in DUK's electric grid system in efforts to increase the overall efficiency of its electrical network. If successful in this case, then other utilities may also consider employing this energy storage system.

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Two of the three US truck OEMs, Kenillworth and Peterbilt, now offer MXWL's products and expectations are the third, now in the fifth season of testing, may also offer the same sometime during the next 12 months.

Given the increased use of offshore wind turbines for electrical generation, MXWL has a number of new designs utilizing ultracapacitors to be used on large offshore end remote wind turbines. These products offer an extended life and reduced maintenance expense. MXWL management expects continued global efforts to increase electrical wind generation to be a material contributor to its revenue stream in 2016 and beyond.

EARNINGS CONFERENCE CALL

During the 3Q16 conference call MXWL addressed its operating challenges during the past few months including declining Chinese government subsidies towards its bus and wind businesses but also emphasized potential positives moving into 2017-2018. Additionally, they discussed various strategic initiatives which could help propel the company back towards profitability.

MXWL noted the identification of manufacturing and supply connections potentially allowing the company to stream line its business and improve its future cost structure. Further, management is diversifying its bus and wind product lines into other markets and potentially establishing a key partnership with a large Chinese brand market leader. This offers the possibility of restarting Chinese bus revenues during 2H17. Other strategic partnerships for MXWL's product development have been entered to expand MXWL's technology platform to increase its sales pipeline with hopes of accelerating revenue growth. Potentially, formal announcements could be made in 2017.



One area is MXWL's new dry battery electrode technology aimed at diversifying revenue streams and offers the potential of new analog applications as various transportation sectors move towards a "more electrified world", especially in the automotive area. MXWL stated its work with OEMs and Q1 suppliers is developing solutions for multiple platforms and has 11 car model designs at various stages of progress and other applications of MXWL's ultracapacitors.

Management believes at least 10-15 car model design wins could produce "meaningful" revenue for MXWL by 2020 from start-stop applications and eActive suspension applications in new car model designs. Migration towards MXWL's products could occur as manufacturers seek to downsize internal combustion engines, keep engine power, and significantly lower fuel consumption/emissions.

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The wind sector has "near-term challenges" as recent Chinese government initiatives put pressure on MXWL's wind revenues and may extend into 2017. MXWL decided to reduce its dependence on China for wind revenues by selling into other international wind markets. Management stated its high voltage sector has seen revenue increases driven mainly by infrastructure investment by the Chinese government in conjunction with its new economic growth plan.



Recent Earnings

MXWL reported 3Q16 GAAP earnings of (\$0.21)/share vs. (\$0.05)/share during 3Q15. The decline was due mainly to the negative impact of Chinese government subsidies for China's bus/wind sectors and the absence of revenues from the microelectronics business (\$3.0 million during 3Q15) which was sold during the past year. Total revenues declined to \$25.5 million from \$45.1 million. UC revenues fell to \$14.0 million from \$31.8 million and high-voltage revenues rose to \$11.5 million from \$10.3 million. Total operating expenses decreased to \$13.6 million from \$14.9 million. Non-GAAP earnings declined to (\$0.18)/share vs. \$0.01/share, when comparing the two quarters.

GAAP gross margin profit decreased to 29.9% during 3Q16 from 31.6% during 3Q15 and the operating loss expanded to \$5.9 million from \$3.8 million. Non-GAAP gross profit margin rose to 30.5% from 30.0% and the non-GAAP operating loss increased to \$6.9 million from \$1.5 million.

Our Thoughts

A lackluster earnings report as MXWL reported 3Q16 GAAP earnings of (\$0.21)/share vs. (\$0.05)/share during 3Q15. The decline was due mainly to a lack of revenues from the Chinese bus business and the absence of revenues from the microelectronics business (\$3.0 million during 3Q15) sold during the past year. Total revenues declined to \$25.5 million from \$45.1 million. MXWL has had to adjust its operating model in light of declining Chinese bus/wind revenues by diversifying its revenue stream, and lower expenses.

The anticipated "green shoots" of an earnings turnaround at MXWL, expected during 2H16-1H17, may not occur until 2H17-1H18, according to management. Thus investors are still waiting for signs of a turnaround and the stock has remained near its lows due to a lack of investor interest. MXWL is optimistic revenues from its grid, rail, truck, and especially the auto industry could ramp up during the 2018-2019 based on broader acceptance of its products by the auto industry and the potential of China bus revenues resuming sometime during 2H17. Our expectations are these shares will remain flat until there is evidence of an earnings turnaround at MXWL. Given this situation, we are maintaining our BUY rating on MXWL, however lowering our price target to \$10/share, equating to 9.3x our Enterprise Value/Revenue multiple based on our 2016 earnings estimate.



Risks

There are no guarantees MXWL will be able to grow future earnings. Declining customer orders, increasing commodity prices, and rising operating costs could negatively affect the company's profits. Economic slowdowns, or political change, in Europe and Asia could have adverse effects on earnings. Given the majority of its revenues come from overseas, fluctuations in currency values could impact MXWL's profitability. New products from competitors, or changing industry trends, are risks for MXWL's ability to sell its products. Negative equity markets, rising interest rates, terrorist attacks, and failure to comply with the Sarbanes Oxley Act could cause a decline in MXWL's share price. Given the relatively small amount of daily trading activity in MXWL's stock, any increase in trading volume could significantly accelerate the volatility of its share price movement.

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Capitol Securities Management
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EQUITY RESEARCH

MAXWELL TECHNOLOGIES, INC. & SUBSIDIARIES
condensed consolidated statements of operations
(in thousands, except per share data - unaudited)

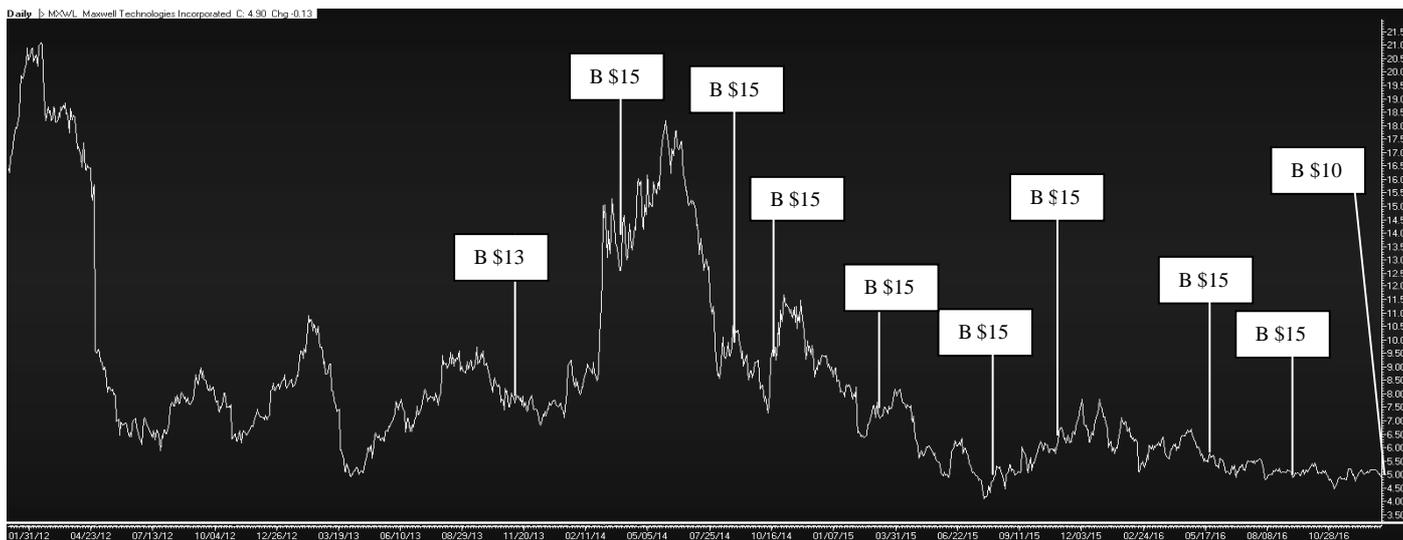
	1Q15	2Q15	3Q15	4Q15e	2015e	1Q16	2Q16	3Q16	4Q16e	2016e
Revenue	\$34,670	37,796	45,076	\$47,264	\$164,806	\$35,203	\$34,135	\$25,506	\$25,876	\$120,720
Cost of revenue	24,284	25,643	30,820	32,140	112,887	25,550	24,154	17,878	18,631	86,213
Gross profit	10,386	12,153	14,256	15,124	51,919	9,653	9,981	7,628	7,245	34,507
Operating expenses:										
Selling, general, & administrative	11,368	10,142	9,070	9,268	39,848	10,098	8,223	8,374	8,629	35,324
Research & development	7,918	5,930	5,781	5,792	25,421	5,607	5,461	5,193	5,289	21,550
Amortization of intangibles										
Restructuring/exit costs		2,340	56	915	3,311	188	109			297
Total operating expenses	19,286	18,412	14,907	15,975	68,441	15,893	13,793	13,567	13,918	57,171
Income/(loss) from operations	-8,900	-6,259	-651	-851	-16,661	-6,240	-3,812	-5,939	-6,673	-22,664
Gain on asset sale							6,657			6,657
Interest expense, net	-89	-75	-25	-22	-211	70	61	48	46	225
Amort of debt discount/prepaid debt costs			5							
Other Income							47	5	22	54
Debt discount amort/prepaid debt costs	-5	-2			-7					
For. Currency loss, gain		-85	97		12	130	64	49		243
Income before income taxes	-8,994	-6,421	-584	-829	-16,828	-6,365	2,767	-6,031	-6,697	-21,860
Income taxes	347	2,955	865	801	4,968	483	600	824	843	2,750
Net income	(\$9,341)	-9,376	(\$1,449)	(\$1,630)	(\$21,796)	(\$6,848)	\$2,167	(\$6,855)	(\$7,540)	(\$13,940)
Net income per share (diluted)	(\$0.32)	(\$0.31)	(\$0.05)	(\$0.05)	(\$0.73)	(\$0.22)	\$0.07	(\$0.21)	(\$0.24)	(\$0.60)
Shares outstanding (diluted)	29,445	30,232	31,529	31,529	31,529	31,650	32,027	31,989	31,989	31,989



EQUITY RESEARCH

Important Disclosures

, equating to 9.3x our Enterprise Value/Revenue multiple based on our 2016 revenue estimate



5/1/12 \$9.58 initiate BUY & \$13 price target
 4/2/13 \$4.98 lower to HOLD
 9/9/13 \$9.12 raise to BUY & \$13 price target
 4/8/14 Raise price target to \$15
 1/5/17 Lower price target to \$10
 Ratings-
 BUY: B
 HOLD: H
 SELL: S

Steven Marascia certifies, with respect to the companies or securities that he analyzes, that (1) the views expressed in this report accurately reflect his personal views about all of the subject companies and securities and (2) no part of his compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

Our price target is \$10/share, equating to 9.3x our Enterprise Value/Revenue multiple based on our 2016 revenue estimate

Stock ratings used in this report are defined as follows:

- (1) Buy – The stock's total return including dividends is expected to exceed the industry or market average by at least 10% over the next twelve months.
- (2) Hold – The stock's total return including dividends is expected to be in line with the industry or market average of +/- 10% over the next twelve months.
- (3) Sell – The Stock's total return including dividends is expected to be below the industry or market average by 10% or more over the next twelve months.

The distribution of investment ratings for all companies in our coverage universe are as follows: (1) 50%, (2) 50%, (3) 0%

The distribution of investment ratings used for companies whom we have performed banking services in the last 12 months are (1)100%, (2) 0%, (3) 0%

Capitol Securities Management's Investment Banking/Public Finance unit has not received compensation for investment banking services from the subject company in the past 12 months. Nor does it expect to receive, or intend to seek compensation for, investment banking services from the subject company in the next 3 months.

No affiliate of Capitol Securities Management, or Capitol Securities Management, received compensation from the subject company for products or services during the past 12 months.

The subject company is not, or during the past 12 months, was not, a client of Capitol Securities Management's Investment Banking/Public Finance unit.



Other Disclosures

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Risks

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(in thousands, except per share data - unaudited)

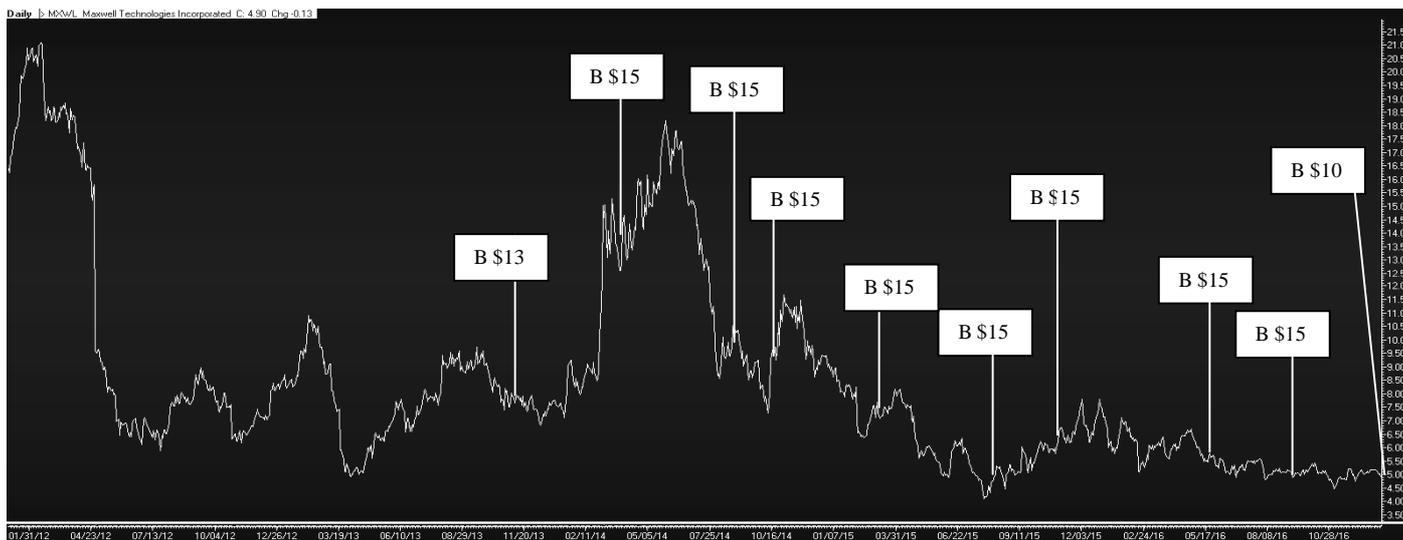
	1Q15	2Q15	3Q15	4Q15e	2015e	1Q16	2Q16	3Q16	4Q16e	2016e
Revenue	\$34,670	37,796	45,076	\$47,264	\$164,806	\$35,203	\$34,135	\$25,506	\$25,876	\$120,720
Cost of revenue	24,284	25,643	30,820	32,140	112,887	25,550	24,154	17,878	18,631	86,213
Gross profit	10,386	12,153	14,256	15,124	51,919	9,653	9,981	7,628	7,245	34,507
Operating expenses:										
Selling, general, & administrative	11,368	10,142	9,070	9,268	39,848	10,098	8,223	8,374	8,629	35,324
Research & development	7,918	5,930	5,781	5,792	25,421	5,607	5,461	5,193	5,289	21,550
Amortization of intangibles										
Restructuring/exit costs		2,340	56	915	3,311	188	109			297
Total operating expenses	19,286	18,412	14,907	15,975	68,441	15,893	13,793	13,567	13,918	57,171
Income/(loss) from operations	-8,900	-6,259	-651	-851	-16,661	-6,240	-3,812	-5,939	-6,673	-22,664
Gain on asset sale							6,657			6,657
Interest expense, net	-89	-75	-25	-22	-211	70	61	48	46	225
Amort of debt discount/prepaid debt costs			5							
Other Income							47	5	22	54
Debt discount amort/prepaid debt costs	-5	-2			-7					
For. Currency loss, gain		-85	97		12	130	64	49		243
Income before income taxes	-8,994	-6,421	-584	-829	-16,828	-6,365	2,767	-6,031	-6,697	-21,860
Income taxes	347	2,955	865	801	4,968	483	600	824	843	2,750
Net income	(\$9,341)	-9,376	(\$1,449)	(\$1,630)	(\$21,796)	(\$6,848)	\$2,167	(\$6,855)	(\$7,540)	(\$13,940)
Net income per share (diluted)	(\$0.32)	(\$0.31)	(\$0.05)	(\$0.05)	(\$0.73)	(\$0.22)	\$0.07	(\$0.21)	(\$0.24)	(\$0.60)
Shares outstanding (diluted)	29,445	30,232	31,529	31,529	31,529	31,650	32,027	31,989	31,989	31,989



EQUITY RESEARCH

Important Disclosures

, equating to 9.3x our Enterprise Value/Revenue multiple based on our 2016 revenue estimate



5/1/12 \$9.58 initiate BUY & \$13 price target
 4/2/13 \$4.98 lower to HOLD
 9/9/13 \$9.12 raise to BUY & \$13 price target
 4/8/14 Raise price target to \$15
 1/5/17 Lower price target to \$10
 Ratings-
 BUY: B
 HOLD: H
 SELL: S

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Our price target is \$10/share, equating to 9.3x our Enterprise Value/Revenue multiple based on our 2016 revenue estimate

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- (2) Hold – The stock's total return including dividends is expected to be in line with the industry or market average of +/- 10% over the next twelve months.
- (3) Sell – The Stock's total return including dividends is expected to be below the industry or market average by 10% or more over the next twelve months.

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The distribution of investment ratings used for companies whom we have performed banking services in the last 12 months are (1)100%, (2) 0%, (3) 0%

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