

FUNDAMENTAL FINANCIAL ANALYSIS: THE SECOND IN A TWO PART SERIES

In part one of this series, we outlined the steps analysts must perform in order to derive a value indication from market multiples through fundamental financial analysis. In part two of this series, we will illustrate the use of fundamental financial analysis on a specific company operating in the electronics equipment industry. The goal of this analysis is to derive a value indication for the company as of December 31, 2009 (the “Valuation Date”).

SUBJECT COMPANY BACKGROUND

The company, Gizmonics, Inc. (hereinafter “Gizmonics” or the “Company”), was formed in 2007 upon the invention of its product, the gizmo. The Company is headquartered in San Francisco and has 60 employees. The gizmo was first introduced to the market in 2008 generating \$15 million in revenue. In 2009, the Company produced \$40 million in revenue, but remained unprofitable at the EBITDA, EBIT, and cash flow levels. The management of the Company projects revenue to grow steadily from \$60 million in 2010 to \$200 million in 2014. In addition, the Company expects to have negative EBITDA, EBIT, and cash flow until 2012, its first year of positive net income. In 2014, the Company

projects EBITDA, EBIT, and cash flow of \$20 million, \$16 million, and \$12 million, respectively. The Company’s growth is funded entirely through raising equity capital from venture capital investors. A summary of the Company’s most recent and projected financial information is shown below in **Table A**.

APPLYING FUNDAMENTAL FINANCIAL ANALYSIS

As discussed in part one of this series, fundamental financial analysis is a technique used to determine the value of a company by focusing on the “economic characteristics of the business such as profitability, financial strength, and risk.”⁽¹⁾ Valuation professionals, investment management professionals, and securities analysts alike, all use fundamental financial analysis in the development of securities valuations.

Below, we apply fundamental financial analysis in order to determine the value of Gizmonics using market multiples to capitalize financial metrics.

The market multiples are derived from the trading prices of comparable publicly traded companies and will be applied to Gizmonics’ projected financial metrics to calculate the Company’s value. This valuation method is known as the “market approach”.

SELECTING COMPARABLE COMPANIES

We first analyzed the Company and the industry on a qualitative level. A search for companies that are comparable to Gizmonics and whose equity is actively traded on a recognized exchange yielded eight companies that can be used in a meaningful comparative analysis (the “Comparables”). The Comparables exhibit similar business operations, customers, and suppliers. At the same time however, the Comparables are much larger and have significantly different asset composition and profit margins. It is common to experience “non-comparability” when valuing recently formed technology companies because early-stage companies are often much smaller than their publically traded peers in terms of revenues and asset base. In addition, early-stage companies typically exhibit weak and uneven profitability until their products become established in the marketplace (“traction”).

TABLE A

<i>Dollars in Thousands</i>	2009 A	2010 E	2011 E	2012 E	2013 E	2014 E
Total Assets	\$35,000	\$51,000	\$58,000	\$64,000	\$75,000	\$90,000
Cash as % of Total Assets	40%	35%	30%	30%	30%	30%
IB-Debt to Total Assets	0	0	0	0	0	0
Revenue	\$40,000	\$60,000	\$85,000	\$110,000	\$150,000	\$200,000
EBITDA	(\$500)	(\$3,500)	(\$1,500)	\$2,500	\$8,500	\$20,000
EBIT	(\$650)	(\$4,000)	(\$2,000)	\$2,000	\$7,000	\$16,000
Net Income	(\$650)	(\$4,000)	(\$2,000)	\$2,000	\$4,300	\$10,000
Gross Cash Flow	(\$500)	(\$3,500)	(\$1,500)	\$2,500	\$6,000	\$12,000
Net Free Cash Flow*	(\$5,000)	(\$8,000)	(\$3,000)	\$1,000	\$3,000	\$7,000
Revenue: Year Over Year Growth	140%	50%	42%	29%	36%	33%
Gross Profit Margin	30%	26%	25%	28%	31%	33%
EBITDA Margin	-1%	-6%	-2%	2%	6%	10%
EBIT Margin	-2%	-7%	-2%	2%	5%	8%
Net Income Margin	-2%	-7%	-2%	2%	3%	5%
Gross Cash Flow Margin	-1%	-6%	-2%	2%	4%	6%

*cash flow net of capital expenditures and changes in working capital

SELECTING APPLICABLE METRICS

The most significant financial metrics that drive value in the electronics equipment industry are revenue, EBITDA, and cash flow. In particular, industry participants view revenue growth as a central driver of equity value among early-stage companies due to the speed at which electronics equipment can become obsolete. In order for electronics equipment products to succeed in the market, a growth profile that will generate sufficient cash flow to compensate investors for the risk of obsolescence is required.

Using EBITDA and cash flow multiples to value electronics equipment companies tends to be more common when the subject company's products have demonstrated traction and the company exhibits sustainable profit margins.

In the case of Gizmonics, revenue is the only applicable metric as of the Valuation Date because the Company has yet to achieve profitability. However, future EBITDA and cash flow may be capitalized to develop future value indications. Unprofitable companies that project positive EBITDA and cash flows in future years are candidates for applying current multiples to future metrics.

It is common practice for valuation professionals to apply current multiples to future metrics of companies that are at the early stages of development when the subject company's current metrics produce non-meaningful value indications. This technique requires analysts to

compare the projected, future financial condition of the subject company to the current financial condition of its peer group. Applying current multiples to Gizmonics' future metrics is meaningful because the Company is projected to demonstrate increasing similarity to the Comparables over the next several years. Moreover, this capitalization technique adds depth to the analysis and the resulting valuation by incorporating EBITDA and cash flow, which ultimately are the metrics investors demand.

For Gizmonics, we will develop one present value indication by capitalizing 2009 revenue, and two future value indications by capitalizing 2014 EBITDA and cash flow. The two future value indications will be discounted to the Valuation Date using an equity discount rate of 35%. (2) The year 2014 was selected to capitalize EBITDA and cash flow because gizmos are expected to have repeat orders from existing customers, and it is the first projected year that profit margins are expected to be representative of future years.

MULTIPLE SELECTION

In order to determine multiples to use for Gizmonics, a comparative analysis is necessary between the Comparables and the Company as of December 31, 2009 and as of December 31, 2014 (together the "Capitalization Dates"). In selecting multiples, analysts are required to use the comparative analysis at each date to select a point in the range of multiples that is applicable to the Company. This process entails 1) defining the universe of multiples (from the Comparables);

2) quantifying relative positions within the range of multiples by determining Gizmonics' financial position relative to the Comparables (e.g. first quartile, median, or the third quartile); and 3) selecting multiples that correspond to its relative position within the range. In practice, using a comparison of pertinent value drivers such as profitability, size, leverage, and growth are appropriate for measuring Gizmonics' ranking among the Comparables. As discussed in part one of this series, additional value drivers that are pertinent to the specific industry should also be included in the comparative analysis. Companies that have capital to acquire new technologies are more competitive than companies that must grow organically. For Gizmonics, cash is also an important value driver because of the Company's ongoing dependence on external financing until it becomes cash flow positive. A summary of the Comparables' financial performance and size in 2009 is shown in **Table B**.

PROFITABILITY

In 2009, Gizmonics' gross margin was 30%, which is near the median of the Comparables at 31%. EBITDA margins are negative in 2009 through 2011, which is below the range of the Comparables. EBITDA and cash flow margins are projected to be positive in 2012 and 2013, but below the median of the Comparables. In 2014, EBITDA and cash flow margins are expected to be near the median at 10% and 6%, respectively. Gizmonics' relative positioning is at the low end of the range in 2009, but at the median in 2014.

TABLE B

<i>Dollars in Thousands</i>	Company A	Company B	Company C	Company D	Company E	Company F	Company G	Company H	Median
Total Assets	\$3,387,000	\$3,516,000	\$2,555,000	\$1,501,000	\$307,000	\$47,501,000	\$822,084,000	\$492,131,000	\$3,451,500
Cash as % of Total Assets	1%	29%	21%	35%	27%	11%	14%	11%	18%
IB-Debt to Total Assets	9%	0%	23%	0%	0%	0%	0%	8%	0%
Revenue	\$1,842,000	\$2,935,000	\$2,779,000	\$1,859,000	\$228,000	\$10,556,000	\$400,000	\$1,585,000	\$1,850,500
Revenue: Year Over Year Growth	-9%	-20%	-31%	-26%	-14%	14%	0%	21%	-11%
Gross Profit Margin	22%	47%	23%	28%	50%	40%	17%	35%	31%
EBITDA Margin	12%	29%	2%	5%	6%	31%	7%	14%	9%
EBIT Margin	-2%	26%	-3%	2%	2%	29%	5%	12%	4%
Net Income Margin	-15%	21%	-16%	1%	3%	21%	4%	8%	4%
Cash Flow Margin	-1%	24%	-11%	4%	7%	23%	5%	10%	6%

LEVERAGE

As of the Valuation Date, the Company carried no interest-bearing debt, which is similar to the Comparables' median debt to total assets ratio of 0%. Only three Comparables had a significant amount of interest-bearing debt as a percentage of assets and/or market value. Leverage is not a notable factor in this analysis.

SIZE

For all historical and projected years, the Company's revenues will remain below the range. Revenue is expected to reach \$60 million in 2010 and \$200 million in 2014. Based on size, multiples at the lower end of the range are appropriate for Gizmonics for both Capitalization Dates.

GROWTH

Gizmonics has only one year of historical revenue growth data, which is not deemed meaningful because it is from such a small base. Therefore, projected revenue growth for 2010 through 2014 was compared for both Capitalization Dates. Over this period, the Company's projected revenue growth is above the range of the Comparables, commanding multiples at the higher end of the range for both Capitalization Dates.

EXPANSION FUNDING

As of the Valuation Date, the Company's cash balance represented 40% of total assets compared to the Comparables that held cash representing between 1% and 35% of total assets with a median of 18%. Cash will be necessary to fund Gizmonics' expected growth. Management expects to receive equity financing to keep cash levels above 30% of assets through 2014. Therefore, multiples at the higher end of the range are applicable for both Capitalization Dates.

COMPARISON SUMMARY

Gizmonics projects stronger growth in all years, no debt, a higher cash balance as a percentage of assets, and is considerably smaller than all of the Comparables. Relatively weaker profitability is projected for 2009, but margins are expected to rise to the median of the Comparables in 2014. Considering the relative strengths and weaknesses of the Company, first quartile multiples were selected to apply to the Company's revenue in 2009 and multiples between the first quartile and median were selected to apply to the Company's EBITDA and cash flow in 2014. A summary of the Company's financial performance as compared to the Comparables is presented in **Table C**.

TABLE D

Comparable	TIC/ Revenue	TIC/ EBITDA	TIC/ Cash Flow
Company A	1.1x	8.3x	Outlier
Company B	2.1x	7.2x	9.6x
Company C	1.1x	Negative	Negative
Company D	1.6x	22.5x	41.8x
Company E	3.8x	29.1x	62.8x
Company F	Outlier	13.5x	21.0x
Company G	0.6x	8.5x	11.5x
Company H	2.0x	12.5x	19.9x
Min:	0.6 x	7.2 x	9.6 x
1st Quartile:	1.1 x	8.4 x	13.6 x
Mean:	1.7 x	14.5 x	27.7 x
Median:	1.6 x	12.5 x	20.4 x
3rd Quartile:	2.0 x	18.0 x	36.6 x
Max:	3.8 x	29.1 x	62.8 x
Selected (2009):	1.1 x	n/a	n/a
Selected (2014):	n/a	10.5 x	17.0 x

ADJUSTMENTS TO THE RANGE OF MULTIPLES

When determining the appropriate multiples to apply, it is important to test the range of multiples for reasonableness. In the case of the Comparables, Company C generated negative EBITDA and cash flow in 2009, which produced non-meaningful multiples. Company A's total invested capital ("TIC") (3) was over 500 times cash flow due to extremely low EBITDA in 2009, which was deemed a statistical outlier.

Company F's TIC/revenue multiple of 6.9x was also considered to be a statistical outlier. Company F announced the release of a breakthrough product (the widget 2.0) in November of 2009, which caused its stock price to double overnight. Company F's 2009 financial statements do not include any revenues from the widget 2.0. Since Company F's stock price as of the Valuation Date is based significantly on the expectations of the widget 2.0, its 2009 revenue (which is used to calculate the TIC/revenue multiple) is not reflective of future performance. As such, the mismatch between past results and current expectations renders this multiple non-meaningful in this circumstance. The adjusted range and selected multiples are displayed in **Table D**.

TABLE C

Dollars in Thousands	Gizmonics (2009)	Indicated Multiple	Gizmonics (2014)	Indicated Multiple
Balance Sheet Comparison				
Total Assets	\$35,000	Minimum	\$90,000	Minimum
Cash as % of Total Assets	40%	Third Quartile	30%	Third Quartile
IB-Debt to Total Assets	0	Median	0	Median
Income Statement Comparison				
Revenue	\$40,000	Minimum	\$200,000	Minimum
Revenue: Year Over Year Growth	140%	Maximum	33%	Maximum
Gross Profit Margin	30%	Median	33%	Median
EBITDA Margin	-1%	Minimum	10%	Median
EBIT Margin	-2%	First Quartile	8%	Med/Q3
Net Income Margin	-2%	First Quartile	5%	Median
Cash Flow Margin	-1%	First Quartile	6%	Median
Selected Multiples	2009:	First Quartile	2014:	First Quartile to Median

TABLE E

Capitalization Ratio	2014 Metric	Applied Multiple	Future Terminal Value	Present Value of the Future Terminal Value	Present Value of the Net Free Cash Flows: 2009-2014	Concluded Equity Value
TIC/EBITDA	\$20,000,000	10.5x	\$210,000,000	\$46,800,000	(\$5,000,000)	\$41,800,000
TIC/Cash Flow	\$12,000,000	17.0x	\$204,000,000	\$45,500,000	(\$5,000,000)	\$40,500,000

APPLICATION OF MULTIPLES: 2009

For the valuation of Gizmonics, the first quartile TIC/revenue multiple (1.1x) was applied to the Company’s 2009 revenue (\$40 million). The resulting TIC value of \$44 million is also its equity value because there is no interest-bearing debt in the Company’s capital structure.

APPLICATION OF MULTIPLES: 2014

In order to determine the future value of Gizmonics in 2014, average multiples of the first quartile and the median TIC/EBITDA (10.5x) and TIC/Cash flow (17.0x) multiples were applied to the Company’s 2014 EBITDA (\$20 million) and cash flow (\$12 million), respectively. The resulting 2014 TIC value is \$210 million and \$204 million, respectively. The present equity values are equal to the present value of the 2014 value plus the present value of the interim net free cash flows. (4) The resulting present equity value using the EBITDA and cash flow multiples are \$41.8 million and \$40.5 million, respectively. Refer to **Table E** for the calculation details.(5)

CONCLUSION

By applying market multiples, three equity value indications for Gizmonics were developed. In order to conclude the equity value using market multiples, analysts must assess the relative strengths and weaknesses of each value indication. The 2009 revenue indication is useful because it incorporates the Company’s historical growth profile and is based on actual financial performance. However, it does not account for the Company’s cost structure.

The 2014 EBITDA and cash flow multiples indications incorporate the Company’s expected growth and

profitability profile. Both indications are subject to the accuracy of projections (together with their underlying assumptions) and the development of the appropriate equity discount rate. Upon weighing the strengths and weaknesses of each resulting value indication, we concluded that the arithmetic average (mean) of the three indications produced a reliable value for the Company (see **Table F**). Through the application of fundamental financial analysis, we selected the appropriate market multiples and concluded Gizmonics’ equity to be worth \$42 million.

TABLE F

Multiple Utilized	Weight	Value
TIC/Revenue (2009)	33.33%	\$44,000,000
TIC/EBITDA (2014)	33.33%	\$41,800,000
TIC/Cash Flow (2014)	33.33%	\$40,500,000
Concluded Value (Rounded)		\$42,000,000

Foot notes:

- (1) CFA Program curriculum, Level II, volume 4, 2010.
- (2) The equity discount rate is the rate of return that equity investors require given the risk profile of the Company. It is used to account for the risk adjusted time-value of money when comparing investment values in different time periods. For Gizmonics, the Capital Asset Pricing Model (“CAPM”) was used to calculate the discount rate. The CAPM uses the historical volatility of the Comparables and the current financial leverage of Gizmonics in the calculation of the discount rate.
- (3) Total invested capital is equal to market value of debt plus the market value of equity.
- (4) The present value of interim cash flows is equal to the present value of net free cash flows between the Valuation Date and December 31, 2014.
- (5) Figures are rounded for simplification.

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