

ZOLL Medical Corp

NASDAQ: ZOLL, \$37.87
United States

SELL

Downgraded 8/26/06

Ativo Research's Investment Conclusion

The Ativo research team currently projects that ZOLL will underperform the market over the next 6 to 12 months. Our decision is based on the stock's relationship to its intrinsic value as well as an assessment of the momentum of the company's fundamentals.

Buy	Most Favorable
Hold	Favorable
Sell	Neutral
	Unfavorable
	Most Unfavorable

Current Recommendation (8/26/06) **Unfavorable**
Previous Recommendation (8/5/06) **Neutral**

BIR Stock Classifications

Region	North American
Sector	Healthcare
Industry	Medical Supplies
Asset Class	Small-Cap
Investment Style	Value
Risk Profile Rank	Average Risk
Financial Quality	Average Quality

Company Fundamentals

Market Capitalization (Millions)	\$365.7
Price/Earnings Ratio (TTM)	46.1x
Price/Cash Flow Ratio (TTM)	18.6x
Price/Book Ratio (MRQ)	1.95x
Dividend Yield (Indicated)	Nil
Net Profit Margin (TTM)	3.4%
Return on Equity (TTM)	4.4%
Debt/Equity (MRFY)	0%
Beta	0.60

Revenues (\$ in Millions)

FY Ends:	2003	2004	2005	2006	2007
Dec. 31	43.1	50.8	50.6	55.5	--
Mar. 31	46.6	50.8	52.5	56.8	--
Jun. 30	44.7	54.5	51.1	64.3	--
Sep. 30	50.2	55.7	57.1	--	--
Full FY	184.6	211.8	211.3	239.6	274.0

GAAP revenues; BIR consensus estimates in italics. The fiscal year consensus BIR estimates are not the sum of individual quarters.

Earnings Per Share (\$ diluted)

FY Ends:	2003	2004	2005	2006	2007
Dec. 31	0.25	0.29	-0.06	0.12	--
Mar. 31	0.30	0.17	0.02	0.21	--
Jun. 30	0.32	0.28	0.01	0.26	--
Sep. 30	0.53	0.23	0.23	--	--
Full FY	1.40	0.96	0.20	0.92	1.30

GAAP EPS; BIR consensus estimates in italics. The fiscal year consensus BIR estimates are not the sum of individual quarters.

Jun. 30, 2006 -- Best Independent Research -- ZOLL Medical Corp. (ZOLL) designs, manufactures and markets innovative devices for non-invasive cardiac applications such as pacing, defibrillation, circulation, ventilation and fluid replacement. The company's flagship defibrillator, the M-Series, is currently sold in eleven models and is equipped with rectilinear biphasic waveform technology that utilizes extremely low energy and current during emergency cardiac procedures such as defibrillation and cardioversion. The Mayo Clinic, Scripps Health System, Women's Hospital, The Johns Hopkins Hospitals and the US and German armed forces currently utilize the M-series.

Net Income Soars

The company's revenue increased 8.3% to \$56.8 million in the second quarter of 2006, ended April, compared to the same period last year. This was attributed to an increase in the North American pre-hospital market and AED shipments to all markets by 19% and 8%, respectively. The results were also benefited by the shipment of approximately \$8 million in units from the first quarter backlog. Gross profit margins slipped 0.85 percentage points, due to lower average foreign exchange rates. Operating expenses decreased 2% to \$28.9 million, due to a decline in R&D and selling and marketing costs, partially offset by an increase in general and administrative expenses. Income from operations stood at \$2.8 million, while net income skyrocketed to \$2.1 million, or \$0.21 per diluted share, from \$159,000. Cash flows for the six-month period stood at \$17.7 million

Strong Market Potential Propels Demand

Studies indicate that an estimated half a million people die of cardiac complications each year in the US. The worldwide market for life-saving, external defibrillator products was estimated at approximately \$985 million in 2005. When deployed at the onset of a cardiac crisis, a defibrillator shocks an arrhythmic heart back to normalcy. Since no other treatment works quite as effectively as defibrillation in restoring rhythm to an erratically beating heart, public healthcare services are trying to shorten their response time during emergencies. This may have a cascading effect and shore up demand for Zoll's defibrillators.

Innovative Products Beat Competition

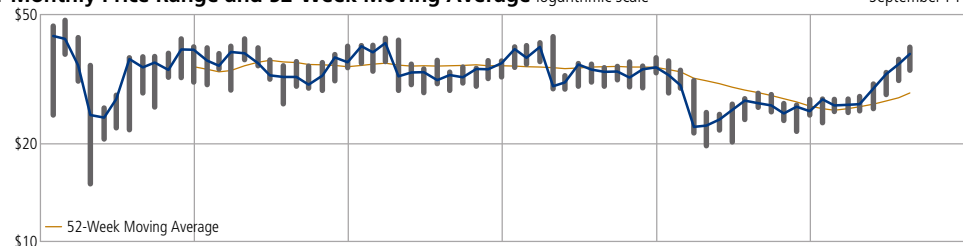
Zoll is intensifying its R&D programs to combat competition from Medtronic's Emergency Response Systems Division, Royal Philips Electronics Cardiac Science, Welch Allyn, HeartSine Technologies and Defibtech. It is in the process of expanding its product portfolio by utilizing its existing proprietary technologies to develop new products.

In February 2005, Zoll rolled out AED Pro, an automated external defibrillator resuscitation device that can monitor the ECG with standard electrodes. In July, it launched the E-Series, the company's latest defibrillator designed to meet the specific demands and extreme conditions of the EMS environment such as temperature, moisture, and portability. In December, Teradyne, a supplier of automatic test equipment and interconnection systems, chose Zoll's AED Plus automated external defibrillator (AED) for deployment in Teradyne facilities in 15 countries. Recently, in April, the company acquired Lifecor, a privately owned medical equipment company.

Earnings Guidance

Consensus estimates project EPS for the June quarter, and fiscal years 2006 and 2007 at \$0.22, \$0.90 and \$1.27, respectively. RS/MKI

5-Year Monthly Price Range and 52-Week Moving Average logarithmic scale



Prices: CY, Financials: FY	2001	2002	2003	2004	2005	2006
Price Range	15 - 48	27 - 42	29 - 42	30 - 43	20 - 36	24 - 40
Revenues (M)	119.2	150.2	184.6	211.8	211.3	239.6
EPS (Diluted)	0.83	1.12	1.40	0.96	0.20	0.92
Dividend Declared	Nil	Nil	Nil	Nil	Nil	--
Book Value/Share	14.64	15.63	16.72	17.97	18.68	19.17

BIR consensus estimates in italics

ZOLL Medical Corp
NASDAQ: ZOLL

Ativo Research Recommendation

Buy	Most Favorable
Hold	Favorable
Sell	Unfavorable
	Most Unfavorable

Current Recommendation (8/26/06)
Previous Recommendation (8/5/06)

Unfavorable
Neutral

Investment Philosophy

Ativo's valuation framework begins with the principles developed by Merton Miller, Franco Modigliani and others at the University of Chicago. Ativo's contribution is the empirical validation and practical application that make these principals useful in making investment decisions. Stated briefly, stock prices are primarily determined by future cash flows and discount rates, each of which is influenced by distinct and separate factors.

Research Process

Fundamental data on all companies is run through a series of algorithms that adjust for the effects of inflation and remove other accounting distortions. This correctly measures the assets employed and the net cash receipts generated by companies. The resulting cash flow return on investment (CFROI) reflects economic reality. We also estimate each firm's discount rate and asset growth, or cost of capital (COC), to show how the market values the firms' cash flows. This valuation framework is then combined with momentum measures of sales, profits and prices to determine three- to five-year price targets for the stock.

Underperformance Expected

Our review of ZOLL is based on the methodology pioneered and developed by Chuck Callard since 1970, which calculates fundamental economic performance by systematically adjusting reported financial statements to correct for differences in accounting policies, inflation, leverage, and industry characteristics, thereby comparing all companies on a consistent basis. The resulting discounted cash-flow valuation, which incorporates industry and company growth prospects, is compared with the current price to determine relative attractiveness. This preliminary assessment is then tested against a series of short-term performance measures to determine the final recommendation. By removing all economic and accounting distortions and viewing the stock on a relative basis, we have gained a clear picture of how the stock will perform against market averages.

Overall Recommendation: Sell

We decided on ZOLL's Sell rating by incorporating several factors, which our experience has shown to be powerful indicators of future price performance. Our decision was based on (1) valuation, which compares the firm's intrinsic value against the price of its stock, (2) intermediate and long-term price momentum, (3) other measures of fundamental trend and (4) qualitative analysis.

Expected Shareholder Return: Most Unfavorable

Measures the return shareholders can expect to earn based on the current stock price and the firm's projected cash flows. It is a measure of potential price appreciation over the following 26 to 104 weeks. For this firm, the potential price appreciation is 1.5% below the market's, which is Most Unfavorable.

P/E to Growth Ratio (PEG): Most Unfavorable

Measures the ratio between the firm's P/E and its forecasted asset growth rate. Ideally a firm has a low P/E and a high growth rate resulting in a low

PEG ratio. ZOLL has a P/E of 45.3 and a forecasted real asset growth rate of 3.0% resulting in a PEG ratio of 5.0. This is Most Unfavorable, as it is worse than 97% of all firms.

Price Momentum: Average

Measures the trend in relative shareholder wealth, over the last 200 days, including an adjustment for past volatility (at rare key reversal moments the favored firms are those that have been losing to the S&P). ZOLL has a momentum score that puts it in the top 60% of all firms (Average).

Qualitative Analysis: Average

The attractiveness of a stock depends on certain non-numerical factors, such as quality of management, intensity of competition and brand strength. Our analysts take into account these and other factors in order to produce a comprehensive picture of the quality of each company.

Sales Growth: Favorable

Measures the growth in real four-quarter total sales per share over the last few quarters. ZOLL's sales have grown at a rate of 15% which is Favorable.

Earnings Surprise: Most Favorable

The EPS Surprise is computed by comparing recently reported earnings with the prior forecasts. ZOLL has recently had positive earnings surprises, placing it in the top 14% of all firms (Most Favorable).

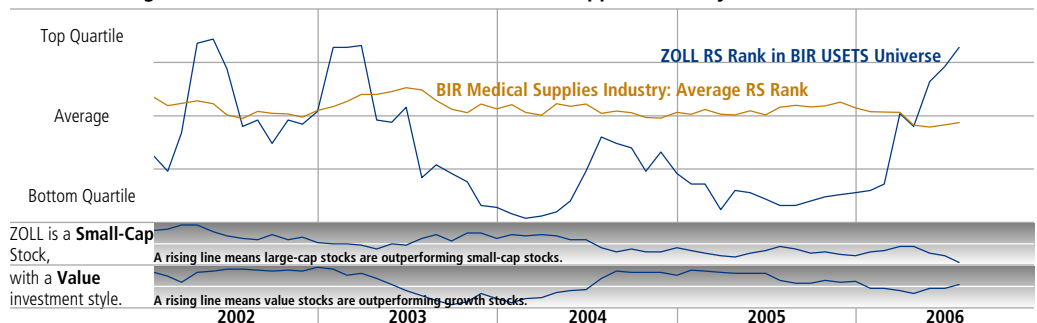
ROI Trend: Average

This score compares the long term ROI forecast with the average of the last 4 years. The ROIs for ZOLL are expected to decrease by 1.4%, putting it in the bottom 50% of all firms (Average).

Return Since Last Turning Point: Most Favorable

We measure how the stock has performed since the last Market Turning Point, defined as either a peak, trough or change in the general character of the market. Since the Last Turning Point, this stock has gained 41.5%, which is considered Most Favorable.

Relative Strength Rank (RS Rank): ZOLL & the BIR Medical Supplies Industry



ZOLL Medical Corp
NASDAQ: ZOLL

BIR Stock Classifications

Region	North American
Sector	Healthcare
Industry	Medical Supplies
Sub-Industry	Small Med Products

52-Week Sector Performance Order

Current	Past Order (Mos. Ago)			BIR Sector	Price Return	Median Rel. St. Rank
	3	6	12			
1	1	2	8	Metals	43%	11
2	2	1	2	Energy	17%	30
3	3	3	6	Capital Goods	12%	36
4	5	5	3	Aerospace	10%	37
5	6	11	9	Transport	7%	41
6	9	6	10	Insurance	5%	45
7	10	7	4	Finance	4%	46
8	16	17	16	Banking	4%	47
9	7	9	17	Industrial	4%	47
10	15	12	12	Telecom	3%	48
11	19	14	5	Utilities	3%	48
12	12	15	11	Chemicals	0%	53
13	18	20	20	Forest Products	-3%	56
14	20	18	14	Consumer Staples	-3%	56
15	4	8	18	Technology	-3%	57
16	14	16	15	Services	-5%	60
17	17	10	13	Healthcare	-6%	61
18	13	13	7	Retail	-11%	68
19	11	19	19	Consumer Durables	-14%	72
20	8	4	1	Building	-26%	85

Medical Supplies Industry

Jun. 23, 2006 -- Best Independent Research --
The Medical Supplies industry has undergone a revolution over the past 30 years, as sophisticated tools and equipment have replaced traditional needles and rubber gloves. The U.S. market consists of 12,000 companies with a combined total of \$50 billion in revenues. The top 50 companies account for approximately 60% of the market. The industry's flagship cardiac care segment is dominated by major players such as Medtronic, Johnson & Johnson (J&J), Boston Scientific, Abbott Laboratories and St. Jude, which manufacture electrical devices, including implantable defibrillators and pacemakers, valve repair products and coronary drug eluting stents. The government's new Medicare acquisition program is expected to put pressure on the prices of medical products in the near future.

Net Income Falls

In the recently concluded quarter, the revenue of the top 10 companies in the industry grew at an average of 9.5% over the corresponding period the previous year, led by Baxter International, Alcon Inc. and Luxottica. Meanwhile, revenues from Boston Scientific, Stryker and Becton Dickinson increased 0.31%, 9.9% and 6.1%, respectively. Their net income, however, fell drastically by 7.3%, 11.5% and 18.1%. This was triggered by higher SG&A expenses, which shot up during the quarter. Overall, net earnings fell 4.1% on average.

Strong Revenue Drivers in Place

The world population is expected to increase to 7.80 billion by 2025 and the number of senior citizens will grow at an even faster pace. This will create immense growth opportunities for medical devices companies. An aging population is more

vulnerable to cardiac complications, cancer, Alzheimer's, arthritis and vision loss, which will boost demand for outpatient devices like glucometers and blood pressure monitors. The amount of resources allocated for healthcare is steadily rising due to improvements in socioeconomic conditions across various demographics. The use of medical diagnostic equipment has increased, as third-party and government insurance agencies reimburse costs for a majority of tests. However, to remain competitive, the medical device manufacturers will have to respond with belt-tightening measures and increase efficiency, while focusing on niche areas.

New Medicare Acquisition Program

The government is planning to improve the Medicare payment program, lowering the cost and improving the quality of durable medical equipment, prosthetics, orthotics, and supplies, through a new competitive acquisition program. This will introduce a competitive bidding process focusing on cost and volume. The program will begin in 2007 in 10 of the largest metropolitan statistical areas (MSAs). It will be expanded to 80 of the largest MSAs by 2009, and be adopted nationwide thereafter.

Industry Outlook

Financial fundamentals for most companies in this industry continue to remain strong and stable. The new bidding program is not going to affect the industry revenue immediately, as it will be phased in gradually. However, like the pharmaceutical industry, medical-device firms face innovation risk and operate under a time-consuming and unpredictable regulatory environment. Long term, pressure to improve the healthcare delivery system is a win-win situation for the consumer and the industry. According to conservative figures, national healthcare spending was \$1.3 trillion in 2000, or 13.2% of the nation's GDP. This is projected to reach \$3.4 trillion in 2013, around 18.4% of estimated GDP. CV/MKI

Comparing ZOLL to its Sub-Industry Peers

Sources: BIR consensus estimates; Reuters

(Medians) Market Cap. (\$)	Price (\$)	BIR USETS Universe: Over 3,000 U.S. exchange-traded stocks, both domestic & international	52-Week Price Return & Rel. Strength Rank	Estimated PE Ratios & Relative Rankings				Estimated EPS Growth & Relative Rankings				EPS Revisions (3 mos) & Relative Rankings				Estimated P/Sales Ratios & Relative Rankings			
				Cur. Year	Next Year	Cur. Year	Next Year	Cur. Year	Next Year	Cur. Year	Next Year	Cur. Year	Next Year						
1.40B		BIR USETS UNIVERSE	5% 51	17.3 51	15.1 51	13% 51	15% 51	0% 53	0% 51	1.6 51	1.5 51								
1.04B		BIR Medical Supplies	0% 58	22.8 74	19.2 74	10% 56	20% 40	0% 53	0% 45	2.7 68	2.3 67								
850.59M		Peer Group	11% 42	23.8 76	18.8 73	15% 48	26% 30	0% 46	1% 41	1.5 48	1.3 46								
365.69M	37.87	ZOLL Medical Corp	42% 13	41.2 92	29.1 91	199% 5	41% 18	2% 35	2% 28	1.5 48	1.3 46								
903.19M	39.05	PLMD PolyMedica Corp	11% 43	24.3 77	17.1 65	3% 71	42% 18	-3% 70	2% 31	1.3 41	1.0 35								
1.24B	46.10	HAE Haemonetics Corp	11% 42	21.8 71	18.6 72	6% 67	18% 45	-2% 66	-3% 69	2.7 68	2.4 68								
777.27M	22.67	WMGI Wright Medical Group Inc	-6% 67	81.0 97	55.3 98	-60% 96	46% 16	11% 11	1% 33	2.3 63	2.1 63								
1.24B	38.20	WST West Pharmaceutical Svcs	43% 12	20.5 66	17.6 67	31% 29	17% 47	4% 25	2% 31	1.4 46	1.3 44								
1.32B	19.46	PSSI PSS World Medical Inc	34% 17	24.6 78	20.5 79	19% 40	20% 38	1% 37	1% 41	0.8 23	0.7 22								
382.53M	15.20	CYBX Cyberonics Inc	-59% 98	NA NA	NA NA	62% 17	67% 11	-4816% 100	-155% 99	2.6 67	2.1 63								
850.59M	26.19	VAS Viasys Healthcare Inc	3% 54	23.4 75	18.6 72	15% 48	26% 30	-11% 84	-8% 80	1.4 46	1.3 45								
669.66M	50.67	VITL Vital Signs Inc	15% 36	21.6 70	19.0 73	14% 49	14% 57	0% 46	0% 45	3.2 75	3.0 76								

ZOLL Medical Corp NASDAQ: ZOLL

Ativo Research uses the BIR Report Format to communicate its research recommendations.

Ativo Research delivers its investment advice using an efficient research report designed and maintained by Best Independent Research. This report building environment enables Ativo to document the logic supporting its recommendations with clear explanations of the decisions made by its analysts at each step of their investment process. BIR has no influence on its recommendations.

Best Independent Research LLC

This BIR report format is a joint effort of five veteran equity research firms to create a state-of-the-arts research report. Each firm uses this report format when issuing their individual research recommendations.

BIR is not a research organization and does not make recommendations. Its role is to provide innovative ways to highlight the research firm's message with a report investors enjoy and find valuable. BIR professionals maintain proprietary stock risk ranks, financial quality ratings, company and industry descriptions and consensus revenue and earnings estimates. None of the five research firms utilize this data in making their recommendation decisions.

Ativo Research delegates tasks to BIR that involve presentation, so it can focus its resources on producing accurate stock selection advice.

Ativo Research

Chuck Callard (1923-2004), a pioneer in quantitative finance, developed successful valuation models with his colleagues based on the insights of Merton Miller, Franco Modigliani and James Tobin at the University of Chicago. Decades of empirical observation by Ativo has confirmed a stock's price ultimately reverts to the fair price of its underlying company. Ativo Research analysts focus on establishing a company's underlying business worth and risk. Adhering to a disciplined investment approach, buy recommendations are only made when stocks fall well below their calculated value.

Glossary

Glossary

BIR Stock Coverage and Market Indices

The BIR USETSC[®] (US exchange-traded stocks) universe and indexes include over 3000 of the largest domestic and international stocks that trade in the United States. BIR's stock classifications (BIR's GIC) reflect their membership in the firm's industry and country indices.

BIR Asset Class and Investment Style large-caps are the largest 1000 US stocks by capitalization; the remainder are small-caps. Non-US stocks are separated using the same breakpoint. Value, blend and growth styles are set using a blend of valuation ratios and growth rates.

BIR Risk Profile Rank This rank reflects the stability of the company's business and its stock's price volatility. Risk ranks do not project price direction.

BIR Financial Quality This measure of a company's creditworthiness reflects BIR's assessment of its working capital, debt ratios, business risk and potential legal liabilities.

BIR Consensus Sales & Earnings Estimates

These are compiled by BIR weekly using fresh estimates from a select number of Wall Street security analysts.

Chart pg 2: Relative Strength Rank A stock's RS Rank is its 52-week return ranked from 1 (best) to 99 within the BIR USETSC universe. This chart shows that a stock's price may be influenced by the popularity of its industry, asset class or investment style. An industry RS Rank is the average RS Rank of the stocks in that industry. Large vs. Small and Value vs. Growth performance is presented to enable observation of their influence.

Disclosures

This report offers equity recommendations from Ativo Research to investors and their advisors. It uses a three-class Buy-Hold-Sell rating system. This is a consolidated version of the firm's five-class rating system: most favorable and favorable ratings are buys; neutral ratings are holds and the categories unfavorable and most unfavorable are sells.

Stock Ratings

The terms below are used to rate a stock's 12-month performance:

Buy: Expected to outperform the S&P 500 producing above average returns.

Hold: Expected to perform in line with the S&P 500 with average returns.

Sell: Expected to underperform the S&P 500 producing below-average returns.

As of June 30, 2006, the research analysts at Ativo Research had Buy ratings on 11.5% of their recommendations, Hold ratings on 39.4% and Sell ratings on 49.1%.

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