

Zacks Small-Cap Research

Sponsored – Impartial - Comprehensive

Brian Marckx, CFA
bmarckx@zacks.com
Ph (312) 265-9474

scr.zacks.com

10 S. Riverside Plaza, Chicago, IL 60606

CAS Medical Systems Inc. (CASM-NASDAQ)

CASM: Q1: FORE-SIGHT Revenue Jumps 20%. Sensors Sales Accelerating. Moving PT to \$4.00/share

Based on EV/S and P/S comps other publicly traded companies in the tissue oximeter, patient monitoring and cardiac surgery industries including BABY, MASI, BRSYF and MDT, CASM should trade near \$4.00/share.

Current Price (05/15/18) **\$1.37**
Valuation **\$4.00**

OUTLOOK

Q1 2018 was extraordinarily strong with strength across CASMs FORE-SIGHT franchise. Sensors revenue in both the U.S. and international markets jumped double-digits yoy, pushing total sensors sales almost 10% higher than their prior record (in Q4 '17). Meanwhile, monitor shipments continue to trend higher - 72 shipped in the U.S., which is the second highest level on-record (80 shipped in Q4 '17) and 39 OUS, which is the highest since Q4 '16. Pricing and sensor sales per installed unit were also highlights in Q1 - with sensors revenue per installed unit at the highest level since Q4 '16 and buoyed by relatively strong metrics in both the U.S. and OUS - this, in our opinion, is particularly encouraging given that it may suggest accelerating utilization. With stabilization of the sales force, competitive wins, success on their GPO/IDN strategy and newer opportunities such as the pediatric channel, we continue to expect double-digit revenue growth throughout 2018. OpEx has remained roughly flat since Q1 '17 while revenue has grown 20% and gross margin widened 210 basis points. Expect continued revenue growth and flattish OpEx to result in ongoing improvement in the bottom line - cash flow break-even is a goal and one that is definitely achievable if recent operational trends continue. Our model updates have moved our price target from \$3.50 to \$4.00/share.

SUMMARY DATA

52-Week High **\$1.37**
52-Week Low **\$0.61**
One-Year Return (%) **47.30**
Beta **-0.56**
Average Daily Volume (sh) **37,575**

Shares Outstanding (mil) **29**
Market Capitalization (\$mil) **\$38**
Short Interest Ratio (days) **N/A**
Institutional Ownership (%) **22**
Insider Ownership (%) **38**

Annual Cash Dividend **\$0.00**
Dividend Yield (%) **0.00**

5-Yr. Historical Growth Rates
Sales (%) **-2.4**
Earnings Per Share (%) **N/A**
Dividend (%) **N/A**

P/E using TTM EPS **N/A**
P/E using 2018 Estimate **N/A**
P/E using 2019 Estimate **N/A**

Zacks Rank **N/A**

Risk Level **Above Avg.,**
Type of Stock **N/A**
Industry **Med Products**

ZACKS ESTIMATES

Revenue

(in millions of \$)

	Q1	Q2	Q3	Q4	Year
	(Mar)	(Jun)	(Sep)	(Dec)	(Dec)
2017	4.5 A	4.6 A	4.5 A	5.0 A	18.8 A
2018	5.5 A	5.2 E	5.3 E	5.4 E	21.3 E
2019					24.0 E
2020					26.8 E

Earnings per Share

	Q1	Q2	Q3	Q4	Year
	(Mar)	(Jun)	(Sep)	(Dec)	(Dec)
2017	-\$0.09 A	-\$0.09 A	-\$0.01 A	-\$0.07 A	-\$0.27 A
2018	-\$0.07 A	-\$0.07 E	-\$0.07 E	-\$0.06 E	-\$0.26 E
2019					-\$0.13 E
2020					-\$0.07 E

Zacks Projected EPS Growth Rate - Next 5 Years % **N/A**

WHAT'S NEW...

Q1 2018 Financial Results:

CAS Medical reported financial results for Q1 2018. It was an extraordinarily strong showing across their FORE-SIGHT franchise with sensors revenue in both the U.S. and international markets jumping double-digits yoy, pushing total sensors sales almost 10% higher than their prior record (in Q4 '17). Meanwhile, monitor shipments continue to trend higher - 72 shipped in the U.S., which is the second highest level on-record (80 shipped in Q4 '17) and 39 OUS, which is the highest since Q4 '16. Pricing and sensor sales per installed unit were also highlights in Q1 – with sensors revenue per installed unit at the highest level since Q4 '16 and buoyed by relatively strong metrics in both the U.S. and OUS – this, in our opinion, is particularly encouraging given that it may suggest accelerating utilization.

CASM's U.S. segment continues to gain strength with domestic sales jumping 21% yoy to a record \$4.5M. Per comments on the Q1 call, the pediatric channel was a significant contributor to U.S. FORE-SIGHT growth – responsible for ~one-third of the 15% yoy U.S. sensors sales growth. Expect this to be a channel that CASM looks to further leverage. Total U.S. FORE-SIGHT sales increased 4% sequentially - which is noteworthy given that Q4 '17 was a tough comp. As a reminder, the prior period set records in the U.S. on monitor shipments (80), sensor sales and FORE-SIGHT revenue. All but the monitor shipments were beat in Q1. As we noted in our prior update (following Q4 '17 results), the recent pick-up in U.S. sales is highly encouraging given that domestic revenue seemed to have stalled at around the \$3.7M mark from mid-2016 to mid-2017. Since then, U.S. FORE-SIGHT sales set new consecutive all-time highs and averaged \$4.2M over the last three consecutive quarters.

Much of the reason for the prior lack of domestic sales traction was due to disruptions caused by restructuring of the sales force as well as new competitor pricing pressures. CASM addressed both – the sales team was rebuilt with highly-experienced personnel and additional sales strategies were implemented, including the use of IDN/GPO channels and targeted campaigns focused on large hospital networks. These seem to already be making a positive impact with productivity gains and initial sales to two new large hospital customers both cited as main catalysts to the recent U.S. sales growth. Most recently, management noted (on the Q1 '18 call) that they won a contract with one of the largest GPOs in the U.S. (which represents ~200 hospitals) – CASM expects to begin targeting those accounts in the summer. And, in terms of the sales team – 14 of CASM's current 16 territories are now detailed with reps which have at least one year under their belt with the company – and growth in the average tenure has turned into more contract wins.

And while the international segment performed relatively very poorly as of late, with OUS FORE-SIGHT revenue dropping 35% from 2H '16 to 2H '17 and was down 22% for the full year 2017, it showed signs of life in Q1. With what management cited as demand in Europe and Japan, international FORE-SIGHT revenue jumped 31% (+24% qoq) to \$833k in Q1 '18 – which is the highest level of international FORE-SIGHT revenue since Q3 '16. Sensor sales were also the catalyst to the international sales growth – up more than 40% yoy.

And while we think the international segment will remain somewhat variable, the domestic business is where CASM has hands-on involvement and success on their initiatives is showing up in sensor sales – an important metric given that it's a proxy for utilization and these consumables represent more margin than does system shipments. Lack of sensors sales growth had been a concern of ours given that it was constraining total revenue growth (sensors account for ~90% of total FORE-SIGHT revenue) and because of the implication that utilization may have stalled. For context, total sensor sales were \$4.05M (including \$3.47M in U.S.) in Q2 '16 and just \$3.90M (including \$3.45M in U.S.) in Q3 '17 (with little interim variability) – over the same period the total installed base grew 22% (1,871 – 2,279). The U.S. installed base accounts approximately 55% of the total and also grew 22% over that period.

But, recent performance has been much more encouraging with FORE-SIGHT sensors revenue posting strong growth in Q4 '17 (+7% yoy, +11% qoq) and again in Q1 '18 (+18% yoy, +10% qoq). As we noted in our Q4 '17 update (March 26), we think the recent strength may be a harbinger of even stronger sensors growth (and potentially higher utilization) to come as management continues to guide for U.S. sensors sales to grow in the mid-teen percentages in 2018. And, following the strong international sensors revenue in Q1, management revised previous issued international sensors revenue growth guidance from a low double-digit % decline (prior) to high single-digit % growth (current).

Financials

Total revenue increased 20% yoy and was up 6% from Q4 '17 to \$5.5M in Q1 '18. U.S. FORE-SIGHT revenue was \$4.5M, up 21% yoy and 4% sequentially and driven by growth of the monitor installed base (72 units shipped in Q1), higher average per-unit monitor pricing and growth of sensor sales. International FORE-SIGHT revenue was \$833k, up 31% yoy and up 24% sequentially. Growth in international sales reflects 39 monitor shipments (vs 31 in Q1 '17 and 30 in Q4 '17) and strong sensor sales, partially offset by lower average per-monitor pricing.

Total FORE-SIGHT revenue increased 23% yoy and 6% sequentially to \$5.3M. FORE-SIGHT sensors revenue, which accounted for 86% of total revenue (and 89% of tissue oximetry revenue), increased 18% yoy and 10% sequentially to \$4.7M (vs. our \$4.4M estimate). U.S. sensors revenue, which accounted for ~85% of total sensors revenue, increased 15% yoy and 6% sequentially. The pediatric channel was a significant contributor to U.S. sensors sales – accounting for approximately 35% of the growth in Q1. Meanwhile, international sensor sales increased 41% yoy and 31% sequentially. Per installed (monitor) unit, CASM sold approximately \$3.0k worth of sensors in the U.S. and \$600 worth internationally – a blended average of approximately \$1.89k per unit. These compare to full-year 2017 averages of \$2.9k (U.S.), \$500 (int'l) and \$1.81k blended. Growth (or even flattening) in this metric is particularly encouraging given that, intuitively, while we would expect aggregate sensors revenue to grow with growth in the installed base, sensors sales per unit would likely incrementally taper down over time.

Monitor (and related accessories) revenue grew 82% yoy and fell 15% sequentially to ~\$833k. There were 111 monitors shipped in Q1, including 72 in the U.S. – the former is a new record, the latter is second only to Q4 '17 (80 shipped in the U.S.). U.S. monitor revenue jumped 153% yoy – which is attributable to an increase in monitor placements but also due to what looks to be an almost 33% increase in average revenue per unit – this benefit appears to be explained by more units being sold versus placed. Management noted on the call that 40% of the monitors shipped in the U.S. in Q1 were sold, versus just 17% in Q1 '17.

The U.S. and international installed bases stand at to 1,345 and 1,155, respectively. For context of the revived strength of CASM's U.S. market, an average of 79 monitors per quarter were shipped in the U.S. over the last two quarters – more than double the average during the first three quarters of 2017. This, again, reflects benefits of the sales force and strategic changes.

Gross margin widened to 56.7% in Q1 – which compares to 54.6% in Q1 '17 and 54.7% for the full year 2017. Margin improvement is coming from several areas including cost-savings initiatives, the recent introduction of lower cost sensors, more monitors sold versus placed and growth in sensors sales. The expectation is that GM will continue to widen – with Q2 seeing more benefits from the low-cost sensors and then Q3, per management's comments, seeing the full benefit. Greater economies of scale from higher production volumes should continue to benefit GM. And, certainly, if a higher % of monitors are sold and sensors sales continue to trend upward that will also contribute. Management expects to see gross margins widen by as much as 400 basis points during 2018.

OpEx were just \$4.2M in Q1, or 78% of total revenue – which compares to \$4.4M (93% of total revenue) in Q1 '17 and \$16.7M (89% of total revenue) for the full year 2017. Particularly encouraging is that OpEx as a percentage of revenue (analogous to operating leverage) has shown consistent sequential improvement over the last five quarters. OpEx has remained roughly flat since Q1 '17 while revenue has grown 20% and gross margin widened 210 basis points. While we think sales and marketing expenditures will tick up as a result of the recent increase in the size of the sales force and higher revenues, we think SG&A as a percentage of revenue will continue to fall (although there may be some short-term volatility) as management has stressed that they are determined to improve the bottom-line and cash burn. Coupled with expectations of revenue growth and margin improvement, management has guided for reaching a level of positive EBITDA by Q4 2018 and positive cash flow by mid-2019.

In terms of cash.....cash used in operating activities was just \$85k in Q1 '18 (\$904k, ex-changes in working capital), compared to \$776k in Q1 '17 (\$1.3M, ex-changes in working capital). PP&E-related CapEx, including capitalized monitors, consumed an additional \$213k in Q1 '18 and \$186k in Q1 '17. CASM exited Q1 with \$4.8M in cash on the balance sheet and in May, refinanced their bank facilities (into \$10M term, \$2M currently untapped revolver) which increased their total borrowing capacity by \$2M and slashed their interest rate 230 basis points. With the expectation that cash burn will decrease and CASM will reach EBITDA-positive in (or near) Q4 2018, their current cash balance (and revolver availability) should be sufficient to fund operations for the foreseeable future.

OUTLOOK

As it relates to the sales force, turnover meant that average tenure (and related productivity) had previously fallen and took U.S. sales growth with it. However, despite the lack of overall growth, there were indications that the correlation between tenure and revenue growth also held true as the sales force aged. Management had noted that overall productivity was improving and sensor-related revenue growth among the more tenured reps was relatively very strong. That trend appears to continue – as management has regularly pointed to productivity gains, particularly among the less seasoned reps, as directly benefitting U.S. sensors and monitor revenue. With “full productivity” estimated to take approximately 9 – 12 months to reach and 14 of the 16 current reps having at least one-full year of experience, we think the sales force could be placing 100 monitors or more per quarter in the U.S. by the end of 2018 (for reference 198 monitors were shipped in the U.S. in 2017).

As it relates to wholesale networks, while CASM continues to have great success in winning new business when head-to-head evaluations of FORE-SIGHT vs. competitors’ technology is done at the clinician level (i.e. when functionality, utility and clinical outcomes are the decision-making criteria), competitors have had success in thwarting CASM’s market share gains by use of IDNs and GPOs, where the purchasing decision is often based mostly on price. CASM’s recently implemented initiatives aimed at the IDN/GPO channels and of targeting hospital networks and other large accounts appears to be already paying dividends. Recent wins in just the last few months already contributed – and were associated with the strong domestic performance in monitor and sensors sales since late 2017. That momentum has flowed into 2018 with CASM winning a contract with one of the largest GPOs in the U.S. (which represents ~200 hospitals) – CASM expects to begin targeting those accounts this summer. Continued success on this strategy could be key to further steepening the rate of revenue growth.

It seems clear that when CASM can shift the conversation and decision-making to clinical outcomes and functionality, their chance of winning new business goes way up. The clinical superiority of their product is supported by the ~70%-75% new customer close rate when prospective clinicians perform a clinical evaluation of FORE-SIGHT. Approximately 50% of new monitor placements reflect market share gains (i.e. account wins from competitors) with the other 50% related to expansion of the tissue oximetry market. Expect CASM to take their leverage their industry leading performance as they further engage the pediatric channel, which was responsible for ~one-third of the 15% yoy U.S. sensors sales growth in Q1.

Clinical superiority of FORE-SIGHT as well as continued expansion of the overall tissue oximetry market represent the long-term revenue catalysts, in our opinion. With additional evidence of the utility in various procedures and associated improved patient outcomes when cerebral oximetry is employed, the size of the market will undoubtedly continue to expand and remains relatively under-penetrated. So, while the recent headwinds were disruptive, we think their high win-rate when prospective customers perform a clinical evaluation of FORE-SIGHT speaks to the robustness of the clinical competitive advantage of their technology which we believe will translate into continued market share gains.

2018 may also benefit from a supplemental revenue stream as CASM hopes to roll-out their FORE-SIGHT technology into a format compatible with third-party monitors. This ‘FORE-SIGHT OEM Module’, a 510(k) application for which was filed with FDA in January, will provide all of the same FORE-SIGHT functionality but without the need for CASM’s monitor (instead, a cable will interface between third-party monitors and the FORE-SIGHT sensors). CASM expects to partner with third-party monitor manufacturers – which potentially presents not only an efficient distribution channel but also immediate expansion of their Rolodex and sales reach. CASM hopes to have FDA clearance in Q2 and launch the product sometime in 2018.

VALUATION

We think the performance advantages of FORE-SIGHT compared to competing systems, most notably market-leading INVOS, coupled with increasing adoption of cerebral oximetry in surgical and other applications sets the stage for deeper and wider market penetration of FORE-SIGHT over the longer-term. Sales force productivity gains should further facilitate growth of the installed base over the longer-term and, most importantly, increase aggregate utilization and related sensor sales. We have yet to model meaningful market expansion (depth or widening) related to the (likely) impending introduction of the OEM Module – although we think there could be upside related to this.

Management's Most Recent 2018 Full-Year Guidance

- Total FORE-SIGHT revenue: Mid-teens (revised up from low-double-digit) percentage growth
 - U.S. FORE-SIGHT: Mid-teens (revised up from low-teen) percentage growth
 - U.S. Sensors: mid-teens percentage growth (unchanged)
 - International FORE-SIGHT: high single digit % growth (revised up from “decline slightly”)

Valuation

We value CASM using comparable EV/S and P/S ratios of other publicly traded companies in the tissue oximeter, patient monitoring and cardiac surgery industries including direct competitors Masimo Corporation (MASI) and Medtronic (MDT). As the other tissue oximetry competitors are not publicly traded, we have rounded out our comparable cohort with companies which have similar exposure to CASM's end markets including Brainsway (BRSYF), a manufacturer non-invasive brain stimulation devices and Natus Medical (BABY), which makes monitoring and detection devices for neonatal neurological disorders.

Average of EV/S and P/S value CASM at approximately \$4.00/share, indicating the market is substantially undervaluing the stock.

	Sales Estimate (M)		EV	EV/2018	EV/2019	MC	P/S '18	P/S '19
	2018	2019						
BABY	\$537	\$558	\$1,160	2.2	2.1	\$1,210	2.3	2.2
MASI	\$842	\$894	\$4,630	5.5	5.2	\$4,960	5.9	5.5
BRSYF	\$9	\$12	\$78	9.1	6.5	\$75	8.7	6.3
MDT	\$29,750	\$31,070	\$130,360	4.4	4.2	\$114,240	3.8	3.7
Avg.				5.3	4.5		5.2	4.4
CASM	\$21	\$24	\$38	1.8	1.6	\$34	1.6	1.4

	CASM Valuation Based On:					
	Comparable EV/Sales			Comparable Price/Sales		
	EV	Implied Share Value		MC	Implied Share Value	
2018 S	\$113	\$4.21		2018 S	\$110	\$4.09
2019 S	\$108	\$4.02		2019 S	\$106	\$3.91
Average		\$4.11		Average		\$4.00

FINANCIAL MODEL

CAS Medical Systems Inc. (figures in 000s of \$)

	2017 A	Q1 A	Q2 E	Q3 E	Q4 E	2018 E	2019 E	2020 E
FORE-SIGHT Sensors	\$16,373.0	\$4,727.0	\$4,614.6	\$4,685.1	\$4,838.2	\$18,865.0	\$21,586.6	\$24,211.4
yoy growth	3.1%	17.7%	11.8%	20.1%	11.8%	15.2%	14.4%	12.2%
% of total oximetry sales	90.3%	89.0%	91.2%	90.7%	90.7%	90.4%	92.0%	92.0%
FORE-SIGHT Monitors & Access.	\$1,751.0	\$585.0	\$444.6	\$478.8	\$495.9	\$2,004.3	\$1,874.9	\$2,099.9
yoy growth	-17.6%	82.2%	65.3%	1.2%	-27.9%	14.5%	-6.5%	12.0%
% of total oximetry sales	9.7%	11.0%	8.8%	9.3%	9.3%	9.6%	8.0%	8.0%
Tissue Oximetry Total Sales	\$18,124.0	\$5,312.0	\$5,059.2	\$5,163.9	\$5,334.1	\$20,869.3	\$23,461.5	\$26,311.3
yoy growth	0.6%	22.5%	15.1%	18.0%	6.3%	15.1%	12.4%	12.1%
% of total revenue	96.6%	97.6%	97.7%	97.8%	98.1%	97.8%	97.9%	98.2%
Service & Other	\$655.5	\$132.0	\$116.8	\$114.8	\$103.3	\$466.8	\$504.2	\$494.1
yoy growth	-1.7%	-35.9%	-34.0%	-24.0%	-15.0%	1.0%	8.0%	-2.0%
% of total revenue	3.5%	2.4%	2.3%	2.2%	1.9%	2.2%	2.1%	1.8%
Total Revenues	\$18,763.1	\$5,444.5	\$5,176.0	\$5,278.7	\$5,437.4	\$21,336.6	\$23,965.7	\$26,805.4
YOY Growth	0.5%	19.8%	13.2%	16.6%	6.2%	13.7%	12.3%	11.8%
Cost of Revenues	\$8,505.01	\$2,357.7	\$2,215.3	\$2,206.5	\$2,229.3	\$9,008.9	\$9,825.9	\$10,936.6
Gross Income	\$10,258.1	\$3,086.7	\$2,960.7	\$3,072.2	\$3,208.1	\$12,327.7	\$14,139.7	\$15,868.8
Gross Margin	54.7%	56.7%	57.2%	58.2%	59.0%	57.8%	59.0%	59.2%
R&D	\$3,234.1	\$801.6	\$797.4	\$792.6	\$785.5	\$3,177.1	\$3,170.0	\$3,150.0
% R&D	17.2%	14.7%	15.4%	15.0%	14.4%	14.9%	13.2%	11.8%
SG&A	\$13,418.3	\$3,431.4	\$3,364.4	\$3,478.7	\$3,452.7	\$13,727.3	\$14,259.6	\$14,528.5
% SG&A	71.5%	63.0%	65.0%	65.9%	63.5%	64.3%	59.5%	54.2%
Operating Income	(\$6,394.3)	(\$1,146.3)	(\$1,201.1)	(\$1,199.1)	(\$1,030.2)	(\$4,576.7)	(\$3,289.8)	(\$1,809.7)
Operating Margin	-34.1%	-21.1%	-23.2%	-22.7%	-18.9%	-21.5%	-13.7%	-6.8%
Interest Income, net	(\$1,076.9)	(\$271.5)	(\$261.2)	(\$224.8)	(\$232.3)	(\$989.8)	(\$921.3)	(\$665.8)
Other income	\$0.5	\$0.1	\$0.1	\$0.1	\$0.1	\$0.4	\$12.0	\$14.0
Pre-Tax Income	(\$7,470.7)	(\$1,417.7)	(\$1,462.2)	(\$1,423.8)	(\$1,262.3)	(\$5,566.1)	(\$4,199.1)	(\$2,461.5)
Taxes	(\$1,745.4)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Tax Rate	23.4%	-1.0%				0.0%	0.0%	0.0%
Preferred Dividends	\$1,589.1	\$414.8	\$422.0	\$429.0	\$436.0	\$1,701.8	\$0.0	\$0.0
Net Income (cont ops)	(\$7,314.4)	(\$1,832.6)	(\$1,884.2)	(\$1,852.8)	(\$1,698.3)	(\$7,267.9)	(\$4,199.1)	(\$2,461.5)

YOY Growth	-0.7%	-24.3%	-27.3%	446.9%	-13.4%	-0.6%	-42.2%	-41.4%
Net Margin	-	-	-	-	-	-	-17.5%	-9.2%
EPS (cont ops)	(\$0.27)	(\$0.07)	(\$0.07)	(\$0.07)	(\$0.06)	(\$0.26)	(\$0.13)	(\$0.07)
YOY Growth	-2.3%	-25.9%	-27.6%	443.7%	-15.4%	-2.0%	-50.5%	-48.9%
Diluted Shares O/S	27,261	27,612	27,422	27,500	28,000	27,633	32,250	37,000

Brian Marckx, CFA

HISTORICAL STOCK CHART



DISCLOSURES

The following disclosures relate to relationships between Zacks Small-Cap Research ("Zacks SCR"), a division of Zacks Investment Research ("ZIR"), and the issuers covered by the Zacks SCR Analysts in the Small-Cap Universe.

ANALYST DISCLOSURES

I, Brian Marckx, CFA, hereby certify that the view expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the recommendations or views expressed in this research report. I believe the information used for the creation of this report has been obtained from sources I considered to be reliable, but I can neither guarantee nor represent the completeness or accuracy of the information herewith. Such information and the opinions expressed are subject to change without notice.

INVESTMENT BANKING AND FEES FOR SERVICES

Zacks SCR does not provide investment banking services nor has it received compensation for investment banking services from the issuers of the securities covered in this report or article.

Zacks SCR has received compensation from the issuer directly or from an investor relations consulting firm engaged by the issuer for providing non-investment banking services to this issuer and expects to receive additional compensation for such non-investment banking services provided to this issuer. The non-investment banking services provided to the issuer includes the preparation of this report, investor relations services, investment software, financial database analysis, organization of non-deal road shows, and attendance fees for conferences sponsored or co-sponsored by Zacks SCR. The fees for these services vary on a per-client basis and are subject to the number and types of services contracted. Fees typically range between ten thousand and fifty thousand dollars per annum. Details of fees paid by this issuer are available upon request.

POLICY DISCLOSURES

This report provides an objective valuation of the issuer today and expected valuations of the issuer at various future dates based on applying standard investment valuation methodologies to the revenue and EPS forecasts made by the SCR Analyst of the issuer's business. SCR Analysts are restricted from holding or trading securities in the issuers that they cover. ZIR and Zacks SCR do not make a market in any security followed by SCR nor do they act as dealers in these securities. Each Zacks SCR Analyst has full discretion over the valuation of the issuer included in this report based on his or her own due diligence. SCR Analysts are paid based on the number of companies they cover. SCR Analyst compensation is not, was not, nor will be, directly or indirectly, related to the specific valuations or views expressed in any report or article.

ADDITIONAL INFORMATION

Additional information is available upon request. Zacks SCR reports and articles are based on data obtained from sources that it believes to be reliable, but are not guaranteed to be accurate nor do they purport to be complete. Because of individual financial or investment objectives and/or financial circumstances, this report or article should not be construed as advice designed to meet the particular investment needs of any investor. Investing involves risk. Any opinions expressed by Zacks SCR Analysts are subject to change without notice. Reports or articles or tweets are not to be construed as an offer or solicitation of an offer to buy or sell the securities herein mentioned.