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Zacks Small-Cap Research

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CAS Medical Systems Inc. (CASM-NASDAQ)

CASM: Competitive Wins Resulting in Accelerating Consumable Revenue, Rapidly Improving Profitability

Based on EV/S and P/S comps other publicly traded companies in the tissue oximeter, patient monitoring, vital signs and surgical monitoring industries CASM should trade near $4.50/share.

Current Price (11/02/18)	$1.90
Valuation	**$4.50**

OUTLOOK

Another solid quarter turned in by CASM with total revenue jumping 19% yoy and about 2% from Q2. And, it wasn't just the topline that impressed as, despite a sizeable tariffs-related bite to gross profit, operating loss shrank by more than $1M from the prior year (and by $150k from Q2) to just $976k, a new low (at least on a continuing operations basis). The combination of revenue growth and effective expense-control initiatives have pushed operating loss lower by an average of ~$150k each quarter since Q1 2017. Importantly, despite the recently instituted trade tariffs, management is guiding for reaching cash flow break even by the end of 2019 (and possibly sooner if the tariffs are lifted).

FORE-SIGHT revenue was the second-best in history (topped only by the $5.31M in Q1'18) at $5.26M, up 20% from last year +2% sequentially. Details within the headline numbers are even more compelling, in our opinion, as while monitor sales had buoyed (to some extent) FORE-SIGHT revenue growth in 1H 2018, it was strength in sensors that was responsible for virtually all of the topline growth in Q3. This is particularly encouraging as while growth in monitor revenue and the installed base is great, utilization is what drives profitability and shareholder value.

SUMMARY DATA

52-Week High	**$2.70**
52-Week Low	**$0.59**
One-Year Return (%)	**131.17**
Beta	**-0.10**
Average Daily Volume (sh)	**142,890**
Shares Outstanding (mil)	**29**
Market Capitalization ($mil)	**$53**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**25**
Insider Ownership (%)	**38**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**-2.6**
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 (Mar)	**Q2** (Jun)	**Q3** (Sep)	**Q4** (Dec)	**Year** (Dec)
2017	4.5 A	4.6 A	4.5 A	5.0 A	18.8 A
2018	5.5 A	5.3 A	5.4 A	5.5 E	21.6 E
2019					24.4 E
2020					27.3 E

Earnings per Share

	Q1 (Mar)	**Q2** (Jun)	**Q3** (Sep)	**Q4** (Dec)	**Year** (Dec)
2017	-$0.09 A	-$0.09 A	-$0.01 A	-$0.07 A	-$0.27 A
2018	-$0.07 A	-$0.08 A	-$0.06 A	-$0.07 E	-$0.27 E
2019					-$0.15 E
2020					-$0.07 E

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

WHAT'S NEW…

Q3 2018 Financial Results, Operating Update
Another solid quarter turned in by CASM with total revenue jumping 19% yoy and about 2% better than Q2. And, it wasn't just the topline that impressed as, despite a sizeable tariffs-related bite to gross profit, operating loss shrank by more than $1M from the prior year (and by $150k from Q2) to just $976k, a new low (at least on a continuing-operations basis). The combination of revenue growth and effective expense-control initiatives have pushed operating loss lower by an average of ~$150k each quarter since Q1 2017. Importantly, despite the recently instituted trade tariffs, management is guiding for reaching cash flow break even by the end of 2019 (and possibly sooner if the tariffs are lifted).

FORE-SIGHT revenue was the second-best in history (topped only by the $5.31M in Q1'18) at $5.26M, up 20% from last year +2% sequentially. Details within the headline numbers are even more compelling, in our opinion, as while monitor sales had buoyed (to some extent) FORE-SIGHT revenue growth in 1H 2018, it was strength in sensors that was responsible for virtually all of the topline growth in Q3. This is particularly encouraging as while growth in monitor revenue and the installed base is great, utilization is what drives profitability and shareholder value.

Meanwhile, net monitor placements were relatively weak in the U.S. – at just 28, Q3 saw the fewest domestic installations in at least the last two years. For context, this compares to 58 and 44 net placements (all figures exclude legacy monitors which are no longer supported) in the prior year and quarter periods, respectively. We have little concern that this signals any fundamental weakness but, instead, is short-term variability in sales and ordering patterns. In fact, management noted on the call that they expect U.S. monitor sales to rebound into Q4.

And, despite softness in the most recent quarter, the U.S. installed base is up a healthy 21% in the last 12 months (to 1,398 monitors) as a result of relatively strong domestic installations in Q4'17 (87 units) and through 1H '18 (125 units). Growth in the installed base should continue to catalyze aggregate utilization, related sensor sales and further improvement in profitability and cash flow.

In contrast to the U.S., international system sales were quite robust – in fact the 50 OUS monitor sales in Q3 were the most in at least the last two years. It is also double the number sold in Q3 '17 (25 units) and more than twice that sold in Q2 of this year (23). Management noted that recent strength in Europe and Japan, as well as other markets, contributed to the jump in monitors sales in Q3.

Financials
Total revenue increased 19% yoy and was up 2% sequentially. U.S. FORE-SIGHT revenue was $4.4M, up 15% yoy roughly flat from Q2. As noted, U.S. revenue was driven by growth in sensor sales, which increased 20% from the prior year and 3% sequentially. Utilization per monitor appears (over time we should have a better gauge) to be at least maintaining the average rate during 1H'18 and actually could be ticking up slightly. This prompted an incremental upward revision to our forecasted utilization through 2019 and 2020. U.S. monitor revenue was $238k, a decrease of more than 30% from both comparable periods. International FORE-SIGHT revenue was $846k, up 59% yoy with growth roughly even split between increases in both monitor and sensors revenue.

Compared to the prior year periods, total FORE-SIGHT revenue increased 20% in Q3 and 20% through the first nine months of 2018 (i.e. YTD). FORE-SIGHT sensors revenue, which accounted for approximately 88% of total revenue (and 90% of tissue oximetry revenue), increased 22% in Q3 and 18% YTD. U.S. sensors revenue accounted for 88% of total sensors sales. Meanwhile, international sensor sales increased 38% yoy (on an easy comp) and were down 8% from Q2. International sensors revenue is up 26% yoy through the first nine months of 2018.

We had previously reported a 'per installed (monitor) unit' metric as a way to gauge utilization. But, as CASM began excluding legacy monitors (which are not compatible with the new sensors) from the aggregate installed base calculation, we have excluded that from our analysis as historic comparisons are less meaningful. However, as the new installed base methodology gains history (in the future), that may again provide for apples-to-apples comparisons.

Gross margin was, as expected, negatively impacted by the recent imposition of tariffs on Chinese goods. Gross margin was 58.3% in Q3, while roughly flat from the prior year, that's down from 60.1% in Q2 The tariffs, which went into effect in July (and, therefore, had an impact for about two-thirds of the most recent quarter) shaved about 200 basis points off of GM in Q3. Assuming they remain in place, management anticipates a ~400 bp effect in Q4 '18 and ~300 bps throughout 2019. But, fortunately, that should be at least partially offset by the recent introduction of lower cost sensors and, hopefully, additional scale from higher production volumes. The net impact, per management's guidance, is for gross margin to stay at around the level in Q3 (i.e.~58%). Our modeling is slightly more conservative – we look for GM in the mid-to-high 57% through 2019. Full or partial lifting of the tariffs would likely provide upside. CASM is also exploring options for domestic manufacturing - which may heed greater consideration if the tariffs persist.

OpEx were just $4.1M and $8.5M in Q3 and YTD, or 77% and 78% of total revenue, respectively. That compares to 87% and 93% of revenue in the prior-year periods and 88% for the full year 2017. Particularly encouraging is that OpEx as a percentage of revenue (analogous to operating leverage) has shown regular improvement over the last seven quarters. OpEx has remained roughly flat since Q1 '17 while revenue has grown 18% and gross margin (excluding impact from tariffs) widened by more than 500 basis points.

While we think sales and marketing expenditures will tick up with recent changes to 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 stability, management continues to guide for reaching cash flow break-even by the end of 2019.

In terms of cash….Q3 appears to be a new record low as it relates to cash burn. Cash used in operating activities was $1.2M and $2.3M ($834k and $2.6M, ex-changes in working capital) in the three and nine months ending 9/30/18, compared to $1.1M and $3.6M ($1.1M and $4.2M, ex-changes in working capital) in the comparable prior-year periods.

PP&E-related CapEx, including capitalized monitors, consumed an additional $624k YTD 2018. CASM exited Q3 with $5.4M in cash on the balance sheet and has $2M available under their newly-refinanced bank facility. While we had previously thought that their cash and available borrowing capacity may be sufficient to get them to a point of cash flow break-even, the imposition of tariffs will now make that less likely. But, CASM is eligible to receive up to $2M in earn-outs related to their most recent product line divestiture – depending on the amount eventually received, that could be enough to get them to cash flow in the black. Nonetheless, with the continued expectation that cash burn will decrease, we think any additional capital needs may be relatively minimal.

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.

By all accounts CASM has been diligent at driving productivity and turning territories if expectations aren't met. While there may continue to be some level of churn, we think the bulk of the restructuring is complete and believe aging tenure and related production will more than offset any turnover-related headwinds. The sales force remains at 16 – the same number as of the end of Q2 (and reflective of an addition and offsetting attrition). With "full productivity" estimated to take approximately 9 – 12 months to reach and the sales force mostly unchanged over the last two to-three quarters, we think productivity and efficiency gains should accelerate through the remainder of 2018 and into 2019. We continue to think that 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).

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. There is no better validation of superiority when customers switch from a competitors' product – an example of which CASM shared on the call. While CASM lost business to a large hospital network in 2017 when that customer switched to a competing system (based on price), management noted on the Q3 call that they recently re-won that contract when their clinicians demanded the superior performance of FORE-SIGHT.

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.

CASM could also soon benefit from a supplemental revenue stream as they hope to roll-out their FORE-SIGHT technology into a format compatible with third-party monitors. This 'FORE-SIGHT OEM Module', 510(k) clearance of which was obtained in May of this year, 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 already has a partnership (with more possibly to come) with one third-party monitor manufacturer. FDA 510(k) clearance will be required for the combination product - filing of which is expected by Q1 2019 (slightly delayed from prior expectations of current year-end). If all goes well, meaningful revenue from this product could commence next year. Potential other benefits include efficient distribution channel and immediate expansion of their Rolodex and sales reach.

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 percentage growth
  - U.S. FORE-SIGHT: Mid-teens percentage growth
    - U.S. Sensors: mid-teens percentage growth
  - International FORE-SIGHT: low single-digit % growth

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 markets for surgical and vital signs monitoring and related products and services.

Average of EV/S and P/S value CASM at approximately $4.50/share, indicating the market is substantially undervaluing the stock.

	Sales Estimate (M) 2018	2019	EV	EV/2018	EV/2019	MC	P/S '18	P/S '19
BABY	$528	$545	$1,090	2.1	2.0	$1,030	2.0	1.9
SYK	$13,530	$14,440	$67,600	5.0	4.7	$61,860	4.6	4.3
EW	$3,810	$4,180	$30,840	8.1	7.4	$31,940	8.4	7.6
MASI	$852	$905	$5,610	6.6	6.2	$5,800	6.8	6.4
BRSYF	$9	$12	$84	9.8	7.0	$102	11.9	8.5
MDT	$30,470	$31,880	$140,060	4.6	4.4	$123,420	4.1	3.9
Avg.				**6.0**	**5.3**		**6.3**	**5.4**

CASM Valuation Based On:

Comparable EV/Sales	EV	MC	Implied Share Value	Comparable Price/Sales	MC	Implied Share Value
2018 S	$130	$116	$4.17	2018 S	$135	$4.87
2019 S	$128	$114	$4.12	2019 S	$132	$4.76
Average			**$4.14**	**Average**		**$4.82**

FINANCIAL MODEL

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

	2017 A	Q1 A	Q2 A	Q3 A	Q4 E	2018 E	2019 E	2020 E
FORE-SIGHT Sensors	$16,373.0	$4,727.0	$4,680.0	$4,753.0	$4,879.5	$19,039.5	$21,889.2	$24,558.2
yoy growth	3.1%	17.7%	13.4%	21.8%	12.7%	16.3%	15.0%	12.2%
% of total oximetry sales	90.3%	89.0%	90.8%	90.4%	90.9%	90.3%	91.9%	92.0%
FORE-SIGHT Monitors & Access.	$1,751.0	$585.0	$472.0	$503.0	$486.0	$2,046.0	$1,916.4	$2,146.3
yoy growth	-17.6%	82.2%	75.5%	6.3%	-29.4%	16.8%	-6.3%	12.0%
% of total oximetry sales	9.7%	11.0%	9.2%	9.6%	9.1%	9.7%	8.1%	8.0%
Tissue Oximetry Total Sales	$18,124.0	$5,312.0	$5,152.0	$5,256.0	$5,365.5	$21,085.5	$23,805.5	$26,704.6
yoy growth	0.6%	22.5%	17.2%	20.1%	6.9%	16.3%	12.9%	12.2%
% of total revenue	96.6%	97.6%	97.4%	97.7%	98.0%	97.6%	97.8%	98.0%
Service & Other	$655.5	$132.0	$139.0	$126.0	$110.3	$507.3	$547.9	$536.9
yoy growth	-1.7%	-35.9%	-21.5%	-16.6%	-9.2%	1.0%	8.0%	-2.0%
% of total revenue	3.5%	2.4%	2.6%	2.3%	2.0%	2.3%	2.2%	2.0%
Total Revenues	$18,763.1	$5,444.5	$5,291.2	$5,382.0	$5,475.8	$21,593.5	$24,353.4	$27,241.5
YOY Growth	0.5%	19.8%	15.7%	18.9%	6.9%	15.1%	12.8%	11.9%
Cost of Revenues	$8,505.01	$2,357.7	$2,110.6	$2,241.9	$2,332.7	$9,042.9	$10,277.1	$11,441.4
Gross Income	$10,258.1	$3,086.7	$3,180.6	$3,140.1	$3,143.1	$12,550.6	$14,076.3	$15,800.1
Gross Margin	54.7%	56.7%	60.1%	58.3%	57.4%	58.1%	57.8%	58.0%
R&D	$3,234.1	$801.6	$833.7	$712.4	$744.2	$3,091.9	$3,111.2	$3,124.6
% R&D	17.2%	14.7%	15.8%	13.2%	13.6%	14.3%	12.8%	11.5%
SG&A	$13,418.3	$3,431.4	$3,473.0	$3,403.3	$3,515.5	$13,823.3	$14,246.7	$14,601.4
% SG&A	71.5%	63.0%	65.6%	63.2%	64.2%	64.0%	58.5%	53.6%
Operating Income	($6,394.3)	($1,146.3)	($1,126.1)	($975.6)	($1,116.6)	($4,364.6)	($3,281.7)	($1,926.0)
Operating Margin	-34.1%	-21.1%	-21.3%	-18.1%	-20.4%	-20.2%	-13.5%	-7.1%
Interest Income, net	($1,076.9)	($271.5)	($589.1)	($307.7)	($277.8)	($1,446.1)	($921.3)	($665.8)
Other income	$0.5	$0.0	$0.0	$0.0	$0.0	$0.0	$12.0	$14.0
Pre-Tax Income	($7,470.7)	($1,417.8)	($1,715.2)	($1,283.3)	($1,394.4)	($5,810.8)	($4,191.0)	($2,577.8)
Taxes	($1,745.4)	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Tax Rate	23.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Preferred Dividends	$1,589.1	$414.8	$422.0	$429.5	$436.0	$1,702.3	$910.0	$0.0
Net Income (cont ops)	($7,314.4)	($1,832.7)	($2,137.2)	($1,712.8)	($1,830.4)	($7,513.0)	($5,101.0)	($2,577.8)
YOY Growth	-0.7%	-24.3%	-17.5%	405.6%	-6.7%	2.7%	-32.1%	-49.5%
Net Margin	-	-	-	-	-	-	-20.9%	-9.5%

EPS (cont ops)	($0.27)	($0.07)	($0.08)	($0.06)	($0.07)	($0.27)	($0.15)	($0.07)
YOY Growth	-2.3%	-25.9%	-18.8%	396.6%	-8.8%	0.7%	-43.2%	-55.8%
Diluted Shares O/S	27,261	27,612	27,750	27,833	28,000	27,799	33,250	38,000

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HISTORICAL STOCK CHART

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