

Complete Genomics

Neutral (2)

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Analysts

Doug Schenkel
 (617) 946-3918
 doug.schenkel@cowen.com

Shaun Rodriguez, Ph.D.
 (617) 946-3929
 shaun.rodriguez@cowen.com

Elasticity Not Materializing As Expected; Sell Off Likely Over Done

Conclusion: Weaker than anticipated Q2 results and broader realization that elasticity in whole human genome sequencing may be more complicated than anticipated have come to a head. Specifically, Q2 revenue was almost \$2MM light of consensus, the pacing of expected H2 shipments was back-loaded, and ASPs continue to fall. However, we believe the vicious sell off yesterday largely ignores the large potential market opportunity for, and the strong early stage operational execution by, Complete Genomics. At yesterday's close, GNOM shares were trading at an 2012 EV/sales ratio of about 3x. Recognizing the company is likely in the penalty box for now, the risk/reward is clearly much more compelling than at the time of our downgrade (6/7/11).

- **The Problem.** The cost of genetic analysis has been falling rapidly for the better part of decade, and the inherent elasticity of demand in this market has been viewed essentially as given. However in the whole human genome sequencing services market, a more rapid than anticipated decline in price per genome has not been accompanied by a corresponding increase in demand, at least not thus far this year. GNOM still expects to sequence 4,000 genomes in 2011 and has hit their sequencing targets in Q1 and Q2. The problem is that these figures have not increased beyond original guidance while pricing has dropped much more quickly than anticipated.
- **The Reality.** Our industry checks have consistently suggested that there is a market for whole human genome sequencing services. Our analysis suggests that the market potential is material, albeit over several years. GNOM is on track to sequence 4,000 genomes in 2011; about 1,500 were done globally (not just GNOM) in 2010 and materially fewer were done in 2009. 2 large orders were just announced and GNOM is competing for several other large ones. Near term expectations got too high, which could have been managed better by the company. However, strong early stage execution and robust, open-ended potential seem to have been lost in yesterday's sell off.

GNOM (08/04)	\$7.71	Revenue \$MM							
Mkt cap	\$239.0MM	FY	2010	2011E		2012E		2013E	
Dil shares out	31.0MM	Dec	Actual	Prior	Current	Prior	Current	Prior	Current
Avg daily vol	1,598.0K	Q1	0.3	—	6.8A	13.0	6.3	—	—
52-wk range	\$6.6-18.6	Q2	1.1	—	5.9A	15.5	9.6	—	—
Dividend	Nil	Q3	4.2	8.8	3.3	18.0	11.8	—	—
Dividend yield	Nil	Q4	3.8	10.9	7.0	18.5	13.9	—	—
BV/sh	\$0.38	Year	9.4	33.5	23.0	65.0	41.5	93.0	70.0
Net cash/sh	\$3.97	EV/S	—	—	5.0x	—	2.8x	—	1.6x
Debt/cap	1.4%								
ROA (LTM)	NA								
5-yr fwd EPS growth (Norm)	NA								
		EPS \$	2010	2011E		2012E		2013E	
		FY	Actual	Prior	Current	Prior	Current	Prior	Current
		Dec							
		Q1	0.00	—	(0.48)A	(0.28)	(0.47)	—	—
		Q2	0.00	—	(0.56)A	(0.22)	(0.46)	—	—
		Q3	—	(0.35)	(0.50)	(0.17)	(0.34)	—	—
		Q4	(0.69)	(0.31)	(0.42)	(0.16)	(0.29)	—	—
S&P 500	1200.1	Year	(0.69)	(1.46)	(1.95)	(0.83)	(1.56)	(0.02)	(0.51)
		P/E	—	—	—	—	—	—	—

Investment Thesis

Complete Genomics utilizes its proprietary DNA sequencing platform to compete in the rapidly growing \$1B genetic sequencing industry as an “end-to-end” whole human genome sequencing outsource service targeting the life science research, clinical, and consumer genetics markets. The company enables customers to offload the complex processes of sample preparation, sequencing, computing, and data storage and management at a cost per genome below that currently available on competitive platforms sold by instrument vendors. The company is positioned to opportunistically use its first-mover advantage in the sequencing outsourcing market and the cost-advantages unique to its proprietary instrumentation to expand and capitalize on this highly-elastic market opportunity. While remain enthused about the company’s potential, the combination of continued falling average selling prices, the company’s inherent lumpiness and a lack of visibility on new orders keep us at Neutral.

COMPLETE GENOMICS - Statement of Operations

\$MM, except per share data	Q1:10	Q2:10	Q3:10	Q4:10	Q1:11	Q2:11	Q3:11E	Q4:11E	Q1:12E	Q2:12E	Q3:12E	Q4:12E	2010	2011E	2012E	2013E	2014E	2015E	5-yr CAGR
Revenues	\$0.3	\$1.1	\$4.2	\$3.8	\$6.8	\$5.9	\$3.3	\$7.0	\$6.3	\$9.6	\$11.8	\$13.9	\$9.4	\$23.0	\$41.5	\$70.0	\$109.0	\$138.0	71.2%
Growth	NM	NM	NM	NM	NM	NM	-21%	84%	-8%	63%	NM	98%	NM	145%	81%	69%	56%	27%	
Cost of sales	\$3.2	\$3.6	\$6.0	\$4.9	\$6.6	\$6.1	\$8.0	\$8.2	\$8.4	\$9.0	\$9.9	\$10.2	\$17.7	\$28.9	\$37.5	\$24.5	\$38.1	\$41.4	18.5%
Gross Profit	-\$2.8	-\$2.5	-\$1.8	-\$1.1	\$0.3	-\$0.3	-\$4.7	-\$1.2	-\$2.1	\$0.6	\$1.9	\$3.7	-\$8.3	-\$5.9	\$4.1	\$45.5	\$70.8	\$96.6	NM
% of sales	-848%	-231%	-44%	-29%	3.7%	-4.4%	-143.5%	-16.6%	-33.9%	6.2%	16.0%	26.7%	-88.5%	-25.7%	9.8%	65.0%	65.0%	70.0%	
Growth	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	56%	36%	
Sales & Marketing	\$1.3	\$1.5	\$2.0	\$2.5	\$2.7	\$3.1	\$3.5	\$4.1	\$4.0	\$4.1	\$4.1	\$4.1	\$7.3	\$13.4	\$16.3	\$18.9	\$20.8	\$22.4	25.2%
% of sales	386.9%	138.0%	48.1%	65.8%	39.5%	53.5%	105.0%	58.6%	63.4%	42.7%	34.6%	29.6%	77.8%	58.3%	39.1%	27.0%	19.1%	16.3%	
Growth	204.7%	677.2%	446.4%	207.9%	108.0%	109.2%	73.3%	64.2%	47.2%	30.0%	18.0%	0.0%	306.1%	83.7%	21.2%	16.2%	10.0%	8.0%	
General & Administrative	\$2.0	\$1.7	\$2.3	\$2.2	\$2.8	\$3.5	\$2.5	\$2.5	\$2.8	\$3.6	\$2.6	\$2.6	\$8.2	\$11.2	\$11.7	\$12.6	\$13.5	\$14.3	11.9%
% of sales	596.1%	154.1%	56.0%	56.7%	40.7%	59.1%	75.7%	35.7%	44.4%	38.1%	22.2%	18.9%	86.9%	48.9%	28.1%	18.0%	12.4%	10.4%	
Growth	54.0%	104.0%	72.3%	45.4%	39.0%	107.0%	7.3%	16.1%	0.0%	5.0%	5.0%	5.0%	64.7%	37.9%	3.8%	8.0%	7.0%	6.0%	
Research & Development	\$6.1	\$6.5	\$5.0	\$5.6	\$6.8	\$8.0	\$6.5	\$6.5	\$7.1	\$8.4	\$6.8	\$6.8	\$23.2	\$27.8	\$29.2	\$30.4	\$31.3	\$31.9	6.6%
% of sales	NM	599%	119%	148%	100%	137%	196.9%	92.8%	114.1%	88.1%	57.7%	49.1%	247.4%	121.0%	70.3%	43.4%	28.7%	23.1%	
Growth	-9.5%	75.9%	-12.1%	-11.0%	11.5%	23.3%	31.2%	15.2%	5.0%	5.0%	5.0%	5.0%	3.5%	19.9%	5.0%	4.0%	3.0%	2.0%	
Total Operating Expenses	\$9.4	\$9.7	\$9.3	\$10.3	\$12.3	\$14.6	\$12.5	\$13.1	\$13.9	\$16.2	\$13.5	\$13.6	\$38.7	\$52.5	\$57.2	\$61.9	\$65.6	\$68.7	
% of sales	NM	891%	223%	271%	180%	250%	378%	187%	222%	168.9%	114.5%	97.6%	412%	228%	137.6%	88.4%	60.2%	49.8%	
Growth																			
Operating Profit	-\$12.3	-\$12.2	-\$11.1	-\$11.4	-\$12.0	-\$14.9	-\$17.2	-\$14.3	-\$16.0	-\$15.6	-\$11.6	-\$9.9	-\$47.0	-\$58.4	-\$53.1	-\$16.4	\$5.3	\$27.9	NM
% of sales	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	4.8%	20.2%	
Growth	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	430%	
Other Expense (Income)	\$0.0	\$0.0	\$8.8	-\$1.4	\$0.1	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7.4	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	
Interest Expense (Income)	\$0.0	\$0.0	\$0.9	\$0.8	\$0.3	\$0.8	\$0.4	\$0.4	\$0.4	\$0.4	\$0.4	\$0.4	\$1.7	\$2.0	\$1.6	\$1.5	\$1.5	\$1.5	
Earnings Before Taxes	-\$12.3	-\$12.2	-\$20.9	-\$10.8	-\$12.5	-\$16.0	-\$17.6	-\$14.7	-\$16.4	-\$16.0	-\$12.0	-\$10.3	-\$56.1	-\$60.7	-\$54.7	-\$17.9	\$3.8	\$26.4	NM
% of sales	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	3.5%	19.1%	
Growth	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	600.7%	
Taxes	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Rate	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.0%	0.0%	0.0%	
Net Income	-\$12.3	-\$12.2	-\$20.9	-\$10.8	-\$12.5	-\$16.0	-\$17.6	-\$14.7	-\$16.4	-\$16.0	-\$12.0	-\$10.3	-\$56.1	-\$60.7	-\$54.7	-\$17.9	\$3.8	\$26.4	NM
% of sales	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	18.1%	117.7%	
Growth													NM	NM	NM	NM	NM	579%	
EPS				-\$0.73	-\$0.48	-\$0.56	-\$0.50	-\$0.42	-\$0.47	-\$0.46	-\$0.34	-\$0.29		-\$1.95	-\$1.56	-\$0.51	\$0.10	\$0.68	NM
Share Count (MM)				14.8	26.0	28.3	35.0	35.0	35.0	35.0	35.0	35.0		31.1	35.0	35.0	37.5	38.7	
Growth																			
	Q1:10	Q2:10	Q3:10	Q4:10	Q1:11	Q2:11	Q3:11E	Q4:11E	Q1:12E	Q2:12E	Q3:12E	Q4:12E	2010	2011E	2012E	2013E	2014E	2015E	
Consensus Revenue				\$3.1	\$5.5	\$9.1	\$12.0	\$13.5	\$15.6	\$17.7	\$20.0	\$22.6	\$8.7	\$35.4	\$73.1	\$123.5	\$171.7	\$221.5	
Growth					NM	NM	NM	NM	128%	202%	505%	222%		308%	106%	69%	39%	29%	
Actual /Cowen				\$4	\$6.8	\$5.9	\$3.3	\$7.0	\$6.3	\$9.6	\$11.8	\$13.9	\$9.4	\$23.0	\$41.5	\$70.0	\$109.0	\$138.0	
Consensus Gross Margin				NM		9.7%	22.2%	22.1%	31.6%	36.6%	44.7%	50.8%	NM	9.1%	40.2%	62.2%	68.4%	69.2%	
Actual /Cowen				-29.0%	4%	-4%	-143%	-16.6%	-33.9%	6.2%	16.0%	26.7%	-88.5%	-25.7%	9.8%	65.0%	65.0%	70.0%	
Consensus Op. Margin				NM	-245%	-139%	-99%	-76%	-51.5%	-32.9%	-17.5%	-15.5%	NM	NM	-37.9%	1.0%	18.1%	25.5%	
Actual /Cowen				NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	4.8%	20.2%	
Consensus EPS				NM	-\$0.46	-\$0.46	-\$0.42	-\$0.33	-\$0.26	-\$0.19	-\$0.12	-\$0.12	-\$2.46	-\$1.81	-\$0.89	\$0.07	\$0.77	\$0.88	
Actual /Cowen				-\$0.73	-\$0.48	-\$0.56	-\$0.50	-\$0.42	-\$0.47	-\$0.46	-\$0.34	-\$0.29	\$0.00	-\$1.95	-\$1.56	-\$0.51	\$0.10	\$0.68	

Source: Company reports, Thomson One Analytics, and Cowen and Company estimates.

Addendum

STOCKS MENTIONED IN IMPORTANT DISCLOSURES

Ticker	Company Name
GNOM	Complete Genomics

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(a) Assumptions: Time horizon is 12 months; S&P 500 is flat over forecast period.

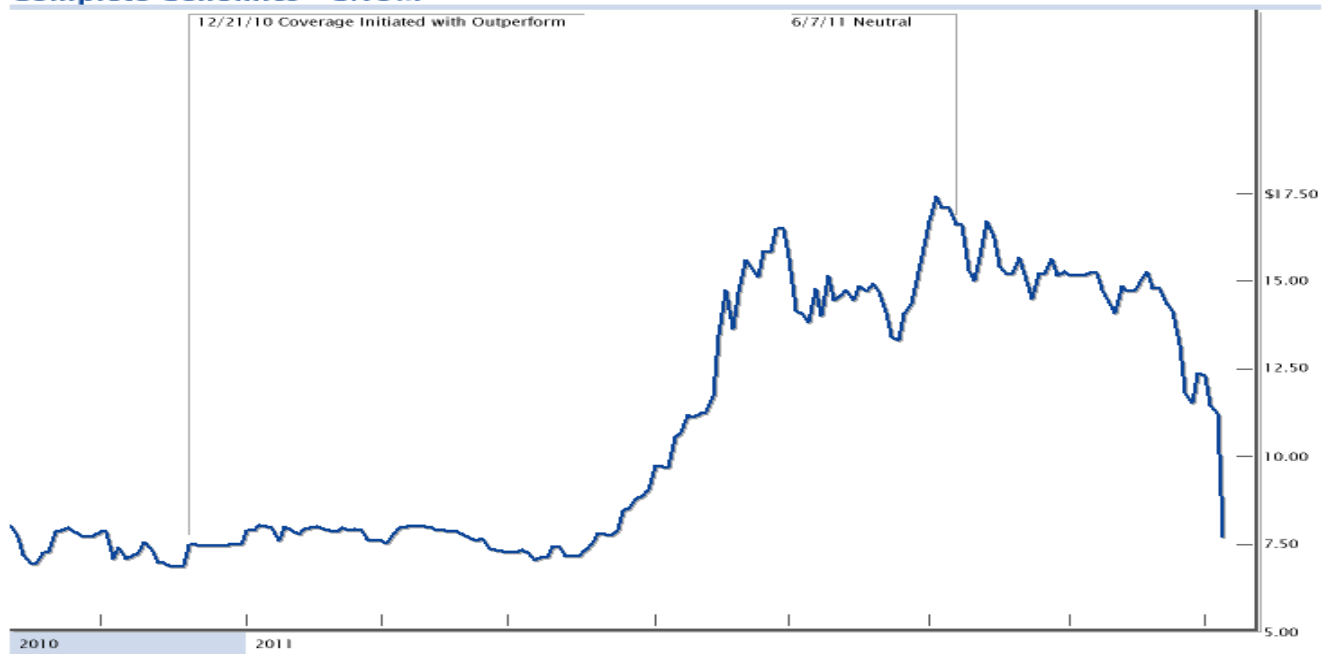
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Cowen and Company Price and Ratings History

Complete Genomics - GNOM



Pricing data provided by Reuters America. Chart as of 8/4/11 in USD.