

## RBC Capital Markets Corp.

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FY Dec Revenue (MM)	<b>2009A</b> 82.9	<b>2010E</b> 101.9	<b>2011E</b> 121.4	<b>2012E</b> 168.7
Prev. EBITDA (MM) Prev.	(12.3)	96.0 (0.9) (3.0)	0.1	19.4
EPS (Op) - FD Prev.	(0.59) (0.58)	(0.29)	(0.27)	0.14
P/E	NM	NM	NM	63.4x
Revenue (MM) 2009 2010 Prev. 2011 EBITDA (MM) 2009 2010 Prev. 2011 EPS (Op) - FD	Q1 19.4A 25.7A 28.3E (4.3)A 0.7A	Q2 19.2A 24.5A 28.5E (1.0)A (1.3)A	` ,	Q4 24.2A 24.6E 34.7E (3.2)A 0.2E 0.0E 2.2E
2009 2010 Prev. 2011 Prev.	(0.22)A (0.05)A (0.05)E (0.06)E	(0.10)A (0.15)A (0.10)E	(0.22)A (0.08)A (0.13)E (0.10)E	(0.19)A (0.05)E (0.01)E

All values in USD unless otherwise noted.

## **COMPANY UPDATE | COMMENT**

OCTOBER 29, 2010

Codexis, Inc. (NASDAQ: CDXS)

Impressive Product Traction Augmented by Maxygen Acquisition

# Outperform Speculative Risk

Price:	8.87	Price Target:	14.00
		Implied All-In Return:	58%
Shares O/S (MM):	34.2	Market Cap (MM):	303
Dividend:	0.00	Yield:	0.0%
Float (MM):	13.5	Enterprise Val. (\$MM):	208.4
		Avg. Daily Volume (MM):	0.53

# Codexis Reported Q310 on Thurs., Oct 28 Investment Opinion

Net: Solid quarter on all fronts with growing product traction in pharma, biofuel milestone achievements running above plan, and acquisition of IP portfolio from Maxygen. Achievement of 5 additional technology milestones with Shell brings total to 7 (of 8), with royalty payments expected in Q410 pending validation. Pharma product revenue stronger than expected on intermediate sales of \$4.5M to Merck for Boceprevir. \$20M acquisition of Maxygen IP portfolio ensures company's retention of all biofuel royalties and was executed at an attractive valuation, in our view. Full-year revenue guidance raised to "over \$100M" (from prior range of \$94-\$98M) on pharma strength and anticipation of biofuel milestone validation. The company appears to be executing well across all existing projects, while management seems optimistic on near-term "big brother" partnership opportunities in Carbon and Chemicals industries.

- Biofuels: Executing on Technical Milestones as Closing of Shell-Cosan J/V Nears: Five technical milestones achieved with Shell, ahead of plan and representing 100% achievement on regular goals and 75% on stretch. Associated milestone revenue likely in Q4, pending Shell validation. The company believes the Shell-Cosan J/V will close by year-end, with royalty revenues from Gen 1 ethanol possible by 2012.
- Maxygen Deal Provides Ownership of IP: Acquisition allows Codexis to retain all biofuel royalty payments from Shell, eliminating previous 20% share paid to Maxygen. IP ownership holds potential to drive expansion of enzymes into new fields, with chemicals specifically cited as an attractive opportunity.
- Pharma Segment Continues to Gain Traction: Pharma revs up 108% Y/Y and 13% sequentially to \$10.6M. First large shipments of intermediates to Merck for Hepatitis C drrug Boceprevir contributed \$4.5M to quarterly revenue. Product margin of 10% was down sequentially on lower mix of enzymes, with intermediate/enzyme product mix expected to remain variable over next few quarters.
- Full-Year Guidance Increased: FY '10 revenue guidance increased to "over \$100M", assuming continued strength in pharma (good visibility) and validation of 5 milestone achievements by Shell. Full-year EBITDA guidance quantified at "greater than \$7M", vs. prior qualitative outlook for "positive" EBITDA.

Priced as of prior trading day's market close, EST (unless otherwise noted).

For Required Conflicts Disclosures, see Page 5.

# Biofuels Technology Milestones Running Ahead of Plan; Shell-Cosan J/V Imminent

Enzyme technology in biofuels is being proven at an impressive rate, evidenced by achievement of 5 technical milestones under Shell agreement during the quarter. The company has now achieved 7 of 8 total milestones, resulting in achievement of 100% of regular goals and 75% of stretch goals (vs. internal target of 80% / 50%). Payments of milestone revenue are likely to occur in Q410, pending Shell's review and validation of milestone achievements. We view the high success rate as promising progress of Codexis' enzyme technology in biofuel production, and believe current results bode well for commercialization timeline and production targets.

Codexis remains optimistic around opportunities via the Shell-Cosan joint venture, and expects the J/V to pass through regulatory review and close by year-end. We are bullish on this opportunity as it relates to Codexis as it provides opportunity to leverage the company's feedstock agnostic enzymes into the biofuels industry, with immediate access to a vast production and distribution platform. Shell and Cosan expect their J/V to be the largest producer of Brazilian sugarcane in the world with total annual production of 52.6M tons, representing a 9.3% share of the crushed sugarcane market. The J/V also expects to hold a leading position in the Brazilian fuels distribution market with a market share of 18.2%. Further, we note that Cosan will become the 2<sup>nd</sup> largest shareholder in Codexis after Shell transfers its shares in the J/V, providing a strong incentive to utilize Codexis' technology. Royalty streams from Gen 1 ethanol may occur as early as 2012, while Gen 2 product and royalty revenue appears likely to follow on in the 2013-2014 time frame.

# Acquisition of Maxygen IP Portfolio Attractive in Several Regards

We view the acquisition of Maxygen's IP portfolio as attractive in several regards. Through the deal, Codexis acquires outright ownership of all of the intellectual property underlying its core gene-shuffling technology. The ownership provides the company with the unrestricted ability to use the technology in all fields, with the chemicals industry noted as an attractive future opportunity. Additionally, the transaction eliminates Codexis' obligation to pay 20% of Shell biofuel product revenue and royalties back to Maxygen, allowing more upside capture in 2012+. We view the \$20M purchase price as attractive, given royalty payments from Codexis to Maxygen totaled \$14.3M for the 3-year period from FY'07 to FY'09.

## Growth Opportunities Through Future "Big Brother" Partnerships in New Industries

The company will continue to seek growth opportunities similar to Shell in the future, whereby Codexis will partner with larger companies with billions of dollars in capital and access to large end-markets in which enzymes can be deployed. Management stated that it is examining options in Carbon markets, which have been strong in Europe, and may announce a partnership by the end of 2010. Additionally, the company noted that similarity in biodiesel molecules to chemical molecules may provide opportunities to leverage enzymes into the Chemical industry, with 2011 being a realistic time period for partnership development. We expect future partnerships in these industries to be similar to Shell, whereby Codexis utilizes R&D funding of the "big brother" to develop customized enzymes, and then earns product revenue and royalty streams in the out years.

## Steady Support from Pharma Segment

The pharma segment continues to show product traction, evidenced by 108% Y/Y and 13% sequential revenue growth. The company executed its first shipment of intermediates to Merck for Boceprevir during the quarter, yielding \$4.5M of revenue contribution. Management spoke to the steady progression of drugs within pipeline towards commercialization phases, boding well for future revenue opportunities. Product gross margin of 10% was sequentially lower due to high percentage of intermediate sales during the quarter. We expect future variability in gross margin dependent upon mix of intermediate/enzyme sales.

## Q310 Results

Results beat our and Street expectations, with rev/EPS of \$27.1M/(\$0.08) vs consensus estimates of \$22.3M/(\$0.13). Upside to revenue was driven by increasing traction in pharma and by recognition of biofuel royalty revenue after validation of 2 milestones announced during Q3. Pharma gross margins of 10% were below expectations on high shipment of intermediates during the quarter; we expect pharma margins to show variability in future quarters depending upon product mix. R&D expense of ~\$13M was in line with our expectations. SG&A expense of \$7.9M was well controlled and was below our expectation, partially contributing to the EPS upside in the quarter.



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## **Valuation**

Our valuation methodology employs EV/EBITDA, EV/Sales, and P/E multiples for both the pharma and the bioindustrials business segments. We derive our valuation multiples from public comparables and apply the multiples to our 2013 estimates, which we believe are the most representative of the company's intrinsic value given commercialization of the biofuels segment. Valuation for the pharma segment employs an EV/EBITDA multiple of 11.5x, an EV/Sales multiple of 3.25x, and a P/E multiple of 19x on our 2013 estimates. Valuation for the bioindustrials segment employs an EV/EBITDA multiple of 13x, EV/Sales multiple of 1.25x, and a P/E multiple of 26x on our 2013 estimates. We then discount back to present value at a 10% discount rate for pharma and a 18% discount rate for bioindustrials to arrive at our price target of \$14.

## **Price Target Impediment**

- Future product revenues and royalties from biofuels are contingent upon Shell's commercialization of biocatalysts developed by Codexis. Failure to reach commercialization or reduction in R&D funding will limit revenues that can be achieved from the Bioindustrials business segment.
- Lower prices of traditional sources of energy such as oil could potentially reduce the demand for alternative sources of energy, which would lower the outlook for biofuel production.
- Low levels of adoption of biocatalysts in pharma manufacturing could result in significantly lower growth rates than we are forecasting for pharma product and service revenue.
- Inability of biofuel production to meet regulatory requirements would result in a lower than expected growth rate for the biofuels industry.

## **Company Description**

Codexis commenced operations in March 2002 after being incorporated in January 2002 as a wholly owned subsidiary of Maxygen, Inc. The company operates a proprietary technology platform that enables the creation of optimized biocatalysts that make existing industrial manufacturing processes faster, cleaner, and more efficient than current methods. Codexis has commercialized its biocatalysts in the pharmaceutical industry and is developing biocatalysts for use in producing advanced biofuels under a multi-year research and development collaboration with Shell.



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Codexis, Inc CDXS Stuart Bush (512) 708-6384 stuart.bush@rbccm.com Fiscal Year 2010 Fiscal Year 2011 **Annual Results** Q110A Q210A Q310A Q410E Q111E Q211E Q311E Q411E FY09A FY10E FY11E FY12E FY13E Mar-10 Jun-10 Sep-10 Dec-10 Mar-11 Jun-11 Sep-11 Dec-11 Revenues Pharma 6,936.0 9,335.0 10,556.0 6,968.0 10,569.9 11,530.8 12,491.7 13,452.6 19,988.0 33,795.0 48,045.1 81,388.6 102,739.8 Bioindustrials 16,042.0 14,653.0 16,178.0 17,670.1 16,930.9 16,940.9 17,402.9 21,028.9 62,874.8 64,543.1 72,303.6 84,489.6 110,380.0 2,722.0 3,593.0 Grants 492.0 379.0 831.0 207.8 45.8 1,038.8 2,832.2 Total Revenues 25,700.0 24,480.0 27,113.0 24,638.1 28,331.9 28,471.7 29,894.6 34,689.3 82,908.6 101,931.1 121,387.5 168,710.3 213,119.9 Sequential Growth 6.0% 10.8% 5.0% 16.0% 15.0% YoY Growth 32.4% 27.5% 35.1% 10.2% 16.3% 10.3% 40.8% 19.1% 39.0% 26.3% 5,218.0 6.075.0 8,563.0 4,999.8 6.381.3 16,678,1 24.855.8 29.005.7 48,990.1 66,778.4 Cost of Revenues 6,961.4 7,541.5 8,121.6 **Gross Profit** 20,482.0 18,405.0 18,550.0 19,638.3 21,950.6 21,510.3 22,353.1 26,567.7 66,230.5 77,075.3 92,381.7 119,720.2 146,341.4 Total Gross Margin 79.7% 75.2% 68.4% 79.7% 77.5% 75.5% 74.8% 76.6% 79.9% 75.6% 76.1% 71.0% 68.7% Other Operating Expenses 15,970.9 12,982.0 13.070.0 13,592.8 15,283.1 16,673.6 R&D 13.004.0 14,653.0 54,698.2 52,648.8 62,580.6 73,482.3 76,620.7 SG&A 8,600.0 8,652.0 7,940.0 8,138.5 9,353.6 9,950.2 10,288.5 29,871.1 33,330.5 39,234.0 41,869.2 48,727.8 9,641.7 Total Operating Expenses 21,582.0 21,656.0 21,010.0 21,731.3 24,924.8 25,921.1 26,962.1 84,569.3 85,979.3 101,814.6 115,351.5 125,348.4 24,006.6 Sequential Growth (10.7%) 0.3% (3.0%) 3.4% 10.5% 3.8% 4.0% 4.0% **EBITDA** 738.0 (1,349.0) 190.1 129.4 (1,134.0) (1,097.4) 2,171.1 69.1 19,407.8 38,027.4 EBITDA Margin 2.9% (5.5%) (1.8%)0.8% 0.5% (4.0%) (3.7%) 6.3% (14.9%) (0.9%)0.1% 11.5% 17.8% (33.0%) (82.5%) (119.5%) 1042.2% 28000.8% 95.9% YoY Growth 86.9% 15.9% 92.5% (8,904.0) Operating Income (EBIT) (1,100.0)(3,251.0) (2,460.0)(2,093.0)(2,056.0) (3,414.5)(3,567.9) (394.4) (9,432.8)20,993.0 Operating Margin (4.3%) (13.3%) (9.1%) (8.5%) (7.3%)(12.0%) (11.9%) (1.1%) (8.7%) (7.8%)2.6% 9.9% (195.5%) 1.8% (66, 1%) 88.9% Sequential Growth 76.7% 24.3% 14.9% (4.5%)Other Income (Expense) 360.7 2,207.1 28.0 388 5 337.5 179.7 1.857.5 Interest Income 46.0 61.0 49.4 419 2 184 4 1,505.9 Interest Expense (358.0) (654.0) (35.0) (143.0) (113.8) (99.1) (82.1) (71.8)(1,413.5) (1,190.0) (366.8) (234.9) (234.9) Interest (Net) (330.0) (608.0) 26.0 (93.6) 305.4 289.4 278.6 265.7 (1,233.8)(1,005.6) 1,139.1 1,622.5 1,972.2 (623.6) Other (Net) 622.0 72.3 27.6 (45.9)(141.3)622.0 (87.3)Total Other Income (Expense) (330.0) (608.0) 26.0 528.4 377.7 317.0 232.7 124.4 (1,857.4) (383.6) 1,051.8 1,622.5 1,972.2 Pretax Income (EBT) (1.430.0)(3.859.0)(2.434.0)(1,564.6)(1,678.3) (3,097.5) (3,335.2)(270.0)(20, 196.3)(9,287.6)(8,381.0)5,991.3 22,965.2 Income Taxes (Benefit) (61.0) 87.0 298.0 192.7 192.7 192.7 192.7 65.8 473.5 770.8 1,100.0 1,100.0 Net Income (1,369.0)(3,946.0)(2,732.0)(1,714.0)(1,871.0)(3,290.2)(3,527.9)(462.7)(20, 262.1)(9,761.0) (9,151.8)4,891.3 21,865.2 EPS from Cont, Ops 0.14 0.64 Extraordinary Items 59 4 Foreign Exchange Gain (Loss) Warrants FV Adjustment (396.0) (162.7) (162.7) (162.7) (716.2) (884.1) ÷ ÷ \_\_\_ ÷ \_\_ -Total Extraordinary Items (396.0)(162.7)(162.7)(162.7)(623.6)(884.1)(973.0) (3.783.3)(2.569.3)(1.551.3)(1,871.0) (3,527.9)(462.7) (19.638.4)(8.876.9) Net Income to Common (GAAP) (3,290.2)(9,151.8)4,891.3 21,865.2 EPS from Extraordinary Items 0.01 0.01 0.00 0.00 0.02 0.03 EPS to Common (GAAP) (0.03)(0.14)(0.08)(0.05)(0.05)(0.10)(0.10)(0.01)(0.57)(0.26)(0.27)0.14 0.64 Average Shares Outstanding - Diluted 27,910 26,557 34,200 34,200 34,200 34,200 34,200 34,200 34,200 34,200 34,200 34,200 34,200 Company Reports, RBC Capital Markets estimates



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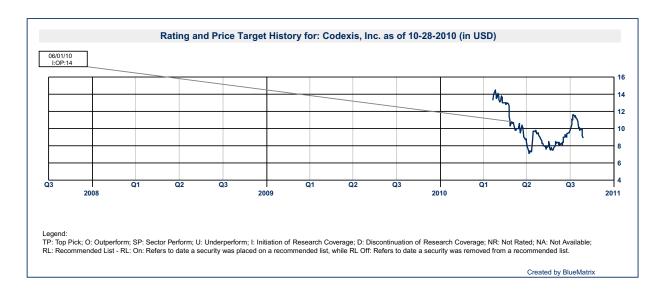
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HOLD[SP]	591	45.40	131	22.17		
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