



COMPANY UPDATE | COMMENT

DECEMBER 9, 2010

Codexis, Inc. (NASDAQ: CDXS)**Maxygen Distribution Creates Buying Opportunity****Outperform
Speculative Risk**

Price:	9.93	Price Target:	14.00
Shares O/S (MM):	34.2	Implied All-In Return:	41%
Dividend:	0.00	Market Cap (MM):	340
Float (MM):	13.5	Yield:	NM
		Enterprise Val. (\$MM):	208.4
		Avg. Daily Volume (MM):	0.53

Maxygen Distributing ~6M Shares on Dec. 14th**Investment Opinion**

Net: We believe pending distribution of Maxygen's (MAXY) holding of CDXS shares on Dec. 14th, paired with recent IPO lock-up expiration and end-of-year rebalancing likely creates near-term technical overhang, but opens long-term buying opportunity for investors. MAXY announced on Nov. 22nd it will distribute ~ 6M CDXS shares (17% of total shares) to MAXY shareholders on Dec 14th. We believe, however, the fundamental outlook for company is improving and remains bright, through 1.) increased traction in pharma / drug intermediary biz, esp with Merck, 2.) faster milestone achievements with Shell and pending upside from Shell's JV with Brazil's Cosan heightening commercialization prospects and 3.) New JV announced with Alstom Group for 16 month exclusive right to pursue enzymatic carbon capture products (LT upside similar to Shell JV). We continue to estimate company turns profitable in 2012. We recommend investors build new positions / add to existing positions on any near term technical weakness.

- **Technical Overhang on Shares Pending:** MAXY will distribute all of its ownership interest in CDXS (17% of total shares - 6M) via a special dividend on Dec. 14th. Given CDXS average 50-day vol of ~85K shares, we estimate that full liquidation of 6M shares would take ~70 trading days to cover. Many large MAXY shareholders have no current ownership position in CDXS, which we believe could serve as incentive to sell shares upon receipt. Current MAXY shareholders that also own CDXS shares will see CDXS ownership increase significantly, which may result in re-sizing of positions.
- **Improved Liquidity Likely a Long-term Positive:** We estimate float on shares of CDXS will increase by 44% to 19.4M shares as a result of the transaction. We view the increase in float as a long-term positive, improving liquidity.
- **Solid Execution and Partnerships in New Industries Provide Fundamental Support:** Execution on existing business remains strong, with Shell milestone achievements running ahead of plan and resulting royalty revenue likely in Q410. Continued execution on Shell partnership may result in commercialization of Gen 1 ethanol by 2012. Recent announcement of Alstom Carbon partnership and potential partnerships in Chemicals industry offer near-term catalysts.

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

For Required Conflicts Disclosures, see Page 5.

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FY Dec	2009A	2010E	2011E	2012E
Revenue (MM)	82.9	101.9	121.4	168.7
EBITDA (MM)	(12.3)	(0.9)	0.1	19.4
EPS (Op) - FD	(0.59)	(0.29)	(0.27)	0.14
P/E	NM	NM	NM	70.9x
Revenue (MM)	Q1	Q2	Q3	Q4
2009	19.4A	19.2A	20.1A	24.2A
2010	25.7A	24.5A	27.1A	24.6E
2011	28.3E	28.5E	29.9E	34.7E
EBITDA (MM)				
2009	(4.3)A	(1.0)A	(3.8)A	(3.2)A
2010	0.7A	(1.3)A	(0.5)A	0.2E
2011	0.1E	(1.1)E	(1.1)E	2.2E
EPS (Op) - FD				
2009	(0.22)A	(0.10)A	(0.22)A	(0.19)A
2010	(0.05)A	(0.15)A	(0.08)A	(0.05)E
2011	(0.05)E	(0.10)E	(0.10)E	(0.01)E

All values in USD unless otherwise noted.

Near-Term Technical Pressure Creates Buying Opportunity

We reiterate our 'Overweight' rating on shares of CDXS ahead of Maxygen's (MAXY) distribution of ~6M CDXS shares (~17% of total) to MAXY shareholders, scheduled for December 14th, 2010. Over the long-term, we view the distribution of shares as a positive development serving to improve liquidity in shares of CDXS, with float estimated to increase by 44% to ~ 19.4M shares. However, we believe some technical selling pressure is likely in the near-term as MAXY shareholders may liquidate CDXS shares upon receipt. We recommend investors take advantage of any technical selling pressure to build or add to existing positions.

Selling pressure has the potential be intense, given the significant number of shares being distributed by MAXY to MAXY shareholders. In the exhibit below, we highlight top existing holders of MAXY shares and their resulting ownership of CDXS shares. We believe selling pressure may result from various aspects, including 1) large MAXY investors that have no prior ownership in CDXS, 2) existing CDXS shareholders that will see their ownership position increase substantially, and 3) index fund products that may be required to trim resulting CDXS ownership to achieve targeted ownership weightings.

Exhibit 1: Largest Shareholders of MAXY and Resulting CDXS Ownership

Holder Name	CDXS Shares Received (000's)	Current CDXS Shares Held (000's)	Resulting CDXS Shares Held (000's)	Resulting CDXS Ownership
Black Rock	532,496	281,800	814,296	2.4%
Conus Partners	519,821	1,297,400	1,817,221	5.3%
Vanguard Group	480,105	14,555	494,660	1.4%
Royce & Associates	426,816	-	426,816	1.2%
Dimensional Fund Advisors	405,526	-	405,526	1.2%
GlaxoSmithKline	272,339	-	272,339	0.8%
Renaissance Technologies	205,948	-	205,948	0.6%
Howard, Russell J	130,903	-	130,903	0.4%
RA Investment Group	108,633	-	108,633	0.3%
WCM Investment Mgmt	108,498	-	108,498	0.3%
State Street	105,245	82,986	188,231	0.6%
Stein, Isaac	96,464	-	96,464	0.3%
Northern Trust	78,617	62,559	141,176	0.4%

Source: Bloomberg, Company Documents

Considering CDXS 3 month average daily trading volume of 85K shares, we estimate that liquidation of the full 6M shares would result in a ~ 70 day period of trading days to cover the distribution. This dynamic is likely to depress valuation in the near-term, which we would view as an attractive opportunity for investors to accumulate shares.

Alstom Partnership Provides Potential for Additional Low Cap-Ex Growth Opportunity

In early December, company announced a partnership with power generation company Alstom for a 16 month pilot program to test customized enzymes for use in power plant greenhouse gas reduction. Alstom is a publicly traded company with €23B in revenues and a global presence, with operations in more than 70 countries. Importantly, the company has a presence in markets such as Europe where CO₂ markets are generally more developed than in the US. While details are limited, we expect the partnership to be similar to Codexis' partnership with Shell, whereby R&D is funded by Alstom and Codexis benefits from product revenues and royalties upon commercialization. We view this initial venture into the CO₂ reduction market as a positive, with progress towards commercialization a potential positive catalyst in coming quarters.

Solid Execution, Potential for Upcoming Catalysts Provide Fundamental Support

We remain bullish on the long-term outlook for CDXS, and believe execution on existing Shell biofuels partnership plus potential for further "big brother" partnerships in other industries may serve as catalysts for the stock. Biofuels enzyme technology continues to exceed expectations, with company achieving 7 of 8 production milestones under Shell partnership as of Q310. While commercialization of enzymes with Shell likely remains a 2012 event for Gen 1 ethanol, we view milestone achievements as validation of the technology. We expect royalty payments from these milestones to be realized in Q410 pending Shell validation, providing support to near-term revenue outlook. Additionally, we believe company may announce a similar "big brother" partnership in Chemicals sometime in FY11, which would provide further opportunity to leverage enzyme technologies into a large market. To this end, we note that company recently announced a senior-level hire of an industry veteran to head its Biobased Chemicals division, which we believe indicates an increased level of focus on opportunities within the chemicals industry.

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 an 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.

Codexis, Inc CDXS															
Fiscal Year 2010				Fiscal Year 2011				Annual Results							
	<u>Q110A</u>	<u>Q210A</u>	<u>Q310A</u>	<u>Q410E</u>	<u>Q111E</u>	<u>Q211E</u>	<u>Q311E</u>	<u>Q411E</u>	<u>FY09A</u>	<u>FY10E</u>	<u>FY11E</u>	<u>FY12E</u>	<u>FY13E</u>		
	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		
Grants	2,722.0	492.0	379.0	-	831.0	-	-	207.8	45.8	3,593.0	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%	(4.7%)	10.8%	(9.1%)	15.0%	0.5%	5.0%	16.0%	-	22.9%	19.1%	39.0%	26.3%		
YoY Growth	32.4%	27.5%	35.1%	1.6%	10.2%	16.3%	10.3%	40.8%	-	-	-	-	-		
Cost of Revenues	5,218.0	6,075.0	8,563.0	4,999.8	6,381.3	6,961.4	7,541.5	8,121.6	16,678.1	24,855.8	29,005.7	48,990.1	66,778.4		
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															
R&D	12,982.0	13,004.0	13,070.0	13,592.8	14,653.0	15,283.1	15,970.9	16,673.6	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	9,641.7	9,950.2	10,288.5	29,871.1	33,330.5	39,234.0	41,869.2	48,727.8		
Total Operating Expenses	21,582.0	21,656.0	21,010.0	21,731.3	24,006.6	24,924.8	25,921.1	26,962.1	84,569.3	85,979.3	101,814.6	115,351.5	125,348.4		
Sequential Growth	(10.7%)	0.3%	(3.0%)	3.4%	10.5%	3.8%	4.0%	4.0%	-	-	-	-	-		
EBITDA	738.0	(1,349.0)	(500.0)	190.1	129.4	(1,134.0)	(1,097.4)	2,171.1	(12,318.0)	(920.9)	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%		
YoY Growth	-	(33.0%)	86.9%	-	(82.5%)	15.9%	(119.5%)	1042.2%	-	92.5%	-	28000.8%	95.9%		
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)	(18,338.9)	(8,904.0)	(9,432.8)	4,368.7	20,993.0		
Operating Margin	(4.3%)	(13.3%)	(9.1%)	(8.5%)	(7.3%)	(12.0%)	(11.9%)	(1.1%)	(22.1%)	(8.7%)	(7.8%)	2.6%	9.9%		
Sequential Growth	76.7%	(195.5%)	24.3%	14.9%	1.8%	(66.1%)	(4.5%)	88.9%	-	-	-	-	-		
Other Income (Expense)															
Interest Income	28.0	46.0	61.0	49.4	418.8	388.1	360.4	337.3	179.7	184.4	1,504.5	1,855.7	2,206.1		
Interest Expense	(358.0)	(654.0)	(35.0)	(110.5)	(81.2)	(66.6)	(49.5)	(39.3)	(1,413.5)	(1,157.5)	(236.6)	(104.8)	(104.8)		
Interest (Net)	(330.0)	(608.0)	26.0	(61.1)	337.5	321.5	310.8	298.0	(1,233.8)	(973.1)	1,267.9	1,751.0	2,101.4		
Other (Net)	-	-	-	500.0	40.3	27.6	(88.9)	(141.3)	(623.6)	500.0	(162.3)	(200.0)	-		
Total Other Income (Expense)	(330.0)	(608.0)	26.0	438.9	377.8	349.1	221.9	156.7	(1,857.4)	(473.1)	1,105.6	1,551.0	2,101.4		
Pretax Income (EBT)	(1,430.0)	(3,859.0)	(2,434.0)	(1,654.0)	(1,678.2)	(3,065.3)	(3,346.0)	(237.7)	(20,196.3)	(9,377.0)	(8,327.2)	5,919.7	23,094.4		
Income Taxes (Benefit)	(61.0)	87.0	298.0	149.5	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)	(1,803.5)	(1,870.9)	(3,258.0)	(3,538.7)	(430.4)	(20,262.1)	(9,850.5)	(9,098.0)	4,819.7	21,994.4		
EPS from Cont. Ops	(0.05)	(0.15)	(0.08)	(0.05)	(0.05)	(0.10)	(0.10)	(0.01)	(0.59)	(0.29)	(0.27)	0.14	0.64		
Extraordinary Items															
Foreign Exchange Gain (Loss)	-	-	-	-	-	-	-	-	59.4	-	-	-	-		
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)	-	-	-		
Net Income to Common (GAAP)	(973.0)	(3,783.3)	(2,569.3)	(1,640.8)	(1,870.9)	(3,258.0)	(3,538.7)	(430.4)	(19,638.4)	(8,966.4)	(9,098.0)	4,819.7	21,994.4		
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 Market estimates

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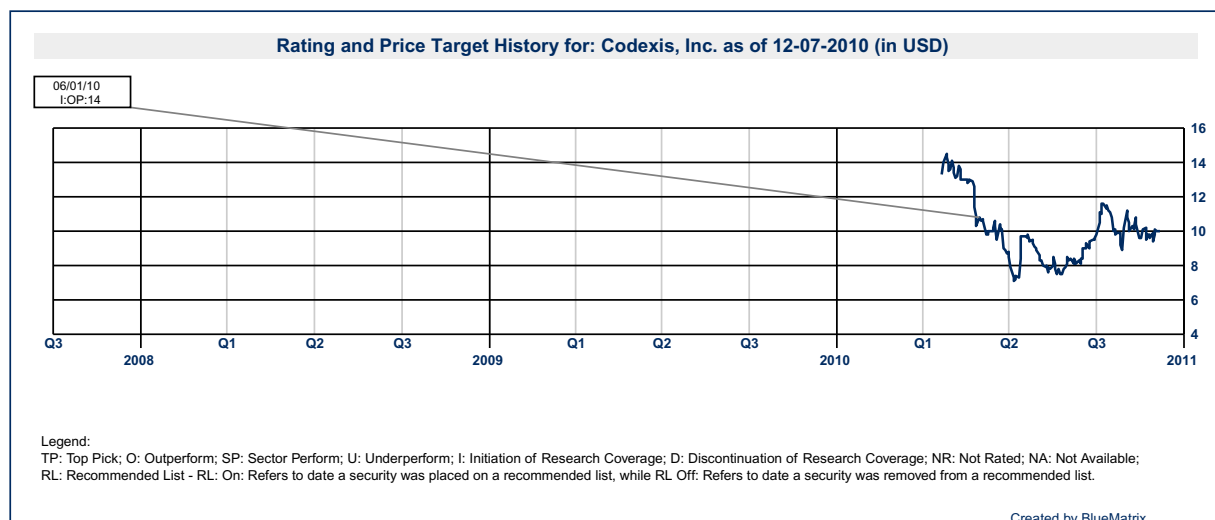
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