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## Codexis, Inc. (CDXS)

**SMALL & MID CAP RESEARCH** 

# Poised for Takeoff on New Product, Build Positions Now

- Bottom Line: Codexis, a platform play for turning biomass into products, is poised to launch its first bio-industrial product and we believe it has significant potential. We'd build/add to positions now.
- Biomass to Detergents: CDXS has proven at labscale a pathway to turn biomass such as wheatstraw, wood waste or bagasse (\$100/ton) into sugar and then into detergents (\$1,500/ton) (a growing \$4bn market where incumbents want to shift away from palm oil as a feedstock). CDXS plans to scale up enzyme production and even start detergent production in late 2011 (at logen), with accelerated growth thereafter (Brazil, Canada, China, Russia). Although commercial terms are not set yet, visibility on this type of product driven revenue growth is exactly what investors have been looking for. It helps that CDXS is making progress in 3 other sizeable markets (2nd Gen biofuels, carbon capture, water treatment), that CDXS may soon be part of the Shell-Cosan JV (opening access to significant bio-feedstock) and that its existing pharma business is growing well.
- Revenue guidance of \$120m in 2011 is ahead of our \$113m estimate. Importantly, this includes no revenues from sales of enzymes to Shell-Cosan nor product revenues for the detergent opportunity.
- Well funded: With \$72M of cash and equivalents, and well capitalised partners, we believe CDXS is well positioned to commercialise the value of its enzyme platform.

Rating	OUTPERFORM* [V]
Price (02 Feb 11, US\$)	9.15
Target price (US\$)	17.00¹
52-week price range	14.45 - 7.11
Market cap. (US\$ m)	362.72
Enterprise value (UŚ\$ m)	290.33

\*Stock ratings are relative to the relevant country benchmark.

<sup>1</sup>Target price is for 12 months.

[V] = Stock considered volatile (see Disclosure Appendix).

Financial and valuation metrics				
Year	12/09A	12/10E	12/11E	12/12E
Revenue (US\$ m)	82.9	107	120.5	164.3
EBIDAX (US\$ m)	-12.1	0.8	2.5	19.0
EPS (CS adj.) (ÚS\$)	-0.52	-0.22	-0.17	0.13
Prev. EPS (ÚS\$)	_	-0.28	_	_
ROGIC (%)	-27.3	-67.3	-27.2	6.2
P/E (x) ` ´	NM	NM	NM	68.6
P/E rel. (%)	NM	NM	NM	590.0
OCFPS (US\$)	-0.22	-0.41	0.17	0.62
P/OCF (x)	_	-25.6	53.6	14.7
Qtrly ent. val./tot. EBIDAX	-22.1	333.9	108.6	14.1
Net debt (US\$ m)	-48	-72	-68	-49
Dividend (12/09A, US\$)	_	Dividend yield (%)		_
Net debt current qtr (US\$ m)	-95.2	Net debt gtr/total r	ncap	-26.3
BV/share (current, US\$)	2.7	GIC (12/10E, US\$	· ·	113.8
EV qtr/GIC (x)	6.3	Current WACC	,	_
Free float (%)		Number of shares	(m)	39.64
Source: Company data, Credit Suisse estimates				

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## **Valution**

At \$9.15/sh, Codexis shares are valued at 12-18x the 2013 earnings potential from their more established pharmaceutical business alone, after adjusting for NOL's and cash.

## **Change to Projections**

**Exhibit 1: Change to Projections** 

Old Projections	2010	2011E	2012E	2013E	2014E	2015E	2016E
Revenue	102.3	113.4	155.5	200.0	245.4	296.3	355.8
Gross Profit	75.4	87.5	114.3	142.7	165.5	201.6	219.9
Operating Income	-9.8	-7.6	3.7	19.4	32.1	56.9	52.5
Net Income/(Loss)	-10.9	-6.8	5.5	21.5	35.9	38.9	35.8
EBITDA (Adjusted)	7.4	11.9	27.0	44.5	60.9	93.2	95.9
New Projections	2010	2011E	2012E	2013E	2014E	2015E	2016E
Revenue	107	120.5	164.3	208.4	251.9	304.4	365.7
Gross Profit	79	89.7	116.0	145.3	168.4	205.3	224.2
Operating Income	-7.1	-7.4	3.7	20.8	34.3	59.8	55.7
Net Income/(Loss)	-8.5	-6.5	5.5	22.8	38.0	40.5	37.7
EBITDA (Adjusted)	9.9	12.1	27.1	45.9	63.1	96.1	99.2
% Change	2010	2011E	2012E	2013E	2014E	2015E	2016E
Revenue	5%	6%	6%	4%	3%	3%	3%
Gross Profit	5%	2%	1%	2%	2%	2%	2%
Operating Income	-27%	-3%	1%	7%	7%	5%	6%
Net Income/(Loss)	-22%	-4%	1%	6%	6%	4%	5%
EBITDA (Adjusted)	34%	2%	0%	3%	4%	3%	3%

Source: Company data, Credit Suisse estimates

Codexis, Inc. (CDXS)



Companies Mentioned (Price as of 02 Feb 11)

Codexis, Inc. (CDXS, \$9.15, OUTPERFORM [V], TP \$17.00) Cosan (CSAN3, R\$26.30, OUTPERFORM [V], TP R\$32.00)

Maxygen, Inc. (MAXY, \$4.09)

Merck & Co. (MRK, \$33.82, OUTPERFORM, TP \$44.00)

Royal Dutch Shell PLC (ADR) (RDSa.N, \$71.25, OUTPERFORM, TP \$81.00, MARKET WEIGHT)

#### **Disclosure Appendix**

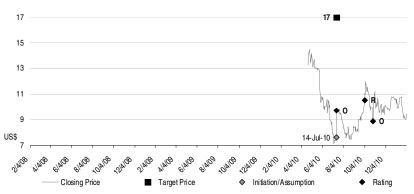
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See the Companies Mentioned section for full company names.

#### 3-Year Price, Target Price and Rating Change History Chart for CDXS

CDXS	Closing Price	Target Price		Initiation/
Date	(US\$)	(US\$)	Rating	Assumption
7/14/10	9.7	17	0	Х
10/4/10	10.51		R	
10/28/10	8.87		0	



O=Outperform; N=Neutral; U=Underperform; R=Restricted; NR=Not Rated; NC=Not Covered

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\*\*An analyst's coverage universe consists of all companies covered by the analyst within the relevant sector.

3 Codexis, Inc. (CDXS)

128



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Restricted 2%

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Price Target: (12 months) for (CDXS)

**Method:** The valuation of Codexis stock presents a number of issues: there are a limited number of publicly traded comparables, much of the near-term revenue is effectively funded R&D, rather than underlying product sales, and we don't expect Codexis to break even until 2012. To accommodate these issues, we use several valuation methods, including a multiple-based approach and a discounted cash flow (DCF) analysis. Applying a 50% weighting to the our Mid-Success DCF derived value of \$18.1/share and a 50% weighting to the P/E derived value of \$15.8/share (19x 2014E EPS), we determine a target price of \$17/share for CDXS.

Risks: The primary risk to our \$17 target price for Codexis is that this is a relatively young company that is reliant on licensed technology and only a few customers for the bulk of its revenues and value. Other key risks include: (1) loss of any rights under the license from Maxygen, (2) reliance on pharmaceutical manufacturing innovation and FDA approvals, (3) second generation economics, (4) commercialization of pharmaceutical cost savings, and (5) competition from a substantial number of other companies, including well capitalized companies such as Novozymes, Danisco, DuPont, and DSM.

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Codexis, Inc. (CDXS) 4

<sup>\*\*</sup>The broad market benchmark is based on the expected return of the local market index (e.g., the S&P 500 in the U.S.) over the next 12 months.



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