Initiating Coverage

Company Overview and Key Data

Codexis inc.	**Buy**
(NasdaqGM: CDXS)	
Share Price:	$9.64
Price Target:	$13.00
52-Week Range:	$6.88 - $14.98
Shares Outstanding:	34.2 million
Market Capitalization:	$328.6 million
Dividend Yield:	NA

EPS	Sept.	Dec.	Mar.	June.	FY
2010E	($0.50)A	($0.15)A	($0.08)A	($0.03)	($0.37)
2011E	($0.03)	($0.02)	($0.01)	($0.00)	($0.06)

Source: Codexis Inc. SEC filings and Olympia Capital Markets Group Estimates

Codexis, Inc. focuses on biocatalyst development and production. The Company offers its products to the pharmaceuticals and bioindustrial companies, such as biofuels, carbon management, water treatment and chemicals.

Source: Reuters

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17 November 2010

Codexis Inc. (NasdaqGM: CDXS)

Initial Report

Investment Concept

Codexis, Inc. is a developer of proprietary biocatalysts, which are enzymes or microbes that initiate or accelerate chemical reactions.

Codexis has focused its biocatalyst development efforts on large and rapidly growing markets, including pharmaceuticals and advanced biofuels. It 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 Oil. Codexis has enabled biocatalyst-based drug manufacturing processes at commercial scale and has delivered biocatalysts and drug products to some of the world's leading pharmaceutical companies. In its research and development collaboration with Shell, it is developing biocatalysts for use in producing advanced biofuels from renewable sources of non-food plant materials, known as cellulosic biomass. It is also using its technology platform to pursue biocatalyst-enabled solutions in other bioindustrial markets, including carbon management, water treatment and chemicals.

We believe its Shell collaboration and strong industry relationships position Codexis to capitalize on its proprietary technology platform that enables the creation of optimized biocatalysts that make existing industrial processes faster, cleaner and more efficient than current methods, and which has the potential to make new industrial processes possible on a commercial scale.

Codexis came public in April, 2010 in an initial public offering of 6 million shares priced at $13.00 per share. Since that time the Company has met or exceeded operational expectations, hitting numerous milestones in its Shell relationship and rapidly expanding sales to the pharmaceutical industry. While full-scale cellulosic ethanol production is unlikely to occur before 2015, we believe the Company can turn profitable as early as the fourth quarter of 2011. We are initiating coverage with a Buy rating and a 12-month price target for the shares of $13.00.

Operating History

Manufacturers have historically used naturally occurring biocatalysts to produce many goods used in everyday life. However, inherent limitations in naturally occurring biocatalysts have restricted their commercial use. Codexis' proprietary technology platform is able to overcome many of these limitations, allowing it to evolve and optimize biocatalysts to perform specific and desired chemical reactions at commercial scale. To date, Codexis has generated revenues primarily from collaborative research and development funding, pharmaceutical product sales and government grants. Its revenues have increased in each of the last three fiscal years, growing from $25.3 million in 2007, to $50.5 million in 2008 to $82.9 million in 2009. Codexis' revenues increased from $58.7 million

for the nine months ended September 30, 2009 to $77.3 million for the nine months ended September 30, 2010.

Most of its revenues since inception have been derived from collaborative research and development arrangements, which accounted for 52%, 66% and 78% of its revenues in 2007, 2008 and 2009, respectively. Collaborative research and development arrangements accounted for 77% and 64% of its revenues for the nine months ended September 30, 2009 and 2010, respectively. The related party collaborative research and development portion of these revenues received from Shell accounted for 33%, 60% and 76% of its revenues in 2007, 2008 and 2009, respectively. Related party collaborative research and development revenues received from Shell accounted for the 75% and 61% of its revenues for the first nine months of 2009 and 2010, respectively. Codexis' product sales have increased in each of the last three fiscal years, from $11.4 million in 2007, to $16.9 million in 2008 and to $18.6 million in 2009. Its product sales increased from $13.4 million for the nine months ended September 30, 2009 to $24.3 million for the same period in 2010.

Despite rising revenues, Codexis has continued to experience significant losses as it has invested heavily in research and development and administrative infrastructure in connection with the growth in its business. In light of the growth in market acceptance of its products and services to date, it currently intends to maintain a high level of investment in research and development. Codexis incurred net losses of $39.0 million, $45.1 million and $20.3 million in the years 2007, 2008 and 2009, respectively. Its net loss shrank from $15.1 million in the first nine months of 2009 to $8.0 million in the 2010 period.

Product Suite

Codexis serves major worldwide markets where clean technology can make a positive economic and environmental impact. Its focus is on the cost-effective conversion of renewable resources into transportation fuels and pharmaceuticals, and on the development of new technologies for effective air and water treatment and chemical manufacturing.

Codexis applies its platform technology to customize proprietary biocatalysts derived from living organisms and evolves them to perform a desired process according to commercial specifications. Codexis biocatalysts are highly efficient enzyme products that speed chemical reactions, replace costly chemical steps and enable low-carbon manufacturing processes that are highly efficient. Processes enabled by Codexis biocatalysts require relatively low energy inputs and eliminate hazardous reagents and disposal costs. The performance of Codexis biocatalysts has been verified in the biofuels, pharmaceutical and chemical manufacturing industries.

Microbial processes that take place in natural environments do not translate effectively to commercial manufacturing environments. The Codexis technology platform includes highly sophisticated gene shuffling and systems biology techniques. This platform enables Codexis to engineer microbial genomes and enzyme pathways to create organisms capable of large-scale production of fuels and other chemical products.

Codexis applies its platform technology to customize proprietary biocatalysts for bioindustrial applications, including advanced biofuels and carbon capture, as well as in pharmaceutical manufacturing. These biocatalysts have been evolved to perform a specific desired catalytic process to a critical set of specifications.

We believe both environmental and economic considerations will increase demand for manufacturing processes with lower carbon footprints such as provided by Codexis' technology.

Biofuels

Panels involving different classes of enzymes may be useful in biofuels and other bioindustrial applications. For example, cellulase panels could enable identification of optimal enzyme combinations for different feedstocks.

Codexis has a long-term collaboration with Royal Dutch Shell to develop enhanced methods of converting non-food biomass to advanced biofuels. The collaboration began in 2006 and was expanded in 2007 and again in 2009. Shell is the leading worldwide distributor of biofuels. Codexis is using its biocatalytic approach to find critical pathways for developing economically feasible alternative transportation fuels from renewable resources.

A further discussion of the Shell relationship and the proposed Shell/Cosan joint venture that will assume Shell's current 15% ownership of Codexis is provided later in the report.

Pharmaceutical

Codex® Biocatalyst Panels are used extensively in the global pharmaceutical industry. Enzymes of a given family, known to catalyze a certain reaction, were developed using Codexis proprietary technology. They are provided to customers in a convenient 96-well plate format. Each panel has been pre-tuned to react with a wide range of substrates under a variety of reaction conditions to aid in the selection and optimization of high performance biocatalysts. Coming from the same platform, they are quickly scalable.

This technology reduces development time required to generate a suitable biocatalyst for challenging process steps. Customers can quickly move from initial screening to generating the first kilogram quantities of desired material. Panels are currently offered for five enzyme classes widely used to produce human therapeutics.

A chiral molecule is asymmetric; it cannot be superimposed on its mirror image. Many chemicals important to life are chiral. The U.S. Food and Drug Administration requires that the two mirror image forms (enantiomers) of a chiral compound be treated as different products that must be tested separately. Consequently, there has been extensive research into developing methods for making one or the other of the enantiomers.

Codexis offers a wide selection of enzymes for the pharmaceutical synthesis of chiral compounds and specialty chemicals. Enzymes have a number of useful

properties in synthesis of these compounds. They are very efficient in producing chiral molecules with the desired configuration. They can also selectively differentiate between the same functional group in different parts of the same molecule, a significant advantage compared to traditional chemical syntheses. In addition, enzymes enable reactions to be carried out under far more moderate reaction conditions (i.e. at neutral pH, ambient pressure and temperatures).

Codexis develops and commercializes active pharmaceutical ingredients (APIs) and pharmaceutical intermediates using its proprietary biocatalytic processes. A pharmaceutical intermediate is a chemical compound formed in a stage between the raw materials and the final API. It is often an essential stepping stone to the final product, and is the point at which chirality is first introduced into the molecule. The overwhelming majority of APIs have at least one chiral center, which has lead to growing demand for stereochemically pure intermediates as regulatory requirements increase for improved product purity.

The following example illustrates how intermediates developed using Codexis technology can improve manufacturing by reducing production costs.

> N-Acetylneuraminic acid (NANA) is an intermediate used in the manufacture of a number of anti-virals. The current manufacturing process inefficiently converts the raw materials to the desired intermediate and requires separate reactors for each step in the process. This results in high costs for both raw materials and capital equipment. Codexis developed a "one pot, two-enzyme" process to produce the NANA intermediate. The biocatalytic process greatly improves the efficient use of raw materials and enables the entire process to be conducted in a single reactor. The process was developed from concept to multi hundred-liter scale within 12 months providing a high volume, low cost solution.

Chemicals

Codexis biocatalysts replace costly high-energy chemical steps with novel biocatalytic reactions, thereby creating and improving chemical processes. These resulting processes are highly efficient, require relatively low energy inputs and generate minimal toxic byproducts. In addition, they eliminate the need for hazardous reagents, and avoid costly and often toxic waste streams.

Using proprietary biocatalysts, Codexis manufactures virtually 100% chirally pure intermediates and APIs. These are often manufactured directly at high purity, compared to low purity materials that must be isolated from traditional chemical processes. Codexis technology can significantly reduce the cost and capital expenditure of the desired intermediate with improved purity while reducing environmental waste.

Collaborative Research and Development Agreements

(a) Shell : Research Collaboration and License Agreement

In November 2006, Codexis entered into a collaborative research agreement and a license agreement with Shell to develop biocatalysts and associated processes that use such biocatalysts. In November 2007, the Company entered into a new and expanded five-year collaborative research agreement and a license agreement with Shell. In connection with the new and expanded collaborative research agreement and license agreement, Shell paid Codexis a $20.0 million up-front exclusivity fee, purchased Series E redeemable convertible preferred stock for gross proceeds of $30.5 million, and agreed to pay Codexis (1) research funding at specified rates per full-time employee working on the project during the research term, (2) milestone payments upon the achievement of milestones and (3) royalties on future product sales.

In March 2009, Codexis amended its collaborative research agreement and license agreement with Shell. In connection with these amendments, Shell purchased Series F redeemable convertible preferred stock for gross proceeds of $30.0 million and agreed to pay Codexis (1) additional research funding at specified rates per full-time employee working on the project during the research term and (2) additional milestone payments upon the achievement of milestones.

In accordance with Codexis' revenue recognition policy, the $20.0 million up-front exclusivity fee and the research funding fees to be received for employee services are recognized in proportion to the actual research efforts incurred relative to the amount of total expected effort to be incurred by the Company over the five-year research period commencing November 2007. Milestones to be earned under this agreement are expected to be recognized upon achievement of the milestone and when collectability is reasonably assured. Codexis recorded milestone revenues of $1.4 million during the first quarter of 2010 and $1.5 million in the third quarter. No milestone payments were received the second quarter of 2010 or in the first nine months of 2009.

Under the agreements with Shell, Codexis has the right to license technology from third parties that will assist it in meeting objectives under the collaboration. If a third-party technology is identified and mutually agreed upon by both parties, Shell is obligated to reimburse Codexis for the licensing costs of the technology. Payments made by Codexis to the third-party providers were recorded as research and development expenses related to its collaborative research agreement with Shell. The Company invoiced Shell for reimbursement for licensing costs of $7.4 million and $1.3 million for the first nine months of 2009 and 2010, respectively. Shell was invoiced for reimbursement of licensing costs of $168,000 and $1.1 million for the 2009 and 2010 third quarters. Codexis records these reimbursements against the costs incurred.

(b) Shell/Cosan Joint Venture

On August 25, 2010, Shell and Cosan S.A., one of the world's largest sugar and ethanol producers based in Brazil, signed binding agreements to form a $12 billion joint venture for the production and commercialization of ethanol and power from sugar cane. The resulting joint venture, if completed, will be one of the world's largest ethanol producers in the world with 4,500 retail stations (selling 18 billion liters of fuel annually) and annual production capacity of over 2 billion liters of ethanol (440 million gallons). The company will also generate electricity from sugar can bagasse in cogeneration from all mills (currently operational at 10 of 23). Shell and Cosan, which remain as competitors, are now focusing on securing regulatory approvals and starting integration planning before launching the new company.

Shell will contribute the following to the joint venture:

- Approximately $1.6 billion in cash
- Brazilian downstream assets including about 2,740 branded retail sites, supply and distribution assets, and the aviation fuel business, including the one recently acquired from Cosan
- Its share interest in Iogen Energy (Iogen Energy is a technology development company dedicated to advancing cellulosic ethanol, jointly owned (50:50) by Iogen Corporation and Shell. The company has been producing cellulosic ethanol from wheat straw at its Ottawa demonstration plant since 2004. The demonstration plant produced more than 500,000 liters of cellulosic ethanol last year. Shell and Iogen Energy are working together on technical and commercial feasibility of a large-scale cellulosic ethanol plant.)
- Its 14.7% share interest in Codexis

Cosan will contribute:

- Sugar cane crushing capacity: currently about 60 million tons per annum from 23 mills
- Ethanol production capacity: currently greater than 2 billion liters (440 million gallons) per annum
- Brazilian downstream assets including about 1,730 retail sites and supply and distribution assets
- Ethanol logistics assets
- Net debt of approximately US$2.5 billion
- Additional debt of R$500 million from Brazilian Development Bank

(c) Arch: Manufacturing Collaboration

Codexis has had a relationship with Arch Pharmalabs, Ltd., a company based in India, since October 2005. In February 2010, Codexis consolidated certain of the contractual terms in its agreements with Arch by simultaneously terminating all of its existing agreements with Arch, other than the Master Services Agreement with Arch entered into as of August 1, 2006, and entering into new agreements with Arch. The new agreements, among other things, provide for biocatalyst supply from Codexis to Arch and intermediate supply from Arch to Codexis. .Codexis sells the biocatalysts to Arch at cost, and Arch manufactures

the intermediates on Codexis' behalf. Arch sells the intermediates to Codexis at a formula-based price, which results in a fixed percentage profit share. Codexis then directly markets and sells the intermediates to a specified group of customers in the generic pharmaceutical industry. Under the new agreements, Arch may also sell intermediates directly to other customers, and a license royalty is owed by Arch to Codexis based on the volume of product they sell to Codexis and their other customers. Sales of intermediates Arch under the prior agreements were recognized net of the manufacturing costs charged by Arch.

Total product and collaborative research and development revenues recorded from Arch were $126,000 and $191,000 during the three and six months ended June 30, 2009 and $11,000 in the three and six months ended June 30, 2010. Royalties owed by Arch were $135,000 and $162,000 for the three and six months ended June 30, 2010. No royalties were owed by Arch in 2009.

In May 2010, Codexis paid Arch an advance of $2.0 million for the production of certain enzyme products. This amount is recorded as a prepaid asset on Codexis' condensed consolidated balance sheet at June 30, 2010. Upon Codexis' future purchases of this product from Arch, it will offset amounts billed by Arch against the prepaid amount. Codexis expected to purchase this inventory in 2010.

(d) CO2 Solution: Joint Development Agreement

On December 15, 2009, Codexis entered into an exclusive joint development agreement with CO2 Solution Inc., a company based in Canada. The joint development agreement expires in January 2011. Under the agreement, Codexis obtained a research license to CO2 Solution's intellectual property and agreed to conduct research and development activities jointly with CO2 Solution with the goal of advancing the development of carbon capture technology.

CO2 Solution has developed a proprietary bio-technological platform for the efficient capture of carbon dioxide, the most important greenhouse gas (GHG), from power plants and other large stationary sources of emissions. The Company's technology platform exploits the natural power of a biocatalyst, carbonic anhydrase, which functions within humans and other mammals to manage CO2 during respiration. CO2 Solution has successfully adapted the enzyme to function within an industrial environment, and thus has taken advantage of a biomimetic approach to CO2 capture. The Company is commercializing its technology for coal fired power generation, the oil sands and other CO2-intensive industries where a low-cost capture solution is key to meeting climate change legislation in a cost effective manner.

Codexis also purchased 10,000,000 common shares (approximately 16.6% of total common shares outstanding) of CO2 Solution in a private placement. In February of 2010, Codexis' Chief Executive Officer was appointed to the board of directors of CO2 Solution.

For accounting purposes, Codexis considers its investment in CO2 Solution common shares as an investment in a marketable security that is available for sale, and carries it at fair value in other non-current assets, with changes in fair

value recognized in accumulated other comprehensive income (loss). Codexis' shares of CO2 Solution are no longer subject to any restrictions on sales and it has estimated the fair value of common shares as determined by trading on TSX Venture Exchange.

At December 31, 2009, the estimated fair value of its investment in CO2 Solution restricted common stock was $1.2 million and the unrealized loss was $145,000. At September 30, 2010, the estimated fair value of its investment in CO2 Solution common stock was $1.5 million and the unrealized loss for the three ended September 30, 2010 was $0.3 million and the unrealized gain for the nine months was $0.3 million.

Although, this position is carried as an investment available for sale, Codexis views its involvement in the carbon capture business as a significant long term opportunity. Accordingly, rather than sell this position, it is more likely that together with CO 2 Solution, Codexis will seek a "big brother" to help fund the development of this carbon capture technology.

Recent Results

For the third quarter of 2010, the Codexis reported revenues of $27.1 million, an increase of 35% from $20.1 million in the third quarter of 2009, primarily due to an increase of $4.9 million in product revenue, representing an increase of 105% over the same time period.

Research and development expenses in the third quarter of 2010 were $13.1 million, compared to $12.2 million for the third quarter of 2009. The increase was primarily due to higher depreciation and stock-based compensation expenses. Selling, general and administrative expenses in the third quarter of 2010 declined to $7.9 million compared to $8.7 million same period of 2009 primarily due to a reduction in discretionary expenses.

Net loss was $2.7 million, or $0.08 per share, based on 34.2 million weighted average common shares outstanding in the third quarter of 2010. This compares to a net loss of $6.2 million during the third quarter of 2009.

On a non-GAAP basis, adjusted EBITDA increased from ($2.7) million in the third quarter of 2009 to $2.1 million in 2010. Adjusted EBITDA is calculated by adjusting net loss for net interest expense, income taxes, depreciation, amortization, stock-based compensation and preferred stock warrant fair market valuation.

For full year 2010, Codexis forecasted revenues of greater than $100 million, which would represent growth of 21% or greater compared to 2009. Codexis affirmed its expectation that adjusted EBITDA will be positive for the full year 2010; and expects adjusted EBITDA will be greater than $7 million for the year.

Although the Codexis reported that it had achieved five additional milestones in its agreement with Shell, the Company did not indicate the size or timing of any resulting payments.

Consolidated Statement of Operations
Unaudited
(in thousands, except for per share figures)

	3 months ended		9 months ended	
	9/30/2010	9/30/2009	9/30/2010	9/30/2009
Revenues				
Product	$ 9,491	$ 4,636	$ 24,250	$ 13,401
Related party collaborative research and development	16,178	15,000	46,873	43,963
Collaborative research and development	1,065	426	2,577	1,295
Government grants	379	-	3,593	11
Total Revenues	27,113	20,062	77,293	58,670
Costs and Operating Expenses				
Cost of product revenues	8,563	4,618	19,856	11,886
Research and development	13,070	12,239	39,056	39,486
Selling, general and administrative	7,940	8,699	25,192	20,939
Total Costs and Operating Expenses	29,573	25,556	84,104	72,311
Loss from operations	(2,460)	(5,494)	(6,811)	(13,641)
Interest income	61	64	135	141
Interest expense and other, net	(35)	(744)	(1,047)	(1,530)
Loss before provision for income taxes	(2,434)	(6,174)	(7,723)	(15,030)
Provision for income taxes	298	(16)	324	79
Net loss	(2,732)	(6,158)	(8,047)	(15,109)
Net loss per share of common stock	$ (0.08)	$ (2.35)	$ (0.38)	$ (5.79)
Weighted average of common shares	34,200	2,624	21,272	2,609

Source: Company 10Q Filing

Consolidated Balance Sheet Unaudited (in thousands)		
	9/30/2010	12/31/2009
ASSETS		
Current Assets		
Cash and cash equivalents	$ 99,274	$ 31,785
Marketable securities	-	23,778
Accounts receivable, net	13,841	7,246
Related party accounts receivable	1,537	-
Inventories	3,245	2,915
Prepaid expenses and other current assets	1,871	1,658
Total Current Assets	$ 119,768	$ 67,382
Restricted cash	666	731
Property and equipment, net	21,018	21,581
Intangible assets, net	562	928
Goodwill	3,241	3,241
Other non-current assets	2,821	5,173
Total Assets	$ 148,076	$ 99,036
LIABILITIES, REDEEMABLE CONVERTIBLE PREFERRED STOCK, AND STOCKHOLDERS' EQUITY		
Current Liabilities		
Accounts payable	$ 8,639	$ 9,999
Accrued compensation	6,046	6,518
Related party payable	487	1,314
Other accrued liabilities	7,856	10,376
Redeemable convertible preferred stock warrant liability	-	2,009
Deferred revenues	704	2,240
Related party deferred revenues	8,622	13,161
Financing obligations	4,032	5,368
Total Current Liabilities	$ 36,386	$ 50,985
Deferred revenues, net of current portion	1,718	1,856
Related party deferred revenues, net of current portion	4,424	7,487
Financing obligations, net of current portion	-	2,574
Other long term liabilities	1,415	1,307
Redeemable convertible preferred stock issuable in series A through F	-	179,672
Stockholders' Equity		
Common stock	4	-
Additional paid-in capital	271,832	15,015
Accumulated other comprehensive income (loss)	(47)	(252)
Accumulated deficit	(167,656)	(159,608)
Total Stockholders' Equity	104,133	(144,845)
Total Liabilities, Redeemable Convertible Preferred Stock, and Stockholders' Equity	$ 148,076	$ 99,036
Source: Company 10Q Filing		

Recent Developments

Maygen Intellectual Property Buyout

Maxygen founded Codexis in 2002 and remains one of its stockholders (6 million shares). Maxygen licensed the gene shuffling intellectual property portfolio to Codexis that has formed the basis of Codexis' business in 2002 as part of the spin-out of Codexis from Maxygen.

In October 2010, Codexis acquired the gene shuffling intellectual property portfolio from Maxygen for $20 million. Prior to this transaction, Codexis was required to pay Maxygen a fee based on a percentage of all consideration it received from third parties related to the use of certain intellectual property owned or controlled by Maxygen in the specified field of biofuels. Codexis expensed all payments owed to Maxygen as they became due as collaborative research and development expenses, which it reports as research and development expenses in its statements of operations. Codexis expensed $4.2 million and $1.2 million during the nine months ended September 30, 2009 and 2010, respectively. The Company expensed $0.3 million and $0.5 million during the three months ended September 30, 2009 and 2010, respectively. Amounts payable to Maxygen were $1.3 million and $0.5 million at December 31, 2009 and September 30, 2010, respectively recorded as related party payable in its consolidated balance sheets.

With this transaction, Codexis no longer has any obligations to make payments to Maxygen, including potential royalties, relating to biofuels and other energy products. Importantly, the agreement also enables Codexis to pursue application of its directed evolution biocatalysis technology platform beyond its current markets to all fields of use, including chemicals, subject to preexisting licenses that Maxygen has previously granted.

Underscoring the new opportunities opened by the Maxygen buyout transaction, Codexis announced on November 8, 2010 that William Rothwell, Ph.D. had joined the Company as Vice President and General Manager, Biobased Chemicals, a new position and that Dr. Rothwell will be responsible for building and managing a new business by leveraging the Codexis directed evolution platform in the growing field of renewable biobased chemicals.

Expiration of Lock-Up Agreements

Stockholders subject to the Lock-Up Agreements became able to sell their shares starting on November 15, 2010. The lock-up agreements were included in the initial public offering documents and affected the nearly 28 million shares outstanding prior to the offering. While we believe the substantial majority of these shares are owned by investors committed to maintaining a position in Codexis over the long term, we would note that on November 15 Codexis shares fell 8% on volume of 706,000 shares, more than 10 times the average daily volume over the previous three months.

Sugar Price Spike

World sugar prices have risen sharply this year following adverse weather in Brazil, Russia, China and Pakistan and reflecting concerns about Indian exports as that country tries to rebuild its reserves. While indications that Indian production may be sufficient for that country to end export curbs has brought sugar prices down from their recent peak at a 30-year high, they remain about twice as high as a year ago and less rain than normal in Brazil in coming months could put the price of sugar back on an upward track. With sugar prices at current high levels, producers are limiting the crop available for conversion to ethanol.

This is particularly relevant to Codexis as two-thirds of the sugar cane is not converted to sugar or ethanol. One-third of the cane is bagasse (the fiber left over after the juice has been squeezed out of sugar cane stalks) which is used rather inefficiently as fuel for co-generation of energy (the generators can be as old as 50 years). The other third of the cane is the tops and leaves which had been burned in the fields but which the Brazilian government now requires to be harvested and used for compost.

We believe the creation of an economically-viable cellulosic ethanol process that could convert bagasse and, perhaps, the tops and leaves into fuel, would dramatically change the economics of ethanol production from sugar cane.

Financial Outlook

Looking out to 2011, we expect continued strong growth for product sales driven by continued product development in the pharmaceutical business. We project product sales, after an estimated 87% increase in 2010, will increase over 60% in 2011. Margin improvement from the sales increase will depend on the mix between enzyme (high margins) and intermediates (lower margins). Our estimate of a 2011 gross profit on product sales of $11.4 million on sales of $57 million (margin: 20%) versus estimated gross profit of $6.0 million on sales of $34.8 million (margin: 17%) in 2010 assumes the benefit from economies of scale will more than offset any pressure on margins from product mix. The related party collaborative research and development revenues depend on headcount and the achievement of milestones. Quarterly figures will depend upon the timing and amount of milestone payments. Although such payments are expected to range between $5 million and $10 million per year, the Company provides no further guidance (thus the financial impact of the recent announcement that five more milestones have been achieved is difficult quantify). R&D expenses fell 1.0% in the first nine months of 2010 while related party payments to Codexis rose 6.6%. Our estimates for 2011 assume an increase of 4.7% in related party payments and a 4.4% increase in R&D expenses.

Our estimate for 2011 is for a net loss of $2.0 million ($0.06 per share) versus an estimated loss of $9.5 million ($0.46). We believe rising product sales could enable the Company to achieve breakeven results as early as the fourth quarter of 2011.

	Earnings Model (in thousands, except for per share figures)				
	2007A	2008A	2009A	2010E	2011E
Revenues					
Product	$ 11,418	$ 16,860	$ 18,554	$ 34,750	$ 57,000
Related party collaborative research and development	8,481	30,239	62,656	$ 63,973	67,000
Collaborative research and development	4,733	3,062	1,652	$ 3,642	4,000
Government grants	701	317	46	$ 3,993	4,000
Total Revenues	$ 25,333	$ 50,478	$ 82,908	$ 106,358	$ 132,000
Costs and Operating Expenses					
Cost of product revenues	8,319	13,188	16,678	28,786	45,620
Research and development	35,644	45,554	54,725	52,126	54,400
Selling, general and administrative	19,713	35,709	29,871	33,132	33,000
Total Costs and Operating Expenses	63,676	94,451	101,274	114,044	133,020
Loss from operations	$ (38,343)	$ (43,973)	$ (18,366)	(7,686)	$ (1,020)
Interest income	1,491	1,538	180	200	240
Interest expense and other, net	(2,533)	(2,365)	(2,037)	(1,080)	(50)
Loss before provision for income taxes	$ (39,385)	$ (44,800)	$ (20,223)	(8,566)	$ (830)
Provision for income taxes	(408)	327	66	624	1,200
Net loss	$ (38,977)	$ (45,127)	$ (20,289)	(9,190)	$ (2,030)
Net loss per share of common stock	$ (23.41)	$ (18.96)	$ (7.74)	$ (0.37)	$ (0.06)
Weighted average of common shares	1,665	2,380	2,622	24,550	34,900

Source: Company filings and Olympia Capital Markets Group estimates

Valuation and Opinion

We believe Codexis' valuation is tied to investor expectations for its efforts in the biofuels sector. However, the shares could benefit from progress toward profitability based on the pharmaceutical industry business and from developments in its new chemicals business endeavor. In addition, while a large-scale cellulosic ethanol plant using Codexis' technology is not likely to be in operation until 2015, interim progress (i.e. collaboration with Iogen beginning in the first quarter of 2011 and a demonstration plant in 2012) could also serve to strengthen investor interest in Codexis shares. Given the long-term time horizon but out-sized potential for the cellulosic project, valuation of these shares is, in our judgment, is highly subjective. Nonetheless, we believe Codexis stock could easily return to its offering price of $13.00 as the Company continues to grow revenues and hit milestones over the next year. Accordingly, we are initiating coverage with a 12-month price target of $13.00, 35% above the current market price, and a rating of Buy.

Industry Research

Alternative Energy
Oil and Gas Services
Specialty Retail

Analyst Team

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Coverage Includes:
Archer Daniels Midland (ADM)
Valero Energy Corp. (VLO)
Pacific Ethanol Inc. (PEIX)
Verenium Corp. (VRNM)
Lime Energy Co. (LIME)
Green Plains Renewable Energy (GPRE)
Rex American Resources (REX)
Weatherford Int. (WFT)
Baker Hughes Inc. (BHI)
Advanced Battery Technologies (ABAT)
Codexis, Inc. (CDXS)

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Coverage Includes:
Dick's Sporting Goods (DKS)
Hibbett Sports (HIBB)
Finish Line (FINL)

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Important disclosures:

Analyst Certification:

The following analysts hereby certify that their views about the companies and securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report:
Paul J. Resnik, CFA

As of the date of this report, the analyst has no financial interest in Codexis Inc. (NasdaqGM: CDXS)

Ratings:

Buy: The stock's total return is expected to exceed 15% over the next 6-12 months.

Neutral: The stock is expected to have a positive return of less than 15% over the next 6-12 months.

Sell: The stock is expected to have a negative return over the next 6-12 months.

Olympia Capital Market Group's distribution of stock ratings is:

Buy	86%
Neutral	14%
Sell	0%

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