

# Q4: Quarterly Industry Update

AS OF December 31, 2019



## Biofuel Energy

### INDUSTRY SUMMARY

COGENT VALUATION identified Biofuel traded companies, IPOs, and recent M&A transactions within the Biofuel Energy industry, which provides a basis for market and transaction pricing that can be used by your firm in estimating market sentiment and its impact on your firm's value. Over the last year since December 31, 2018, the median 52-week share price return of the Biofuel Energy industry was 9.9%. Between December 31, 2018 and December 31, 2019, the median EV/EBITDA multiple increased from 13.9 to 20.0. Furthermore, the median price-to-earnings multiple increased from 23.0 to 34.9 over the same period. The median revenue growth and EBITDA margins for the industry for the quarter were 0.7% and -13.2%, respectively.

### Public Company Key Statistics

Median 52-Week  
Return

9.9%

Median 3-Year CAGR  
Return

-26.7%

Median EV/Revenue  
Multiple

4.2x

Median EV/EBITDA  
Multiple

20x

Median Price/Earnings  
Multiple

34.9x

Median EV/Gross CF  
Multiple

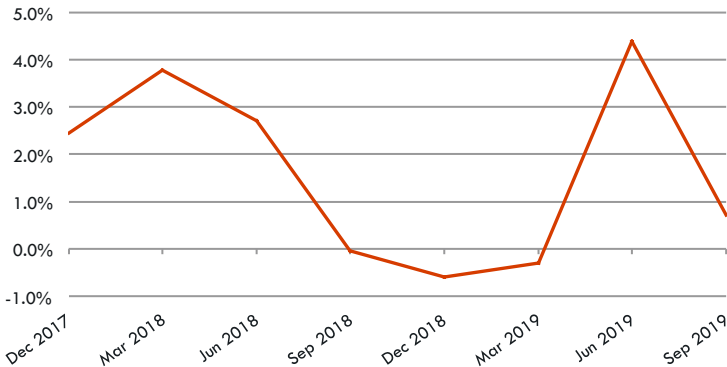
16.8x

## Comparable Public Company Market Price Returns as of December 31, 2019

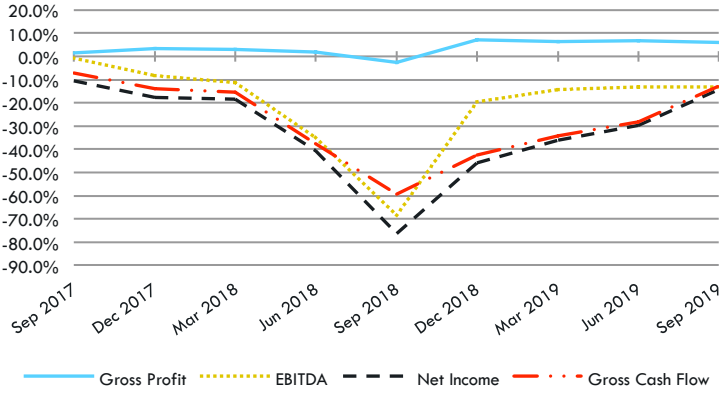
|  | 2019   | 3 Month | 1 Year | 2 Year | 3 Year | 2018   | 2017   | 2016   |
|--|--------|---------|--------|--------|--------|--------|--------|--------|
| <b>Amyris, Inc.</b>                        | 70.4%  | 70.4%   | -15.8% | -36.6% | -42.9% | -10.9% | -21.4% | -61.1% |
| <b>Codexis, Inc.</b>                       | 72.5%  | 72.5%   | 129.2% | 88.1%  | 34.1%  | 100.0% | 67.9%  | 80.0%  |
| <b>Deinove SA</b>                          | 50.5%  | 50.5%   | 97.9%  | 1.0%   | -19.0% | -20.6% | -45.4% | -56.8% |
| <b>Gevo, Inc.</b>                          | -67.8% | -67.8%  | -59.6% | -70.8% | -80.3% | -83.4% | -87.1% | -77.6% |
| <b>Green Plains Inc.</b>                   | 8.6%   | 8.6%    | -32.1% | 2.6%   | -16.2% | -22.2% | -7.6%  | 27.9%  |
| <b>MGP Ingredients, Inc.</b>               | 15.5%  | 15.5%   | 65.2%  | 92.2%  | 88.1%  | 92.6%  | 63.6%  | 205.6% |
| <b>Pacific Ethanol, Inc.</b>               | -42.9% | -42.9%  | -56.2% | -19.9% | -34.7% | 98.7%  | -53.7% | 102.9% |
| <b>Median of Industry Public Companies</b> | 15.5%  | 15.5%   | -15.8% | 1.0%   | -19.0% | -10.9% | -21.4% | 27.9%  |

# Industry Revenue Growth and Profit Margins for the Past Two Years

### Median Quarterly Revenue Growth of All Biofuel Energy Companies



### Median Gross Profit, EBITDA, Net Income, and Gross Cash Flow Margins



## Public Company Median Multiples by Quarter

|                                     | 12/31/19 | 9/30/19 | 6/30/19 | 3/31/19 | 12/31/18 | 9/30/18 | 6/30/18 | 3/31/18 |
|-------------------------------------|----------|---------|---------|---------|----------|---------|---------|---------|
| <b>EV/Revenues Multiple</b>         | 4.2x     | 3.2x    | 2.9x    | 1.3x    | 1.8x     | 1.6x    | 1.7x    | 1.7x    |
| <b>EV/EBITDA Multiple</b>           | 20.0x    | 15.2x   | 15.5x   | 18.1x   | 11.2x    | 12.1x   | 11.1x   | 12.8x   |
| <b>Price/Earnings Multiple</b>      | 34.9x    | 13.6x   | 21.3x   | 20.6x   | 26.1x    | 26.0x   | 30.7x   | 26.7x   |
| <b>EV/Gross Cash Flows Multiple</b> | 16.8x    | 19.7x   | 22.6x   | 12.3x   | 18.2x    | 18.6x   | 17.1x   | 20.1x   |

■ Highest Multiple   
 ■ Lowest Multiple   
 ■ Median Multiple

## Industry Initial Public Offerings—Biofuel Energy (dollars in millions, except share prices)

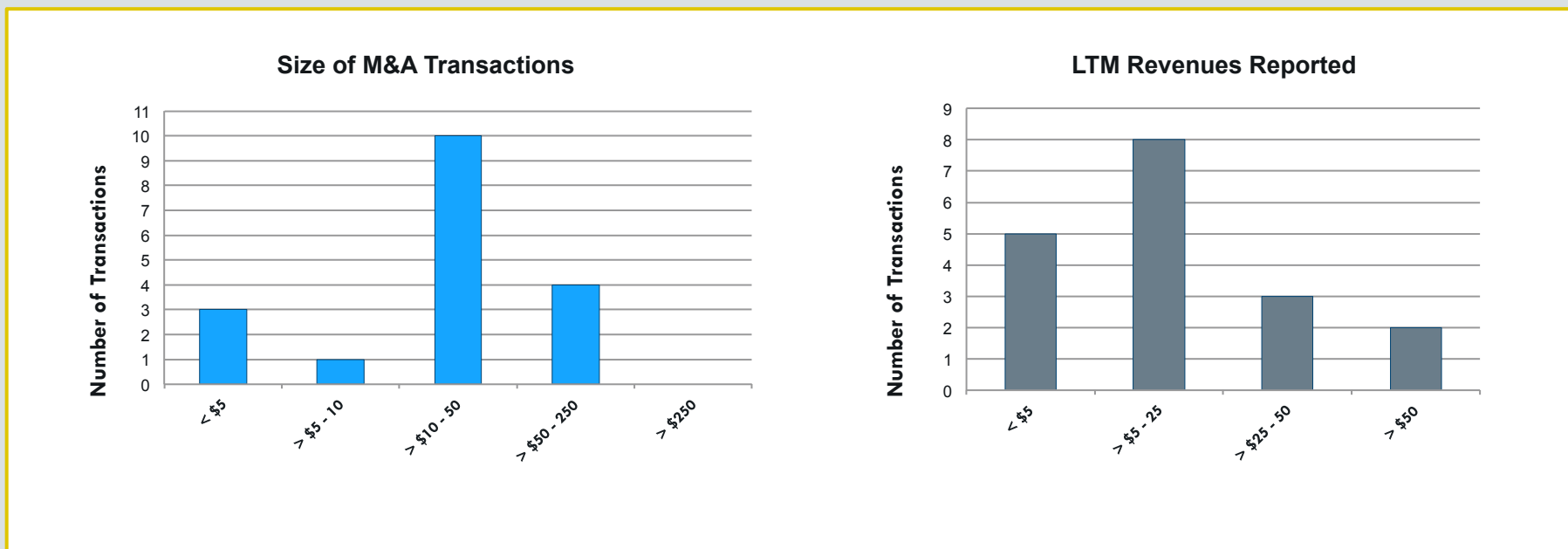
| Offer Date | Company Name                 | Offer Price | Shares Offered | Amount Raised | Total Assets  | Debt          | LTM Revenues  | LTM EBITDA   | LTM Net Income | LTM Cash Flows |
|------------|------------------------------|-------------|----------------|---------------|---------------|---------------|---------------|--------------|----------------|----------------|
| 12/11/19   | Green & Smart Holdings plc   | \$0.13      | 44.4           | \$5.8         | \$13.2        | \$2.4         | \$10.4        | \$2.3        | \$2.9          | \$7.0          |
| 11/8/19    | Renewable Energy Group, Inc. | \$10.00     | 7.2            | \$72.0        | \$484.4       | \$85.6        | \$824.0       | \$102.2      | (\$26.1)       | \$182.0        |
| 6/23/19    | KiOR, Inc.                   | \$15.00     | 10.0           | \$150.0       | \$82.2        | \$9.2         | \$0.0         | (\$36.0)     | \$1.4          | \$3.4          |
| 5/26/19    | TerraVia Holdings, Inc.      | \$18.00     | 11.0           | \$197.6       | \$86.7        | \$0.2         | \$40.0        | (\$16.7)     | (\$4.0)        | (\$3.3)        |
| 2/8/18     | Gevo, Inc.                   | \$15.00     | 7.2            | \$107.3       | \$51.6        | \$4.1         | \$16.4        | (\$32.3)     | N/A            | N/A            |
| 9/27/16    | Amyris, Inc.                 | \$16.00     | 5.3            | \$84.8        | \$23.3        | \$0.0         | \$3.4         | (\$62.7)     | (\$18.8)       | (\$14.7)       |
| 4/21/10    | Codexis, Inc.                | \$13.00     | 6.0            | \$70.0        | \$78.3        | \$39.5        | \$82.1        | (\$11.1)     | \$5.3          | \$18.0         |
|            | <b>Median of all IPOs</b>    | <b>nm</b>   | <b>nm</b>      | <b>\$90.0</b> | <b>\$83.0</b> | <b>\$11.7</b> | <b>\$10.3</b> | <b>\$4.8</b> | <b>(\$1.3)</b> | <b>\$5.2</b>   |

## Size of Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)

| Transaction Date                                    | Target                                   | Acquirer                               | Transaction Size | % Bought    |
|---|--|--|------------------|-------------|
| 11/18/19  | <b>Bioverda Limited</b>                  | Nurendale Limited                      | \$13.0           | 100%        |
| 10/2/19   | <b>Syngip BV</b>                         | Global Bioenergies                     | \$1.1            | 100%        |
| 5/31/19   | <b>Thegra Tracomex Hldg.</b>             | Cefetra BV                             | \$14.9           | 100%        |
| 4/18/17   | <b>COFCO</b>                             | Samsung SDI Co. Ltd.                   | \$120.0          | 100%        |
| 11/28/16  | <b>Sun Green Power Energy</b>            | Sun Capital Management                 | \$7.8            | 51%         |
| 8/31/16   | <b>Bio-Oils Huelva, S.L.U.</b>           | Verdant Palms sl                       | \$50.1           | 100%        |
| 6/25/15   | <b>H2 Logic A/S</b>                      | Nel ASA                                | \$38.7           | 100%        |
| 6/16/15   | <b>Biomethanol Chemie</b>                | OCI N.V.                               | \$16.9           | 100%        |
| 12/5/14   | <b>Red Shield Acquisition LLC</b>        | Nurendale Limited                      | \$2.2            | 100%        |
| 10/24/14  | <b>Biofuel Energy Research Pte. Ltd.</b> | Shenzhen Selen Science                 | \$86.4           | 100%        |
| 10/14/14  | <b>Nidera B.V.</b>                       | Oakridge Global Energy Solutions, Inc. | \$46.1           | 51%         |
| 12/30/14  | <b>SK Continental E-motion</b>           | SK Innovation Co., Ltd.                | \$14.9           | 100%        |
| 11/24/14  | <b>LS9, Inc.</b>                         | OM Group Inc.                          | \$24.0           | 100%        |
| 5/16/14   | <b>Verenium Corporation</b>              | NEC Corporation                        | \$100.0          | 100%        |
| 12/27/13  | <b>Energy Park Sutton Bridge</b>         | N/A                                    | \$1.7            | 100%        |
| 11/1/13   | <b>Quallion LLC</b>                      | EnerSys                                | \$30.0           | 100%        |
| 9/30/13   | <b>Eltek Electric Vehicles</b>           | Valeo SA                               | \$20.3           | 100%        |
| 8/23/13   | <b>Millennium Power Solutions</b>        | Blue Earth Inc.                        | \$15.2           | 100%        |
| <b>Median of the 18 M&amp;A Transaction Targets</b> |  |  | <b>\$18.6</b>    | <b>100%</b> |

■ USA ■ International

## Size of Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)



**Definitions of Financial Terms Used in this Quarterly Industry Update:**

**Enterprise Value (EV):** Market Value of Equity + Market Value of Debt — Cash

**Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA):** Also referred to as operating profit or operating earnings.

**Gross Cash Flows:** Net Income + Depreciation and Amortization Expense

Latest Twelve Months (LTM): Financial information is as of the latest twelve months through the date of this Quarterly Industry Update.

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