

# Quarterly Industry Update

As of December 31, 2013

Industry: Solar

## Industry Summary

Cogent Valuation identified publicly traded companies, IPOs, and recent M&A transactions within the Solar 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. Since December 31, 2012, the median 52-week share price return of the Solar industry has increased by 114.9%. In the last quarter, the median price-to-earnings multiple remained unchanged.

## Comparable Public Company Key Statistics

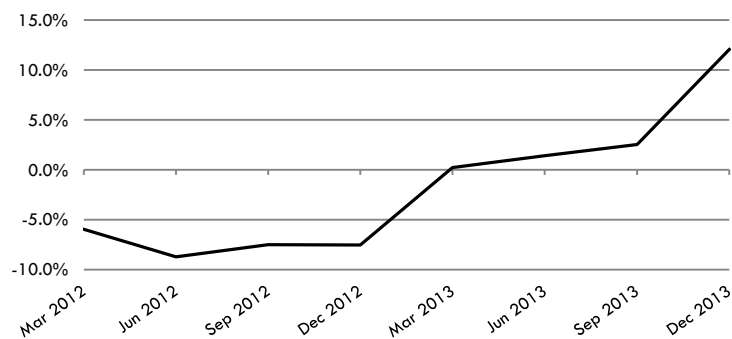
Median 52-Week Return	114.9%	Median EV/Revenue Multiple	1.4x	Median Price/Earnings Multiple	20.4x
Median 3-Year CAGR Return	-20.9%	Median EV/EBITDA Multiple	10.2x	Median EV/Gross CF Multiple	18.9x

## Comparable Public Company Market Price Returns (As of December 31, 2013)

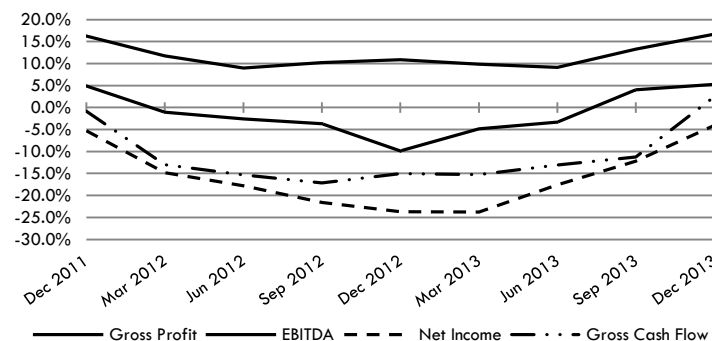
	YTD	3 Month	1 Year	2 Year	3 Year	5 Year	2012	2011	2010	2009	2008
First Solar, Inc.	77.1%	35.9%	77.1%	27.2%	-25.1%	-16.9%	-8.6%	-74.1%	-3.9%	-1.9%	-48.4%
SunPower Corporation	430.4%	14.0%	430.4%	118.7%	N/A	N/A	-9.8%	N/A	N/A	N/A	N/A
JA Solar Holdings Co., Ltd.	114.8%	-9.8%	114.8%	17.0%	-35.8%	-15.9%	-36.3%	-80.6%	21.4%	30.4%	-81.2%
Trina Solar Limited	215.0%	-11.6%	215.0%	43.1%	-16.4%	24.1%	-35.0%	-71.5%	-13.2%	480.9%	-82.7%
Yingli Green Energy Holding Co. Ltd.	114.9%	-27.2%	114.9%	15.3%	-20.0%	-3.7%	-38.2%	-61.5%	-37.5%	159.2%	-84.2%
China Sunergy Co. Ltd.	324.6%	0.3%	324.6%	132.0%	-21.7%	-12.6%	26.8%	-91.1%	-9.5%	17.0%	-76.1%
Ascent Solar Technologies, Inc.	13.7%	-19.9%	13.7%	34.5%	-40.6%	-28.5%	59.0%	-88.4%	-36.6%	41.0%	-84.9%
Canadian Solar Inc.	777.1%	75.5%	777.1%	234.8%	34.0%	35.8%	27.8%	-78.5%	-57.0%	346.1%	-77.1%
JinkoSolar Holding Co., Ltd.	371.8%	29.9%	371.8%	142.1%	13.3%	N/A	24.2%	-75.1%	N/A	N/A	N/A
Song Da Industry Trade Jsc	-6.6%	19.7%	-6.6%	0.5%	-37.0%	-15.8%	8.1%	-75.2%	-25.3%	127.0%	N/A
Ellomay Capital Ltd.	62.9%	8.3%	62.9%	31.9%	9.1%	10.9%	6.8%	-25.3%	20.0%	7.8%	-18.3%
Enphase Energy, Inc.	73.7%	-21.9%	73.7%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SolarCity Corporation	376.3%	64.2%	376.3%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Median of Industry Public Companies</b>	<b>114.9%</b>	<b>8.3%</b>	<b>114.9%</b>	<b>34.5%</b>	<b>-20.9%</b>	<b>-12.6%</b>	<b>6.8%</b>	<b>-75.2%</b>	<b>-13.2%</b>	<b>41.0%</b>	<b>-79.1%</b>

(Multiple year periods are calculated as the average annual return.)

## Median Quarterly Revenue Growth of All Solar Companies



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



## Median Public Company Multiples of the Solar Industry

Date:	12/31/2011	3/31/2012	6/30/2012	9/30/2012	12/31/2012	3/31/2013	6/30/2013	9/30/2013	12/31/2013
EV/Revenues Multiple	0.5x	0.6x	0.8x	0.6x	0.8x	1.0x	1.1x	1.3x	1.4x
EV/EBITDA Multiple	8.5x	26.9x	9.7x	10.4x	3.2x	19.5x	15.6x	15.7x	10.2x
Price/Earnings Multiple	3.2x	nm	13.0x	nm	6.0x	9.7x	13.1x	9.0x	20.4x
EV/Gross Cash Flows Multiple	11.9x	6.7x	10.4x	8.6x	13.9x	4.1x	5.9x	4.2x	18.9x

This industry research is provided at no charge to Cogent Valuation's clients. Research or detailed information not covered in this report can be obtained for a fee. Contact Steven Kam at 415-392-0888 for additional information or questions in connection with this research report.

The disclosures and limitations of this research on page two are an integral part of this report.

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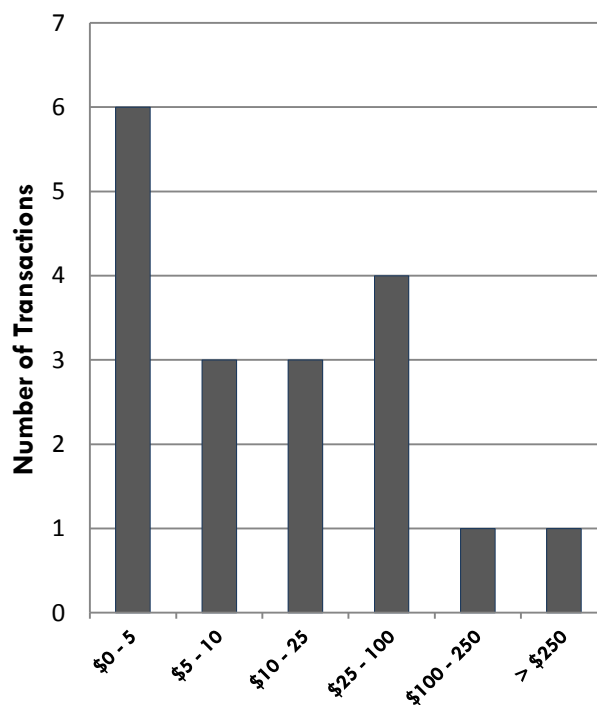
## Industry Initial Public Offerings (dollars in millions, except share prices)

Offer Date	Company Name	Offer Price	Shares Offered	Amount Raised	Total Assets	Debt	LTM Revenues	LTM EBITDA	LTM Net Income	LTM Cash Flows
12/12/2012	SolarCity Corporation	\$8.00	11.5	\$92.0	\$1,151.2	\$299.3	\$124.1	(\$40.7)	(\$47.1)	N/A
3/29/2012	Enphase Energy, Inc.	\$6.00	9.0	\$53.8	\$106.2	\$33.9	\$149.5	(\$26.4)	(\$32.3)	(\$24.0)
5/13/2010	JinkoSolar Holding Co., Ltd.	\$11.00	5.8	\$64.2	\$378.8	\$167.4	\$274.7	\$37.3	\$24.1	\$37.3
6/7/2007	Yingli Green Energy Holding Co. Ltd.	\$11.00	29.0	\$319.0	\$435.4	\$182.9	\$241.3	\$55.3	\$25.8	\$62.2
5/17/2007	China Sunergy Co. Ltd.	\$11.00	8.5	\$93.5	\$176.3	\$77.9	\$149.5	\$16.9	\$11.8	\$18.7
2/6/2007	JA Solar Holdings Co., Ltd.	\$15.00	15.0	\$225.0	\$63.1	\$19.2	\$89.2	\$18.2	\$16.4	\$19.5
12/18/2006	Trina Solar Limited	\$18.50	5.3	\$98.1	\$112.5	\$44.3	\$91.6	\$14.8	\$10.0	\$15.8
11/16/2006	First Solar, Inc.	\$20.00	20.0	\$400.0	\$255.1	\$71.0	\$95.9	(\$5.1)	(\$11.3)	\$2.4
11/8/2006	Canadian Solar Inc.	\$15.00	7.7	\$115.5	\$66.3	\$23.2	\$50.7	\$7.8	(\$3.6)	\$7.8
7/10/2006	Ascent Solar Technologies, Inc.	\$5.50	3.0	\$16.5	\$0.2	\$0.2	\$0.0	\$0.0	(\$7.2)	\$0.0
<b>Median of All IPOs</b>		<b>nm</b>	<b>nm</b>	<b>\$106.8</b>	<b>\$144.4</b>	<b>\$47.8</b>	<b>\$110.0</b>	<b>\$11.3</b>	<b>\$3.2</b>	<b>\$15.8</b>

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

Transaction Date	Target	Acquirer	Transaction Size	% Bought
12/3/2013	Mia Sol Solar	Aspen Group Ltd.	\$4.0	100%
10/1/2013	Wafering Technology Corp.	Gigastorage Corporation	\$3.7	100%
5/31/2013	DeSolar Co.	Neo Solar Power	\$241.6	85%
4/18/2013	Yunnan Tianda Photovoltaic	Xi'an North Photoelectric	\$14.0	88%
2/20/2013	Photovoltech	Solartec S.A.	\$63.1	100%
1/9/2013	MiaSolé	Hanergy Holdings Group	\$30.0	100%
11/22/2012	CNPV Dongying Solar Power	N/A	\$10.0	50%
11/8/2012	Twin Creeks	GT Advanced	\$10.2	100%
10/10/2012	Q-Cells SE	Hanwha Chemical	\$312.9	100%
9/28/2012	Nanjing Daqo New Energy	Daqo Group	\$9.9	100%
8/27/2012	Day4 Energy	N/A	\$1.3	100%
7/11/2012	Premier Power Renewable	Gascom Renew	\$4.9	56%
12/31/2011	Guodian Ningxia Solar	GD Power Development	\$87.6	100%
12/16/2011	Würth Solar GmbH & Co.	Manz AG	\$33.6	100%
11/18/2011	Evergreen Solar	Max Era Properties	\$9.2	100%
11/11/2011	Luoyang Yindian PV	Shanghai Chaoi Solar	\$3.1	65%
10/12/2011	SpectraWatt	Canadian Solar	\$4.9	100%
<b>Median of All Transaction Targets</b>			<b>\$10.0</b>	<b>100%</b>

## Size of Merger and Acquisition Transactions (dollars in millions)



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