

## Real Estate Software

### INDUSTRY SUMMARY

COGENT VALUATION identified **Real Estate Software** publicly traded companies, IPOs, and recent M&A transactions within the Real Estate Software 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 September 30, 2017, the median 52-week share price return of the Real Estate Software industry was 10.1%. Between September 30, 2016 and September 30, 2018, the median EV/EBITDA multiple decreased from 9.5 to 9.3. Furthermore, the median price-to-earnings multiple decreased from 20.8 to 18.7 over the same period. The median revenue growth and EBITDA margins for the industry for the quarter were 3.2% and 11.2%, respectively.

### Public Company Key Statistics

Median 52-Week  
Return

10.1%

Median 3-Year CAGR  
Return

10.6%

Median EV/Revenue  
Multiple

1.5x

Median EV/EBITDA  
Multiple

9.3x

Median Price/Earnings  
Multiple

18.7x

Median EV/Gross CF  
Multiple

18.2x

## Comparable Public Company Market Price Returns as of September 30, 2018

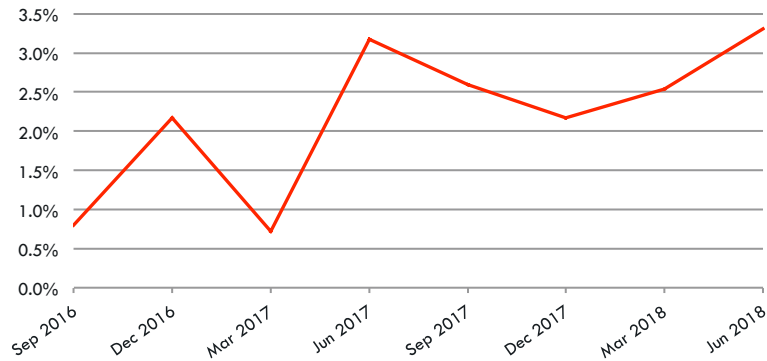
	YTD	3 Month	1 Year	2 Year	2017	2016	2015	2014
<b>Altisource Portfolio Solutions S.A.</b>	15.1%	9.8%	-27.8%	4.9%	5.3%	-4.4%	-17.7%	-78.7%
<b>BGC Partners, Inc.</b>	-21.8%	-15.8%	18.4%	21.9%	47.7%	4.3%	7.2%	51.2%
<b>CBRE Group, Inc.</b>	1.8%	1.1%	35.7%	28.0%	37.5%	-8.9%	1.0%	30.2%
<b>Colliers International Group Inc.</b>	27.9%	9.6%	46.9%	35.2%	64.2%	-17.2%	-13.1%	18.9%
<b>HFF, Inc.</b>	-12.7%	-30.9%	79.6%	34.4%	60.8%	-2.6%	-13.5%	33.8%
<b>Leju Holdings Limited</b>	20.8%	8.1%	-60.6%	-49.1%	-70.0%	-16.1%	-46.8%	N/A
<b>Marcus &amp; Millichap, Inc.</b>	6.4%	8.2%	46.7%	19.2%	22.0%	-8.3%	-12.4%	123.2%
<b>RE/MAX Holdings, Inc.</b>	-8.6%	-13.2%	1.7%	32.8%	-13.4%	50.1%	8.9%	6.8%
<b>Realty Holdings Corp.</b>	-22.1%	-16.4%	-8.4%	-13.1%	3.0%	-29.8%	-17.6%	-10.1%
<b>RealPage, Inc.</b>	48.8%	7.0%	47.6%	57.2%	47.7%	33.6%	2.2%	-6.1%
<b>Zillow Group, Inc.</b>	8.5%	10.6%	59.7%	45.4%	11.8%	40.0%	-26.2%	29.6%
<b>Median of Industry Public Companies</b>	<b>6.4%</b>	<b>6.5%</b>	<b>27.8%</b>	<b>25.0%</b>	<b>16.9%</b>	<b>-5.3%</b>	<b>-12.7%</b>	<b>29.6%</b>

Multiple year periods are calculated as the average annual return.

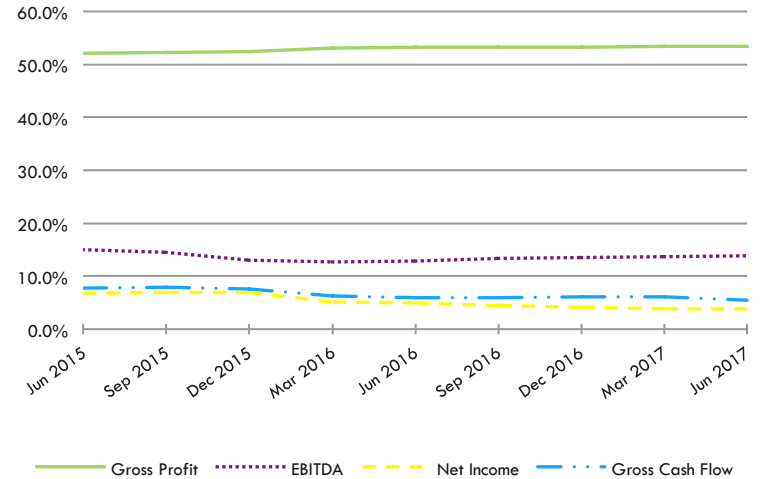
■ Highest Return   
 ■ Lowest Return   
 ■ Median Return

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

**Median Quarterly Revenue Growth of All Real Estate Software Companies**



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



## Public Company Median Multiples by Quarter

	9/30/18	6/30/18	3/31/18	12/31/17	9/30/17	6/30/17	3/31/17	12/31/16
<b>EV/Revenues Multiple</b>	1.5x	1.5x	1.6x	1.4x	1.3x	1.4x	1.5x	2.1x
<b>EV/EBITDA Multiple</b>	9.3x	11.5x	12.4x	11.1x	8.8x	9.2x	8.4x	11.5x
<b>Price/Earnings Multiple</b>	18.7x	22.8x	23.4x	21.6x	18.7x	19.0x	20.1x	27.9x
<b>EV/Gross Cash Flows Multiple</b>	18.2x	19.1x	24.6x	23.0x	17.3x	18.4x	23.9x	26.0x

 Highest Multiple

 Lowest Multiple

 Median Multiple

## Industry Initial Public Offerings—Real Estate Software (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
5/11/17	Real Matters Inc.	\$9.49	12.1	\$114.5	\$179.2	\$16.2	\$283.0	\$16.5	(\$8.2)	\$17.9
4/16/14	Leju Holdings Limited	\$10.00	10.0	\$120.3	\$394.3	\$0.0	\$374.1	\$96.1	\$54.6	\$88.2
10/30/13	Marcus & Millichap, Inc.	\$12.00	6.0	\$72.0	\$60.8	\$0.0	\$434.4	\$55.4	\$30.0	\$57.1
10/1/13	RE/MAX Holdings, Inc.	\$22.00	10.0	\$220.0	\$252.0	\$229.0	\$153.7	\$73.7	\$7.1	\$65.5
10/10/12	Realogy Holdings Corp.	\$27.00	40.0	\$1,080.0	\$7,351.0	\$7,591.0	\$4,393.0	\$487.0	(\$405.0)	\$540.0
7/19/11	Zillow Group, Inc.	\$20.00	3.5	\$69.2	\$33.9	\$0.0	\$44.9	\$1.1	(\$1.2)	(\$1.8)
8/11/10	RealPage, Inc.	\$11.00	12.3	\$135.3	\$160.5	\$67.0	\$160.0	\$22.2	\$26.4	\$31.3
4/20/17		nm	nm	\$120.3	\$179.2	\$16.2	\$283.0	\$55.4	\$7.1	\$57.1

Multiple year periods are calculated as the average annual return.

■ Highest Return  
 ■ Lowest Return  
 ■ Median Return

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

Transaction Date	Target	Acquirer	Transaction Size	% Bought	LTM Revenues	EV/ Revenues
7/31/18	Nationstar Mortgage Holdings Inc.	WMIH Corp. (nka:Mr. Cooper Group Inc.)	\$1,553.0	81%	\$919.0	2.7x
11/3/16	Onthehouse Holdings	77 Victoria Street Venture	\$43.3	100%	\$19.3	N/A
6/1/16	ReCI Inc	Goyo Intex Co., Ltd.	\$1.2	100%	N/A	N/A
4/20/16	FNC, Inc.	CoreLogic Solutions, LLC	\$475.0	15%	N/A	3.4x
3/21/14	Leju Holdings Limited	Tencent Holdings Limited	\$180.0	43%	\$335.4	5.1x
9/17/10	SouFun Holdings Limited (nka:Fang Holdings Limited)	Apax Partners LLP	\$410.2	100%	\$158.3	1.2x
8/31/06	Nationstar Mortgage Holdings Inc.	Telstra Corporation Limited	\$9,261.9	51%	N/A	N/A
Median of the 7 M&A Transaction Targets			\$295.1	90%	\$246.8	3.1x

USA
  International
  Highest
  Lowest
  Median

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**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):** Profitability metric sometimes 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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