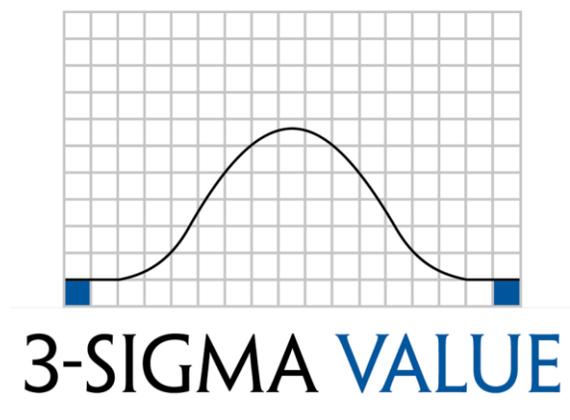


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## 1Q 2014: When the Levee Breaks

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## When the Levee Breaks

The market's floodwaters swell yet fear<sup>1</sup> simmers at a low level that implies peace of mind. The absence of fear has fueled an IPO bubble in which the market will buy virtually anything that Wall Street sells. As described in 3-Sigma Value's *2013 Review / 2014 Outlook*, **The Great IPO Flood** began in early 2012 with implementation of the JOBS Act (Jumpstart Our Business Startups) and was inaugurated with the carnival surrounding the May 2012 IPO of Facebook (FB).

Since then, the pace of IPOs has accelerated and quality has deteriorated. Valuations are irrationally exuberant and we here at 3-Sigma Value are overflowing with short ideas. The following is an analysis of our favorite IPO of the first quarter of 2014.

**Castlight Health (CSLT)** went public on March 13, 2014 at \$16 per share (up from original \$9-\$11 range), and closed its first day at \$39.80, **up 149%**. The market cap was \$3.7 billion for a company that generated only \$13 million of revenue in 2013, up from \$4 million in 2012. While the growth rate is impressive, at **265x revenue** the valuation is impossible to reconcile. Management is guiding to \$40 million of revenue in 2014, again showing impressive growth but again the valuation at **84x revenue** is silly.

Castlight burned \$62 million of cash in 2013, and will burn in the neighborhood of \$80-\$100 million per year over the next two years as it ramps up its operation in anticipation of a hockey stock trajectory for revenue growth that is unlikely to materialize. With a cash balance of \$239.7 million at 3/31/14, we expect CSLT to require a highly dilutive equity raise in order to continue operating through 2016.

The lead managers of the Castlight IPO were Goldman Sachs and Morgan Stanley who are pumping and dumping this issue like Stratton Oakmont did in the 90s.

Founded in 2008 by President Obama's Chief Technology Officer Todd Park, Bryan Roberts (VC partner at Venrock) and Giovanni Colella (the CEO), Castlight bills itself as the "Enterprise Healthcare Cloud". Specifically, they build and maintain web-portals that aggregate healthcare

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<sup>1</sup> As measured by S&P 500 option volatility.

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data for large companies with employees on consumer-directed health plans. The portals compare costs and ratings and reviews of doctors, clinics, and hospitals. On Castlight's website it says, "*Know the cost and quality before you go.*"

Prior to its IPO, Castlight raised \$182.5 million from blue-chip investors including Morgan Stanley (co-lead manager of the IPO), Venrock, Maverick Capital, Oak Investment Partners, Cleveland Clinic, and T Rowe Price.

Curiously, the name Todd Park is not mentioned anywhere in the Castlight Health prospectus, not once. This bothers me because it is a factual omission, notwithstanding the politics. Does it matter that Todd Park is a stakeholder while at the same time Obama's Chief Technology Officer of the United States. Yes. The lack of disclosure is troubling to say the least and a precursor to more disclosure issues.

The irrational exuberance for Castlight Health (CSLT) is ridiculed in some investment circles (mine) and rationalized in others. I've discussed it with many investors who all shake their head in disbelief when I explain the facts.

I wasn't planning to analyze Castlight Health (CSLT) for 3-Sigma Value's first quarter letter until a sell-side salesperson who I do business with forwarded me the First Quarter 2014 Letter to Clients of a New York-based investment firm called Gilder Gagnon Howe & Co. The salesperson wrote in the subject line, "*Couple of crazy quotes in here.*"

In the letter, Gilder Gagnon wrote, "*Our biggest loser for the quarter was Castlight Health...While **the stock has been down nearly every day since its IPO**, we remain shareholders. Castlight is introducing the power of the free-market to one of the largest and fastest growing sectors of our economy.*"

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## Sell: Castlight Health (CSLT)

Castlight Health (CSLT) Capitalization as of 3/31/14	
Price at March 13, 2014 IPO	\$16.00
Price as end of 1st day	\$39.80
Price as of March 31, 2014	\$21.22
FD Shares Outstanding	92.2
<b>Market Capitalization</b>	<b>1,957.4</b>
Cash - 12/31/16	-22.9
Debt	0.0
<b>Enterprise Value (EV)</b>	<b>1,980.3</b>
<b>EV / Revenue - 2013</b>	152.6x
<b>EV / Revenue - 2014</b>	44.5x
<b>EV / Revenue - 2015</b>	27.6x
<b>EV / Revenue - 2016</b>	19.9x
<b>EV / EBITDA - 2013</b>	neg
<b>EV / EBITDA - 2014</b>	neg
<b>EV / EBITDA - 2015</b>	neg
<b>EV / EBITDA - 2016</b>	neg

### The Castlight Health (CSLT) Short Thesis:

- 1. Castlight is a project hastily developed by some of the same guys who oversaw the disastrous roll-out of heathcare.gov**

Castlight is a public venture capital investment, not a software company with a track record or valuable intellectual property (IP). Cumulative research and development expense (R&D) is a puny \$35 million through December 31, 2013 (versus \$2 billion market cap). Castlight should not be public, and would not be if it were not for the fact that the founders are politicians and the market is swept up in its latest bout of irrational exuberance. The simple fact that Castlight was up a bubbly 149% on its first day of trading shows this company is (mostly) vaporware.

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Castlight was founded by three friends: Todd Park (Obama's CTO), a VC guy (from Venrock), and the current CEO, Gio Colella, M.D., who sold his previous company, RelayHealth, to McKesson in 2006. Despite only \$13 million in revenue last year, this team was able to secure Goldman Sachs and Morgan Stanley as lead-underwriters, who underestimated the buoyancy of the market and pumped the issue so hard that it burst onto the market exposing irrational exuberance. It would not be a surprise if Castlight becomes the poster-child of The Great IPO Flood.

In order to gain access to pricing data<sup>2</sup>, Castlight buys data directly from a small group of HMOs. Because of a contractual relationship with one of its suppliers (likely Aetna), Castlight is precluded from capturing data from United Health, who represents ~25% of the self-insured employer market. This gaping hole in Castlight's data set exposes a major weakness and potentially, a fatal flaw – the dependence on external sources of data. United Health offers myEasyBook, a consumer-facing shopping alternative that appears extremely similar in terms of content and functionality to Castlight's platform. Why does United Health need Castlight to comparison shop for its own members? Similarly, Aetna recently launched Wellmatch, another Castlight clone with similar price comparison functionality. It's only a matter of time before Aetna cuts out the middleman. Castlight's problem is it does not own its most important asset – data. It leases it instead. But leasing data is not like leasing a hard asset. Data becomes obsolete fast and a provider must maintain constant access to pricing in a regulatory environment in constant flux. In sum, Castlight is in a very weak position.

## **2. Castlight will burn cash until a highly dilutive offering is required**

One of the key factors underlying the probable failure of Castlight is the nature of the management team – a group of politicians/academics that are inured to wasting the government's (er, the taxpayer's) money. When technologists work for the government or for a government sponsored entity such as a Too-Big-to-Fail Bank, they detach themselves from the responsibilities of capitalism and money grows on trees. They spend and spend until it works with no care in the world of budgets and investors. Now that these same technologists are assembling in the private sector, to serve the enterprise as opposed to the government, they must alter their profligate ways, and alter them immediately.

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<sup>2</sup> Castlight reports having data on more than 1 billion healthcare claims transactions.

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Unfortunately, management in this case is so full of hubris that Castlight is bound to fail. Recently, management announced an extravagant conference in New York, the inaugural Castlight Enterprise Healthcare Cloud Summit. Key note speakers (a.k.a. thought leaders) include Steve Forbes, Magic Johnson, and none other than the Big Dog himself, Bill Clinton. How much is Bubba getting these days for an appearance?

Revenue of \$13 million in 2013 is expected to jump to \$40 million in 2014 and \$100 million by 2016. This implies the acceleration of new customers and flat billings per customer.

Base Case Operating Scenario 1						
	2011	2012	2013	2014	2015	2016
<b>Customer Data:</b>						
Total Customers - Beginning of Period			47	106	168	248
Net New Customers			59	62	80	80
Total Customers - End of Period			106	168	248	328
Total Customers - Average			77	137	208	288
Billings per Customer				0.435	0.397	0.397
<i>% Change - YoY</i>					-8.8%	0.0%
Total Billings (Revenue + Change in Deferred Revenue)			20.3	56.7	82.5	114.3
Billings as a % of Subscription Revenue			174%	140%	126%	126%
New Billings						
Change in Deferred Revenue			7,327	12,106	10,686	14,797
<b>Revenue:</b>						
Subscription	1,569	3,395	11,655	40,351	65,305	90,423
<i>% Change - YoY</i>				246.2%	61.8%	38.5%
Professional Services	306	759	1,318	4,200	6,526	9,037
<i>as a % of Subscription Revenue</i>	19.5%	22.4%	11.3%	10.4%	10.0%	10.0%
<b>Total Revenue</b>	1,875	4,154	12,973	44,551	71,832	99,459
<i>% Change - YoY</i>				243.4%	61.2%	38.5%

Gross margin (GM) at Castlight is so weak that any investor should be blinded by the red flag. Gross margin is an important metric because it shows how much technology content is in each sale. A lower gross margin means the vendor is paying someone else, generally in the form of a license or royalty. The most efficient software companies that develop all of their technology in-house report gross margins above 90%. On the other end of the spectrum, vendors that license or pay royalties on technology developed elsewhere report gross margins closer to 60%.

Making matters worse for Castlight is the high portion of its revenues coming from *Professional Services* as opposed to *Subscriptions*. Professional services revenue is negative gross margin, dragging down the overall profitability of the business. While management's long-term

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guidance for subscription GM is 70-75% (not robust to begin with), they acknowledge that professional services is a loss leader and overall GM will continue to be weighed down. As a result, GM should approach a measly 30% this year.

On the subject of operating expenses (Opex), Castlight is a big spender, of course. Opex as a % of revenue will be approx. 250% in 2014, improving to ~130% in 2016 assuming no growth in operating expenses. The result is operating losses ~\$80-\$100 million through 2016 (at least).

Cash - Base Case: Scenario 1	
Gross IPO Proceeds	177.6
Underwriting Fees	12.4
Selling Stockholders	0.0
Net Proceeds	165.2
Cash	74.5
3/31/14 Cash	239.7
2014 Cash Burn	-88.3
2015 Cash Burn	-93.5
2016 Cash Burn	-80.8
12/31/16 Cash	-22.9

With cash dwindling after paying everyone from Bill Clinton to Magic Johnson, Castlight will be forced to raise new money in 2015/2016.

### **3. The valuation is irrationally exuberant**

What is a money-losing venture-type company worth with no EBITDA, EPS or FCF that will likely run out of cash? – it does so in our Base and Downside case operating scenarios. On the other hand, the company could be acquired for reasons unrelated to profit – political reasons. For example, Castlight co-founder Todd Park previously co-founded a company called athenahealth (ATHN). His ex-partner and ATHN's current CEO is Jonathan Bush<sup>3</sup>. The current COO of ATHN is none other than Todd Park's brother Ed Park.

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<sup>3</sup> George W. Bush's cousin; George H.W. Bush's nephew.

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Since Todd Park and his brother Ed (the “Parks”) are deeply involved in both CSLT and ATHN, and ATHN is already one of the most expensive and arguably over-valued stocks in tech, we make a basic assumption that ATHN acquires CSLT at a neutral valuation so as not to be accretive or dilutive. In this scenario, ATHN uses its over-valued stock as currency.

<b>athenahealth (ATHN)</b>	
<b>Price as of March 31, 2014</b>	<b>\$160.24</b>
FD Shares Outstanding	40.0
<b>Market Capitalization</b>	<b>6,409.6</b>
Cash & Marketable Securities	65.0
Debt	223.8
<b>Enterprise Value (EV)</b>	<b>6,568.3</b>
<b>EV / Revenue - 2013</b>	11.0x
<b>EV / Revenue - 2014</b>	8.8x
<b>EV / Revenue - 2015</b>	7.3x
<b>EV / Revenue - 2016</b>	6.0x
<b>EV / EBITDA - 2013</b>	56.4x
<b>EV / EBITDA - 2014</b>	48.1x
<b>EV / EBITDA - 2015</b>	39.6x
<b>EV / EBITDA - 2016</b>	31.2x

At 6.0x 2016 Upside Case revenue, Castlight is worth \$656 million. Because nearly all of its cash is burned even in an Upside Case we ignore any cash that is temporarily on the company’s balance sheet. Divide \$656 million by 92 million fully-diluted shares outstanding and the alternative Upside Case take-out valuation is \$7.13.

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## Final Thoughts

We introduced the idea of **the TAM Fallacy** in 3-Sigma Value's First Quarter 2010 Letter, in which I wrote, "The CTO of a leading online reservation system for doctors<sup>4</sup> was explaining his business plan, "*We only need 3% of the total addressable market to drive revenues and operating leverage to a level at which we can sustain cash flow.*"

The moment he said "total addressable market", I lost interest. In order to justify the sky-high valuations of recent stock offerings, management teams, prompted by shiny investment bankers, are employing an old bait-and-switch trick we call the TAM Fallacy. At 30,000 feet, the TAM is billions and growing (macro-analysis). Yet, under closer inspection (micro-analysis) any particular company (in this case Castlight) may sell a product that only applies to a fraction of the TAM. This important distinction is a key attribute of 3-Sigma Value's research process, what we call **Penetrating the Macro through the Micro**.

Specifically, according to management, Castlight's TAM is \$5 billion and growing with every new product to be released (e.g. pharmacy and dental). They estimate a TAM of 70 million employees in the U.S. with insurance via a self-insured employer (e.g. Wal-Mart and Microsoft) paying around \$6 per member per month (PMPM).  $70 \times (\$6 \times 12) \sim \$5$  billion per annum.

An increasing number of employers are shifting health care costs to employees through high-deductible plans. According to Mercer<sup>5</sup>, enrollment in these consumer-directed health plans, with higher deductibles and health savings accounts, grew from 16% in 2012 to 18% last year. Over the next few years, as many as two-thirds of large employers will shift to a consumer-directed health plan, creating a huge window of opportunity for *first movers*<sup>6</sup>.

Castlight signed 106 customers through 12/31/13 (48 implemented), most of whom are self-insured employers, including 24 of Fortune 500 companies. The customer list includes names

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<sup>4</sup> The company was ZocDoc.

<sup>5</sup> Mercer is a consulting firm that is a subsidiary of Marsh & McLennan Companies (MMC).

<sup>6</sup> First mover advantage is a mirage, better left examined for another day.

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like Wal-Mart (WMT), Microsoft (MSFT), and CVS Caremark (CVS). Wal-Mart is among their top clients, generating 16% of 2013 revenues.

It doesn't take much scratching on the surface to tear apart a TAM analysis. To begin, the \$6 PMPM includes six potential products, of which only one is sold today. The core Castlight product is a shopping comparison website for medical services only. It retails at \$2.50 PMPM. Add the three core upsells: pharmacy for \$0.50 PMPM, dental for \$0.50 PMPM, rewards for \$0.50 PMPM, and something called reference-based pricing for \$1.00 PMPM, builds to the \$5 per month per member. The jump from \$5 to \$6 is guided without any detail.

These leaps of faith are all well and good for an *Upside Base Operating Scenario*, but they don't represent the most likely outcome or what we try to achieve in our micro-construction of high-probability *Base Case Operating Scenarios*. Therefore, we slash the excess fees from management's TAM and derive a \$4.00 PMPM.

Of the 70 million employees who get insurance through a self-insured employer, entrenched competition serves a large portion rendering the number meaningless. Competition is broad. The biggest threat facing Castlight is from HMOs, given their pre-existing relationships with employers and ownership of claims data. United Health's myEasyBook and Aetna's Wellmatch are just two examples of newly-launched consumer engagement interfaces that basically do the same thing as Castlight.

Most of the managed care providers are integrated with Castlight but not all. The notable exception is United Health, representing ~25% of the self-insured employer market. Because of a contractual relationship with another plan, Castlight is prohibited from working with United Health until January 2015, but even when the time comes it appears unlikely United will want to work with Castlight. United sells a competing product. Therefore, we slash the total addressable number of employees by 25% to 50 million. Finally, the laws governing monopolies and common sense dictate that 100% market share is a practical impossibility. We use 80% market share as a limiting factor (80% of 50 million = 40 million).

40 million employees x \$4.00 PMPM = \$1.92 billion TAM, which is less than 40% of the \$5 billion that was used to market this IPO. Most importantly, when you compare Castlight's market cap (\$1.96 billion) to its TAM (\$1.92B) you can see that the company can never grow into its valuation.

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