



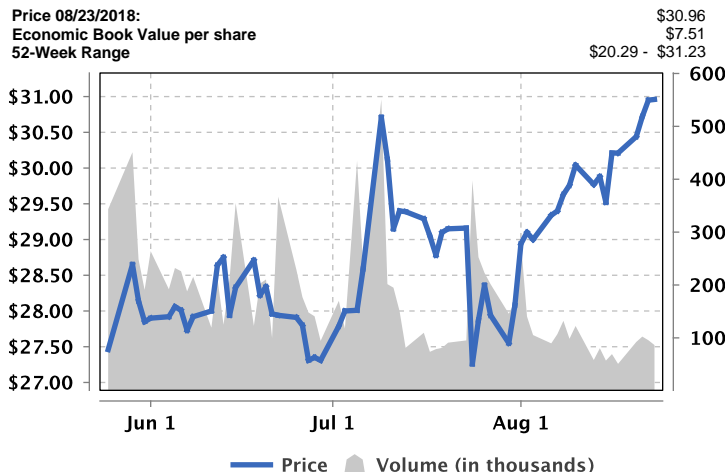
## HealthStream Inc. (HSTM)

NASDAQ - Healthcare

**Unattractive**

### Investment Recommendation

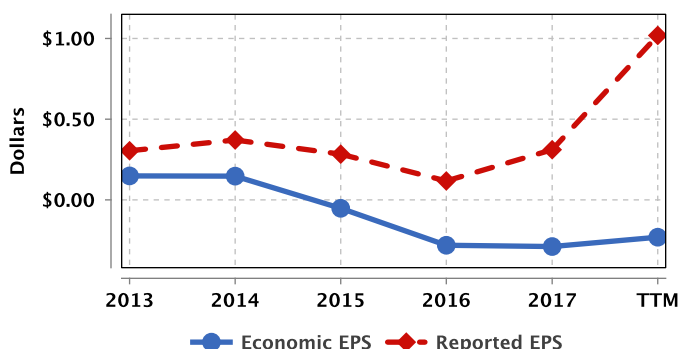
- We recommend investors sell HSTM.
- HSTM earns our Unattractive rating. See Investment Rating Details below.
- An Unattractive rating means this stock has more downside risk than upside potential.
- HSTM ranks in the 43rd percentile of the 2850+ stocks we cover.
- Ranks 116th out of 330 Healthcare Sector stocks.



### Investment Rating Details

Risk/Reward Rating	Quality of Earnings		Valuation		
	Economic vs Reported EPS	Return on Invested Capital (ROIC)	FCF Yield	Price-to-EBV Ratio	Growth Appreciation Period (yrs)
Very Unattractive	Misleading Trend	Bottom Quintile	<-5%	> 3.5 or -1 < 0	> 50
Unattractive	False Positive	4th Quintile	-5%<-1%	2.4 < 3.5 or < -1	20 < 50
Neutral	Neutral EE	3rd Quintile	-1%<3%	1.6 < 2.4	10 < 20
Attractive	Positive EE	2nd Quintile	3%<10%	1.1 < 1.6	3 < 10
Very Attractive	Rising EE	Top Quintile	>10%	0 < 1.1	0 < 3
<b>Actual Values</b>	(\$0.23) vs. \$1.02	4%	5%	4.1	> 100
<b>Sector ETF (XLV)</b>	Positive EE	12%	2%	2.4	34
<b>S&amp;P 500 ETF (SPY)</b>	Positive EE	19%	2%	3.1	31

### Accounting vs Economic Earnings



### Earnings & Valuation Diligence Summary

- HSTM's accounting earnings overstate its economic earnings, which equal  $(ROIC - WACC) \times \text{Average Invested Capital}$ .
- For HSTM, we made a total of \$175 million in income statement and balance sheet adjustments to convert accounting earnings to economic earnings in FY17.
- We made \$159 million in adjustments in our DCF valuation of the stock.
- See Appendix 1 for details on our calculations of key metrics and Appendices 2 and 3 for details on our [adjustments](#).

### Stock Performance

Year to Date	39.4%
Last 30 Days	13.6%
Last 60 Days	10.8%
Last 90 Days	12.7%
Last Year	43.5%

### Key Market Statistics

Enterprise Value (MM)	\$885
Market Value (MM)	\$1,001
EV/EBITDA	22.41
EBV per Share	\$7.51
Shares Outstanding (Thousands)	32,323
P/E (TTM)	30.39

### About New Constructs

New Constructs is an independent equity research firm powered by machine learning. Ernst & Young demonstrated the superiority of our ROIC methodology, data & models. See our website for details.

[www.newconstructs.com](http://www.newconstructs.com)

## Economic vs Reported Earnings

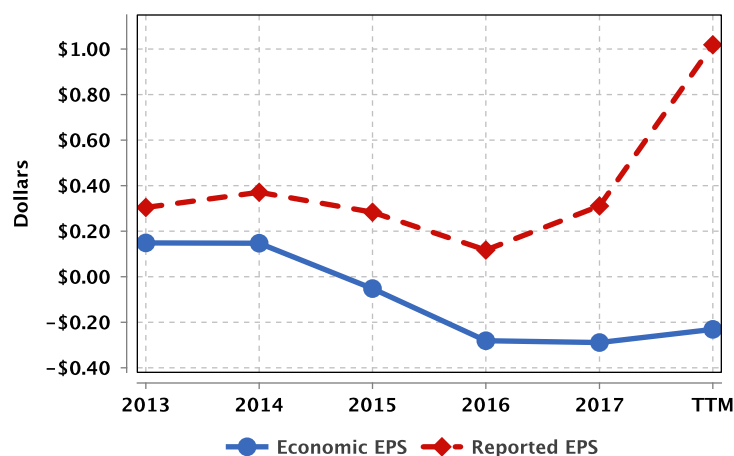
Economic Earnings are **Neutral**

**Economic Earnings** are almost always meaningfully different than reported earnings. We believe Economic Earnings provide a truer measure of profitability and shareholder value creation than reported earnings because they have been adjusted to remove over twenty accounting distortions.

The majority of data required to reverse accounting distortions is available only in the Footnotes and MD&A, which we analyze rigorously. Our core competency is gathering and analyzing all relevant financial data from filings so that we can deliver earnings analysis that best represents the true profitability of businesses.

Economic Earnings per share (EEPS) for HSTM for the trailing twelve months are (\$0.23) compared to reported earnings per share of \$1.02 and earn a Neutral rating. See Appendix 1 for a detailed reconciliation.

Economic EPS vs Reported EPS



## Return on Invested Capital (ROIC)

ROIC is **Very Unattractive**

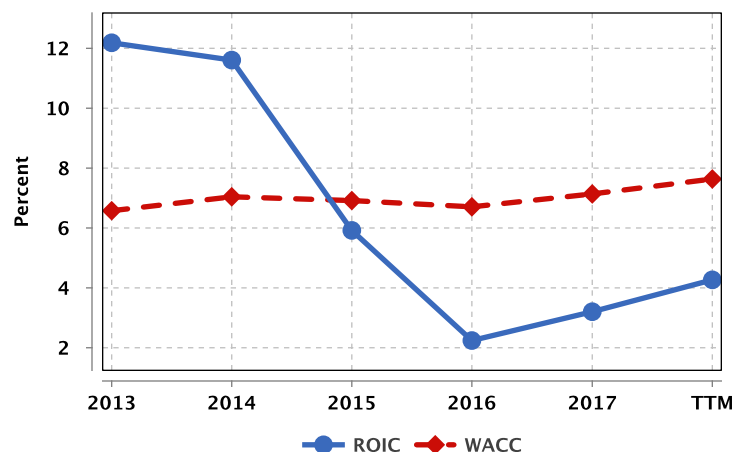
**ROIC** measures a company's return on all cash invested in the business. It is the truest measure of profitability. Stock valuations are more highly correlated to ROIC than any other metric.

**Weighted-Average Cost of Capital (WACC)** is the average of debt and equity capital costs that all publicly traded companies with debt and equity stakeholders incur as a cost of operating.

Companies must earn an ROIC greater than WACC to generate positive economic earnings and create value for shareholders.

HSTM's ROIC of 4.3% for the trailing twelve months earns a Very Unattractive rating. ROIC is calculated as NOPAT of \$10 million divided by Average Invested Capital of \$227 million. See Appendix 1 for a detailed reconciliation.

ROIC vs WACC



## Free Cash Flow Yield (FCF Yield)

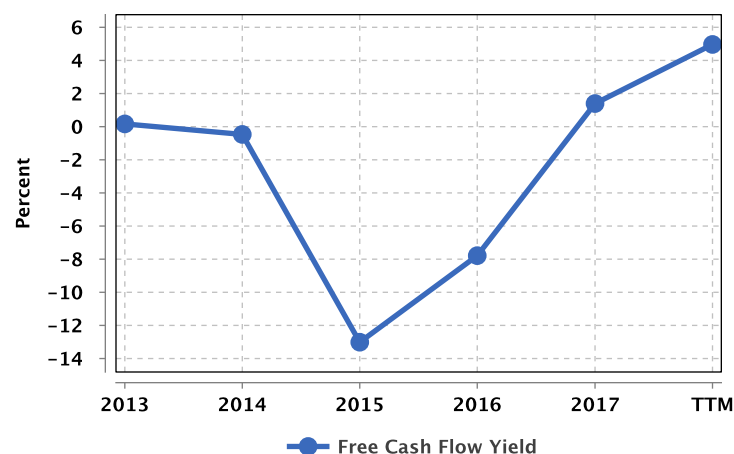
Free Cash Flow Yield is **Attractive**

**Free Cash Flow** reflects the amount of cash free for distribution to all stakeholders (including debt & equity). FCF Yield divides free cash flow by [enterprise value](#).

Using Free Cash Flow Yield to pick stocks is not a new strategy. However, our strategy yields superior results because we use a better measure of Free Cash Flow. In the same way our Economic EPS are better measures of profitability than reported EPS, our measure of Free Cash Flow is better than traditional accounting-based Free Cash Flow.

HSTM's FCF is \$44 million for the trailing twelve months and its current Enterprise Value is \$885 million. FCF Yield is 5.0% and earns an Attractive rating. See Appendix 1 for a detailed reconciliation.

Free Cash Flow Yield



## Price-to-EBV Ratio

Price-to-EBV Ratio is **Very Unattractive**

[Price-to-Economic Book Value](#) (EBV) measures the difference between the market's expectations for future profits and the no-growth value of the stock.

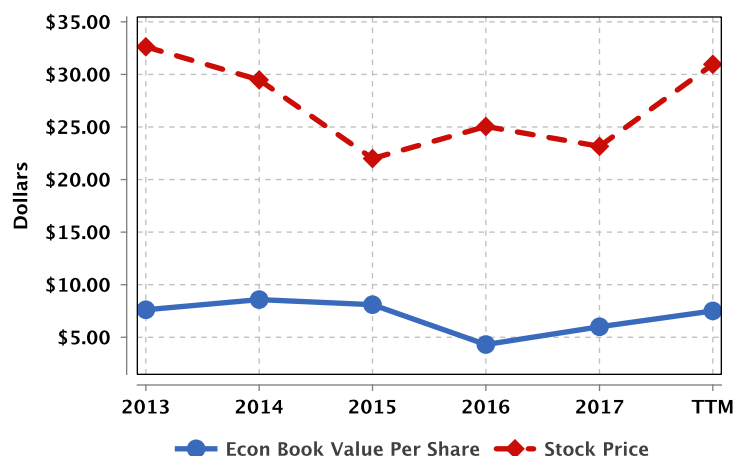
EBV measures the no-growth value of the company based on the company's current Net Operating Profit After Tax ([NOPAT](#)).

When prices are higher than EBV, the market predicts the NOPAT of the company will increase and expectations for profit growth are reflected in the stock. If the stock price equals EBV, the market predicts NOPAT will remain the same and there are no expectations for profit growth reflected in the stock. When stock prices are lower than EBV, the market predicts NOPAT will decrease and expectations for permanent profit decline are reflected in the stock.

In general, we like to buy stocks with low expectations for profit growth and sell/short stocks with high expectations for profit growth.

HSTM's current Price-to-EBV per share is 4.1 and earns a Very Unattractive rating. HSTM's stock price is \$30.96 and its EBV per share for the trailing twelve months is \$7.51. See Appendix 1 for a detailed reconciliation.

## Stock Price vs Economic Book Value (EBV) Per Share



## Growth Appreciation Period

The Growth Appreciation Period is **Very Unattractive**

The market-implied duration of profit growth or [GAP](#) measures the number of years the company must maintain an edge over its competitors by earning ROIC greater than the weighted-average cost of capital on new investments.

We believe HSTM embeds a Very Unattractive level of market expectations because there is a very large difference between the expected financial performance implied by its market price and the company's historical performance.

At HSTM's current stock price of \$30.96, the market is expecting revenue to grow at 3.2% for more than 100 years. Over this period, HSTM is also expected to generate an average Economic Earnings Margin of 7.1%.

These results are derived using our [dynamic discounted cash flow model](#).

Performance Hurdles	Historical Performance			Market Expectations
	5 Yr	3Yr	Last FY	Default <small>based on current price</small>
Stock Price	\$32.63	\$22.00	\$23.16	<b>\$30.96</b>
Revenue CAGR	17.0%	8.9%	(0.1%)	<b>3.2%</b>
ROIC - WACC	(3.3%)	(3.3%)	(3.3%)	<b>7.1%</b>
Growth Appreciation Period	-	-	-	<b>&gt; 100 years</b>

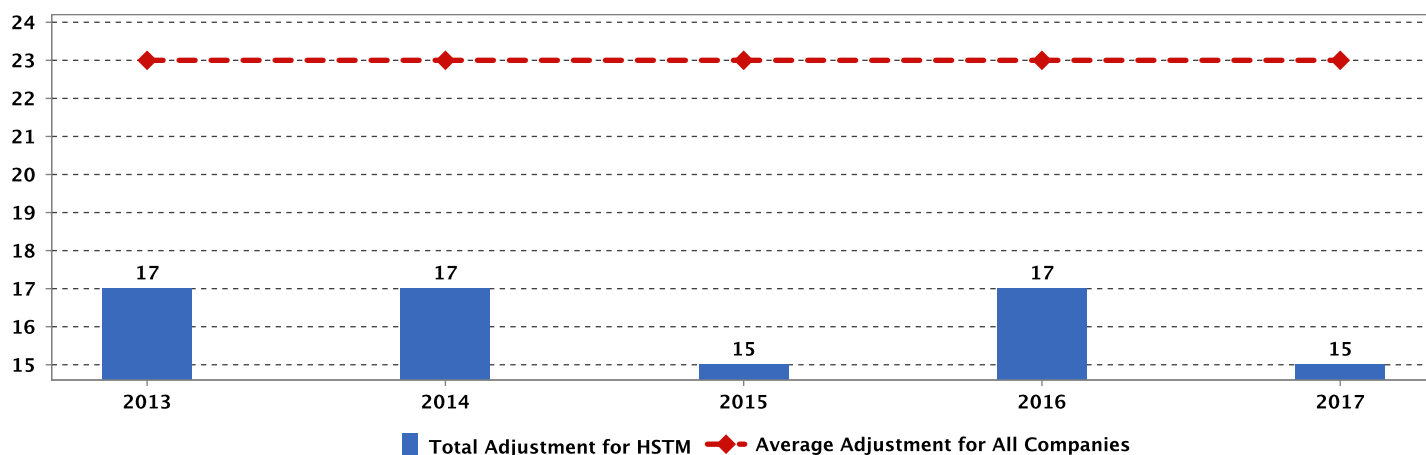
## Protecting You From Misleading Accounting Loopholes

***Our experts know where the (accounting) bodies are buried. Since 1996, we have combed through 120,000+ corporate filings. We know how to find what companies may try to hide. We protect clients from the constantly changing landscape of accounting loopholes and hidden items buried deep in footnotes, the Management Discussion & Analysis (“MD&A”) and other disclosures. Our experts review thousands of pages of corporate disclosures and filings to ensure that you have the best possible research on earnings quality and valuation.***

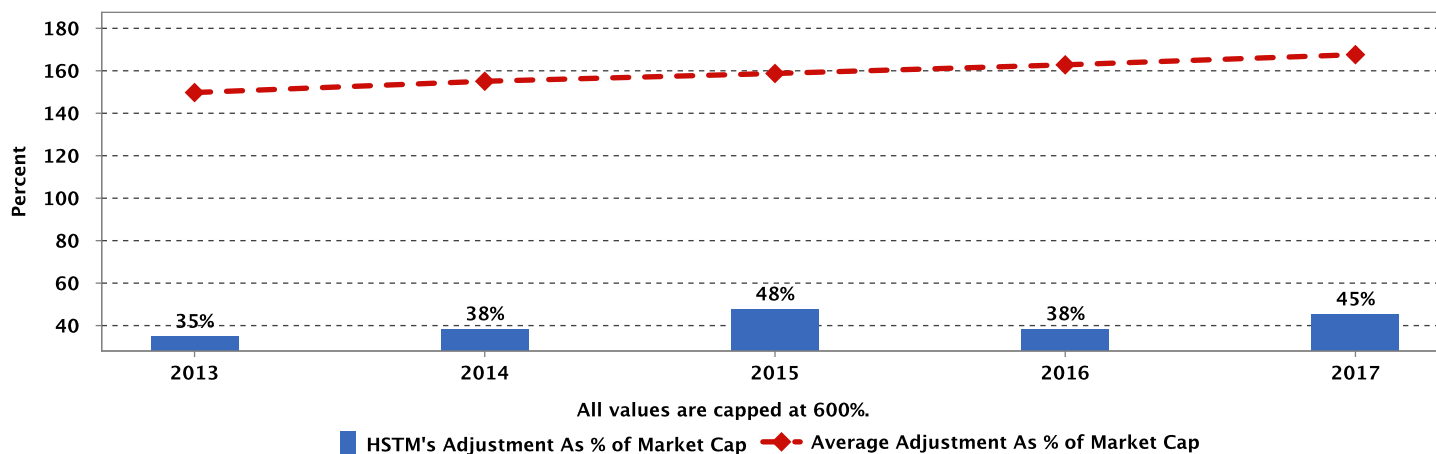
Values in millions

	2013	2014	2015	2016	2017
<b>Total Adjustments Summary for HealthStream Inc.</b>					
Number of Adjustments	17	17	15	17	15
Average for all companies	23	23	23	23	23
Total Value of Adjustments	\$256	\$282	\$351	\$282	\$334
Total Value of Adjustments as % of market cap	35%	38%	48%	38%	45%
Average for all companies	150%	155%	159%	163%	168%

Number of Adjustments



\$ Value of Adjustments As % of Market Cap



### Income Statement Adjustments

We made 4 adjustments to convert HealthStream Inc.'s reported 2017 earnings to NOPAT, for a net impact of \$3 million. We net 2 income adjustments of \$4 million against 2 expense adjustments of \$2 million.

89% of companies require more adjustments to reported earnings as a percent of revenue than HSTM to calculate NOPAT.

The most notable accounting distortion to reported Net Income for HSTM in 2017 is less than \$1 million (less than 1% of revenue) of write-downs of assets hidden in operating line items. These asset write-downs are unusual charges that don't appear on the income statement because they are bundled in other line items. Without careful footnotes research, investors would never know that these non-recurring items distort operating earnings.

Our adjustments to reported earnings enable us to calculate an accurate NOPAT, a key component of our ROIC and economics earnings calculations. There are, in general, [10 types of adjustments that we make to convert reported net income to NOPAT](#). NOPAT is the after-tax operating cash generated by the business, excluding unusual items, financing costs and other non-cash items.

### Balance Sheet Adjustments

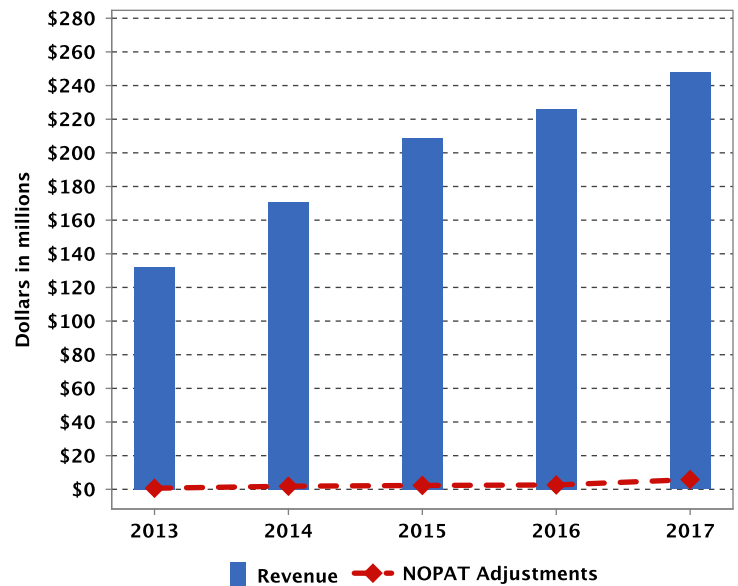
We made 7 adjustments to convert HealthStream Inc.'s reported 2017 net assets to Invested Capital, for a net impact of \$76 million. We net 1 asset decrease adjustment of \$123 million against 6 increase adjustments of \$47 million.

42% of companies require more adjustments than HSTM to calculate Invested Capital.

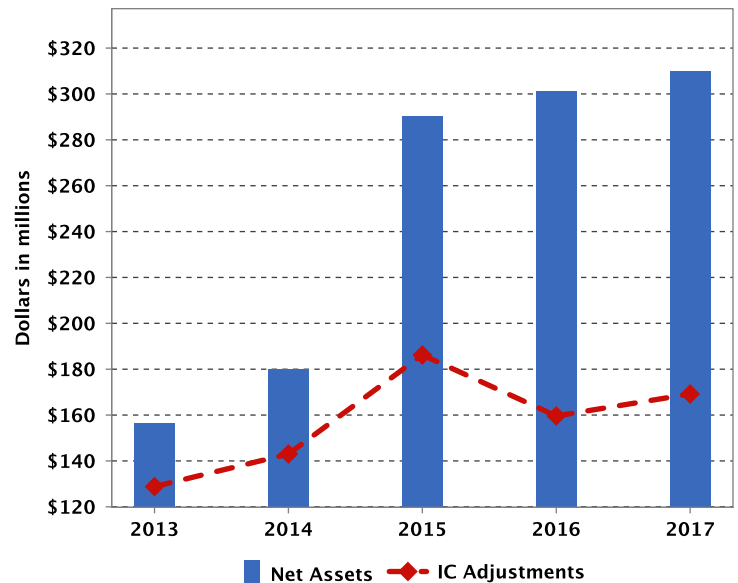
The most notable accounting distortion to reported net assets for HSTM in 2017 is \$30 million in adjustments for operating leases, which is 10% of reported net assets. Operating leases are off balance sheet liabilities that skew the comparability of ROIC with companies that finance assets using capital leases/debt. These different accounting methods do not reflect operational differences, so we convert all operating leases to capital leases to ensure comparability despite different accounting.

Our adjustments to reported net assets enable us to calculate an accurate [Invested Capital](#), a key component of our ROIC and economics earnings calculations. There are, in general, [12 types of adjustment that we make to convert reported net assets to Invested Capital](#). Invested Capital is the sum of all cash that has been invested in a company over its life without regard to financing form or accounting name.

### Income Statement Adjustments



### Balance Sheet Adjustments



## Stock Valuation Adjustments

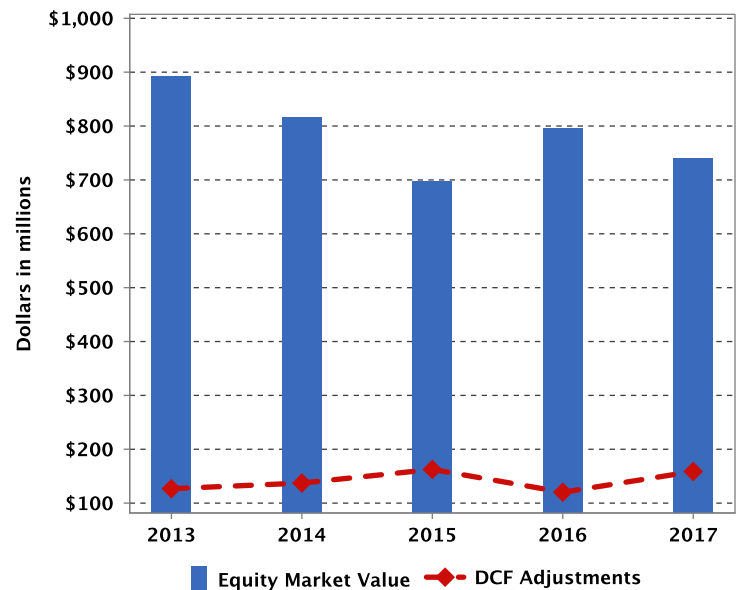
We made 4 adjustments for a net impact of \$116 million to our DCF model for HealthStream Inc. in the trailing twelve months. 3 adjustments decrease value by \$41 million and 1 adjustment increases value by \$157 million.

66% of companies require more adjustments as a percent of market value to calculate valuation metrics.

The most notable accounting distortion to these valuation metrics for HSTM in the trailing twelve months was off-balance-sheet operating leases. We adjusted shareholder value by \$30 million, which is 3% of the firm's market value. The fair value of operating leases is subtracted from shareholder value because this is the value of cash that will be paid on these obligations and not available to shareholders.

Our valuation adjustments protect clients from unknowns that could blow stocks up. These adjustments enable us to derive more accurate calculations for [Economic Book Value](#), [Enterprise Value](#) and our [Discounted Cash Flow Model](#). There are, in general, [10 types of adjustments that we apply to our valuation metrics](#).

Stock Valuation Adjustments



## Appendix 1: Key Metrics & Calculations

*This appendix provides reconciliations of the calculations we use in our stock ratings. The [Education](#) section of our website offers full details on all our calculations and ratings methodologies.*

Values in millions	2013	2014	2015	2016	2017	Current/TTM
<b>Economic Earnings ((ROIC - WACC) * Invested Capital)</b>						
Return on Invested Capital (ROIC)	12.2%	11.6%	5.9%	2.2%	3.2%	4.3%
WACC (Period End Date)	6.6%	7.0%	6.9%	6.7%	7.1%	7.5%
Economic Earnings Margin (ROIC - WACC)	5.6%	4.6%	(1.0%)	(4.5%)	(3.9%)	(3.3%)
Average Invested Capital	\$71.10	\$88.80	\$157.20	\$199.62	\$234.18	\$226.58
<b>Economic Earnings</b>	<b>\$3.99</b>	<b>\$4.06</b>	<b>(\$1.57)</b>	<b>(\$8.92)</b>	<b>(\$9.21)</b>	<b>(\$7.41)</b>
Change in Economic Earnings	(\$0.86)	\$0.07	(\$5.62)	(\$7.35)	(\$0.30)	\$4.32
<b>Economic Earnings per Share</b>	<b>\$0.15</b>	<b>\$0.15</b>	<b>(\$0.05)</b>	<b>(\$0.28)</b>	<b>(\$0.29)</b>	<b>(\$0.23)</b>
Economic Earnings per Share Growth	(20.0%)	(1.0%)	(135.4%)	(439.5%)	(2.9%)	37.4%
<b>GAAP Net Income / FFO</b>	<b>\$8.42</b>	<b>\$10.39</b>	<b>\$8.62</b>	<b>\$3.75</b>	<b>\$10.00</b>	<b>\$32.84</b>
Change in GAAP Net Income / FFO	\$0.77	\$1.98	(\$1.77)	(\$4.87)	\$6.25	\$28.44
<b>Diluted GAAP EPS</b>	<b>\$0.30</b>	<b>\$0.37</b>	<b>\$0.28</b>	<b>\$0.12</b>	<b>\$0.31</b>	<b>\$1.02</b>
Diluted GAAP EPS Growth	9.5%	21.9%	(23.6%)	(58.7%)	165.4%	643.8%
<b>Return on Invested Capital (ROIC) (ROIC = NOPAT / Average Invested Capital)</b>						
Total Operating Revenue	\$132.27	\$170.69	\$209.00	\$225.97	\$247.66	\$238.18
NOPAT	\$8.66	\$10.31	\$9.31	\$4.47	\$7.50	\$9.67
Average Invested Capital	\$71.10	\$88.80	\$157.20	\$199.62	\$234.18	\$226.58
<b>Return on Invested Capital (ROIC)</b>	<b>12.2%</b>	<b>11.6%</b>	<b>5.9%</b>	<b>2.2%</b>	<b>3.2%</b>	<b>4.3%</b>
Change in ROIC	(2.5%)	(0.6%)	(5.7%)	(3.7%)	1.0%	2.0%
NOPAT Margin	6.6%	6.0%	4.5%	2.0%	3.0%	4.1%
Average Invested Capital Turns	1.86	1.92	1.33	1.13	1.06	1.05
Incremental Return on Invested Capital	1.5%	22.5%	(7.3%)	(5.7%)	5.0%	-
<b>Free Cash Flow (FCF) Analysis (FCF = NOPAT - Change in Invested Capital, FCF Yield = FCF / Enterprise Value)</b>						
NOPAT	\$8.66	\$10.31	\$9.31	\$4.47	\$7.50	\$9.67
Change in Invested Capital	\$7.31	\$13.69	\$84.07	\$60.95	(\$1.61)	(\$34.26)
<b>Free Cash Flow (FCF)</b>	<b>\$1.35</b>	<b>(\$3.39)</b>	<b>(\$74.76)</b>	<b>(\$56.48)</b>	<b>\$9.12</b>	<b>\$43.93</b>
Change in FCF	\$10.22	(\$4.74)	(\$71.38)	\$18.28	\$65.59	\$100.28
FCF Growth	115.2%	(350.8%)	(2,106.9%)	24.5%	116.1%	177.9%
<b>Enterprise Value</b>	<b>\$815.31</b>	<b>\$724.81</b>	<b>\$574.46</b>	<b>\$725.24</b>	<b>\$652.73</b>	<b>\$884.70</b>
<b>FCF Yield</b>	<b>0.2%</b>	<b>(0.5%)</b>	<b>(13.0%)</b>	<b>(7.8%)</b>	<b>1.4%</b>	<b>5.0%</b>
FCF as % of Revenue	1.0%	(2.0%)	(35.8%)	(25.0%)	3.7%	18.4%
<b>Price to Economic Book Value per Share (NOPAT / WACC + Adjustments - see our website for full details)</b>						
NOPAT	\$8.66	\$10.31	\$9.31	\$4.47	\$7.50	\$9.67
WACC	6.6%	7.0%	6.9%	6.7%	7.1%	7.6%
Excess Cash	\$101.58	\$114.19	\$142.18	\$95.15	\$122.51	\$157.40
Net Assets from Discontinued Operations	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Net Deferred Tax Liability	(\$6.35)	(\$5.84)	(\$4.76)	(\$5.97)	(\$1.93)	(\$5.17)
Net Deferred Compensation Assets	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fair Value of Unconsolidated Subsidiary Assets (non-op)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fair Value of Total Debt	(\$5.99)	(\$8.81)	(\$10.34)	(\$13.75)	(\$30.46)	(\$30.46)
Fair Value of Preferred Capital	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)
Fair Value of Minority Interests	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)
Value of Outstanding ESO After-Tax	(\$12.87)	(\$8.44)	(\$5.30)	(\$5.39)	(\$3.86)	(\$5.76)
Pensions Net Funded Status	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Economic Book Value (EBV)</b>	<b>\$208.14</b>	<b>\$237.49</b>	<b>\$256.33</b>	<b>\$136.74</b>	<b>\$191.38</b>	<b>\$242.66</b>
Split Adjusted Shares Outstanding (thousands)	27,327	27,677	31,647	31,748	31,908	32,323
EBV per Share	\$7.62	\$8.58	\$8.10	\$4.31	\$6.00	\$7.51
Stock Price (closing)	\$32.63	\$29.48	\$22.00	\$25.05	\$23.16	\$30.96
<b>PEBV (Price to Economic Book Value per Share)</b>	<b>4.28</b>	<b>3.44</b>	<b>2.72</b>	<b>5.82</b>	<b>3.86</b>	<b>4.12</b>



## Appendix 2: Adjustments for our Discounted Cash Flow Model, Economic Book Value, and Enterprise Value Calculations

We use a **dynamic discounted cash flow (DCF) model** to quantify the market expectations for future cash flows in stock prices. This approach, also known as "expectations investing" or "reverse DCF", is the most transparent and objective approach to valuing stocks.

Values in millions	2013	2014	2015	2016	2017	Current/TTM
Excess Cash	\$101.58	\$114.19	\$142.18	\$95.15	\$122.51	\$157.40
Net Assets from Discontinued Operations	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Net Deferred Tax Liability	(\$6.35)	(\$5.84)	(\$4.76)	(\$5.97)	(\$1.93)	(\$5.17)
Net Deferred Compensation Assets	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fair Value of Unconsolidated Subsidiary Assets (non-op)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fair Value of Total Debt	(\$5.99)	(\$8.81)	(\$10.34)	(\$13.75)	(\$30.46)	(\$30.46)
Fair Value of Preferred Capital	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)
Fair Value of Minority Interests	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)
Value of Outstanding ESO After-Tax	(\$12.87)	(\$8.44)	(\$5.30)	(\$5.39)	(\$3.86)	(\$5.76)
Pensions Net Funded Status	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total Valuation Adjustments</b>	<b>\$76.37</b>	<b>\$91.11</b>	<b>\$121.78</b>	<b>\$70.05</b>	<b>\$86.26</b>	<b>\$116.01</b>

## Appendix 3: Adjustments for Economic Earnings

Reported earnings don't tell the whole truth of a company's profits. We scour the footnotes and fine print so clients have the whole truth. Full details on our adjustment methodologies are available [on our website](#). Our [Company Models](#) allow you to modify adjustments and see where we find them in SEC filings.

Values in millions	2013	2014	2015	2016	2017	Current/TTM
<b>Income Statement Adjustments</b>						
GAAP Net Income	\$8.42	\$10.39	\$8.62	\$3.75	\$10.00	\$32.84
Total Non-Operating Expense Hidden in Op. Earnings	\$0.14	\$0.43	\$0.96	\$0.95	\$0.10	\$0.00
Reported Net Non-Operating Items	(\$0.18)	(\$0.15)	(\$0.16)	(\$0.58)	(\$0.73)	(\$1.13)
Change in Total Reserves	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Implied Interest for PV of Operating Leases	\$0.30	\$0.45	\$0.52	\$0.70	\$1.54	\$1.54
Non-Operating Tax Adjustment	(\$0.03)	(\$0.82)	(\$0.64)	(\$0.35)	(\$3.41)	(\$4.48)
Net After-Tax Non-Operating Expense/(Income)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	(\$19.11)
<b>NOPAT</b>	<b>\$8.66</b>	<b>\$10.31</b>	<b>\$9.31</b>	<b>\$4.47</b>	<b>\$7.50</b>	<b>\$9.67</b>

### Balance Sheet Adjustments

Total Assets (unadjusted)	\$212.59	\$257.26	\$379.57	\$396.00	\$411.07	\$417.69
Total Current/Investment Liabilities	(\$56.21)	(\$77.26)	(\$89.08)	(\$94.97)	(\$101.07)	(\$96.70)
<b>Reported Net Assets</b>	<b>\$156.38</b>	<b>\$180.00</b>	<b>\$290.49</b>	<b>\$301.03</b>	<b>\$310.01</b>	<b>\$320.99</b>
Short-Term Debt	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Excess Cash	(\$101.58)	(\$114.19)	(\$142.18)	(\$95.15)	(\$122.51)	(\$157.40)
Total Reserves	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Unconsolidated Subsidiary Assets (non-operating)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)
Discontinued Operations Adjustment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Deferred Compensation Adjustment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Deferred Tax Adjustment	\$0.18	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Over Funded Pensions (Asset)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)	(\$0.00)
Off-Balance-Sheet Operating Leases	\$5.99	\$8.81	\$10.34	\$13.75	\$30.46	\$30.46
Accumulated Unrecorded Goodwill	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Accumulated Goodwill Amortization	\$9.15	\$9.15	\$9.15	\$9.15	\$9.15	\$9.15
Accumulated Asset Write-Downs After-Tax	\$6.13	\$6.16	\$6.16	\$6.16	\$6.23	\$6.23
Accumulated OCI (Other Comprehensive Income)	\$0.03	\$0.04	\$0.07	\$0.05	\$0.04	\$0.03
<b>Invested Capital</b>	<b>\$76.27</b>	<b>\$89.97</b>	<b>\$174.03</b>	<b>\$234.98</b>	<b>\$233.37</b>	<b>\$209.45</b>
<b>Average Invested Capital</b>	<b>\$71.10</b>	<b>\$88.80</b>	<b>\$157.20</b>	<b>\$199.62</b>	<b>\$234.18</b>	<b>\$226.58</b>



## Appendix 4: Explanation of New Constructs' Stock Ratings

### Ratings

In-depth risk/reward analysis underpins our stock rating. Our stock rating methodology grades every stock according to what we believe are the 5 most important criteria for assessing the quality of a stock. Each grade reflects the balance of potential risk and reward of buying that stock. Our analysis results in the 5 ratings described below. Very Attractive and Attractive correspond to a "Buy" rating, Very Unattractive and Unattractive correspond to a "Sell" rating, while Neutral corresponds to a "Hold" rating.

Risk/Reward Rating	Quality of Earnings		Valuation		
	Economic vs Reported EPS	Return on Invested Capital (ROIC)	FCF Yield	Price-to-EBV Ratio	Growth Appreciation Period
Very Unattractive	Misleading Trend	Bottom Quintile	< -5%	> 3.5 or -1 < 0	> 50
Unattractive	False Positive	4th Quintile	-5% < -1%	2.4 < 3.5 or < -1	20 < 50
Neutral	Neutral EE	3rd Quintile	-1% < 3%	1.6 < 2.4	10 < 20
Attractive	Positive EE	2nd Quintile	3% < 10%	1.1 < 1.6	3 < 10
Very Attractive	Rising EE	Top Quintile	> 10%	0 < 1.1	0 < 3

### Ratings

[Economic earnings](#) and return on capital metrics are significantly more accurate when as-reported financial statements have been adjusted to reverse [accounting distortions and Red Flags](#). The majority of the data required to reverse accounting distortions is available only in the Notes to the Financial Statements, which we analyze rigorously. Our core competency is gathering and analyzing all relevant financial data (from the Financial Statements and Notes) so that we can deliver earnings analysis that best represents the true profitability of businesses. See the figure below for a list of the Red Flag adjustments we make to a company's reported GAAP profits in order to reverse accounting distortions and arrive at a better measure of a firm's profits.

#### Accounting Issues and Red Flags that Distort GAAP

- Employee Stock Options
- Pension Over/Under Funding
- Excess Cash
- Restructuring Charges
- Pooling Goodwill
- Minority Interests
- Discontinued Operations
- Preferred Stock
- Mid-Year Acquisitions
- Off-Balance-Sheet Financing
- LIFO Reserve
- Unrealized Gains/Losses
- Goodwill Amortization
- Unconsolidated Subsidiaries
- Capitalized Expenses
- Deferred Compensation
- Net Deferred tax Assets and Liabilities

## New Constructs® - Research to Fulfill the Fiduciary Duty of Care

Ratings & screeners on 3000 stocks, 650 ETFs and 7000 mutual funds help you make prudent investment decisions.

New Constructs leverages the latest in machine learning to analyze structured and unstructured financial data with unrivaled speed and accuracy. The firm's forensic accounting experts work alongside engineers to develop proprietary NLP libraries and financial models. Our investment ratings are based on the best fundamental data in the business for stocks, ETFs and mutual funds. Clients include many of the top hedge funds, mutual funds and wealth management firms. David Trainer, the firm's CEO, is regularly featured in the media as a thought leader on the fiduciary duty of care, earnings quality, valuation and investment strategy.

### To fulfill the Duty of Care, research should be:

1. **Comprehensive** - All relevant publicly-available (e.g. 10-Ks and 10-Qs) information has been diligently reviewed, including footnotes and the management discussion & analysis (MD&A).
2. **Un-conflicted** - Clients deserve unbiased research.
3. **Transparent** - Advisors should be able to show how the analysis was performed and the data behind it.
4. **Relevant** - Empirical evidence must provide [tangible, quantifiable correlation](#) to stock, ETF or mutual fund performance.

### Value Investing 2.0: Diligence Matters: Technology is Key to Value Investing with Scale

Accounting data is only the beginning of fundamental research. It must be translated into economic earnings to truly understand profitability and valuation. This translation requires deep analysis of footnotes and the MD&A, a process that our [robo-analyst technology](#) empowers us to perform for thousands of stocks, ETFs and mutual funds.

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