



New Constructs®

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How To Stay Out of the Danger Zone

Get better research.

Important Disclosure Information is contained on the last page of this report. The recipient of this report is directed to read these disclosures.

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1. What puts a Stock in the Danger Zone?
2. Successful Danger Zone picks
3. Who's in the Danger Zone now?
4. How do you protect yourself?
5. Get better research – for free

Part I

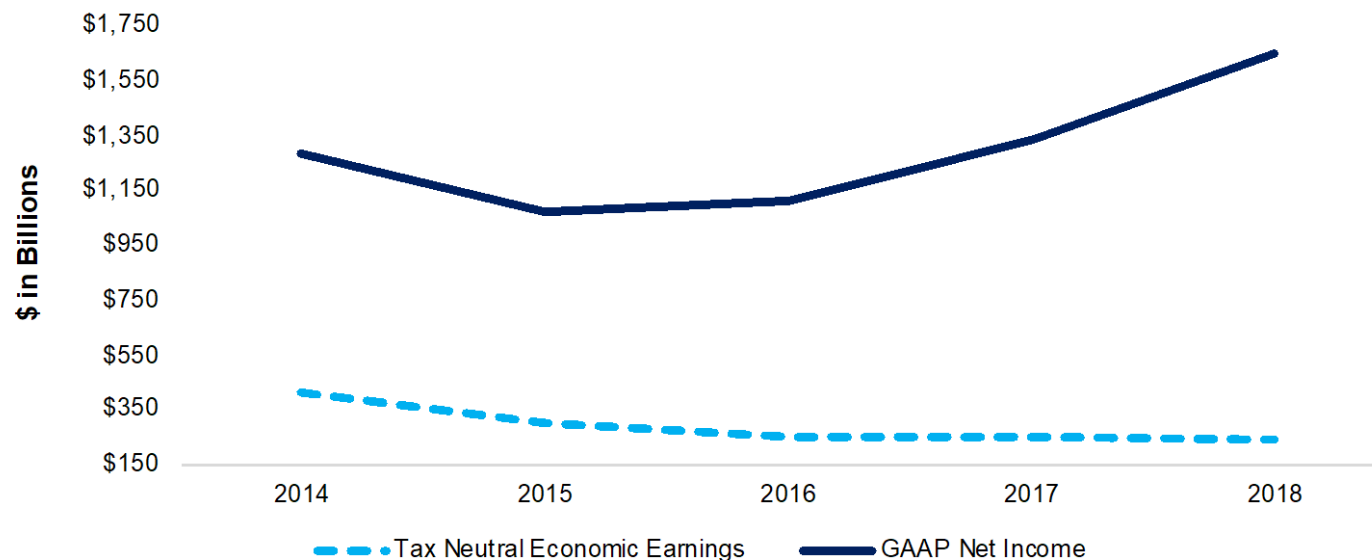
What Puts a Stock in the Danger Zone?

Misleading Accounting Earnings

(Unscrubbed) Earnings Trends Are Misleading

- “CFOs believe that in any given year a remarkable **one in five firms intentionally misrepresent** their earnings using discretion within generally accepted accounting principles (GAAP). The magnitude of the typical **misrepresentation is quite material: about 10 cents on every dollar.**” ([Source](#))
- Economic earnings, which adjust for earnings manipulation and the cost of capital, tell a different story

GAAP Earnings Rising, Economic Earnings Falling



*This graph was created based on information collected and analyzed by New Constructs, LLC. New Constructs regularly gathers information from over 3,000 companies' 10Ks, including the Notes to the Financial Statements and MD&A.

- Return on Invested Capital (ROIC) is the most important measure of profitability.

$\text{NOPAT} / \text{Average Invested Capital}$

Or

$\text{NOPAT} / \text{Revenue} * \text{Revenue} / \text{Average Invested Capital}$

- Low and declining ROIC is a good sign that a company lacks a sustainable competitive advantage.
- ROIC drives valuation. Rapid growth with an ROIC below the weighted average cost of capital (WACC) destroys value for shareholders.

We use three metrics to quantify the growth expectations embedded in a company's stock price:

1. **Free Cash Flow Yield**

- Free cash flow divided by enterprise value

2. **Price to Economic Book Value (PEBV)**

- Ratio of market cap to the zero-growth value of the company

3. **Growth Appreciation Period (GAP)**

- Measures the years of growth required to justify the valuation
- Uses historical margins and consensus analyst forecasts for revenue growth in our reverse DCF model

How Our Ratings Work

Example of a Very Unattractive Stock

Rogers Corporation (ROG) Closing Price: \$165.36 (Apr 29, 2019)
Market Value: \$3,049 Million
Sector: Technology

Analyst Notes : Most Dangerous Stocks Model Portfolio Apr 2019

Risk/Reward Rating ?	Quality of Earnings		Valuation		
	Econ vs Reported EPS ?	ROIC ?	FCF Yield ?	Price to EBV ?	GAP ?
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
Actual Values					
ROG	-\$0.44 vs. \$4.70	8%	-3%	3.5	> 100 yrs
Benchmarks ?					
Sector ETF (QQQ)	Positive EE	31%	2%	3.5	54 yrs
S&P 500 ETF (SPY)	Positive EE	19%	2%	2.8	42 yrs
Small Cap ETF (IWM)	Positive EE	6%	-1%	3.3	42 yrs

Add to Portfolio

Company Model

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1,000

Part II

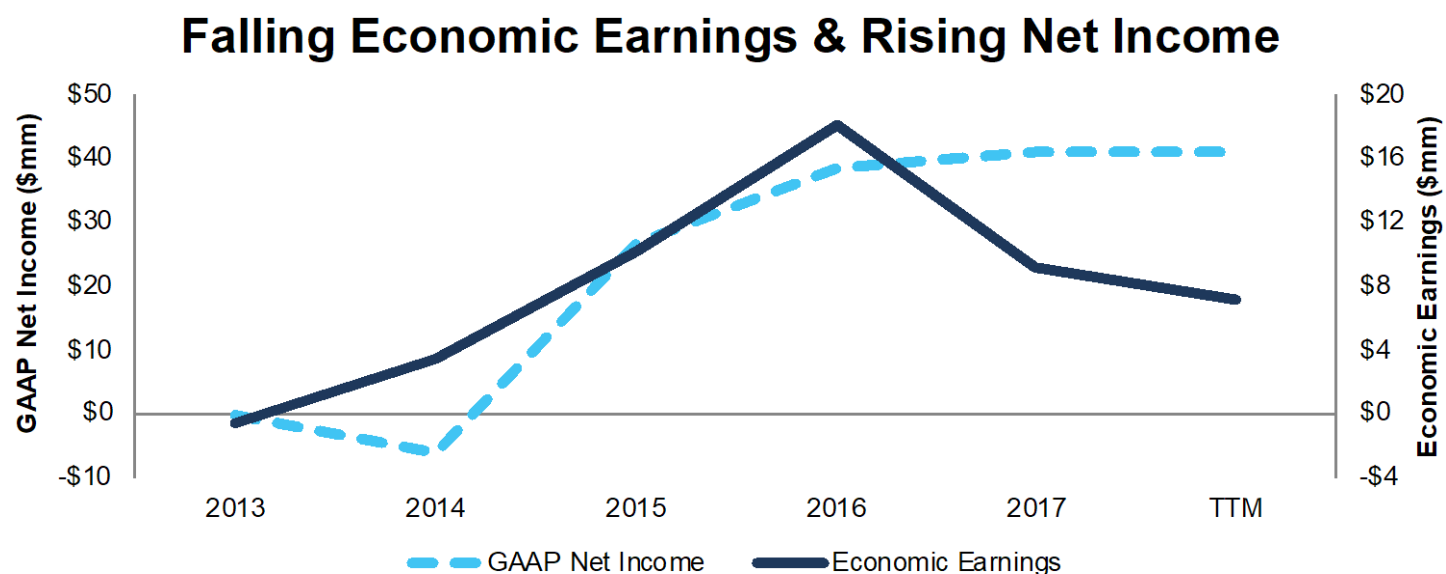
Successful Danger Zone Picks

Accounting Earnings Mislead Investors

Integrated Building Products (IBP): Warned on 5/21/18

Integrated Building Products (IBP)

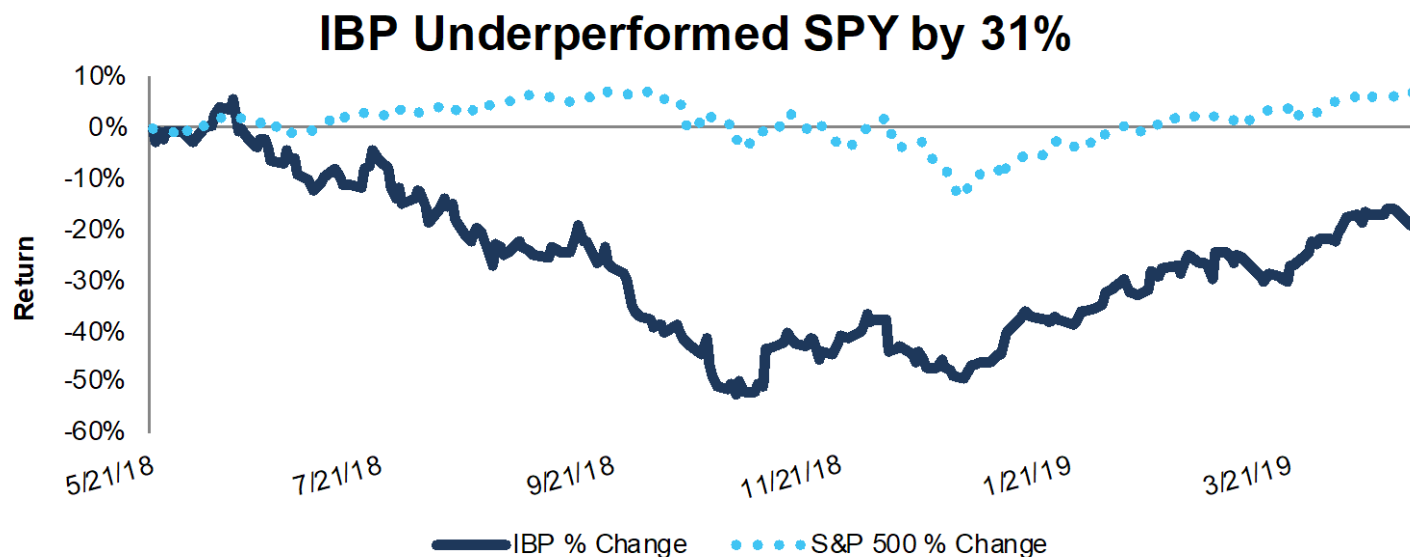
- In 2017, GAAP EPS increased by 6%, but economic earnings per share declined by 51%.
- Classic example of a “roll-up”, company that grows through overpriced acquisitions that destroy value for shareholders.
- Valuation of \$58/share at the time implied that IBP would grow NOPAT by 14% compounded annually for 11 years



*This graph was created based on information collected and analyzed by New Constructs, LLC. New Constructs regularly gathers information from over 3,000 companies' 10Ks, including the Notes to the Financial Statements and MD&A.

Integrated Building Products (IBP)

1. Company continues to grow through acquisitions
2. Debt has increased from \$190 million in 2016 to over \$500 million (36% of market cap) currently
3. Down 23% vs. S&P 500 up 8% since we warned investors on 5/21/18, still rated Unattractive



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Low ROIC Reveals Competitive Disadvantage

Diebold Nixdorf (DBD): Warned on 11/20/17

Diebold Nixdorf (DBD)

- DBD tried to achieve economies of scale in the ATM space by acquiring a competitor in 2016.
- Declining ROIC and margins showed that in fact the company was falling further behind its peer group as a whole and competitor NCR in particular
- Valuation of \$18/share at the time implied that DBD would grow NOPAT by 25% compounded annually for 10 years

Net Operating Profit After Tax (NOPAT) Margin						
Company / Peer Group	2012	2013	2014	2015	2016	TTM
DBD Peer Group Average	11%	11%	10%	10%	9%	9%
NCR Inc.	8%	7%	8%	4%	9%	8%
Diebold Nixdorf Inc.	5%	4%	5%	4%	1%	1%
Margin Disadvantage: DBD vs. Peers	-6%	-7%	-5%	-6%	-8%	-8%
Margin Disadvantage: DBD vs. NCR	-3%	-3%	-4%	0%	-8%	-7%

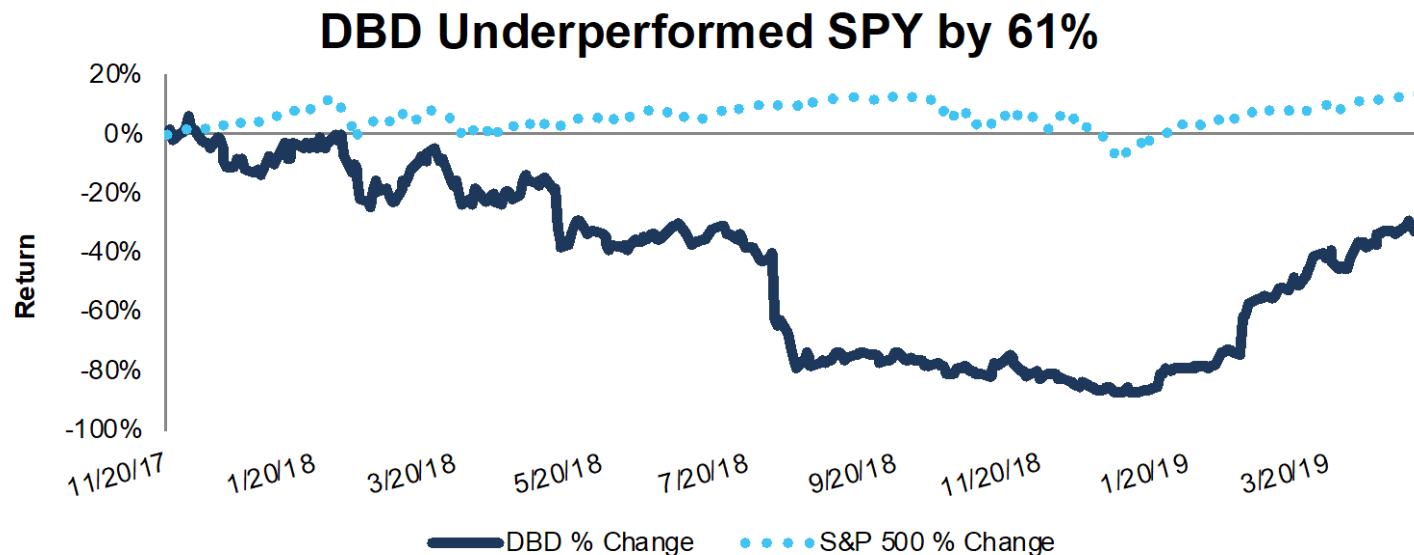
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Low ROIC Reveals Competitive Disadvantage

Diebold Nixdorf (DBD): Warned on [11/20/17](#)

Diebold Nixdorf (DBD)

1. Company has missed expectations in its past five earnings reports.
2. ROIC fell below 0 in 2018
3. Down 47% vs. S&P 500 up 14% since we warned investors on [11/20/17](#), still rated Unattractive

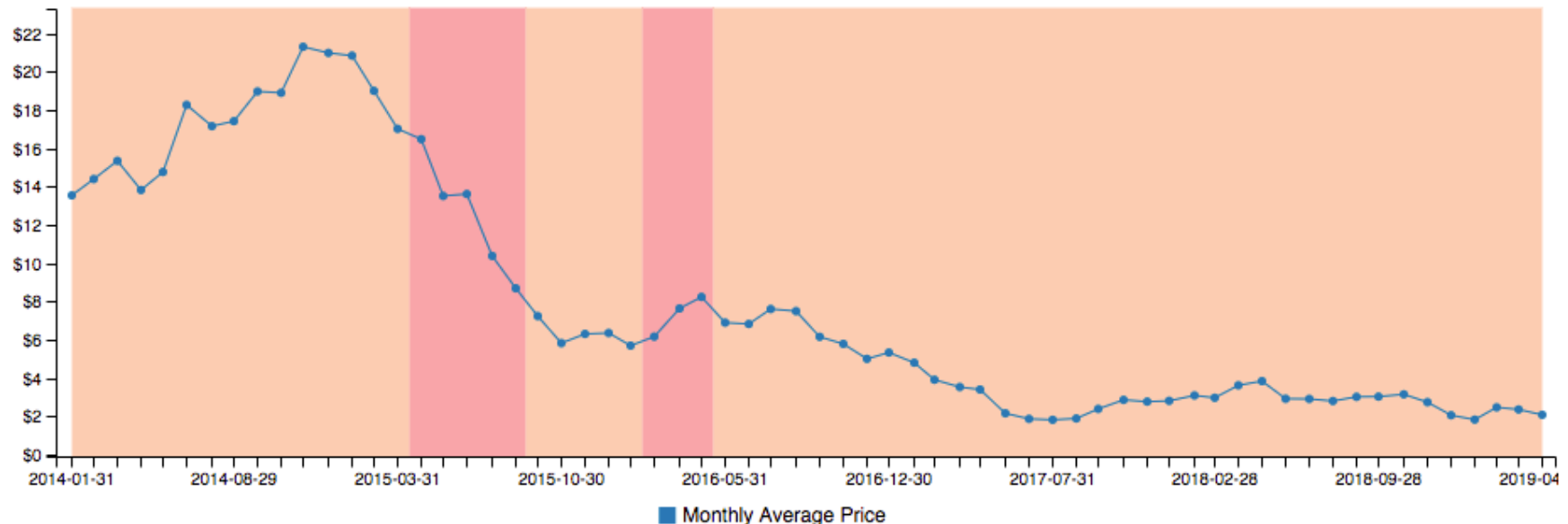


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Tuesday Morning (TUES)

- Hopes of a turnaround had driven the stock up 93% in the 12-months before our article.
- Massive growth priced in to the stock: 22% compound annual NOPAT growth for 18 years.
- Unrealistic for a brick and mortar retailer with no online presence
- Down 86% vs. S&P 500 up 58% since we warned investors on 3/17/14, still rated Unattractive

▼ Normalized Rating History - Monthly Average*



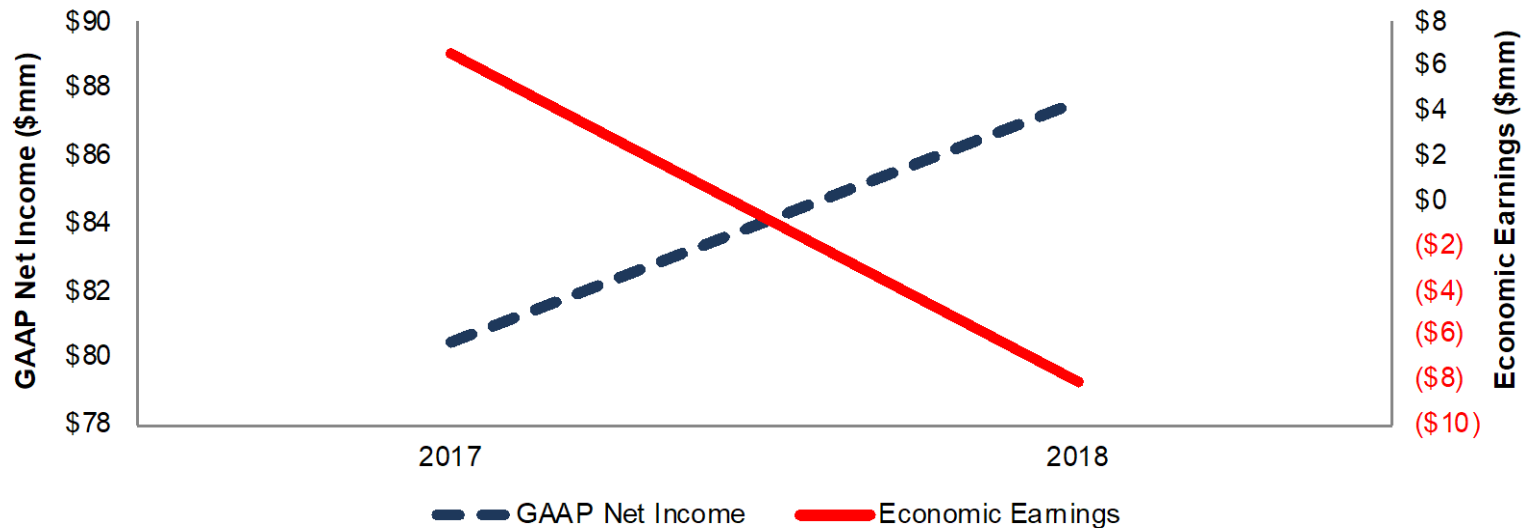
Part III

Who's In the Danger Zone Now?

Rogers Corporation (ROG)

1. Electronic components provider, rating breakdown shown on Slide 7
2. GAAP EPS increased by 8% in 2018, but that was entirely due to \$14 million in unusual tax charges in 2017
3. Economic earnings fell from \$7 million to -\$8 million

ROG's Misleading GAAP Net Income



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Current Danger Zone Pick

Warned on 4/29/2019: Rogers Corporation (ROG)

Rogers Corporation (ROG)

- DCF shows that valuation implies 15% NOPAT CAGR for 10 years

Shareholder Value	\$2,001.91	\$2,157.30	\$2,314.05	\$2,472.20	\$2,631.74	\$2,792.69	\$2,955.07	\$3,118.88
● Shares Outstanding	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
Shareholder Value per Share	\$108.57	\$117.00	\$125.50	\$134.08	\$142.73	\$151.46	\$160.27	\$169.15
GAP (Growth Appreciation Period)	3	4	5	6	7	8	9	10
Maximum Loss Exposure from Special Purpose Entities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Decision Page pulls Performance Hurdles values from below for the relevant GAPs								
Total Operating Revenue CAGR	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Average Economic Earnings Margin	5.1%	5.8%	6.6%	7.4%	8.3%	9.2%	10.2%	11.2%
Average ROIC	13.8%	14.5%	15.3%	16.1%	17.0%	17.9%	18.9%	20.0%
ROIC (Return On Invested Capital)	15.2%	16.7%	18.4%	20.2%	22.2%	24.4%	26.9%	29.6%
● WACC (Weighted Average Cost of Capital)	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
Incremental Return on Invested Capital	-%	-%	-%	-%	-%	-%	-%	-%
Average NOPAT Margin	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%
Average Avg Invested Capital Turns	0.90	0.94	0.99	1.05	1.10	1.16	1.23	1.30
NOPAT CAGR	26.9%	22.4%	19.8%	18.1%	16.9%	16.1%	15.4%	14.8%
Invested Capital CAGR	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FCF CAGR	-	-	-	-	-	-	-	-
Economic Earnings CAGR	-	-	-	-	-	-	-	-

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Current Danger Zone Pick

Warned on 3/12/2019: Lyft (LYFT)

LYFT Inc. (LYFT) Closing Price: \$60.59 (Apr 29, 2019)
Market Value: \$17,216 Million
Sector: **Technology**

Analyst Notes : Added to Coverage Mar 2019

Risk/Reward Rating ?	Quality of Earnings		Valuation		
	Econ vs Reported EPS ?	ROIC ?	FCF Yield ?	Price to EBV ?	GAP ?
Very Unattractive	Misleading Trend	Bottom Quintile	< -5%	> 3.5 or -1 < 0	> 50
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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
Actual Values					
LYFT	-\$4.73 vs. -\$3.83	-41%	-3%	-1.2	> 100 yrs
Benchmarks ?					
Sector ETF (QQQ)	Positive EE	31%	2%	3.5	54 yrs
S&P 500 ETF (SPY)	Positive EE	19%	2%	2.8	42 yrs
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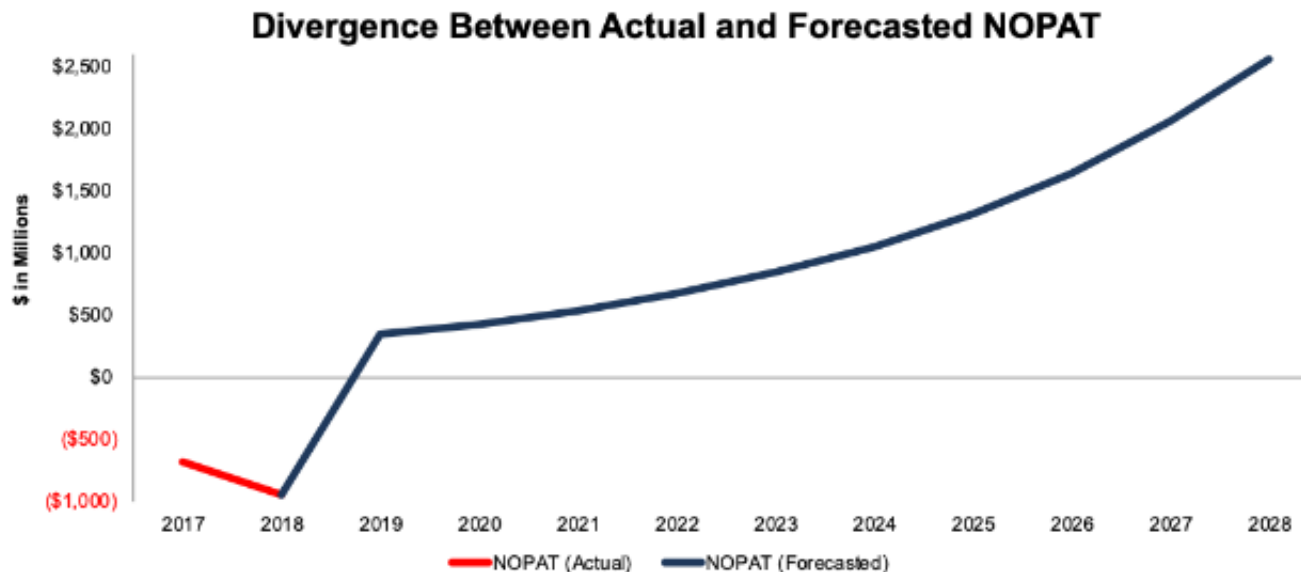
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Current Danger Zone Pick

Warned on 3/12/2019: Lyft (LYFT)

Lyft (LYFT)

1. No profits or realistic path to profitability
2. Reported market share of 39% vastly overstated, real market share closer to 29%
3. Initial IPO valuation implied 16% margins (vs. -44% actual) and 25% revenue growth for a decade.
4. Down 17% since IPO on 3/29/19



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Part IV

How Do You Protect Yourself?

Core Problem: GAAP is exploitable.

Only Solution: Read the Footnotes and MD&A.

Traditional P&L

Revenues

- operating expenses

= pretax earnings

- taxes

= Reported Profit

Economic P&L

Revenues

- operating expenses

- **Hidden Incomes/Charges**

= pretax earnings

- taxes

= Profit

- **capital charge/hidden liabilities and assets**

= Economic Profit

Core Problem: Filings can be 200+ pages long

Only Solution: The Robo-Analyst

1. Robo-Analyst uses machine learning and natural language processing to read 200+ page filings instantly
2. Automatically collects and models thousands of data points, flags unusual items for human analysts to review
3. Technology makes a level of diligence previously reserved for institutional investors available to everyone



Scouring the Footnotes and MD&A of 10-Ks

- Hidden Expenses/Income
- Unrecorded Goodwill
- Impairments
- Unconsolidated Subsidiaries
- Minority Interests
- Unrealized Gains/Losses
- Changes in Accounting Rules
- Derivatives Exposure
- Customer Concentration
- FASB 159
- Employee Stock Options
- Option Valuation Assumptions
- Operating Leases
- Loan Loss/LIFO Reserves
- Pension Assumptions
- Excess Cash
- Pension Over/Under Funding
- Auditor's Opinions
- Carrying Value vs Fair Value
- Mid-year acquisitions

GETTING TO THE ECONOMICS

Measuring Key Results

- **NOPAT** → core operating earnings after-tax
- **Invested Capital** → all cash invested in the business
- **WACC** → rent management must pay for use of capital

Return on Invested Capital = NOPAT/Avg Invested Capital

Economic Earnings = (ROIC – WACC) * Invested Capital

- Aka: “EVA”, economic profit, residual income

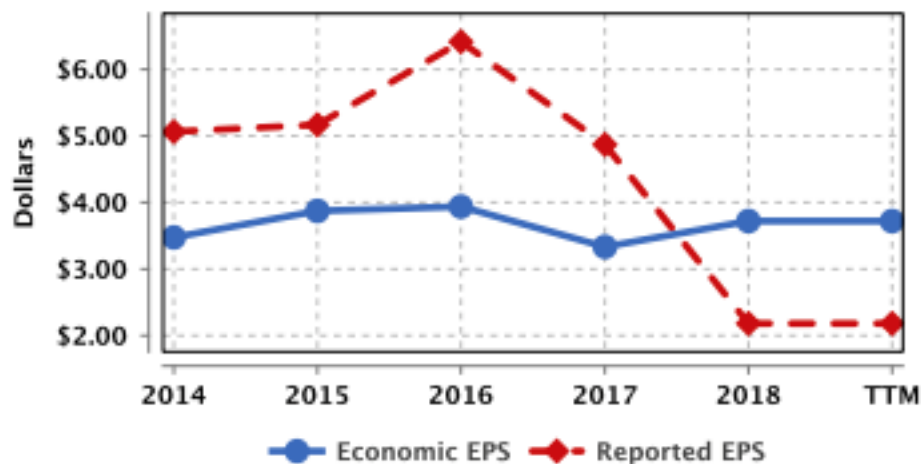
Part V

Get Better Research – for free!

GET RESEARCH ON ECONOMIC EARNINGS

Compare reported vs economic results

Accounting vs Economic Earnings



Earnings & Valuation Diligence Summary

- ALV's accounting earnings understate its economic earnings, which equal $(\text{ROIC} - \text{WACC}) * \text{Average Invested Capital}$.
- For ALV, we made a total of \$3,302 million in income statement and balance sheet adjustments to convert accounting earnings to economic earnings in FY18.
- We made \$2,821 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](#).

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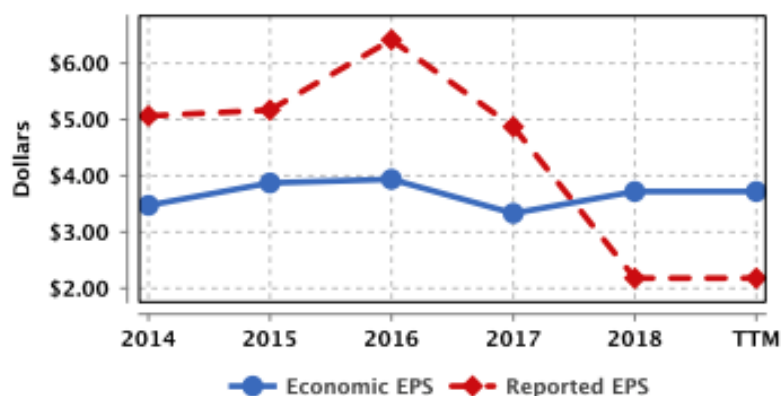
SEE HOW ECONOMIC EARNINGS AFFECT VALUATION

Get more details on drivers of value

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
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Very Attractive	Rising EE	Top Quintile	>10%	0 < 1.1	0 < 3
Actual Values	\$3.72 vs. \$2.18	12%	17%	0.9	< 1
Sector ETF (XLY)	Positive EE	17%	3%	4.3	37
S&P 500 ETF (SPY)	Positive EE	18%	2%	2.4	39

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Analyst Notes
 Upgraded from Attractive 2/22/19
 Cause: Improved Profitability
 New 10-K 2/22/19
 New Forecast 2/25/19
 Added to the Dividend Growth Model Portfolio
 Feb 2019

ROBO-ANALYST RESEARCH

Closing Price as of 02/27/2019: \$83.27
 Dividend Yield: 3.0%
 Period End Date: 12/31/2018

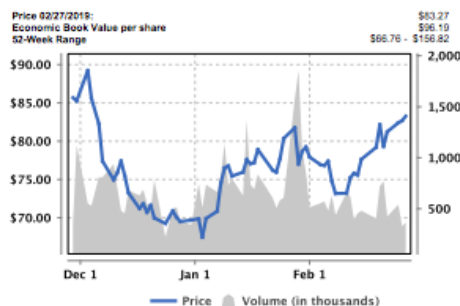
Autoliv Inc. (ALV)

NYSE - Consumer Cyclical

Investment Recommendation

- We strongly recommend investors buy ALV.
- ALV earns our Very Attractive rating. See Investment Rating Details below.
- A Very Attractive rating means this stock has superior upside potential with low downside risk.
- ALV ranks in the 99th percentile of the 2750+ stocks we cover.
- Ranks 3rd out of 433 Consumer Cyclical Sector stocks.

Very Attractive



Investment Rating Details

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Accounting vs Economic Earnings



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Stock Performance

Year to Date: 19.5%
 Last 30 Days: 1.8%
 Last 60 Days: 19.8%
 Last 90 Days: (2.8%)
 Last Year: (41.7%)

Key Market Statistics

Enterprise Value (MM): \$9,715
 Market Value (MM): \$7,257
 EV/EBITDA: 7.41
 EBV per Share: \$96.19
 Shares Outstanding (Thousands): 87,149
 P/E (TTM): 36.18

About New Constructs

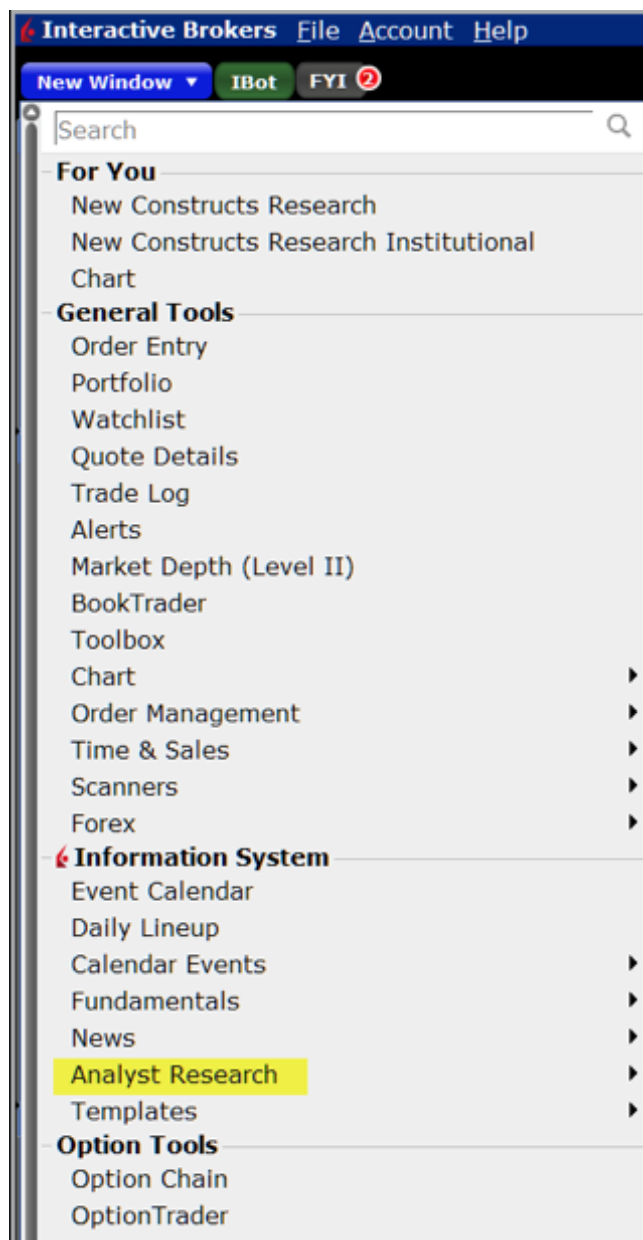
New Constructs is an independent equity research firm powered by machine learning. Ernst & Young demonstrated the superiority of our ROIC methodology, data & models. See our website for details.

www.newconstructs.com

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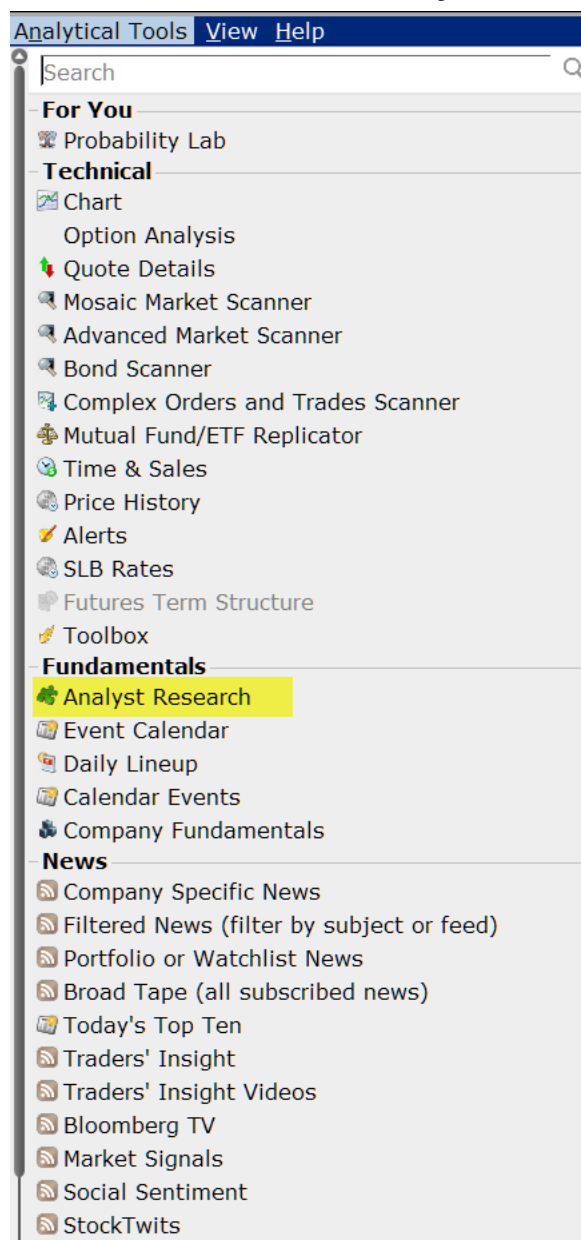
Find us on either platform

Mosaic



Source: Trader Workstation, Interactive Brokers

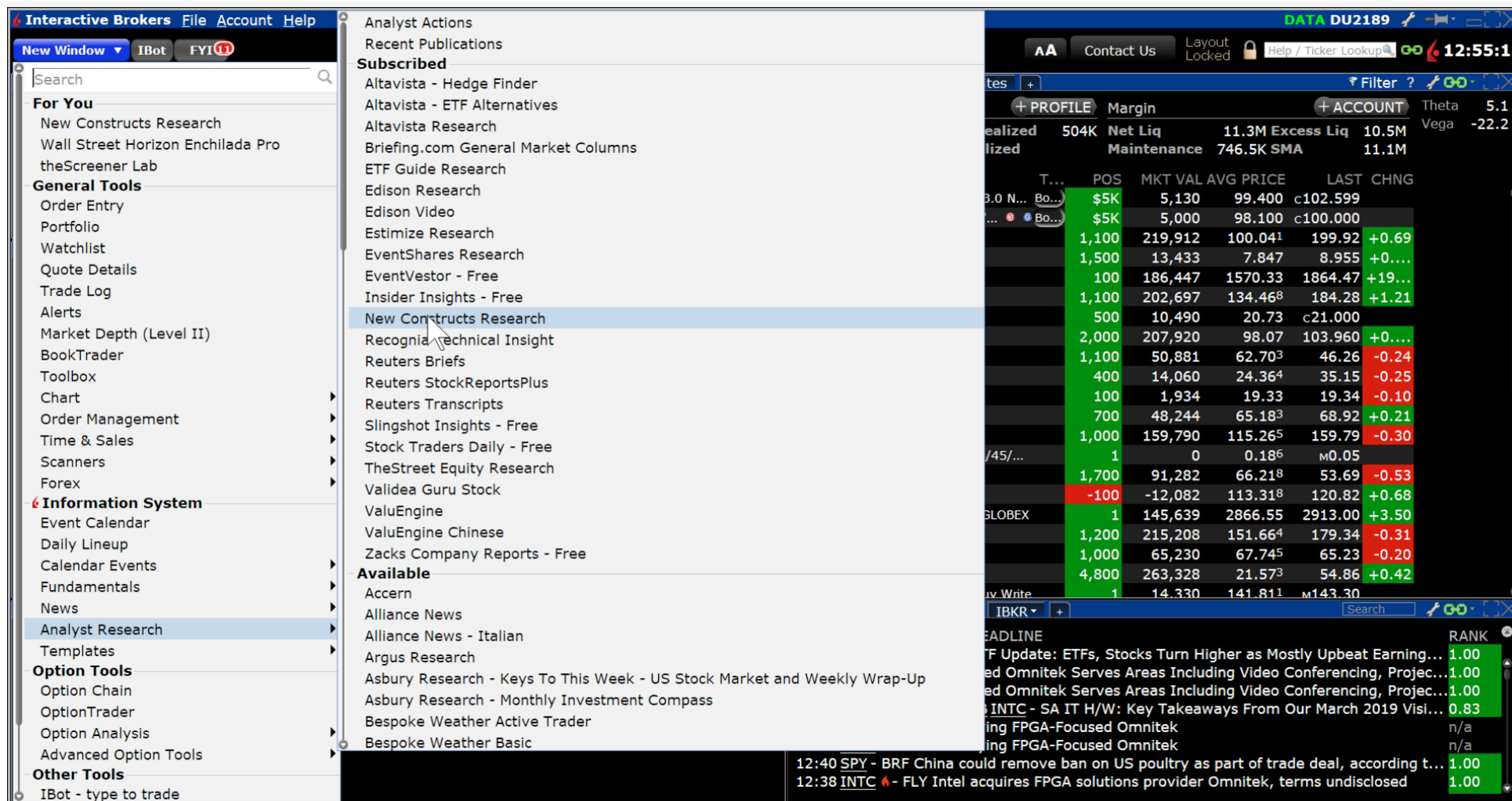
Classic Analyst



Source: Trader Workstation, Interactive Brokers

GET OUR RESEARCH ON IBKR

Pick New Constructs from menu



The screenshot shows the Interactive Brokers Trader Workstation interface. On the left, a navigation menu is open, showing various tool categories. The 'Subscribed' section is expanded, listing numerous research providers. 'New Constructs Research' is highlighted in blue. On the right, a market data window displays a table of securities with columns for Ticker, Position, Market Value, Average Price, and Change. Below the table, a news feed shows headlines with timestamps and stock symbols.

Subscribed

- Analyst Actions
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 - Altavista - Hedge Finder
 - Altavista - ETF Alternatives
 - Altavista Research
 - Briefing.com General Market Columns
 - ETF Guide Research
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 - Accern
 - Alliance News
 - Alliance News - Italian
 - Argus Research
 - Asbury Research - Keys To This Week - US Stock Market and Weekly Wrap-Up
 - Asbury Research - Monthly Investment Compass
 - Bespoke Weather Active Trader
 - Bespoke Weather Basic

Market Data Table:

T...	POS	MKT VAL	AVG PRICE	LAST	CHNG
3.0 N... Bo...	\$5K	5,130	99.400	c102.599	
... Bo...	\$5K	5,000	98.100	c100.000	
	1,100	219,912	100.04 ¹	199.92	+0.69
	1,500	13,433	7.847	8.955	+0.0...
	100	186,447	1570.33	1864.47	+19...
	1,100	202,697	134.46 ⁸	184.28	+1.21
	500	10,490	20.73	c21.000	
	2,000	207,920	98.07	103.960	+0.0...
	1,100	50,881	62.70 ³	46.26	-0.24
	400	14,060	24.36 ⁴	35.15	-0.25
	100	1,934	19.33	19.34	-0.10
	700	48,244	65.18 ³	68.92	+0.21
	1,000	159,790	115.26 ⁵	159.79	-0.30
/45/...	1	0	0.18 ⁶	m0.05	
	1,700	91,282	66.21 ⁸	53.69	-0.53
	-100	-12,082	113.31 ⁸	120.82	+0.68
GLOBEX	1	145,639	2866.55	2913.00	+3.50
	1,200	215,208	151.66 ⁴	179.34	-0.31
	1,000	65,230	67.74 ⁵	65.23	-0.20
	4,800	263,328	21.57 ³	54.86	+0.42
iv Write	1	14.330	141.81 ¹	m143.30	

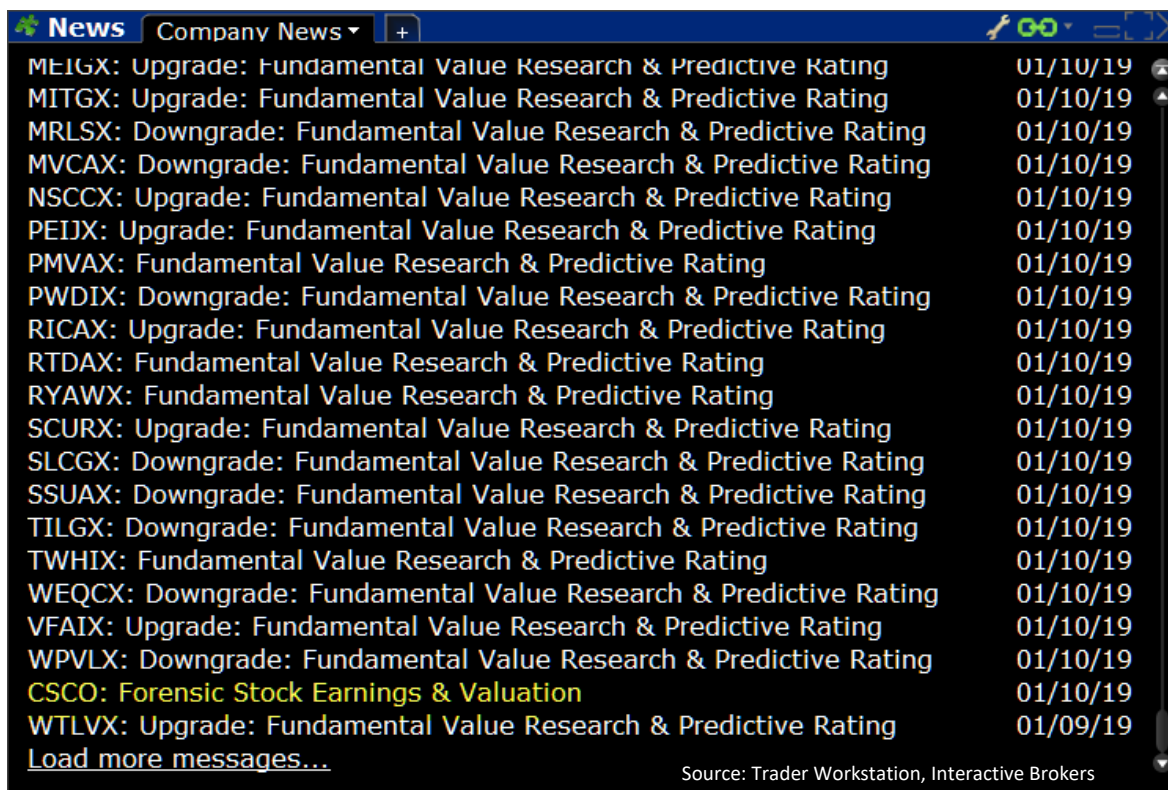
News Feed:

- 12:40 SPY - BRF China could remove ban on US poultry as part of trade deal, according t... 1.00
- 12:38 INTC - FLY Intel acquires FPGA solutions provider Omnitek, terms undisclosed 1.00

Source: Trader Workstation, Interactive Brokers

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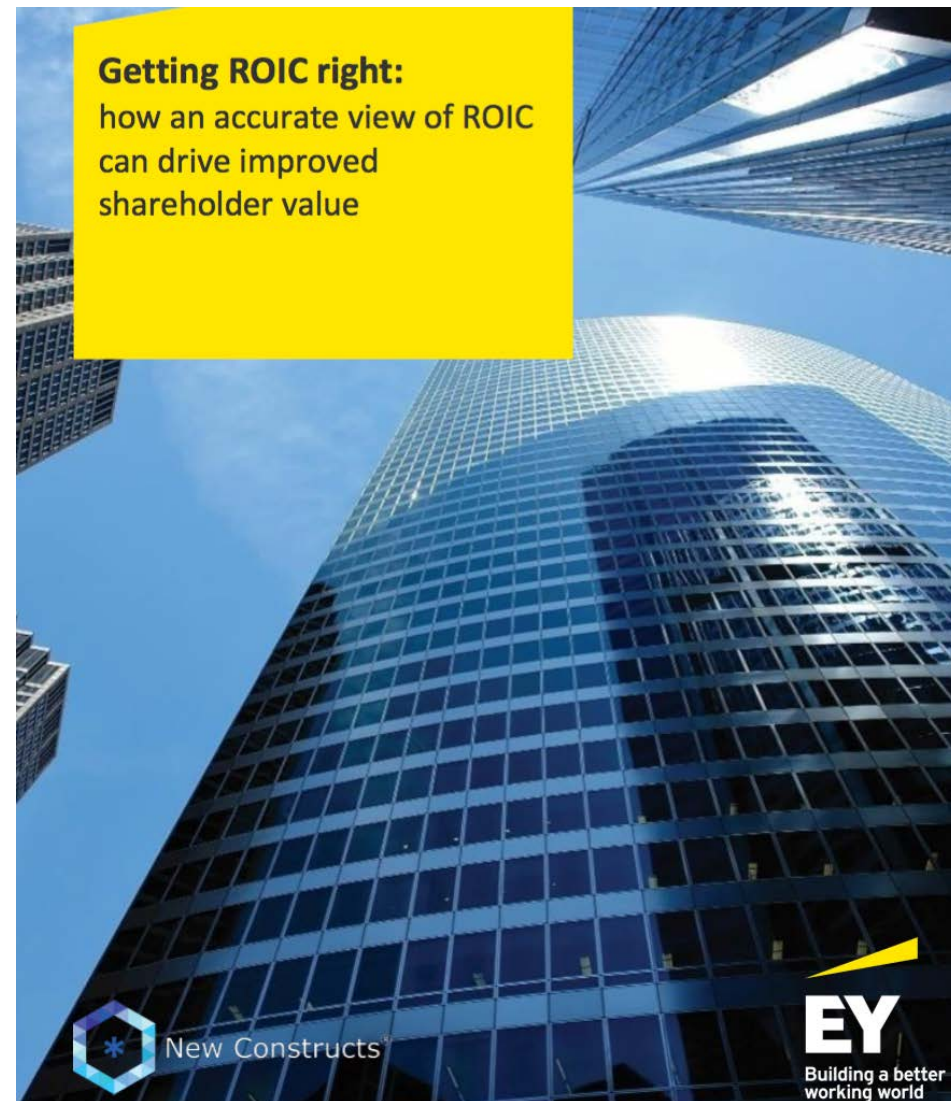
Company News	Date
MEIGX: Upgrade: Fundamental Value Research & Predictive Rating	01/10/19
MITGX: Upgrade: Fundamental Value Research & Predictive Rating	01/10/19
MRLSX: Downgrade: Fundamental Value Research & Predictive Rating	01/10/19
MVCAX: Downgrade: Fundamental Value Research & Predictive Rating	01/10/19
NSCCX: Upgrade: Fundamental Value Research & Predictive Rating	01/10/19
PEIIX: Upgrade: Fundamental Value Research & Predictive Rating	01/10/19
PMVAX: Fundamental Value Research & Predictive Rating	01/10/19
PWDIX: Downgrade: Fundamental Value Research & Predictive Rating	01/10/19
RICAX: Upgrade: Fundamental Value Research & Predictive Rating	01/10/19
RTDAX: Fundamental Value Research & Predictive Rating	01/10/19
RYAWX: Fundamental Value Research & Predictive Rating	01/10/19
SCURX: Upgrade: Fundamental Value Research & Predictive Rating	01/10/19
SLCGX: Downgrade: Fundamental Value Research & Predictive Rating	01/10/19
SSUAX: Downgrade: Fundamental Value Research & Predictive Rating	01/10/19
TILGX: Downgrade: Fundamental Value Research & Predictive Rating	01/10/19
TWHIX: Fundamental Value Research & Predictive Rating	01/10/19
WEQCX: Downgrade: Fundamental Value Research & Predictive Rating	01/10/19
VFAIX: Upgrade: Fundamental Value Research & Predictive Rating	01/10/19
WPVLX: Downgrade: Fundamental Value Research & Predictive Rating	01/10/19
CSCO: Forensic Stock Earnings & Valuation	01/10/19
WTLVX: Upgrade: Fundamental Value Research & Predictive Rating	01/09/19

[Load more messages...](#)

Source: Trader Workstation, Interactive Brokers

- It's not often that a big 4 accounting firm like E&Y features the material superiority of a research firm's analytics.
- The white paper provides specific examples for specific companies.
- Google "Revenue 48,778", "long-term debt 16,215" to see which company is "Peer 1".

Click [here](#) for a copy.



POWERFUL RESEARCH AUTOMATION HAS ARRIVED

Technology Provides Only Solution Big Data

Harvard Business School Case Study features our Research Automation technology. “Disrupting Fundamental Analysis with Robo-Analysts”

Click [here](#) for a copy.



HARVARD | BUSINESS | SCHOOL



9-118-068

REV: MARCH 2, 2018

CHARLES C.Y. WANG
KYLE THOMAS

New Constructs: Disrupting Fundamental Analysis with Robo-Analysts

CEO David Trainer and COO Lee Moneta-Koehler of New Constructs had just met with a potential client. Their pitch was simple: New Constructs “leverages the only parsing technology capable of reviewing every detail of every 10-K and 10-Q” to deliver quality fundamental analysis at scale. After the presentation, the client responded, “You know, you might be right. Your data probably is better. But, as long as everybody’s using the same bad data, I’m OK with that.” This was a familiar response to Trainer and Moneta-Koehler: they were frustrated by investors who did not see the value of New Constructs’ data or technology. They were concerned about the role of quality fundamental analysis in a market increasingly focused on more technical and other short-term trading strategies.

New Constructs

Trainer began working on Wall Street at Credit Suisse First Boston (CSFB) as a stock analyst in 1996, where he honed his skills in financial modeling and fundamental analysis. At CSFB, he spearheaded an effort to develop a consistent framework for measuring, comparing, and analyzing the economic earnings and profitability across all firms and industries globally. After reading through thousands of corporate filings, he realized that “the complexities of what’s going on in modern day business are so much greater than what the current accounting standards can capture in the income statement and balance sheet.” To construct a more accurate economic picture of the firm and to facilitate more meaningful comparisons of performance, his financial models incorporated quantitative details hidden in footnotes and the management’s discussion and analysis (MD&A) section, such as operating lease obligations or components of income or expenses that are transitory in nature.

Although these adjustments were often meaningful to his overall assessment of a firm’s operating performance and valuation, integrating these details into financial models was not the norm among many sell-side analysts. Trainer believed this was due to a few reasons. For one, the increasing length and complexity of corporate filings and the differences in the application of accounting rules across firms for similar transactions made the execution of such detailed financial models impractical. Even for Trainer, this mode of analysis was difficult to scale.

Professor Charles C.Y. Wang and Research Associate Kyle Thomas prepared this case. It was reviewed and approved before publication by a company designate. Funding for the development of this case was provided by Harvard Business School and not by the company. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

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The Relation between Earnings and Future Cash Flows: A New Perspective*

Ethan Rouen
Harvard Business School

Eric So
*Massachusetts Institute of Technology
Sloan School of Management*

Charles C.Y. Wang
Harvard Business School

July 2018

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Abstract

We provide new evidence on the usefulness of financial accounting in valuation analysis. A fundamental assumption in the use of GAAP financial statements for valuation is that accrual-based measures of firms' performance convey information about future cash flows incremental to current cash flows. However, recent evidence casts doubt on this assumption. We revisit this issue using a novel dataset that details *all* quantitative disclosures in firms' annual reports and identifies non-core revenues and expenses from net income, including those reported on the income statement and those hidden in the footnotes or the MD&A. Using these data to adjust GAAP net income, we show the resulting measure of core earnings offers forecasting power for future cash flows and earnings that are incremental to traditional measures of performance. These adjustments also better explain contemporaneous market prices and returns. Together, our results suggest that accounting information remains relevant for valuation and highlight the importance of careful accounting analysis for distilling information relevant for forecasting future performance.

Quotes from the initial draft of the paper:

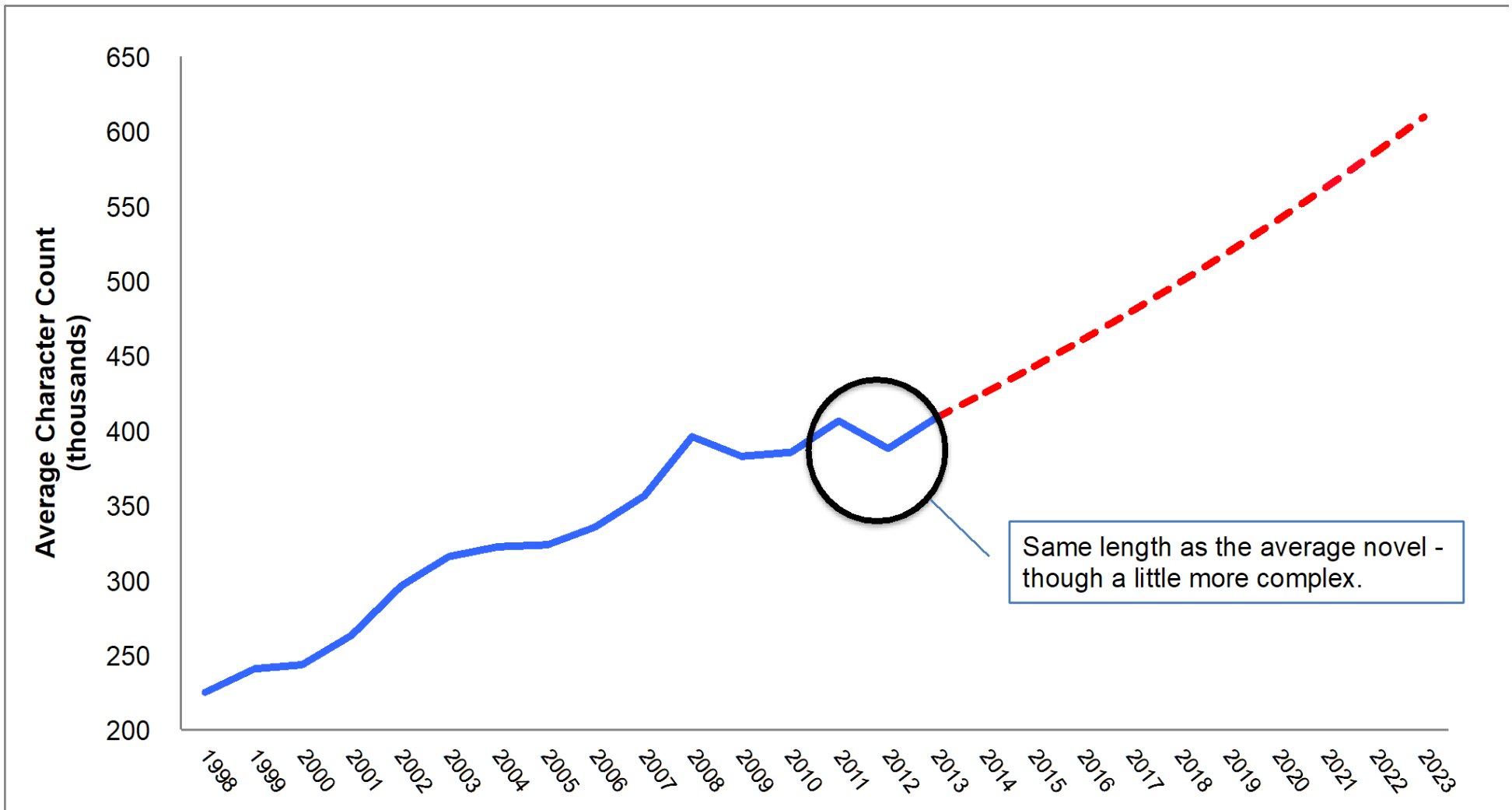
- “this paper serves as a warning for researchers seeking to examine the value relevance of earnings.”
- “Data aggregators like Compustat do not appear to collect and provide data on many non-operating or less persistent income-related items, even when managers make these adjustments in non-GAAP disclosures.”
- “We find that, in many instances, Compustat does not report these disclosures— which can appear on the income statement as a separate line item or in the footnotes or the MD&A—in any of its fields.”
- “These shortcomings make it difficult for users to construct a complete picture of a firm’s earnings, but taking additional steps to adjust to GAAP net income can provide valuable insights.”

Part V

Why you need protection now more than ever.

FILINGS GETTING LONGER & LONGER

Keeping Up With Disclosures Is Nearly Impossible



*This graph was created based on information collected and analyzed by New Constructs, LLC. New Constructs regularly gathers information from over 3,000 companies' 10Ks, including the Notes to the Financial Statements and MD&A.

DISCLOSURE TRENDS ARE NOT YOUR FRIEND

More Data, More Noise, More Complexity

- Filings have grown to **200+ pages**
(That's longer than the average novel.)
- Increasingly complex and time-consuming work
- Accounting rules are constantly changing



RISE ABOVE RECORD LEVELS OF NOISE

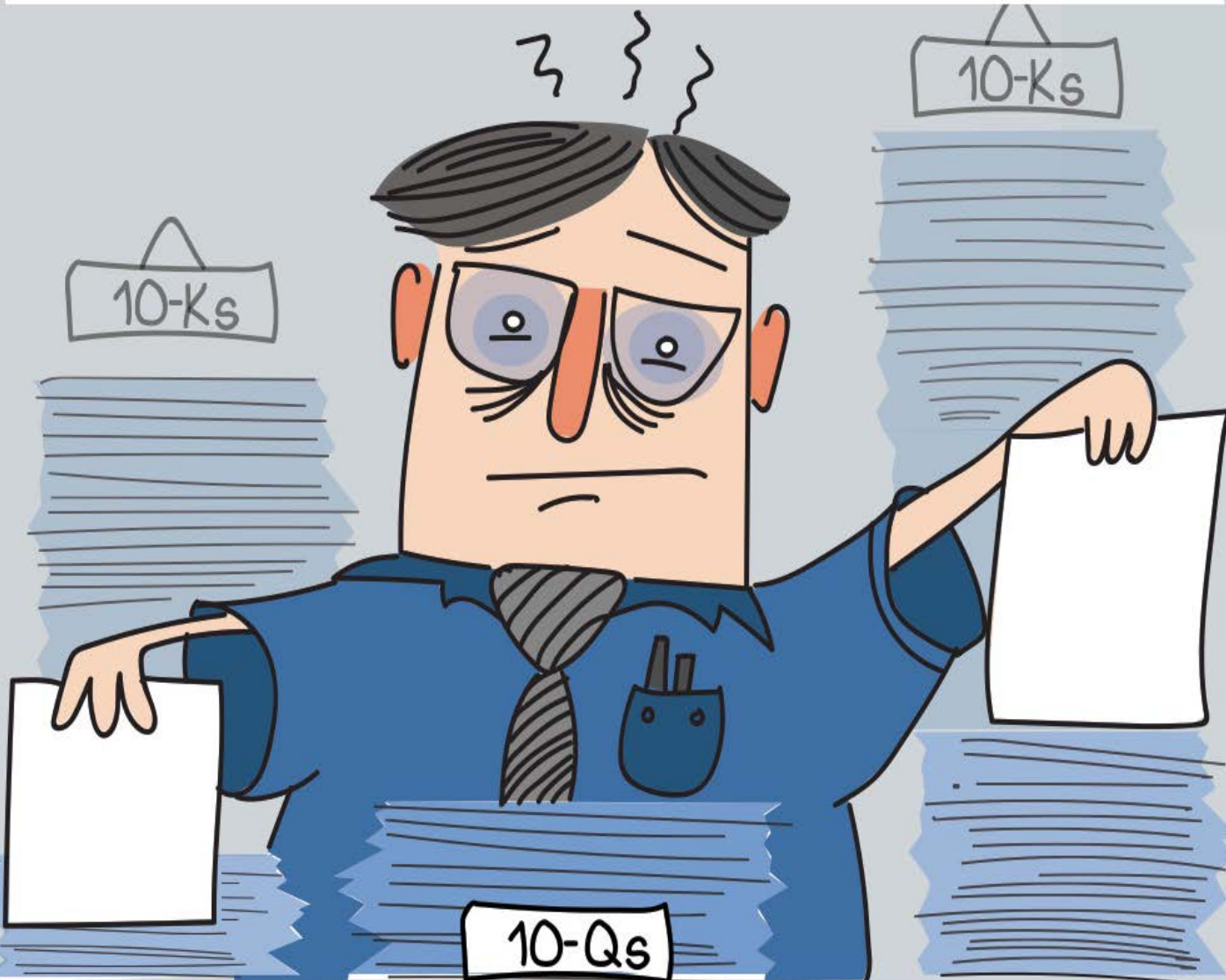
Superior Research Gives You an Edge



TECHNOLOGY TO CLOSE THE RESEARCH GAP

Machine are better than humans at some things

WHO HAS TIME TO READ 200+ PAGE FILINGS?



MACHINE LEARNING FROM EXPERTS

Human-Validated Parsing Instructions from 140,000+ Filings

OUR FORENSIC EXPERTS USE CUTTING-EDGE TECH TO SHINE A LIGHT IN THE DARK CORNERS OF FINANCIAL FOOTNOTES.

FINANCIAL FOOTNOTES
→ MATTER ←
DILIGENCE MATTERS

DATA
QUALITY

—VALUE INVESTING 2.0—
MACHINE LEARNING FROM EXPERTS

GET THE DILIGENCE YOU DESERVE

LEVERAGE THE LATEST TECHNOLOGY AND GET AN EDGE
WITH OUR RESEARCH ON STOCKS, ETFS AND MUTUAL FUNDS



Appendix

SUCCESS WITH ELITE INSTITUTIONAL CLIENTS

Self-Directed Clients Are Natural Fit for Simpler Products

- Top hedge fund and institutional money managers
- Top wealth management firms
- Top advisors
- Top accounting, insurance & consulting firms



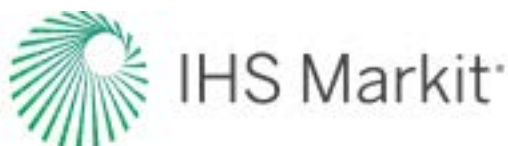
Harvard Business School
&
MIT Sloan



Berkshire Hathaway
Specialty Insurance™



Empower Results®



HOW THE WEALTH INDUSTRY WORKS WITH US

Multiple models, Great Flexibility

- **Institutions:** full access to models and tool, including database feeds. Directly access thru our website



- **Advisors/RIAs:** firm or group-wide access to unlimited research. Direct access via our website or thru partners.



- **Retail:** individual sign up for Gold, Platinum or Pro subscriptions. Direct access via our website or thru partners.

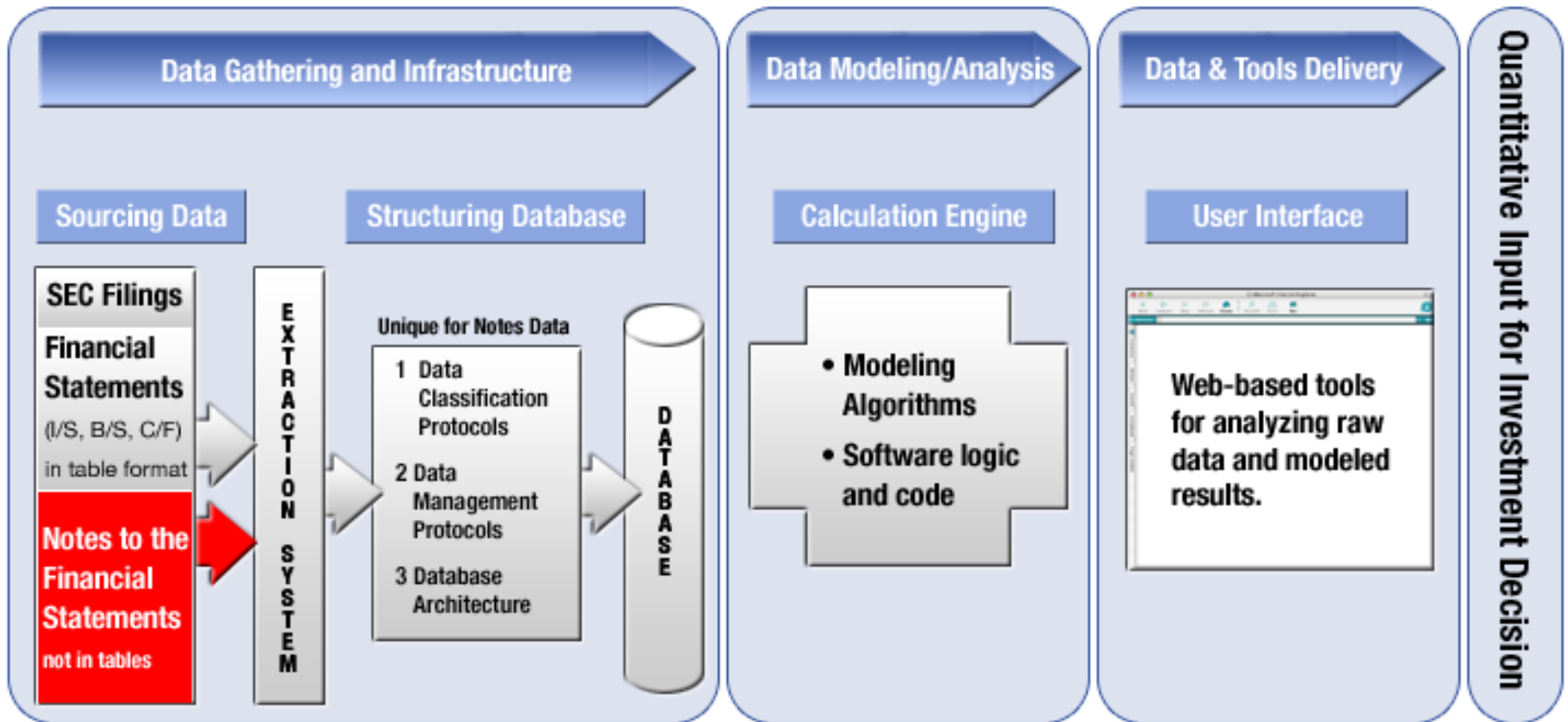


- **Consultants/Corporates:** custom engagements focused on enterprise value optimization and investor relations strategy. Direct access via our website along with custom work and consultation via partners.



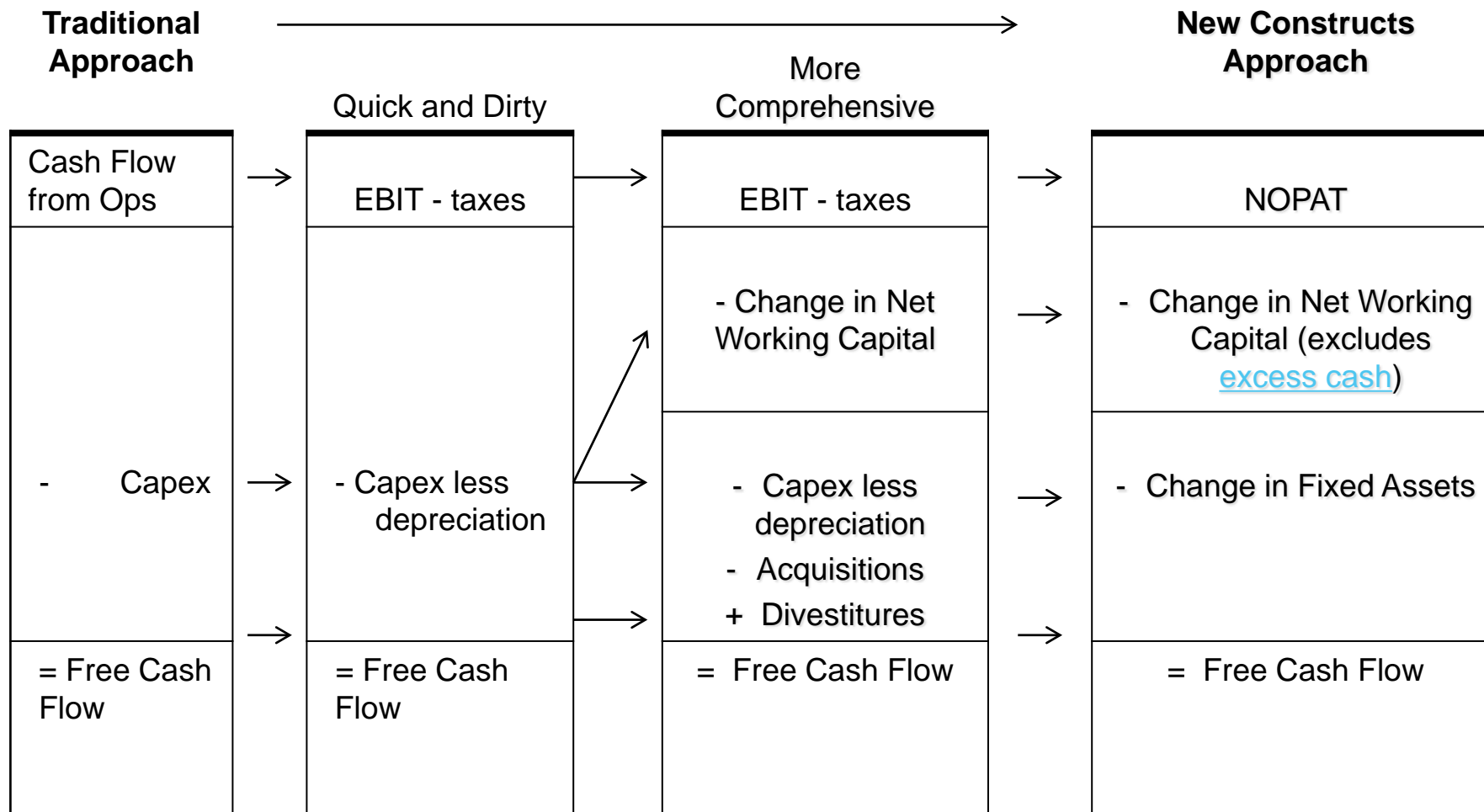
RESEARCH TECHNOLOGY PLATFORM

Data Collection & Modeling Under One Roof

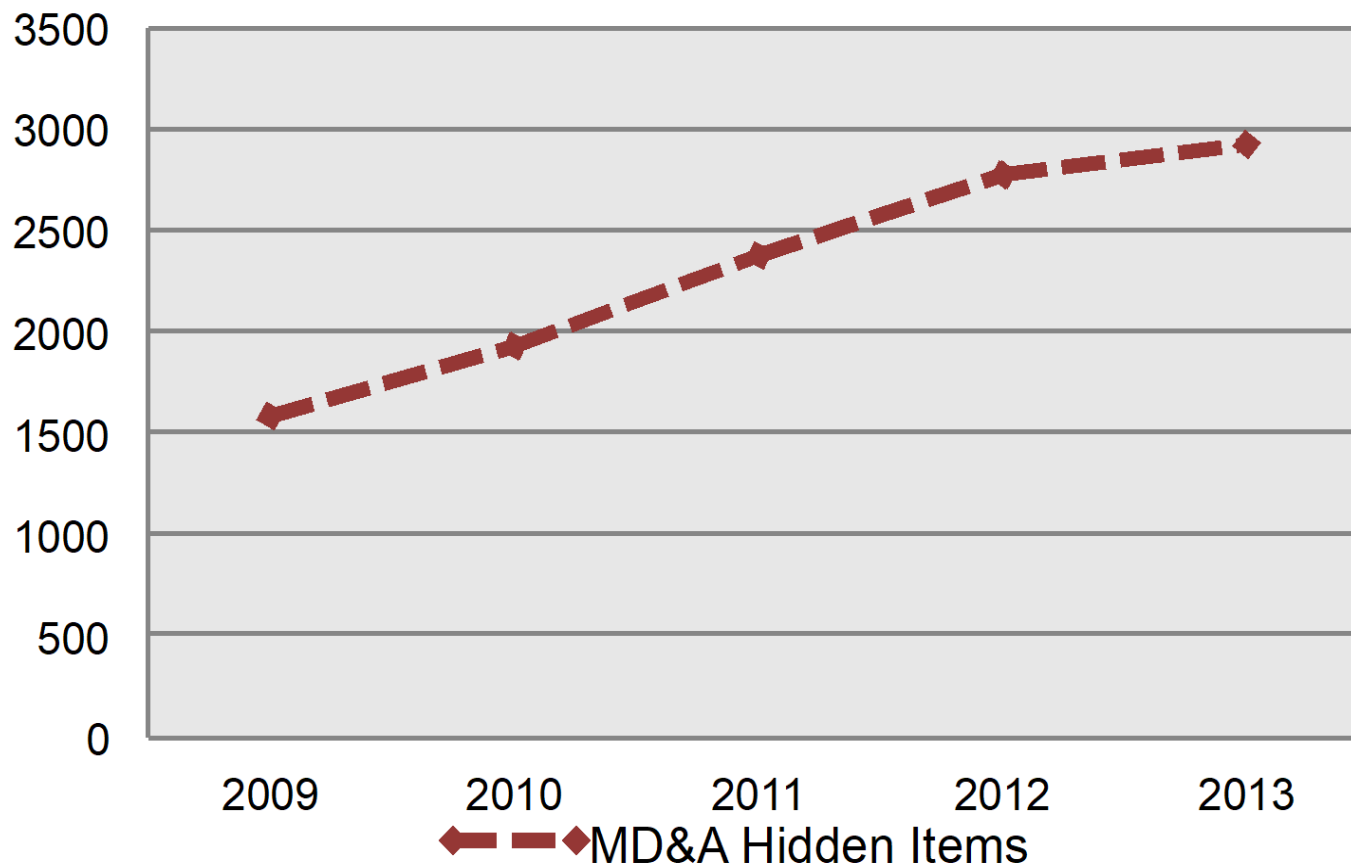


We created our own data collection technology to provide high integrity models to clients. Traditional data feeds are not trustworthy for sophisticated financial modeling.

Free Cash Flow: NOPAT minus Change in Invested Capital *How We Compare to traditional approaches to FCF*



Material Hidden Items 16% CAGR



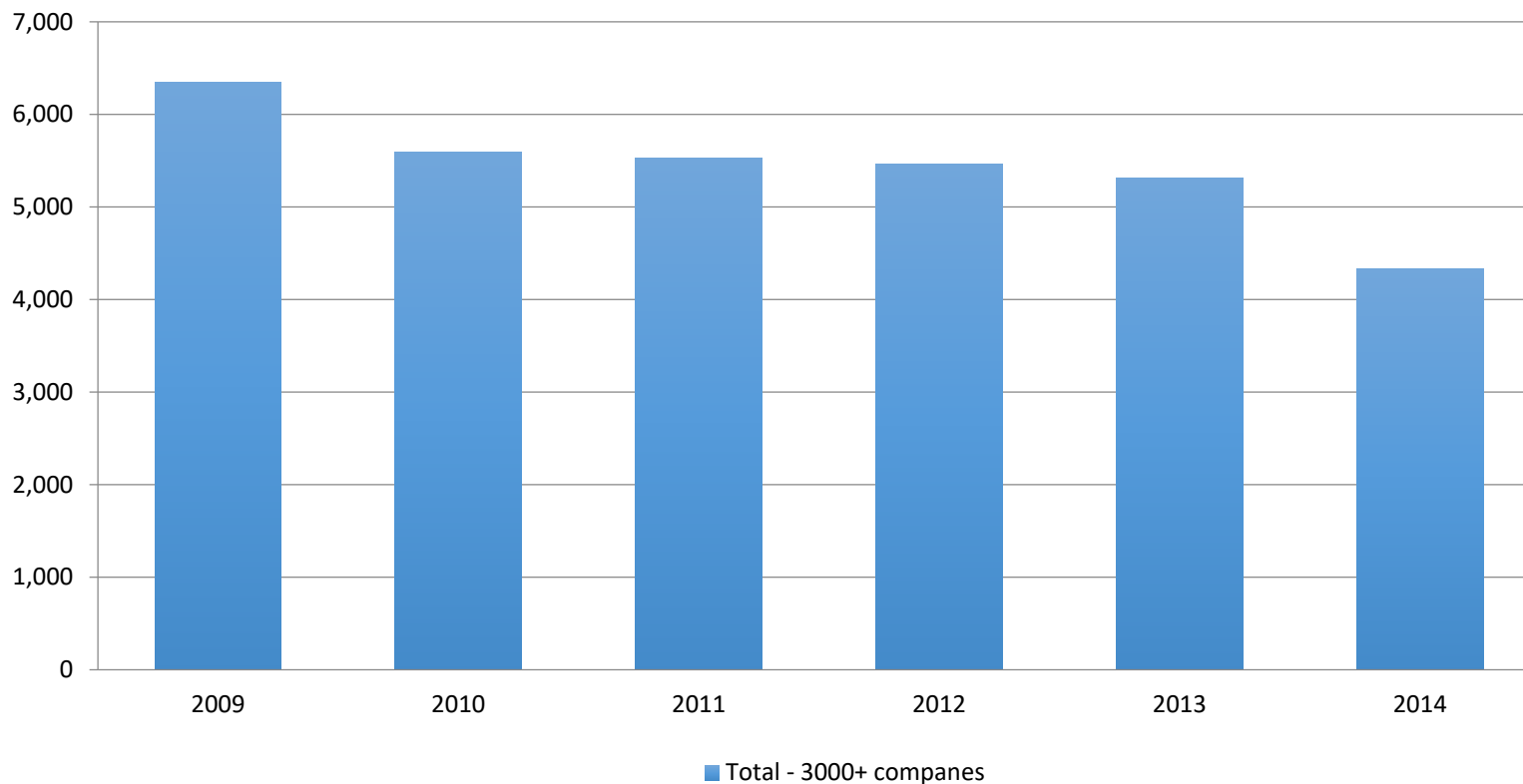
Items found only in the MD&A (e.g. gains, charges, deferred items, etc) that distort income statement results are rising rapidly.

ASSET WRITE-DOWNS ARE A RED FLAG

32,583

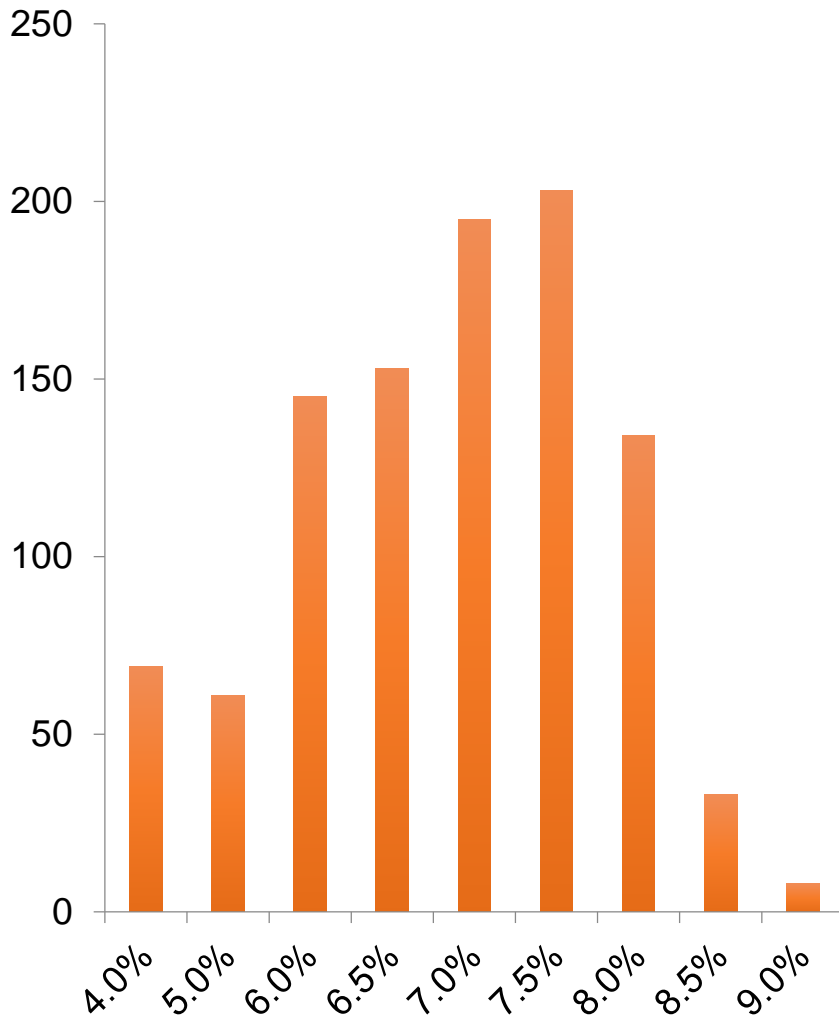
Over the last 5+ Years, we found 32,583 write-downs.

of Write-Downs



*This graph was created based on information collected and analyzed by New Constructs, LLC. New Constructs regularly gathers information from over 3,000 companies' 10Ks, including the Notes to the Financial Statements and MD&A.

Distribution of Return On Plan Asset Assumptions



Auditors & investors need to know this data.

- Raising the expected Return on Plan Assets (EROPA) reduces reported pension expense.
- The mean EROPA for 2014 was 6.5%. Roughly 55% of companies expect a long-term return on plan assets between 6.5% and 7.5%.
- Virtusa Corp (VRTU) has the most aggressive assumptions, with EROPA of 10.38%, followed by Exlservice Holdings (EXLS) at 9%.

*This graph was created based on information collected and analyzed by New Constructs, LLC. New Constructs regularly gathers information from over 3,000 companies' 10Ks, including the Notes to the Financial Statements and MD&A.

New Constructs has no trading, corporate or banking ties – no conflicts.

- *Morningstar gets paid by fund companies. Fund companies must license ratings from Morningstar to use them in marketing materials.*

New Constructs = unadulterated expertise in accounting, finance and SEC filings.

HOW HAS INVESTING CHANGED OVER THE YEARS?

Shorter Holding Periods for Stocks

- Until mid-1960' s average holding period was seven years
- Today, average holding period is less than one year and annual portfolio turnover is more than 100%¹

Major Reactions to Quarterly Earnings

- Stock prices make large moves in response to earnings surprises
- Suggests that long-term cash flows are less important

Amateur Individual Investors - Growth Market

- Schwab, TD Waterhouse, Scottrade
- Day trading

Media - Growth Market

- TV: Mad Money, CNBC Squawk Box, and Squawk on the Street
- Print: Wall Street Journal, Investors Business Daily, local newspapers
- Web: Motley Fool, TheStreet.Com, CBS MarketWatch

¹Rappaport, Alfred. "The Economics of Short-Term Performance Obsession." *Financial Analysts Journal*, vol. 61, no. 3 (May/June): 65-79.

Speculator

“If you are a speculator, your decision to buy or sell is based on what you believe about the near-term direction of price.”
- Ben Graham

“...speculation is the activity of forecasting the psychology of the market.”
- John Maynard Keynes

Vs.

Investor

“If you are an investor, your decision to buy and sell is based on the underlying economics of the stock you own.”
- Ben Graham

“Investing is an activity of forecasting the yield on assets over the life of the asset...”
- John Maynard Keynes

ONLY 3 WAYS TO BEAT THE MARKET

Better Data - difficult and expensive to obtain

- Gathering and analyzing data from the Notes to the Financial Statements provides a competitive advantage.

Better Analysis - not just your neighbor, one must out-think the entire market

- Better data means better models.
- Better models provide better analysis.

Better Discipline - stick to your guns, don't follow the herd.

- Long and short strategy is built on specific, quantifiable thresholds derived from a model we can trust.
- Our models do all the number crunching to supply our human capital with superior information and decision-making capabilities.

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