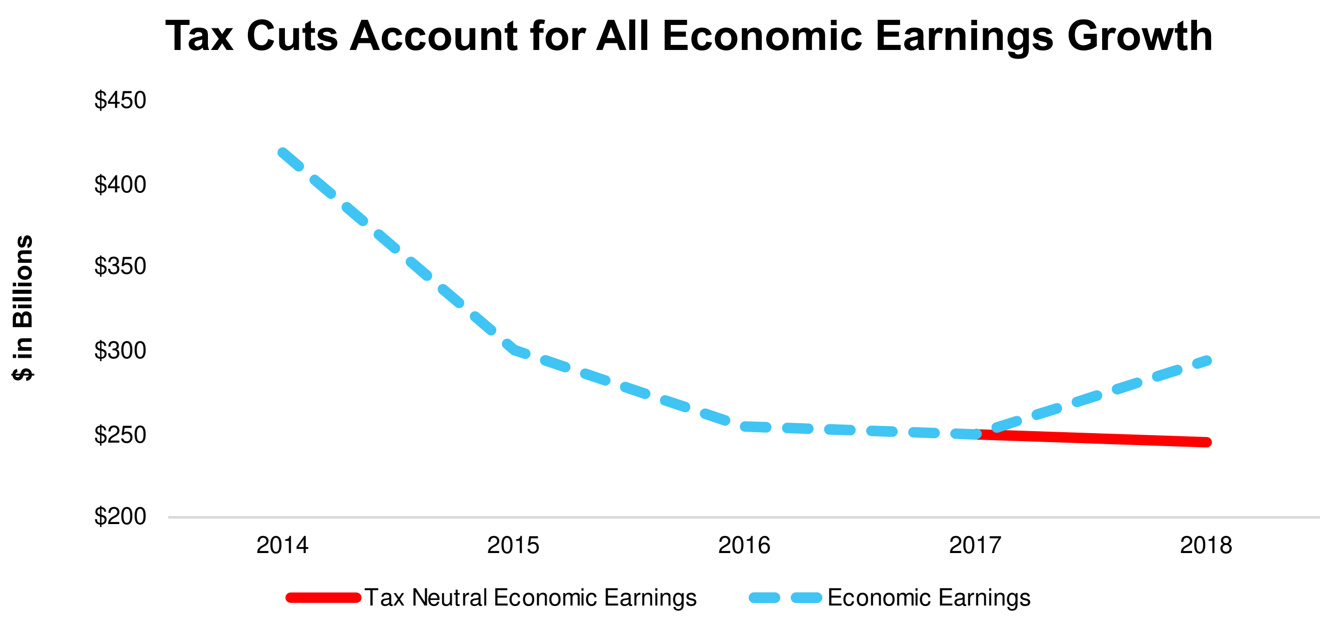
Big Tech Still Dominates Economic Earnings Growth

Publicly traded U.S. companies[1] grew reported earnings by 23% in 2018, but economic earnings – the true cash flows of the business – tell a much different story. On the surface, economic earnings grew by 18%. When we remove the impact of the tax cut, they actually declined by 2%, as shown in Figure 1.

Figure 1: Economic Earnings vs. Tax Neutral Economic Earnings



Sources: New Constructs, LLC and company filings.

GAAP earnings don't just mislead investors about the amount of growth in 2018, they also present a misleading picture of the breadth of earnings growth. 8 out 11 sectors reported rising earnings in 2018. Meanwhile – even with the benefit of the tax cut – only two sectors significantly improved on an economic earnings basis.

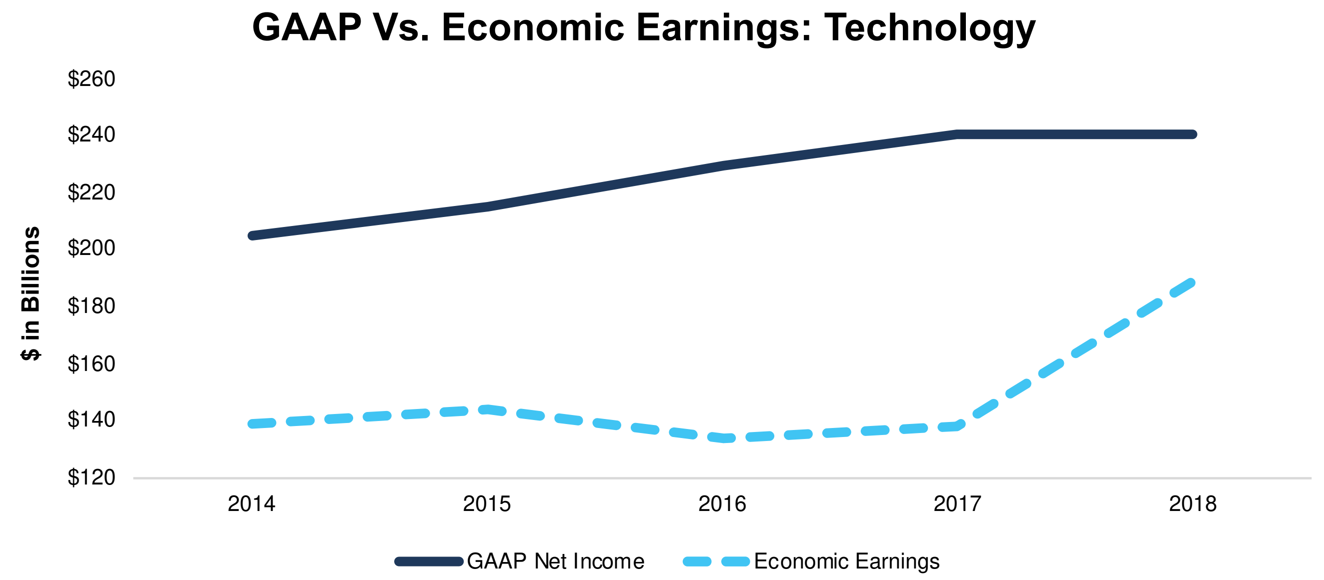
Top-Loaded Tech

Economic earnings in the Technology and Energy sectors improved by ~$50 billion in 2018. The other nine sectors combined saw economic earnings decline by ~$50 billion.

While the economic earnings growth in the Technology and Energy sectors looks positive, it comes with significant caveats. In the Technology sector, all of the economic earnings growth in 2018 came from 25 (out of 430) companies. Just four companies – Micron (MU), Apple (AAPL), Microsoft (MSFT), and Facebook (FB) – accounted for over 50% of the sector's economic earnings growth.

[1] With a combined market cap of ~$35 trillion, the ~2,700 companies for which we have data account for the vast majority of the U.S. equity market as well as a handful of international companies.

Figure 2: Economic vs. GAAP Earnings: Technology



Sources: New Constructs, LLC and company filings.

GAAP earnings don't capture the tech sector's economic earnings growth in 2018 due to the impact of the Tax Cuts and Jobs Act. For example, Microsoft's 2018 GAAP earnings were negatively impacted by a $13.7 billion one-time charge due to tax reform and fell by $4.6 billion. Meanwhile, Microsoft's economic earnings – which we adjust for all non-recurring charges – increased by $7.3 billion in 2018.

Energy Sector Rebounds

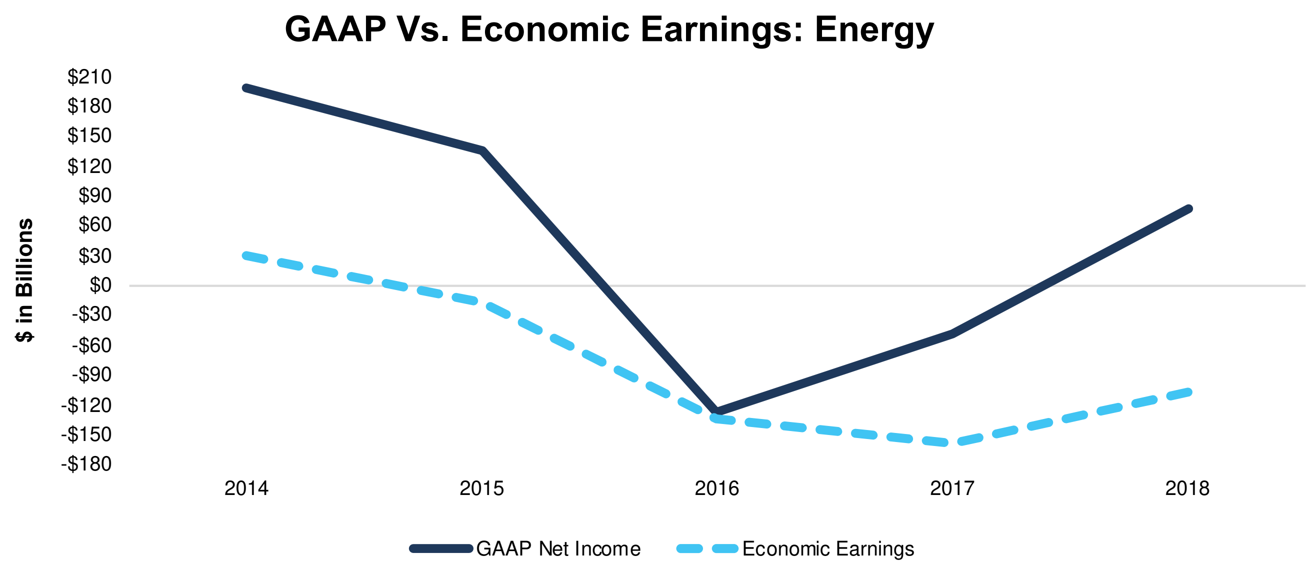
The economic earnings growth in the Energy sector was more broad-based than the Technology sector, but it also comes with plenty of caveats.

For one, the improvement in the Energy sector was due primarily to a 28% increase in the average price of oil in 2018. With oil prices having fallen to a lower level to start 2019, that growth may be difficult to sustain.

On the positive side, companies in the sector appear to be focusing more on capital allocation. Pressure from investors has led to major companies in the industry, such as Occidental Petroleum (OXY), adding return on capital metrics to their executive compensation plans.

Despite these encouraging signs, economic earnings in the Energy sector remain negative. Companies in the sector combined for economic losses of $108 billion in 2018, as shown in Figure 3.

Figure 3: Economic vs. GAAP Earnings: Energy



Sources: New Constructs, LLC and company filings.

The Energy sector appears to be rebounding off its lows, but its positive GAAP earnings are misleading. The sector still has a way to go to break even on an economic basis.

Why Our Adjustments Matter

The disconnect between accounting and economic earnings in the market stems from two primary issues:

1. **Income statement manipulation**: managers exploit accounting loopholes to overstate accounting profits. GAAP net income has grown 6% compounded annually over the past four years for the companies in Figure 1, but net operating profit after tax (NOPAT) is up only 5% compounded annually over that timeframe (and only 4% annually without the tax cut).
2. **GAAP earnings overlook balance sheets and the cost of equity capital.** Over the past four years, the balance sheets, i.e. invested capital of the companies in Figure 1 have increased by 6% compounded annually. Their weighted average cost of capital (WACC) is up from 5.7% to 6.5% over the same time.

Economic earnings equal NOPAT - (WACC*Invested Capital). When NOPAT grows slower than net income while invested capital and WACC grow faster, economic earnings decline. Figure 4 details the adjustments we make to calculate the current NOPAT and invested capital values for the whole market.[2]

[2] Details on the adjustments for all 11 sectors can be found in the Appendix

Figure 4: Reconciling GAAP Earnings with Economic Earnings: NOPAT and Invested Capital

GAAP Earnings Adjustments	$ (in Billions)
Net Income	**$1,648**
Hidden Non-Operating Items	$109
Reported Non-Operating Items	$422
Change in Reserves	($3)
Implied Interest for Off-Balance Sheet Debt	$58
Non-Operating Tax Adjustment	($222)
After Tax Non-Operating Expense	$46
NOPAT	**$2,032**

Balance Sheet Adjustments	$ (in Billions)
Total Assets	**$64,936**
Non-Interest Bearing Current Liabilities	($41,183)
Reported Net Assets	**$23,753**
Short-Term Debt	$818
Excess Cash	($2,217)
Total Reserves	$270
Unconsolidated Subsidiaries	$7
Discontinued Operations	($143)
Deferred Compensation	($18)
Deferred Taxes	($472)
Over Funded Pensions	($38)
Off-Balance Sheet Operating Leases	$1,131
Accumulated Unrecorded Goodwill	$730
Accumulated Goodwill Amortization	$89
Accumulated Asset Write-Downs	$2,575
Other Comprehensive Income	$986
Invested Capital	**$27,436**
Average Invested Capital	**$26,712**

Sources: New Constructs, LLC and company filings.

Our biggest adjustment for NOPAT/Income Statement is to strip out $422 billion in "Reported" non-operating items. These gains/losses are reported on the income statement, e.g. interest expense, preferred dividends, and minority interest income. Even more impactful, according to research from Ernst & Young, are the "Hidden" non-operating items, which amount to $109 billion of gains//losses that investors can find only in the footnotes.

For the balance sheet, our biggest adjustment is to add back $2.6 trillion in accumulated asset write-downs that companies tried to move off their balance sheet. We collect hundreds of unusual write-down charges over many years of history to derive accumulated write-downs. The purpose of this adjustment is to hold companies accountable for all the capital invested in the business over its life.

Only by making these adjustments can investors reverse accounting distortions and reveal true profitability[3].

Figure 5 provides a quick summary of the sectors and how much their accounting income is overstated. Figures 6-14 compare economic earnings to GAAP net income for each sector.

[3] Ernst & Young's recent white paper "Getting ROIC Right" proves the superiority of our measure of NOPAT, invested capital and ROIC along with other financial ratios.

Figure 5: TTM Economic Vs. GAAP Earnings: All Sectors ($ in billions)

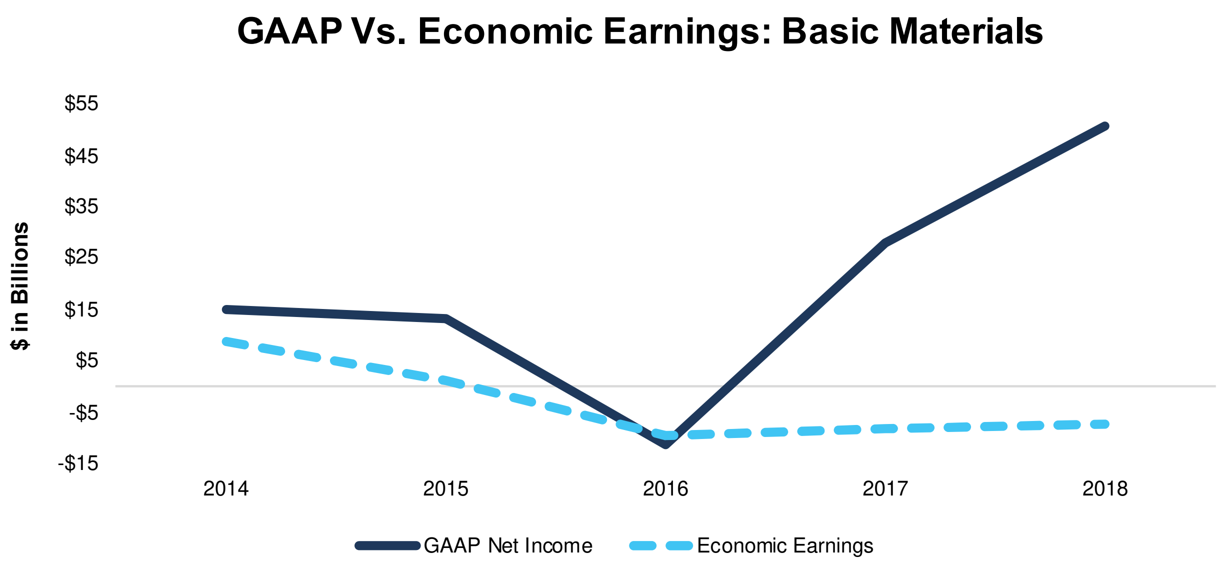
Sector	GAAP Net Income	Economic Earnings	Most Overstated Earnings
Financials	$297	($31)	($328)
Energy	$77	($107)	($185)
Consumer Cyclicals	$220	$84	($136)
Industrials	$155	$38	($118)
Telecom Services	$84	$6	($78)
Real Estate	$62	$0	($62)
Basic Materials	$51	($7)	($58)
Technology	$241	$189	($52)
Consumer Non-cyclicals	$109	$62	($47)
Healthcare	$88	$44	($44)
Utilities	$35	($2)	($37)

Sources: New Constructs, LLC and company filings.

Basic Materials Sector

GAAP earnings show a large rebound after the commodities rout caused significant write-downs in 2015-2016. Economic earnings show that this sector still has a long road ahead to recovery. DowDuPont Inc. (DWDP) had the largest discrepancy between reported net income and economic earnings. GAAP net income of $3.8 billion vastly overstated the firm's profitability while economic earnings, at -$3.6 billion reveal significant losses. We will be curious to see the breakdown of how these losses are allocated after the split between Dow and DuPont.

Figure 6: Economic vs. GAAP Earnings: Basic Materials

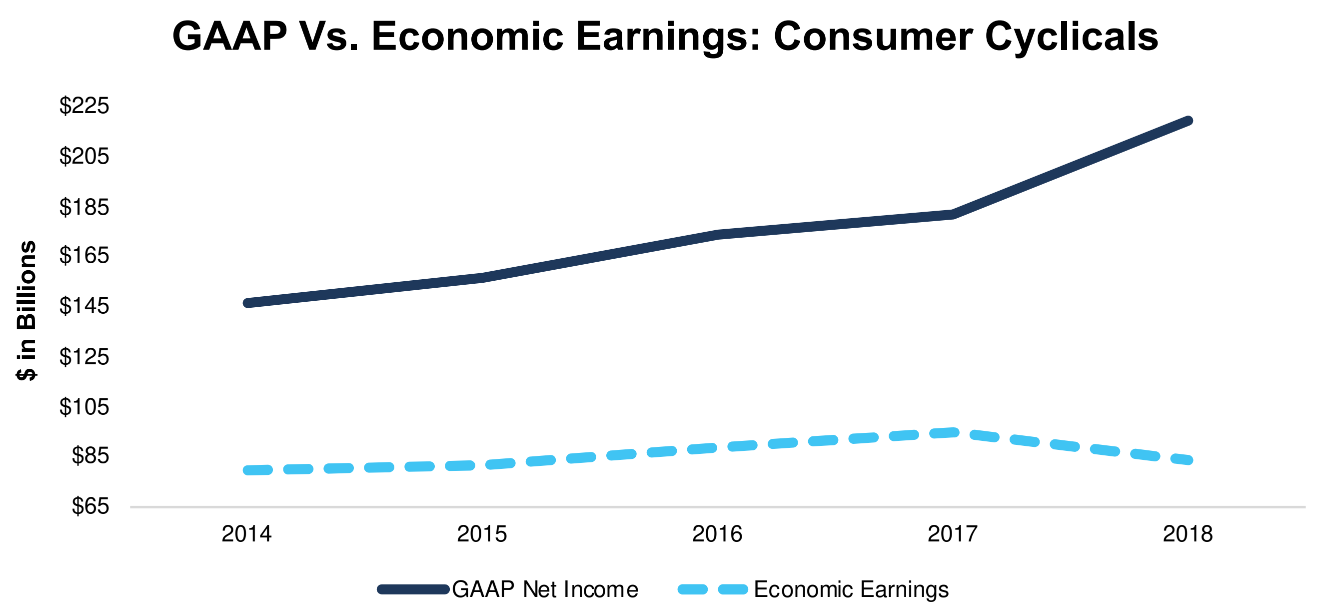


Sources: New Constructs, LLC and company filings.

Consumer Cyclicals Sector

Part of the significant gap between GAAP net income and economic earnings for the Consumer Cyclicals sector can be explained by off-balance sheet operating leases that constitute a hidden (although not for long) form of invested capital. Operating leases account for 9% of all invested capital in the sector, compared to just 4% for the whole market. Return on invested capital (ROIC) stayed constant at 9% in 2018, so the decline in economic earnings comes entirely from rising WACC.

Figure 7: Economic vs. GAAP Earnings: Consumer Cyclicals

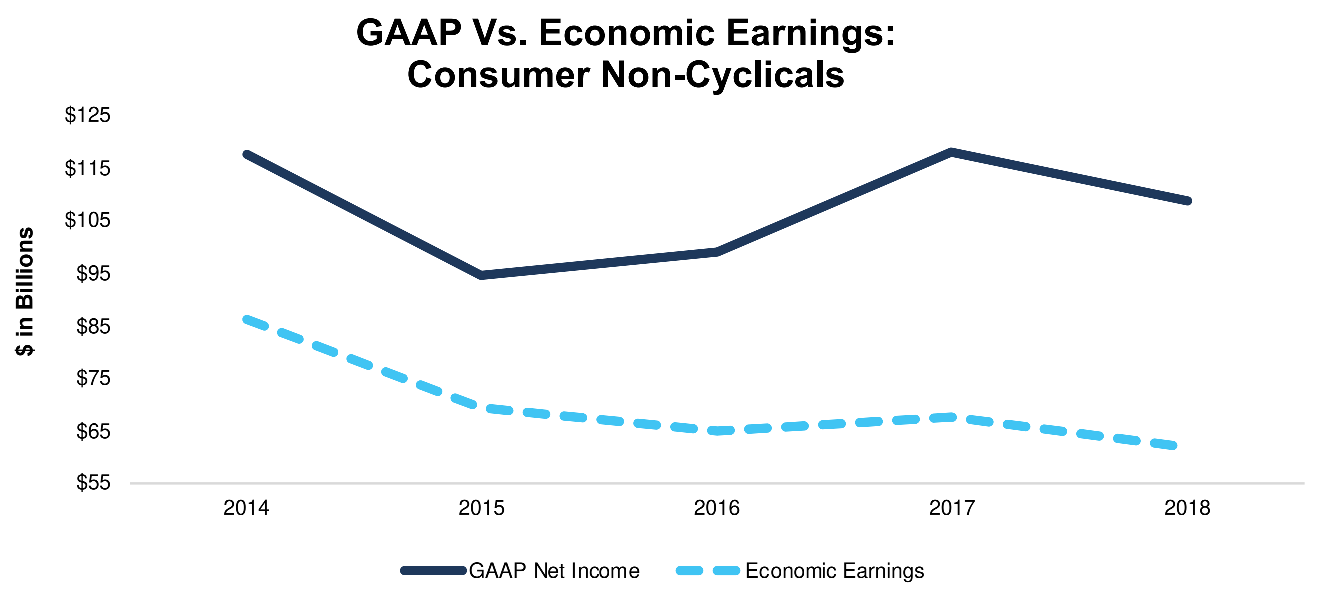


Sources: New Constructs, LLC and company filings.

Consumer Non-Cyclicals Sector

Unlike with other sectors, GAAP and economic earnings tend to move in the same direction for the Consumer Non-Cyclicals sector. The major write-downs at Kraft Heinz (KHC) – and the declining economic earnings at competitor Mondelez (MDLZ) – suggest that some of the giants of this sector are seeing their competitive advantage decline.

Figure 8: Economic vs. GAAP Earnings: Consumer Non-Cyclicals

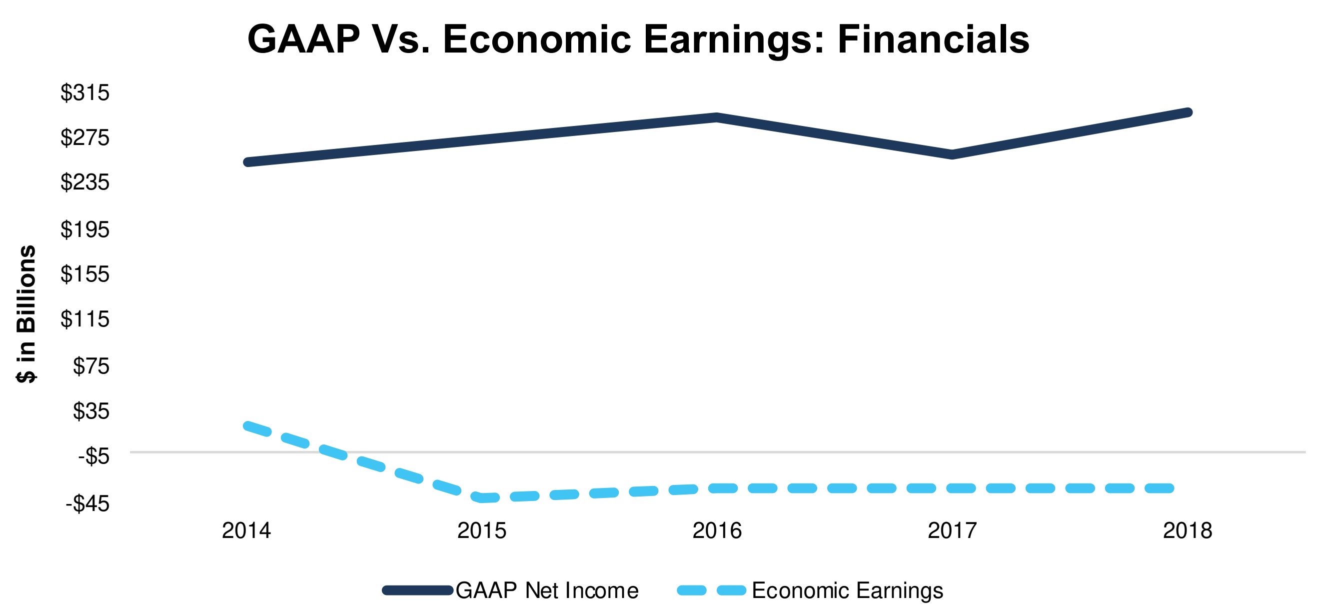


Sources: New Constructs, LLC and company filings.

Financials Sector

The Financials sector has only earned positive economic earnings on aggregate in one of the past five years. Economic losses shrunk slightly in 2018, from -$32 to -$31 million, but GAAP net income grew by 14%. The market seems to recognize that GAAP earnings in this sector are an illusion, as Financial stocks are much cheaper than the rest of the market. On aggregate, the sector has a price to economic book value (PEBV) of 1.1 compared to 1.6 for the total market.

Figure 9: Economic vs. GAAP Earnings: Financials

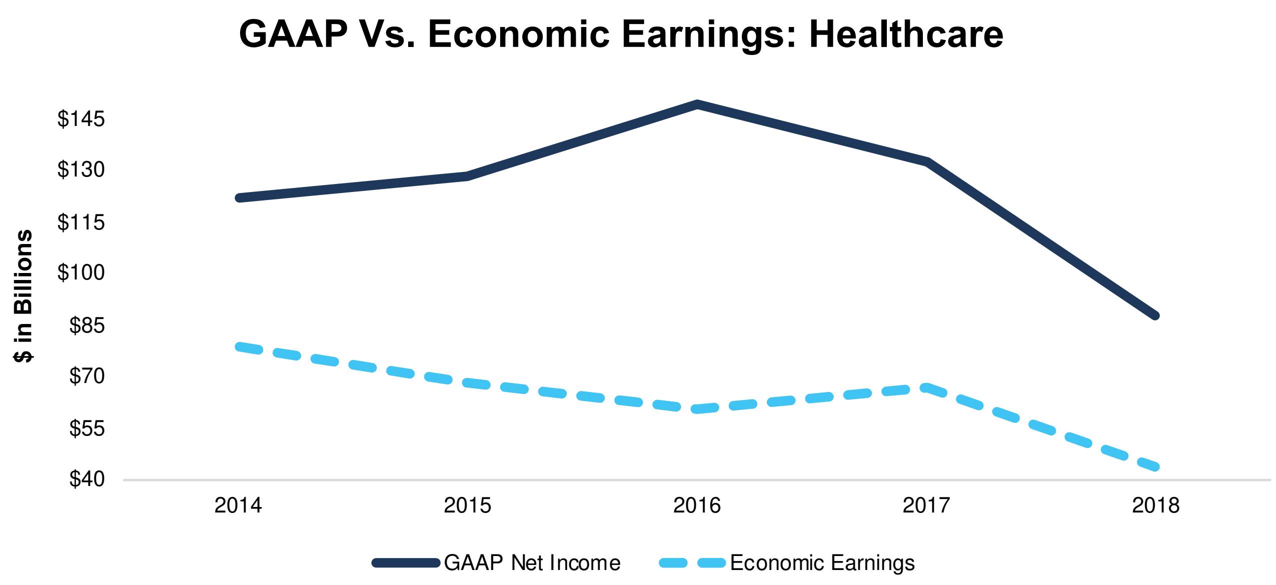


Sources: New Constructs, LLC and company filings.

Healthcare Sector

GAAP and economic earnings moved in-line for the Healthcare sector in 2018 as both fell by ~35%. Combined with the continued threat of regulatory overhauls and pricing pressure, these falling earnings represent a significant cause for concern.

Figure 10: Economic vs. GAAP Earnings: Healthcare

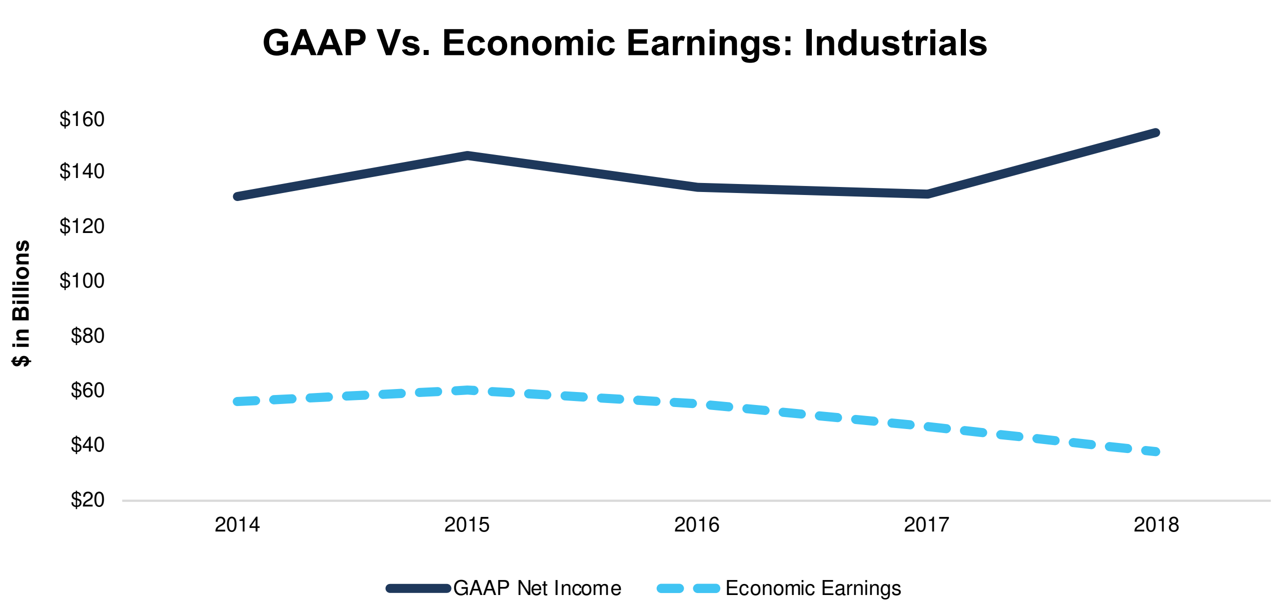


Sources: New Constructs, LLC and company filings.

Industrials Sector

Few sectors have as wide a divergence as the Industrials sector. GAAP earnings grew by 17% while economic earnings declined 21% in 2018. M&A activity accounts for some of this discrepancy. We highlighted recently how United Technologies' (UTX) acquisition of Rockwell Collins helped it grow reported earnings by 14% but led to a 16% decline in economic earnings.

Figure 11: Economic vs. GAAP Earnings: Industrials

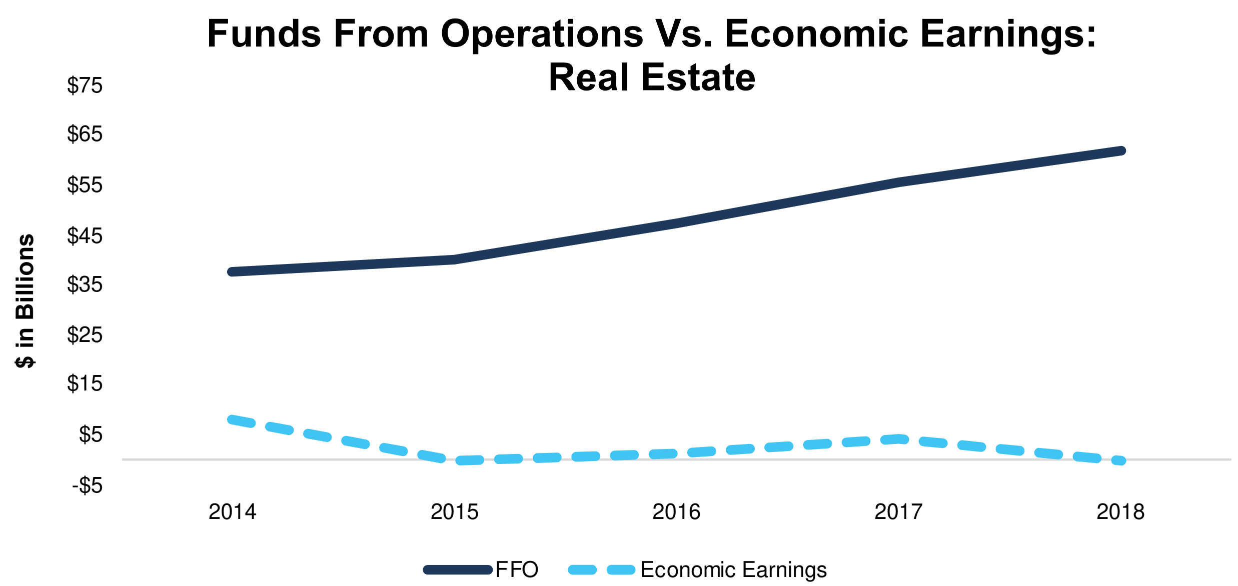


Sources: New Constructs, LLC and company filings.

Real Estate Sector

The Real Estate sector has just barely scraped out positive economic earnings over the past five years while fund from operations (FFO) grew by 64% between 2014-2018. The divergence between reported and economic earnings goes a long way to explain why Real Estate is our worst-rated sector for ETFs and mutual funds.

Figure 12: Economic Earnings vs. FFO: Real Estate

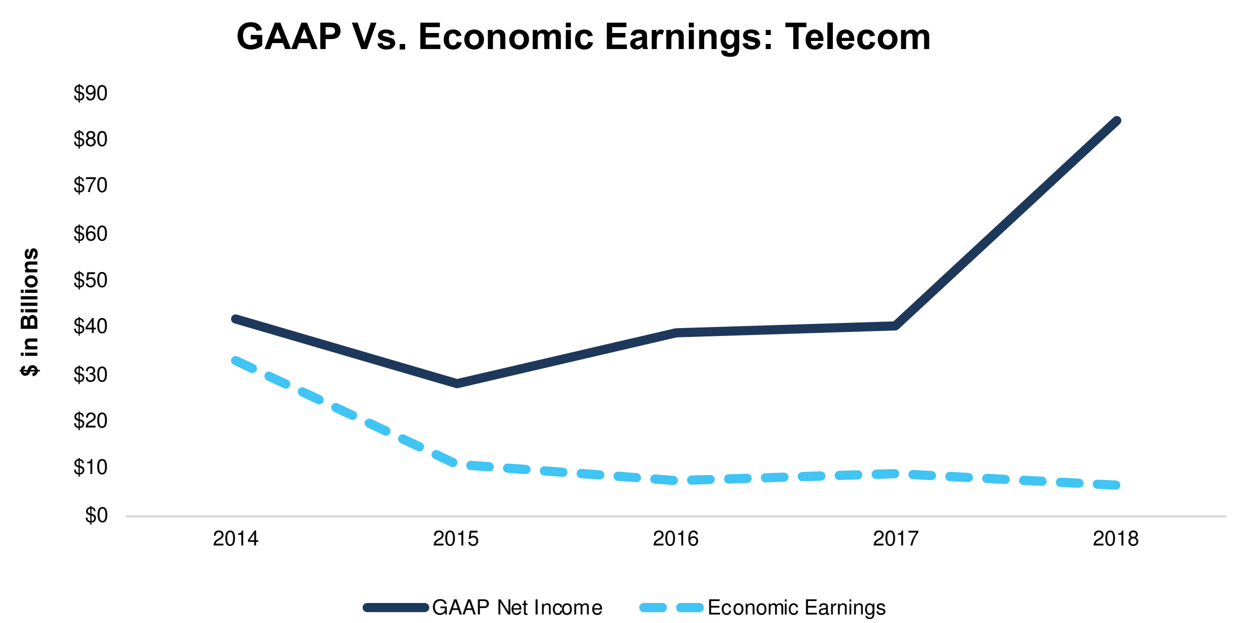


Sources: New Constructs, LLC and company filings.

Telecom Sector

The Telecom sector earns its reputation as an oligopolistic industry. Three large companies in the industry – Verizon (VZ), China Mobile (CHL) and Nippon Telegraph and Telephone (NTTYY) – earned $24.6 billion in positive economic earnings last year. The other 38 companies had a combined economic loss of $18 billion.

Figure 13: Economic vs. GAAP Earnings: Telecom

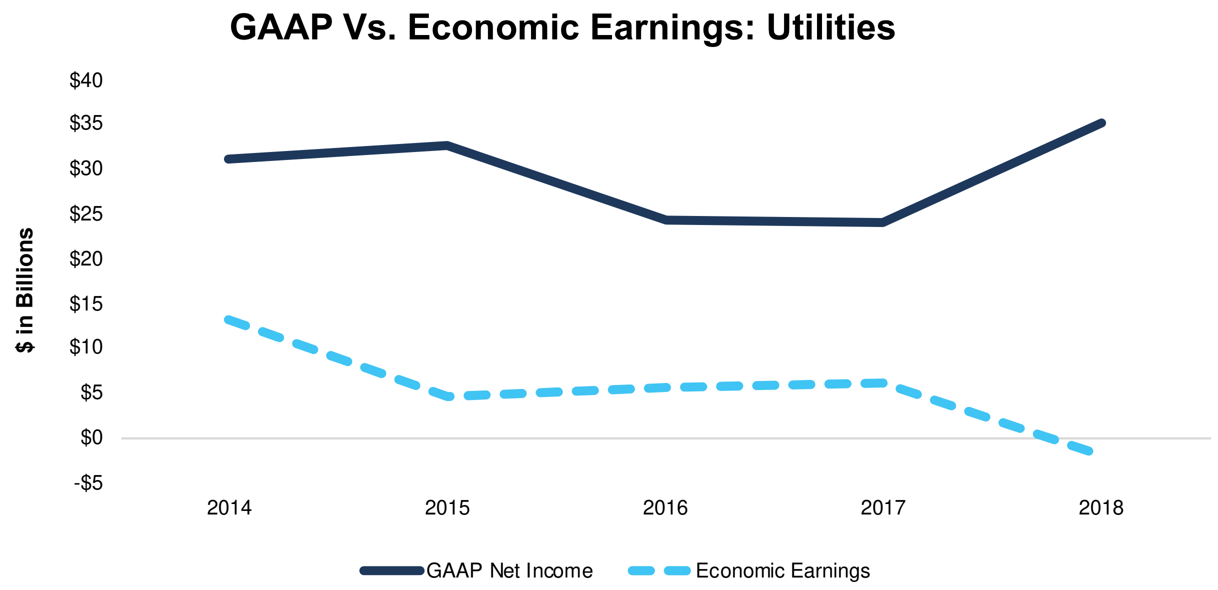


Sources: New Constructs, LLC and company filings.

Utilities Sector

The Utilities sector is another sector with GAAP earnings growth in the double digits even as economic earnings turn negative.

Figure 13: Economic vs. GAAP Earnings: Utilities



Sources: New Constructs, LLC and company filings.

The Need for Diligence Has Arrived

The breadth of the decline in economic earnings should give investors pause. Even with tax cuts providing a tailwind, only Energy companies and a handful of big Technology firms managed to grow real profits last year.

Now more than ever investors need unconflicted and comprehensive fundamental research. Only by analyzing the footnotes and MD&A can one find companies that buck the trend of rising GAAP earnings and falling economic earnings. These are the stocks that will hold up when this bull market finally does come to an end.

To see our Sector ratings and reports, click here.

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Disclosure: David Trainer and Sam McBride receive no compensation to write about any specific stock, style, or theme.

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Appendix

Figure I: Aggregate Adjustments for NOPAT and Invested Capital: Basic Materials

GAAP Earnings Adjustments	$ (in Billions)
Net Income	**$51**
Hidden Non-Operating Items	$3
Reported Non-Operating Items	$25
Change in Reserves	$1
Implied Interest for Off-Balance Sheet Debt	$1
Non-Operating Tax Adjustment	($15)
After Tax Non-Operating Expense	$1
NOPAT	**$67**

Balance Sheet Adjustments	$ (in Billions)
Total Assets	**$1,120**
Non-Interest Bearing Current Liabilities	($162)
Reported Net Assets	**$957**
Short-Term Debt	$20
Excess Cash	($58)
Total Reserves	$6
Unconsolidated Subsidiaries	$0
Discontinued Operations	($7)
Deferred Compensation	($1)
Deferred Taxes	($20)
Over Funded Pensions	($0)
Off-Balance Sheet Operating Leases	$20
Accumulated Unrecorded Goodwill	$9
Accumulated Goodwill Amortization	$4
Accumulated Asset Write-Downs	$199
Other Comprehensive Income	$77
Invested Capital	**$1,206**
Average Invested Capital	**$1,118**

Sources: New Constructs, LLC and company filings.

Figure II: Aggregate Adjustments for NOPAT and Invested Capital: Consumer Cyclicals

GAAP Earnings Adjustments	$ (in Billions)
Net Income	**$220**
Hidden Non-Operating Items	$10
Reported Non-Operating Items	$51
Change in Reserves	$1
Implied Interest for Off-Balance Sheet Debt	$15
Non-Operating Tax Adjustment	($52)
After Tax Non-Operating Expense	$11
NOPAT	**$255**

Balance Sheet Adjustments	$ (in Billions)
Total Assets	**$4,133**
Non-Interest Bearing Current Liabilities	($1,458)
Reported Net Assets	**$2,676**
Short-Term Debt	$128
Excess Cash	($360)
Total Reserves	$11
Unconsolidated Subsidiaries	$1
Discontinued Operations	($6)
Deferred Compensation	($3)
Deferred Taxes	($77)
Over Funded Pensions	($1)
Off-Balance Sheet Operating Leases	$287
Accumulated Unrecorded Goodwill	$19
Accumulated Goodwill Amortization	$10
Accumulated Asset Write-Downs	$280
Other Comprehensive Income	$66
Invested Capital	**$3,028**
Average Invested Capital	**$2,949**

Sources: New Constructs, LLC and company filings.

Figure III: Aggregate Adjustments for NOPAT and Invested Capital: Consumer Non-Cyclicals

GAAP Earnings Adjustments	$ (in Billions)
Net Income	**$109**
Hidden Non-Operating Items	$8
Reported Non-Operating Items	$34
Change in Reserves	$0
Implied Interest for Off-Balance Sheet Debt	$4
Non-Operating Tax Adjustment	($23)
After Tax Non-Operating Expense	$1
NOPAT	**$135**

Balance Sheet Adjustments	$ (in Billions)
Total Assets	**$1,657**
Non-Interest Bearing Current Liabilities	($474)
Reported Net Assets	**$1,183**
Short-Term Debt	$84
Excess Cash	($79)
Total Reserves	$10
Unconsolidated Subsidiaries	$3
Discontinued Operations	($8)
Deferred Compensation	($1)
Deferred Taxes	($8)
Over Funded Pensions	($2)
Off-Balance Sheet Operating Leases	$85
Accumulated Unrecorded Goodwill	$43
Accumulated Goodwill Amortization	$8
Accumulated Asset Write-Downs	$82
Other Comprehensive Income	$126
Invested Capital	**$1,521**
Average Invested Capital	**$1,497**

Sources: New Constructs, LLC and company filings.

Figure IV: Aggregate Adjustments for NOPAT and Invested Capital: Energy

GAAP Earnings Adjustments	$ (in Billions)
Net Income	**$77**
Hidden Non-Operating Items	$22
Reported Non-Operating Items	$63
Change in Reserves	$7
Implied Interest for Off-Balance Sheet Debt	$7
Non-Operating Tax Adjustment	($48)
After Tax Non-Operating Expense	$12
NOPAT	**$139**

Balance Sheet Adjustments	$ (in Billions)
Total Assets	**$3,601**
Non-Interest Bearing Current Liabilities	($565)
Reported Net Assets	**$3,035**
Short-Term Debt	$114
Excess Cash	($156)
Total Reserves	$29
Unconsolidated Subsidiaries	$1
Discontinued Operations	($12)
Deferred Compensation	($0)
Deferred Taxes	($48)
Over Funded Pensions	($0)
Off-Balance Sheet Operating Leases	$138
Accumulated Unrecorded Goodwill	$104
Accumulated Goodwill Amortization	$2
Accumulated Asset Write-Downs	$672
Other Comprehensive Income	$153
Invested Capital	**$4,029**
Average Invested Capital	**$3,981**

Sources: New Constructs, LLC and company filings.

Figure V: Aggregate Adjustments for NOPAT and Invested Capital: Financials

GAAP Earnings Adjustments	$ (in Billions)
Net Income	**$297**
Hidden Non-Operating Items	$9
Reported Non-Operating Items	$13
Change in Reserves	($1)
Implied Interest for Off-Balance Sheet Debt	$7
Non-Operating Tax Adjustment	$1
After Tax Non-Operating Expense	$42
NOPAT	**$368**

Balance Sheet Adjustments	$ (in Billions)
Total Assets	**$39,756**
Non-Interest Bearing Current Liabilities	($34,682)
Reported Net Assets	**$5,074**
Short-Term Debt	$6
Excess Cash	($38)
Total Reserves	$198
Unconsolidated Subsidiaries	$0
Discontinued Operations	($218)
Deferred Compensation	($1)
Deferred Taxes	($97)
Over Funded Pensions	($31)
Off-Balance Sheet Operating Leases	$137
Accumulated Unrecorded Goodwill	$184
Accumulated Goodwill Amortization	$9
Accumulated Asset Write-Downs	$201
Other Comprehensive Income	($19)
Invested Capital	**$5,405**
Average Invested Capital	**$5,282**

Sources: New Constructs, LLC and company filings.

Figure VI: Aggregate Adjustments for NOPAT and Invested Capital: Healthcare

GAAP Earnings Adjustments	$ (in Billions)
Net Income	**$88**
Hidden Non-Operating Items	$18
Reported Non-Operating Items	$81
Change in Reserves	$0
Implied Interest for Off-Balance Sheet Debt	$4
Non-Operating Tax Adjustment	($15)
After Tax Non-Operating Expense	$3
NOPAT	**$179**

Balance Sheet Adjustments	$ (in Billions)
Total Assets	**$2,860**
Non-Interest Bearing Current Liabilities	($615)
Reported Net Assets	**$2,245**
Short-Term Debt	$91
Excess Cash	($301)
Total Reserves	$2
Unconsolidated Subsidiaries	$0
Discontinued Operations	($9)
Deferred Compensation	($2)
Deferred Taxes	($41)
Over Funded Pensions	($0)
Off-Balance Sheet Operating Leases	$71
Accumulated Unrecorded Goodwill	$142
Accumulated Goodwill Amortization	$9
Accumulated Asset Write-Downs	$243
Other Comprehensive Income	$65
Invested Capital	**$2,514**
Average Invested Capital	**$2,469**

Sources: New Constructs, LLC and company filings.

Figure VII: Aggregate Adjustments for NOPAT and Invested Capital: Industrials

GAAP Earnings Adjustments	$ (in Billions)
Net Income	**$155**
Hidden Non-Operating Items	$17
Reported Non-Operating Items	$44
Change in Reserves	$0
Implied Interest for Off-Balance Sheet Debt	$7
Non-Operating Tax Adjustment	($36)
After Tax Non-Operating Expense	($1)
NOPAT	**$186**

Balance Sheet Adjustments	$ (in Billions)
Total Assets	**$3,062**
Non-Interest Bearing Current Liabilities	($925)
Reported Net Assets	**$2,137**
Short-Term Debt	$82
Excess Cash	($179)
Total Reserves	$14
Unconsolidated Subsidiaries	$1
Discontinued Operations	($13)
Deferred Compensation	($3)
Deferred Taxes	($39)
Over Funded Pensions	($2)
Off-Balance Sheet Operating Leases	$132
Accumulated Unrecorded Goodwill	$41
Accumulated Goodwill Amortization	$25
Accumulated Asset Write-Downs	$189
Other Comprehensive Income	$162
Invested Capital	**$2,546**
Average Invested Capital	**$2,467**

Sources: New Constructs, LLC and company filings.

Figure VIII: Aggregate Adjustments for NOPAT and Invested Capital: Real Estate

GAAP Earnings Adjustments	$ (in Billions)
Net Income	**$45**
Hidden Non-Operating Items	($1)
Reported Non-Operating Items	$10
Change in Reserves	$0
Implied Interest for Off-Balance Sheet Debt	$2
Non-Operating Tax Adjustment	($4)
After Tax Non-Operating Expense	$3
NOPAT	**$46**

Balance Sheet Adjustments	$ (in Billions)
Total Assets	**$1,403**
Non-Interest Bearing Current Liabilities	($482)
Reported Net Assets	**$921**
Short-Term Debt	$4
Excess Cash	($23)
Total Reserves	$0
Unconsolidated Subsidiaries	$0
Discontinued Operations	($0)
Deferred Compensation	($1)
Deferred Taxes	($1)
Over Funded Pensions	($0)
Off-Balance Sheet Operating Leases	$31
Accumulated Unrecorded Goodwill	$0
Accumulated Goodwill Amortization	$1
Accumulated Asset Write-Downs	$26
Other Comprehensive Income	$6
Invested Capital	**$964**
Average Invested Capital	**$920**

Sources: New Constructs, LLC and company filings.

Figure IX: Aggregate Adjustments for NOPAT and Invested Capital: Technology

GAAP Earnings Adjustments	$ (in Billions)
Net Income	**$241**
Hidden Non-Operating Items	$13
Reported Non-Operating Items	$16
Change in Reserves	($0)
Implied Interest for Off-Balance Sheet Debt	$5
Non-Operating Tax Adjustment	$56
After Tax Non-Operating Expense	$2
NOPAT	**$333**

Balance Sheet Adjustments	$ (in Billions)
Total Assets	**$3,544**
Non-Interest Bearing Current Liabilities	($886)
Reported Net Assets	**$2,658**
Short-Term Debt	$96
Excess Cash	($1,101)
Total Reserves	$3
Unconsolidated Subsidiaries	$0
Discontinued Operations	($9)
Deferred Compensation	($1)
Deferred Taxes	($60)
Over Funded Pensions	($1)
Off-Balance Sheet Operating Leases	$91
Accumulated Unrecorded Goodwill	$70
Accumulated Goodwill Amortization	$20
Accumulated Asset Write-Downs	$329
Other Comprehensive Income	$68
Invested Capital	**$2,158**
Average Invested Capital	**$2,080**

Sources: New Constructs, LLC and company filings.

Figure X: Aggregate Adjustments for NOPAT and Invested Capital: Telecom

GAAP Earnings Adjustments	$ (in Billions)
Net Income	**$84**
Hidden Non-Operating Items	$4
Reported Non-Operating Items	$38
Change in Reserves	($0)
Implied Interest for Off-Balance Sheet Debt	$4
Non-Operating Tax Adjustment	($61)
After Tax Non-Operating Expense	$4
NOPAT	**$73**

Balance Sheet Adjustments	$ (in Billions)
Total Assets	**$1,524**
Non-Interest Bearing Current Liabilities	($263)
Reported Net Assets	**$1,261**
Short-Term Debt	$76
Excess Cash	($73)
Total Reserves	$0
Unconsolidated Subsidiaries	$0
Discontinued Operations	($1)
Deferred Compensation	($0)
Deferred Taxes	($26)
Over Funded Pensions	($0)
Off-Balance Sheet Operating Leases	$84
Accumulated Unrecorded Goodwill	$117
Accumulated Goodwill Amortization	$1
Accumulated Asset Write-Downs	$85
Other Comprehensive Income	$26
Invested Capital	**$1,551**
Average Invested Capital	**$1,500**

Sources: New Constructs, LLC and company filings.

Figure XI: Aggregate Adjustments for NOPAT and Invested Capital: Utilities

GAAP Earnings Adjustments	$ (in Billions)
Net Income	**$35**
Hidden Non-Operating Items	$1
Reported Non-Operating Items	$31
Change in Reserves	$0
Implied Interest for Off-Balance Sheet Debt	$1
Non-Operating Tax Adjustment	($13)
After Tax Non-Operating Expense	$2
NOPAT	**$57**

Balance Sheet Adjustments	$ (in Billions)
Total Assets	**$1,573**
Non-Interest Bearing Current Liabilities	($182)
Reported Net Assets	**$1,390**
Short-Term Debt	$71
Excess Cash	($11)
Total Reserves	$1
Unconsolidated Subsidiaries	$0
Discontinued Operations	($2)
Deferred Compensation	($1)
Deferred Taxes	($2)
Over Funded Pensions	($2)
Off-Balance Sheet Operating Leases	$19
Accumulated Unrecorded Goodwill	$5
Accumulated Goodwill Amortization	$2
Accumulated Asset Write-Downs	$117
Other Comprehensive Income	$11
Invested Capital	**$1,597**
Average Invested Capital	**$1,569**

Sources: New Constructs, LLC and company filings.

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

Ratings & screeners on 3000 stocks, 450 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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