

All Cap Analysis: Free Cash Flow Yield Falls in 2020

This report analyzes¹ free cash flow (<u>FCF</u>), <u>enterprise value</u>, and the FCF yield for the NC 2000 and each of its sectors.

The NC 2000 consists of the largest 2000 U.S. companies by market cap in our coverage. Constituents are updated on a quarterly basis (March 31, June 30, September 30, and December 31). We exclude companies that report under IFRS and non-U.S. ADR companies.

For reference, we analyze the <u>Core Earnings</u> for the NC 2000 and each sector in <u>All Cap Analysis: Net Income Understates Core Earnings in 2020</u>. We analyze return on invested capital (<u>ROIC</u>) and its drivers in <u>All Cap Analysis: Only One Sector Has a Rising ROIC in 2020</u>.

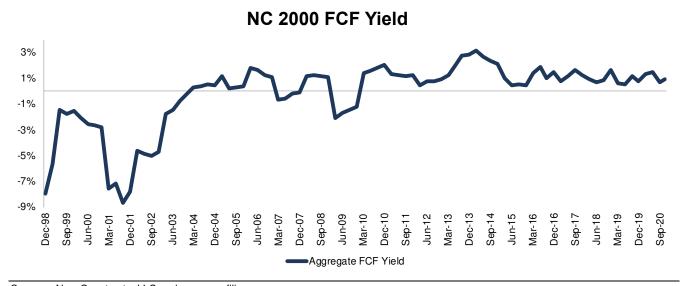
These reports leverage <u>cutting-edge technology</u> to provide clients with a <u>cleaner and more comprehensive</u> view of every measure of profits². Investors armed with our research enjoy a differentiated and more informed view of the fundamentals and valuations of companies and sectors.

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NC 2000 FCF Yield Slightly Rebounds From Lowest Level Since Mid-2019

FCF yield for the NC 2000 fell from 1.4% at the end of 2019 to 1.0% through 11/17/20 (the earliest date updated 10-Qs for the NC 2000 constituents were available). See Figure 1. Only three NC 2000 sectors have seen an increase in FCF yield since the end of 2019, as we'll show below.

Figure 1: TTM FCF Yield for the NC 2000 From 1998 – 11/17/20



Sources: New Constructs, LLC and company filings.

Ranking the NC 2000 Sectors by FCF Yield

Figure 2 ranks all 11 NC 2000 sectors by change in FCF yield from the end of 2019 through 11/17/20.

¹ We calculate these metrics based on <u>S&P Global</u>'s (SPGI) methodology, which sums the individual NC 2000 constituent values for free cash flow and enterprise value before using them to calculate the metrics. We call this the "Aggregate" methodology. Get more details in Appendix II and III.

² For 3'd-party reviews, including <u>The Journal of Financial Economics</u>, on the benefits of adjusted Core Earnings, historically and prospectively, across all stocks, click <u>here</u> and <u>here</u>.



Figure 2: NC 2000 TTM FCF Yield as of 11/17/20 by Sector

Sector	FCF Yield	Change Since 2019 (% points)
Energy	5.3%	5.0%
Utilities	-1.1%	4.1%
Consumer Cyclicals	0.9%	1.3%
Technology	1.7%	-0.3%
Consumer Non-cyclicals	3.5%	-0.3%
Financials	1.6%	-0.3%
Real Estate	-0.8%	-0.9%
Industrials	1.0%	-1.2%
Healthcare	-2.0%	-2.1%
Telecom Services	-2.6%	-7.1%
Basic Materials	2.9%	-7.8%
NC 2000	1.0%	0.42%

Investors are getting more FCF for their investment dollar in the Energy sector than any other sector. On the flip side, the Telecom Services sector currently has the lowest FCF yield of all NC 2000 sectors.

The Energy, Utilities, and Consumer Cyclicals sectors are the only NC 2000 sectors that have each seen an increase in FCF yield since the end of 2019.

Details on Each of the NC 2000 Sectors

Figures 3-13 show the FCF yield trends for every NC 2000 sector since 1998.

We present the components of FCF yield, FCF and enterprise value, for the NC 2000 and each NC 2000 sector in Appendix I.

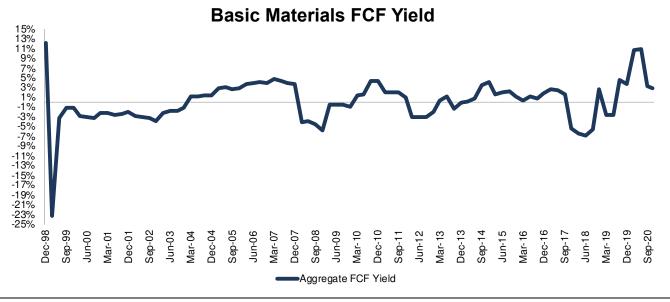
Appendix II provides additional aggregated FCF yield analyses that adjust for company size/market cap.



Basic Materials

Figure 3 shows FCF yield for the NC 2000 Basic Materials sector increased significantly since mid-2018 even after the COVID-19-induced downturn in 2020. The FCF yield for the sector has fallen from 11% at the end of 2019 to 3% TTM. The Basic Materials sector FCF has fallen from \$114 billion at the end of 2019 to \$43 billion TTM while enterprise value increased from \$1.1 trillion to \$1.5 trillion over the same time.

Figure 3: Basic Materials FCF Yield: 1998 - 11/17/20

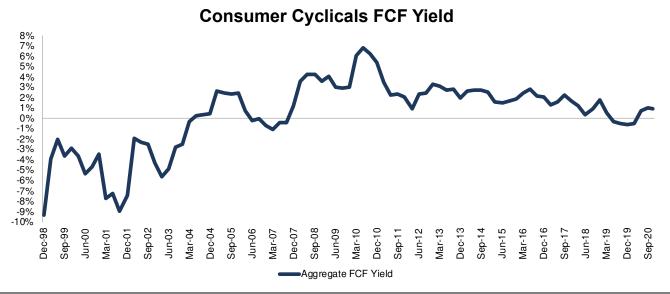


Sources: New Constructs, LLC and company filings.

Consumer Cyclicals

Figure 4 shows FCF yield for the Consumer Cyclicals sector has been in a long-term decline since 2010 despite increasing from -0.4% in 2019 to 0.9% TTM. The Consumer Cyclicals sector FCF has improved from -\$21 billion at the end of 2019 to \$65 billion TTM while enterprise value increased from \$4.8 trillion to \$7.3 trillion over the same time.

Figure 4: Consumer Cyclicals FCF Yield: 1998 – 11/17/20

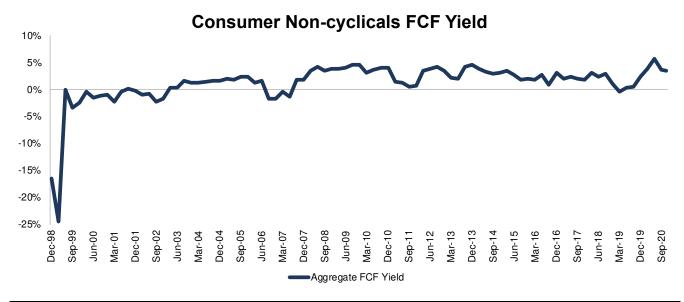




Consumer Non-cyclicals

Figure 5 shows FCF yield for the Consumer Non-cyclicals sector rose in 2019 to 3.8% but has fallen to 3.5% TTM. The Consumer Non-cyclicals sector FCF has improved from \$107 billion at the end of 2019 to \$119 billion TTM while enterprise value has increased from \$2.8 trillion to \$3.4 trillion over the same time.

Figure 5: Consumer Non-cyclicals FCF Yield: 1998 - 11/17/20

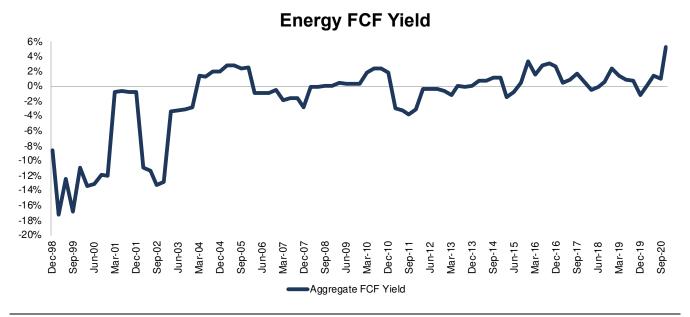


Sources: New Constructs, LLC and company filings.

Energy

Figure 6 shows the volatile nature of FCF yield for the Energy sector in the early 2000s. More recently, the Energy sector's FCF yield has increased from 0.2% at the end of 2019 to 5.3% TTM. The Energy sector FCF has increased from \$3.6 billion in 2019 to \$93 billion TTM while enterprise value increased from \$1.5 trillion to \$1.8 trillion over the same time.

Figure 6: Energy FCF Yield: 1998 – 11/17/20

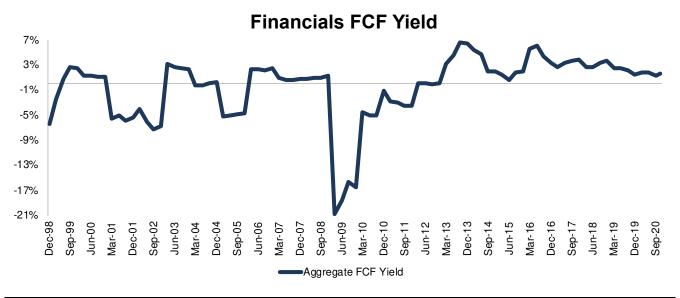




Financials

Figure 7 shows FCF yield for the Financials sector has been much more stable post the Financial Crisis in 2008/2009. The Financials sector FCF yield has fallen from 1.9% at the end of 2019 to 1.6% TTM. The sector's FCF has increased from \$77 billion in 2019 to \$80 billion TTM while enterprise value increased from \$4.1 trillion to \$5.1 trillion over the same time.

Figure 7: Financials FCF Yield: 1998 - 11/17/20

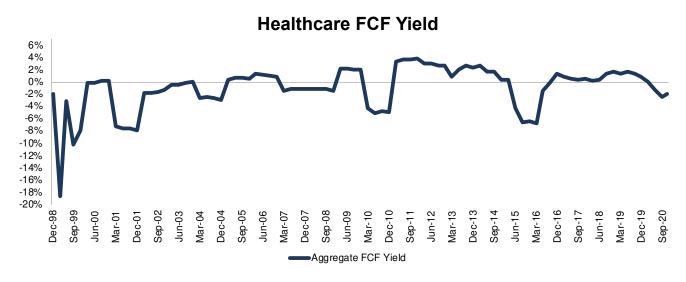


Sources: New Constructs, LLC and company filings.

Healthcare

Figure 8 shows FCF yield for the Healthcare sector fell from 0% at the end of 2019 to -2.0% TTM. The decline in FCF yield stems from the fact that FCF has fallen from \$1.6 billion in 2019 to -\$119 billion TTM. Meanwhile, enterprise value increased from \$4.6 trillion to \$5.9 trillion over the same time.

Figure 8: Healthcare FCF Yield: 1998 - 11/17/20

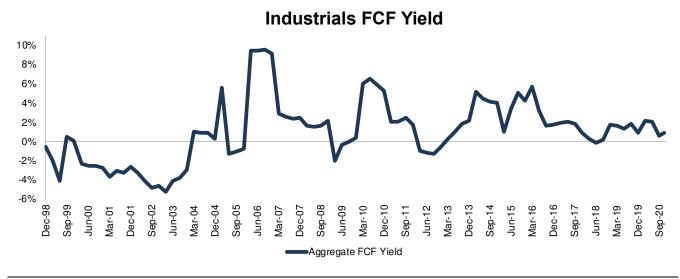




Industrials

Figure 9 shows FCF yield for the Industrials sector has fallen from 2.2% in 2019 to 1.0% TTM. The Industrials sector FCF has fallen from \$79 billion in 2019 to \$48 billion TTM while enterprise value has increased from \$3.7 trillion to \$4.9 trillion over the same time.

Figure 9: Industrials FCF Yield: 1998 - 11/17/20

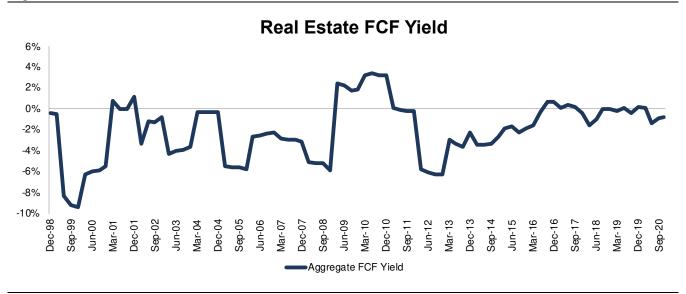


Sources: New Constructs, LLC and company filings.

Real Estate

Figure 10 shows FCF yield for the Real Estate sector rather steadily improved from 2012-2019 before falling in 2020. The Real Estate sector FCF yield has fallen from 0% in 2019 to -0.8% TTM. FCF for the sector has declined from \$728 million in 2019 to -\$14 billion TTM while enterprise value has increased from \$1.5 trillion to \$1.8 trillion over the same time.

Figure 10: Real Estate FCF Yield: 1998- 11/17/20

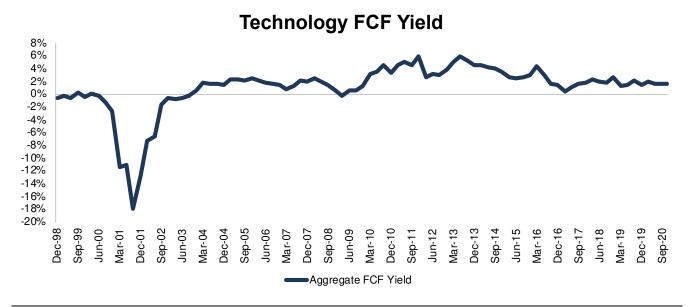




Technology

Figure 11 shows FCF yield for the Technology sector remains well below prior highs in 2011, 2013, and 2016, but well above the depths during the dot com bubble. The sector's FCF yield fell has declined from 1.9% in 2019 to 1.7% TTM. The Technology sector FCF has increased from \$160 billion in 2019 to \$213 billion TTM while enterprise value has increased from \$8.2 trillion to \$12.8 trillion over the same time.

Figure 11: Technology FCF Yield: 1998 - 11/17/20

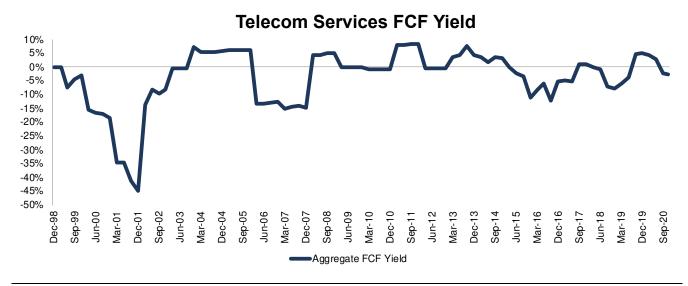


Sources: New Constructs, LLC and company filings.

Telecom Services

Figure 12 shows FCF yield for the Telecom Services sector has fallen from 4.4% in 2019 to -2.6% TTM. The sector's FCF has declined from \$63 billion in 2019 to -\$43 billion TTM while enterprise value has increased from \$1.4 trillion to \$1.6 trillion over the same time.

Figure 12: Telecom Services FCF Yield: December 1998 – 11/17/20

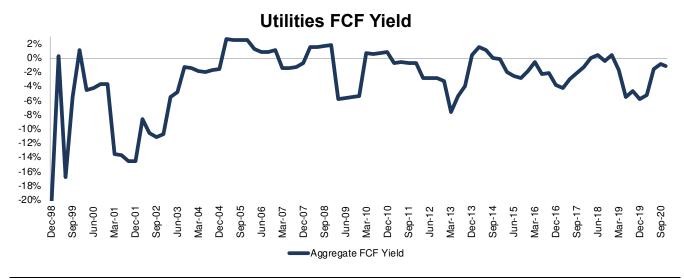




Utilities

Figure 13 shows the FCF yield for the Utilities sector is rather consistently negative and, despite improving since its 2019 lows, remains negative at -1.1%. The Utilities sector FCF has improved from -\$95 billion in 2019 to -\$22 billion TTM while enterprise value has increased from \$1.8 trillion to \$2.1 trillion over the same time.

Figure 13: Utilities FCF Yield: 1998 - 11/17/20



Sources: New Constructs, LLC and company filings.

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Disclosure: David Trainer, Kyle Guske II, and Matt Shuler receive no compensation to write about any specific stock, style, or theme.

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Appendix I: Free Cash Flow and Enterprise Value Since 1998

This appendix shows the two drivers used to calculate FCF yield – <u>free cash flow</u> and <u>enterprise value</u> – for the NC 2000 and each NC 2000 sector going back to December 1998. We sum the individual NC 2000/sector constituent values to arrive at the values we present for free cash flow and enterprise value. We call this approach the "Aggregate" methodology, and it matches S&P Global's (SPGI) methodology for these calculations. More methodology details in Appendix II.

Figure 14 ranks all 11 sectors by TTM free cash flow.

Figure 14: Free Cash Flow by Sector - TTM as of 11/17/20

Sector	Free Cash Flow (\$mm)
Technology	\$213,392
Consumer Non-cyclicals	\$118,831
Energy	\$93,251
Financials	\$79,669
Consumer Cyclicals	\$65,175
Industrials	\$47,678
Basic Materials	\$43,355
Real Estate	-\$14,433
Utilities	-\$21,957
Telecom Services	-\$43,426
Healthcare	-\$118,644
NC 2000	\$462,891

Sources: New Constructs, LLC and company filings.

Figure 15 ranks all 11 sectors by TTM enterprise value.

Figure 15: Enterprise Value by Sector – TTM as of 11/17/20

Sector	Enterprise Value (\$mm)
Technology	\$12,847,388
Consumer Cyclicals	\$7,269,922
Healthcare	\$5,856,555
Financials	\$5,088,929
Industrials	\$4,896,501
Consumer Non-cyclicals	\$3,371,764
Utilities	\$2,057,222
Real Estate	\$1,790,812
Energy	\$1,765,798
Telecom Services	\$1,647,203
Basic Materials	\$1,474,097
NC 2000	\$48,066,191

Sources: New Constructs, LLC and company filings.

These two tables show the Technology sector not only generates the most free cash flow but it also has the highest enterprise value of all sectors.

Figures 16-27 compare the FCF and enterprise value trends for the NC 2000 and every sector since 1998.



Figure 16: NC 2000 FCF & Enterprise Value: 1998 - 11/17/20

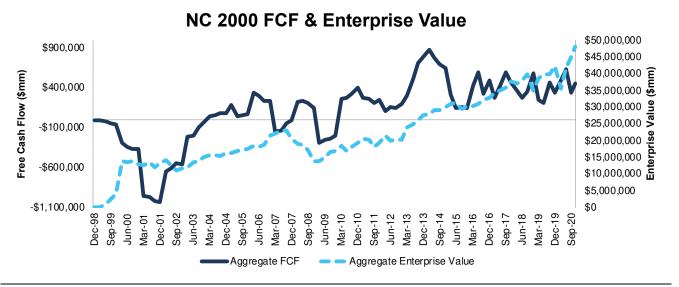


Figure 17: Basic Materials FCF & Enterprise Value: 1998 - 11/17/20

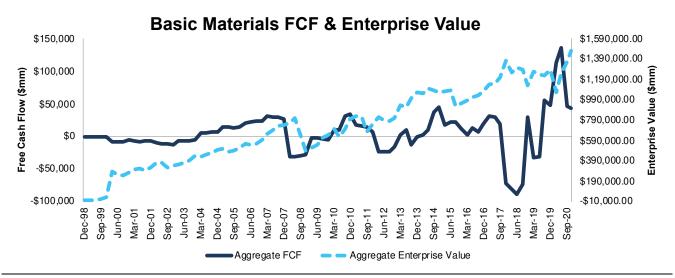




Figure 18: Consumer Cyclicals FCF & Enterprise Value: 1998 – 11/17/20

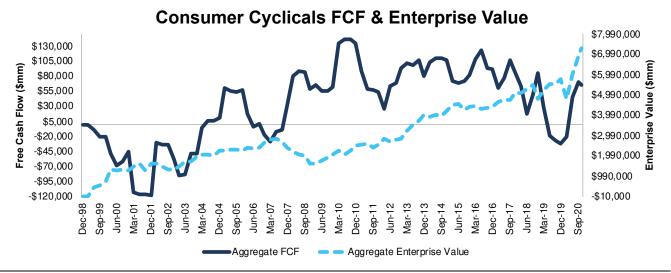


Figure 19: Consumer Non-Cyclicals FCF & Enterprise Value: 1998 – 11/17/20

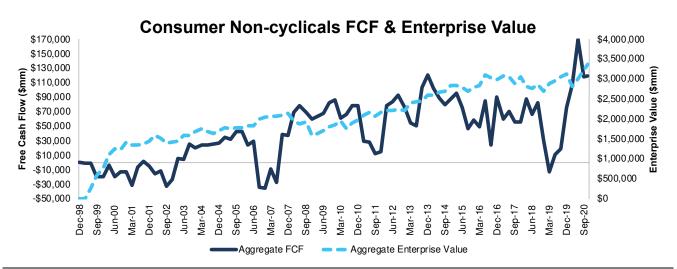




Figure 20: Energy FCF & Enterprise Value: 1998 – 11/17/20

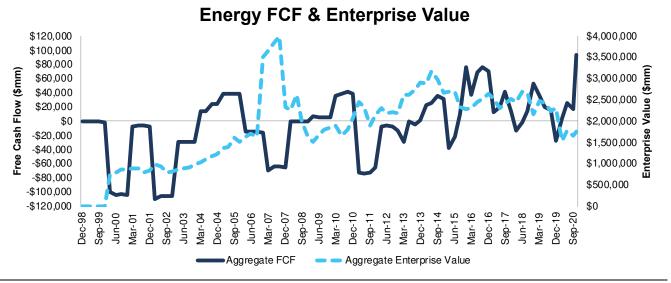


Figure 21: Financials FCF & Enterprise Value: 1998 – 11/17/20

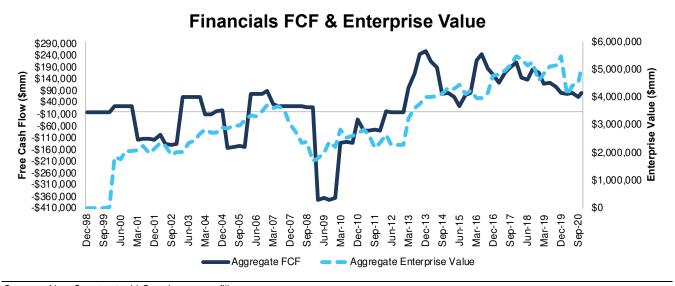




Figure 22: Healthcare FCF & Enterprise Value: 1998 - 11/17/20

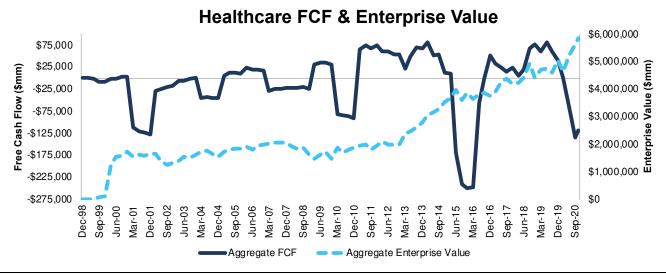
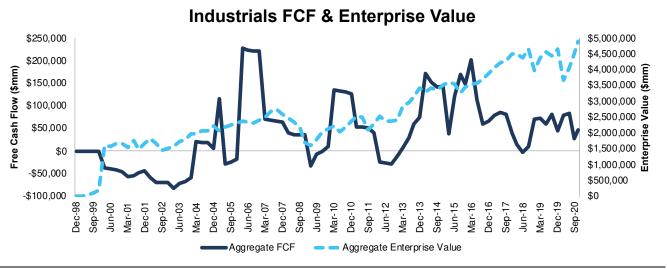


Figure 23: Industrials FCF & Enterprise Value: 1998 – 11/17/20³



³ The Industrials sector free cash flow is heavily influenced by General Electric (GE) in 2005. In 2005 GE restated ~\$135 billion of Investment Securities to Assets of Discontinued Operations. This reclassification caused a large year-over-year increase in invested capital from 2004-2005, and therefore a large increase in FCF. However, due to poor disclosures in the filings, we're unable to specifically track the changes beyond reclassifying an operating asset to a non-operating asset.



Figure 24: Real Estate FCF & Enterprise Value: 1998 - 11/17/20

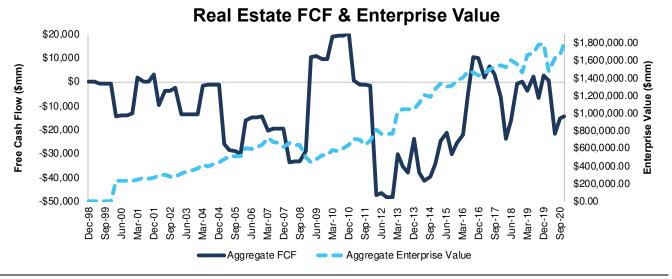


Figure 25: Technology FCF & Enterprise Value: 1998 - 11/17/20

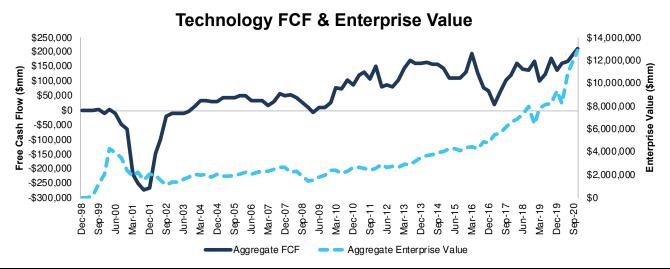




Figure 26: Telecom Services FCF & Enterprise Value: 1998 - 11/17/20

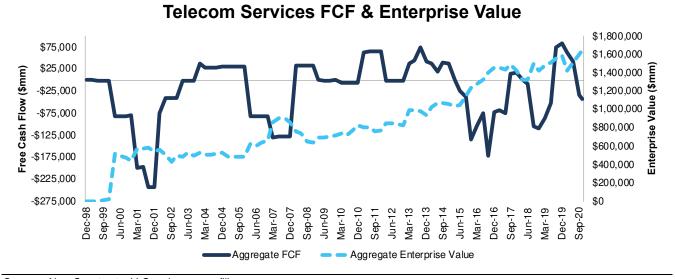
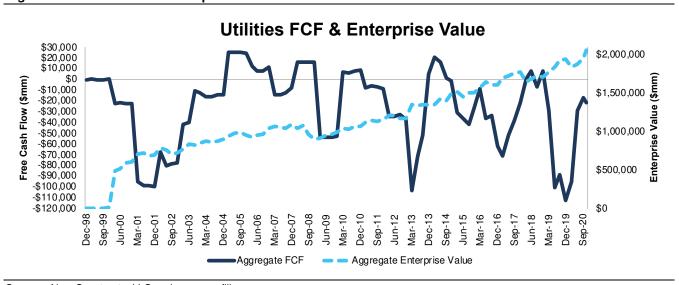


Figure 27: Utilities FCF & Enterprise Value: 1998 - 11/17/20





Appendix II: Analyzing FCF Yield with Different Weighting Methodologies

We derive the metrics above by summing the individual NC 2000/sector constituent values for free cash flow and enterprise value to calculate FCF yield. We call this approach the "Aggregate" methodology.

The Aggregate methodology provides a straightforward look at the entire NC 2000/sector, regardless of market cap or index weighting, and matches how S&P Global (SPGI) calculates metrics for the S&P 500.

For additional perspective, we compare the Aggregate method for free cash flow with two other market-weighted methodologies. These market-weighted methodologies add more value for ratios that do not include market values, e.g. ROIC and its drivers, but we include them here, nonetheless, for comparison:

- 1. **Market-weighted metrics** calculated by market-cap-weighting the FCF yield for the individual companies relative to their sector or the overall NC 2000 in each period. Details:
 - a. Company weight equals the company's market cap divided by the market cap of the NC 2000/ its sector
 - b. We multiply each company's FCF yield by its weight
 - c. NC 2000/Sector FCF yield equals the sum of the weighted FCF yields for all the companies in the NC 2000/sector
- 2. **Market-weighted drivers** calculated by market-cap-weighting the FCF and enterprise value for the individual companies in each sector/NC 2000 in each period. Details:
 - a. Company weight equals the company's market cap divided by the market cap of the NC 2000/ its sector
 - b. We multiply each company's free cash flow and enterprise value by its weight
 - c. We sum the weighted FCF and weighted enterprise value for each company in the NC 2000/each sector to determine each sector's weighted FCF and weighted enterprise value
 - d. NC 2000/Sector FCF yield equals weighted NC 2000/sector FCF divided by weighted NC 2000/sector enterprise value

Each methodology has its pros and cons, as outlined below:

Aggregate method

Pros:

- A straightforward look at the entire NC 2000/sector, regardless of company size or weighting in any indices.
- Matches how S&P Global calculates metrics for the S&P 500.

Cons:

 Vulnerable to impact of companies entering/exiting the group of companies, which could unduly affect aggregate values. Also susceptible to outliers in any one period.

Market-weighted metrics method

Pros:

• Accounts for a firm's market cap relative to the NC 2000/sector and weights its metrics accordingly.

Cons:

Vulnerable to outlier results from a single company disproportionately impacting the overall FCF yield.

Market-weighted drivers method

Pros:

- Accounts for a firm's market cap relative to the NC 2000/sector and weights its free cash flow and enterprise value accordingly.
- Mitigates the disproportionate impact of outlier results from one company on the overall results.

Cons:

 More volatile as it adds emphasis to large changes in FCF and enterprise value for heavily weighted companies.



Figures 28-39 compare these three methods for calculating NC 2000 and sector FCF yields.

Figure 28: NC 2000 FCF Yield Methodologies Compared: 1998 – 11/17/20

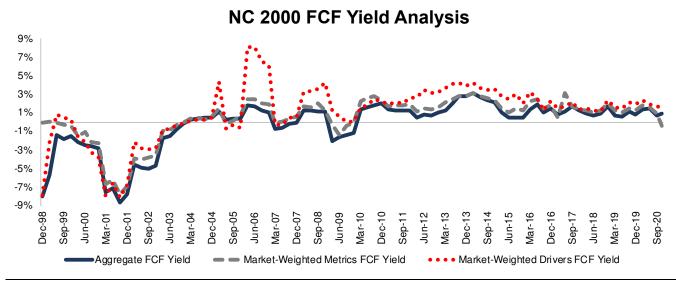


Figure 29: Basic Materials FCF Yield Methodologies Compared: 1998 - 11/17/20

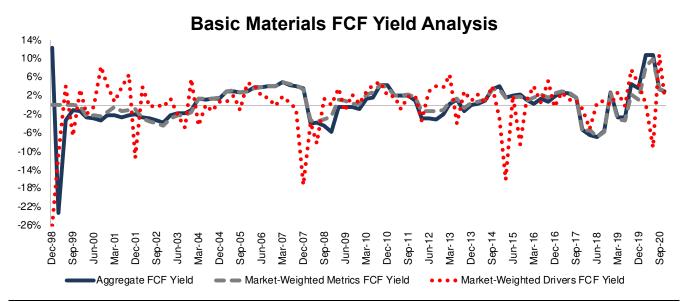




Figure 30: Consumer Cyclicals FCF Yield Methodologies Compared: 1998 – 11/17/20

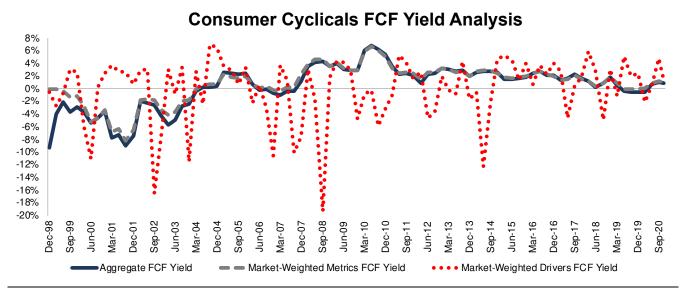


Figure 31: Consumer Non-cyclicals FCF Yield Methodologies Compared: 1998 – 11/17/20

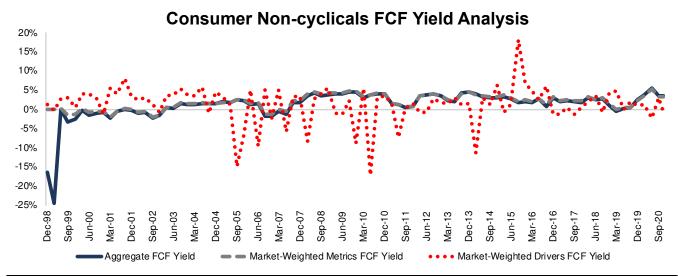




Figure 32: Energy FCF Yield Methodologies Compared: 1998 – 11/17/20

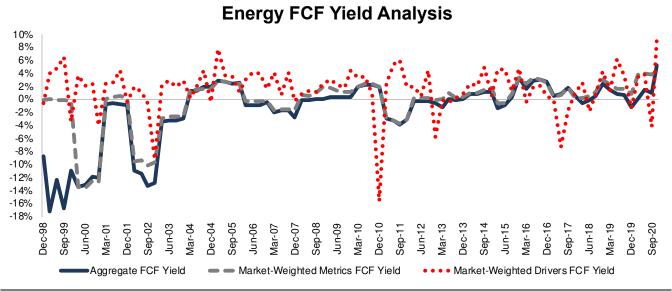


Figure 33: Financials FCF Yield Methodologies Compared: 1998 – 11/17/20

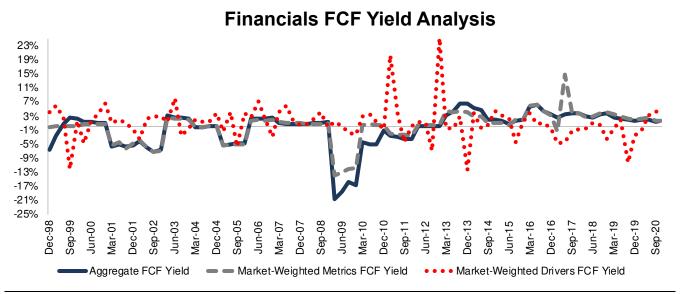




Figure 34: Healthcare FCF Yield Methodologies Compared: 1998 – 11/17/20

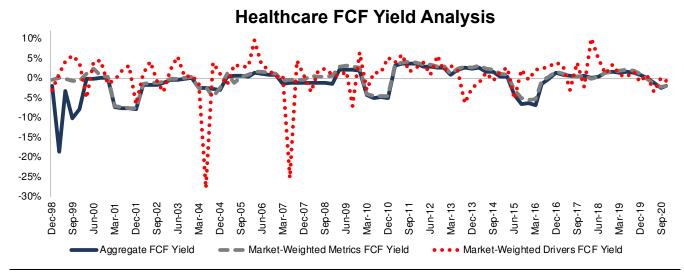


Figure 35: Industrials FCF Yield Methodologies Compared: 1998 – 11/17/20

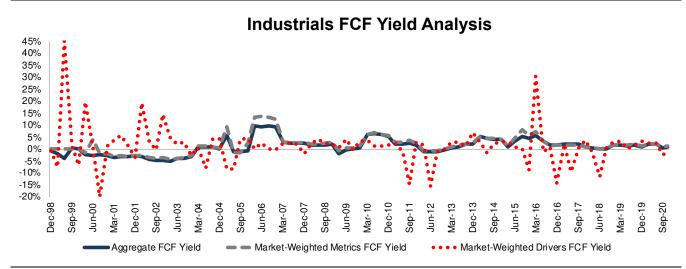




Figure 36: Real Estate FCF Yield Methodologies Compared: 1998 – 11/17/20

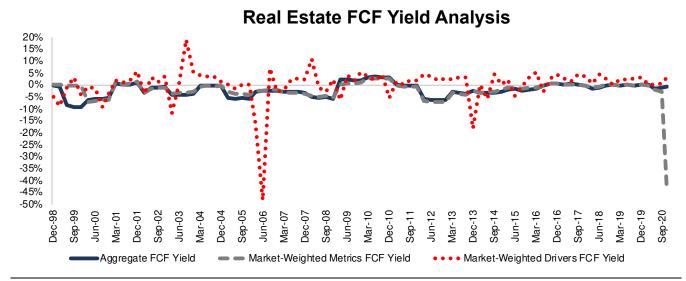


Figure 37: Technology FCF Yield Methodologies Compared: 1998 – 11/17/20

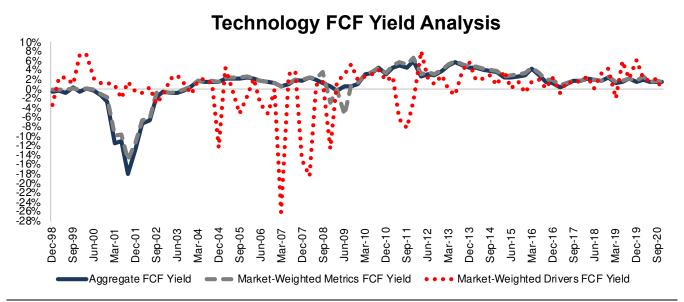




Figure 38: Telecom Services FCF Yield Methodologies Compared: 1998 – 11/17/20

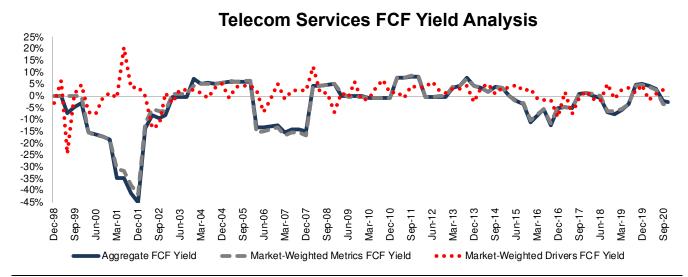
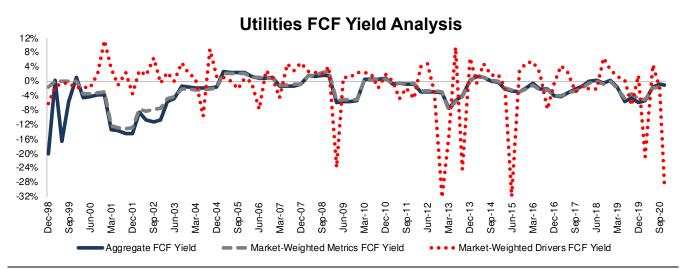


Figure 39: Utilities FCF Yield Methodologies Compared: 1998 - 11/17/20





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This <u>paper</u> compares our analytics on a mega cap company to other major providers. The Appendix details exactly how we stack up.

Learn more.

Quotes from HBS & MIT Sloan professors on our research:

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Pick better stocks:

"Trading strategies that exploit cross-sectional differences in firms' transitory earnings produce abnormal returns of 7-to-10% per year." – Abstract

Avoid losses from using other firms' data:

"...many of the income-statement-relevant quantitative disclosures collected by NC do not appear to be easily identifiable in Compustat..." – page 14

Build better models:

"Core Earnings [calculated using New Constructs' novel dataset] provides predictive power for various measures of one-year-ahead performance...that is incremental to their current-period counterparts." – page 4

Exploit market inefficiencies:

"These results ... suggest that the adjustments made by analysts and Compustat to better capture core earnings are incomplete. Moreover, the non-core items identified by NC produce a measure of core earnings that is incremental to alternative measures of operating performance in predicting an array of future income measures." – page 26

Fulfill fiduciary duties:

"An appropriate measure of accounting performance for purposes of forecasting future performance requires detailed analysis of all quantitative performance disclosures detailed in the annual report, including those reported only in the footnotes and in the MD&A." – page 33-34



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