



## All Cap Index & Sectors: Price to Economic Book Value Through 4Q20

This report analyzes<sup>1</sup> market cap, [economic book value](#), and the trailing price-to-economic book value ([PEBV](#)) ratio for our All Cap Index and each of its sectors. This research is based on the latest audited financial data, which is the 2020 10-K for most companies. Price data is as of 3/23/21.

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 [Core Earnings](#) for the NC 2000 and each sector in [All Cap Index & Sectors: Core Earnings Vs. GAAP Net Income Through 4Q20](#). We analyze return on invested capital ([ROIC](#)) and its drivers in [All Cap Index & Sectors: ROIC Vs. WACC Through 4Q20](#). We analyze free cash flow (FCF), enterprise value, and FCF Yield in [All Cap Index: & Sectors: Free Cash Flow Yield Through 4Q20](#).

These reports leverage [more reliable fundamental data](#)<sup>2</sup> that enables investors to overcome [flaws with legacy fundamental datasets](#). Investors armed with our research enjoy a differentiated and more informed view of the fundamentals and valuations of companies and sectors.

Learn more about the best fundamental research

### NC 2000 Trailing PEBV Ratio Rose in 2020

The trailing PEBV ratio for the NC 2000 rose from 1.1 at the end of 2019 to 1.7 through 3/23/21 (the earliest date all NC 2000 companies provided 2020 annual data). The NC 2000 trailing PEBV ratio last reached this level in 2009, per Figure 1. This trailing ratio compares the NC 2000's expected future profits (embedded in its equity valuation) to 2020 profits. At 1.7, the NC 2000's valuation implies the profits of the NC 2000 stocks will increase 70% from 2020 levels.

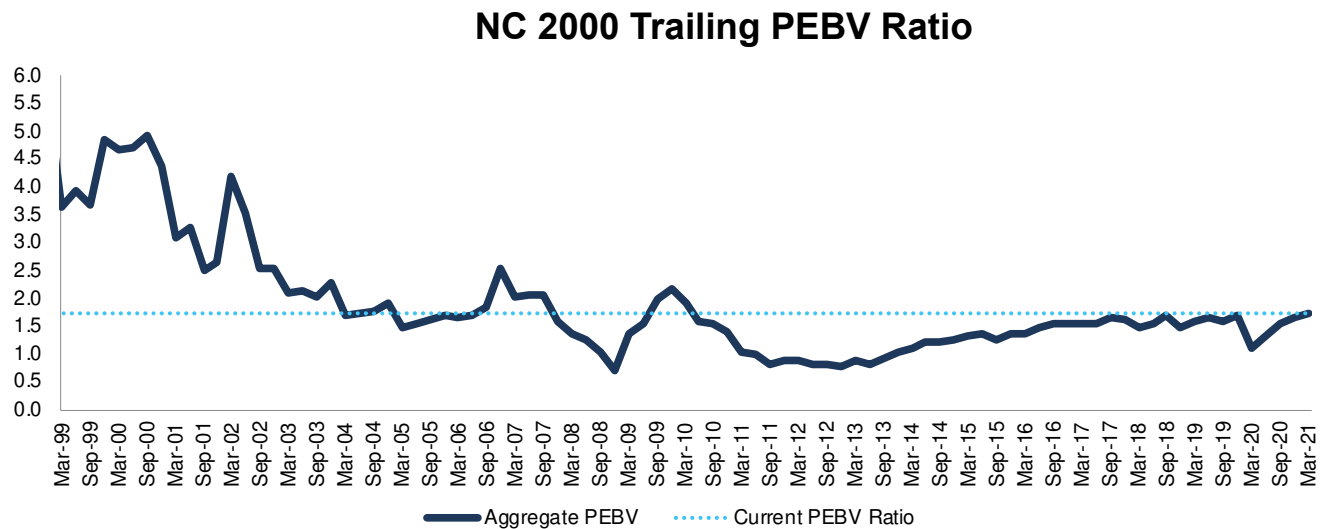
Three NC 2000 sectors trade below their economic book value (excluding Energy). More details below.

<sup>1</sup> We calculate these metrics based on [S&P Global's](#) (SPGI) methodology, which sums the individual NC 2000 constituent values for market cap and economic book value before using them to calculate the metrics. We call this the "Aggregate" methodology. Get more details in Appendices I and II.

<sup>2</sup> For 3<sup>rd</sup>-party reviews, including [The Journal of Financial Economics](#), on our more reliable fundamental data, historically and prospectively, across all stocks, click [here](#) and [here](#).



**Figure 1: Trailing PEBV Ratio for the NC 2000 From March 1999 – 3/23/21<sup>3</sup>**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

**Ranking All Sectors by Trailing Price to Economic Book Value Ratio (PEBV)**

Three All Cap Index sectors trade below their economic book value (excluding Energy). Figure 2 shows that the Telecom Services sector has the lowest trailing PEBV ratio among all 11 All Cap Index sectors based on prices as of 3/23/21 and financial data from 2020 10-Ks.

**Figure 2: Trailing PEBV Ratios for all NC 2000 Sectors as of 3/23/21**

Sector	Trailing PEBV Ratio
Telecom Services	0.6
Consumer Non-cyclicals	0.8
Financials	0.9
Utilities	1.1
Healthcare	1.4
Basic Materials	1.7
Technology	2.2
Consumer Cyclicals	3.0
Industrials	3.0
Real Estate	14.9
Energy	-2.6
<b>NC 2000</b>	<b>1.7</b>

Sources: New Constructs, LLC and company filings.  
 Price as of 3/23/21, financial data from 2020 10-Ks.

A trailing PEBV ratio of 0.6 means investors expect the Telecom Service sector’s profits as of 2020 to decline, permanently, by 40% from current levels. On the flip side, investors expect the Real Estate sector (trailing PEBV ratio of 14.9) to improve 2020 profits more than any other All Cap Index sector. We will publish new reports as soon as companies report 1Q21 results, and we expect these results will be meaningfully different with that data.

<sup>3</sup> We use stock prices from 3/23/21 because that is the date when all the 2020 10-Ks for the NC 2000 constituents were available.



**Details on Each of the NC 2000 Sectors**

Figures 3-13 show the trailing PEBV ratio trends for every sector since March 1999.

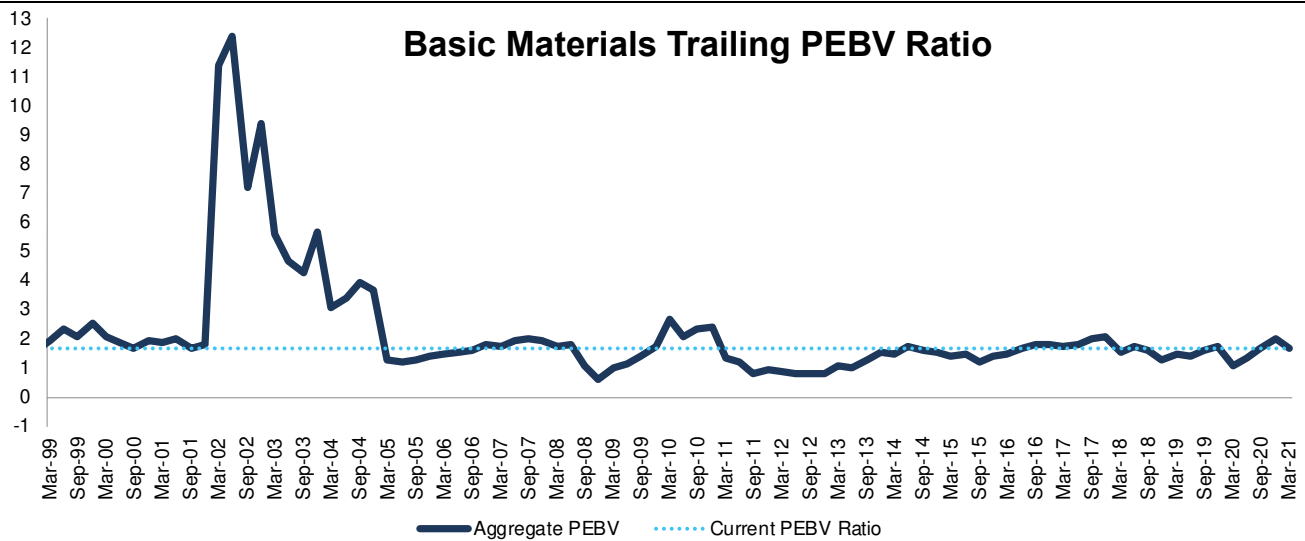
Appendix I presents the components of trailing PEBV ratio: market cap and economic book value for the NC 2000 and each sector.

Appendix II provides additional aggregated trailing PEBV ratio analyses that adjusts for company size/market cap.

**Basic Materials: Trailing PEBV Ratio = 1.7**

Figure 3 shows the trailing PEBV ratio for the Basic Materials sector has fallen since mid-2017 but increased significantly since the end of 2019. Since the end of 2019, the sector market cap increased from \$660 billion to \$1.2 trillion as of 3/23/21 while its economic book value increased from \$631 billion to \$692 billion in 2020.

**Figure 3: Basic Materials Trailing PEBV Ratio: March 1999 – 3/23/21**



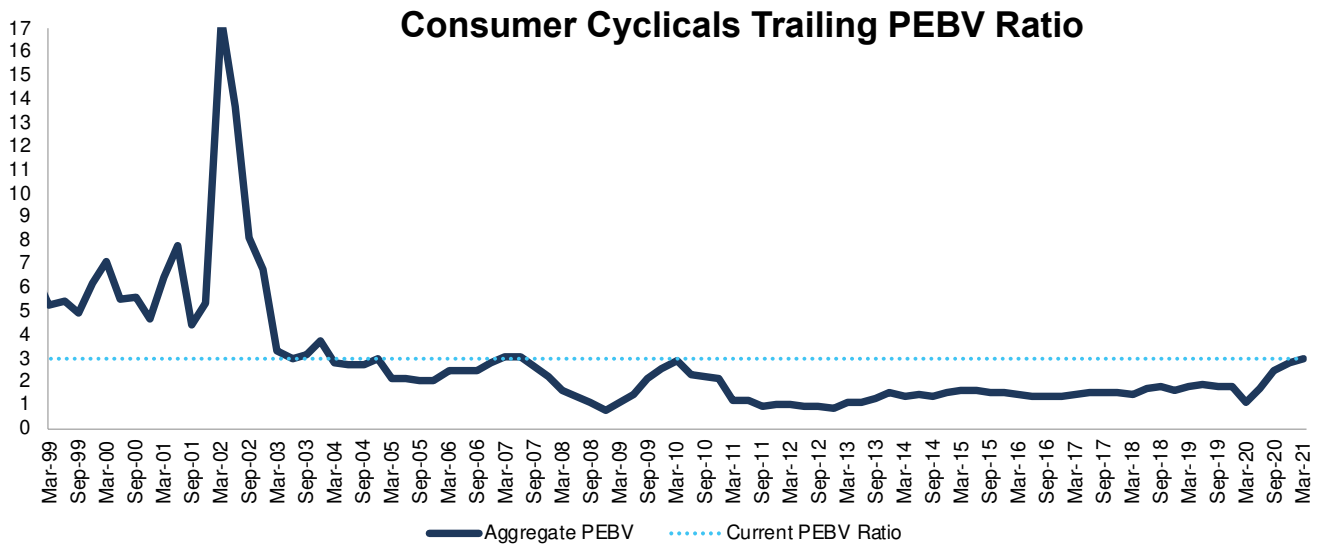
Sources: New Constructs, LLC and company filings. The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

**Consumer Cyclical: Trailing PEBV Ratio = 3.0**

Figure 4 shows the trailing PEBV ratio for the Consumer Cyclical sector sits at the highest level since mid-2007, which suggests investors expect sector profits to rebound after the COVID-19-induced economic downturn. The sector market cap increased from \$3.4 trillion at the end of 2019 to \$6.8 trillion as of 3/23/21 while its economic book value fell from \$3.1 trillion to \$2.3 trillion in 2020.



**Figure 4: Consumer Cyclical Trailing PEBV Ratio: March 1999 – 3/23/21**

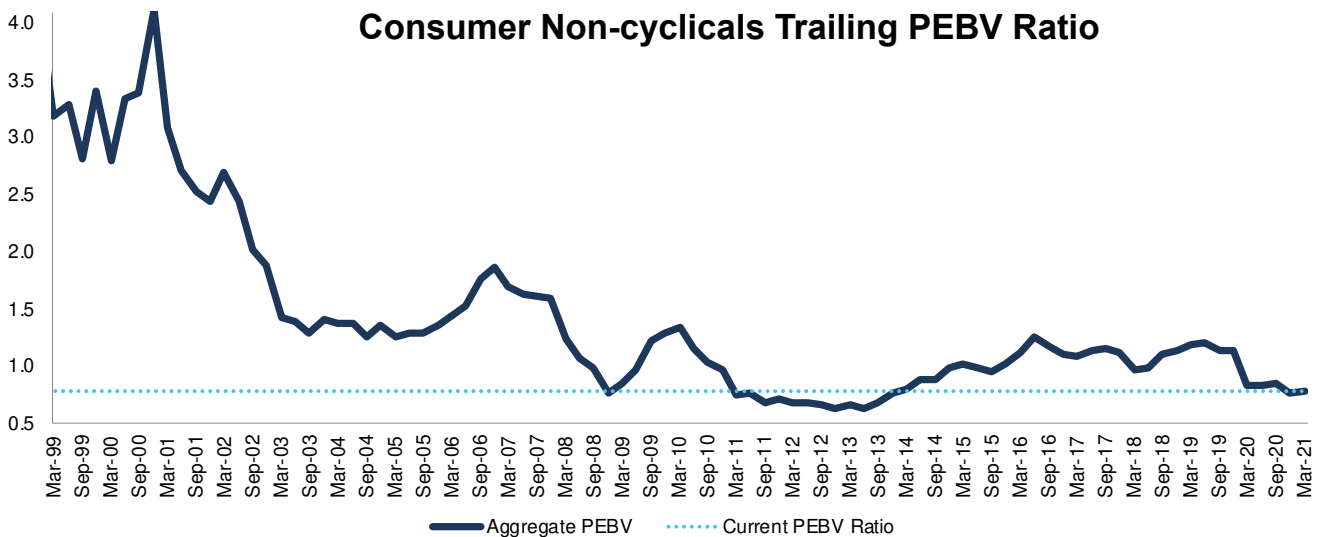


Sources: New Constructs, LLC and company filings. The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

**Consumer Non-cyclicals: Trailing PEBV Ratio = 0.8**

Figure 5 shows the trailing PEBV ratio for the Consumer Non-cyclicals sector is still below recent highs from 2014-2019. The sector market cap rose from \$2.1 trillion at the end of 2019 to \$2.7 trillion as of 3/23/21 while the sector’s economic book value increased from \$2.5 trillion to \$3.4 trillion in 2020.

**Figure 5: Consumer Non-cyclicals Trailing PEBV Ratio: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings. The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

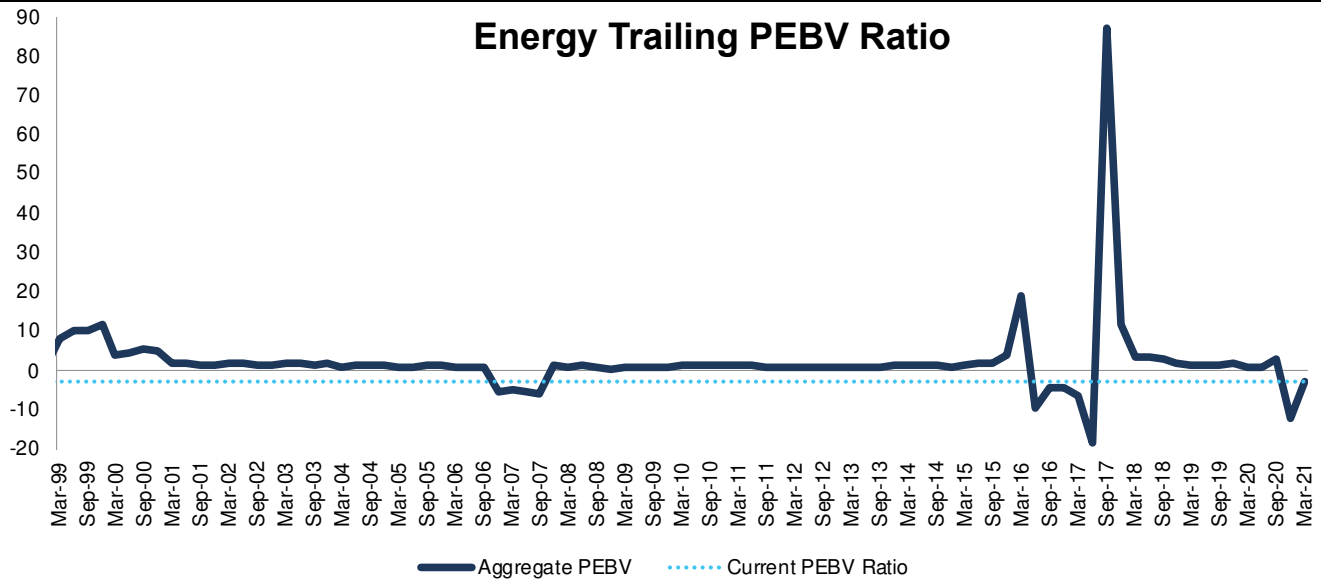
**Energy: Trailing PEBV Ratio = -2.6**

Figure 6 shows the COVID-19 impact on the Energy sector’s valuation, which results in a negative trailing PEBV in consecutive quarters for the first time since mid-2017. The Energy sector market cap fell from \$745 billion at the end of 2019 to \$1.3 trillion as of 3/23/21 while its economic book value fell from \$1.1 trillion to -\$491 billion in



2020. The large change in 2017 is driven by a large improvement in economic book value as oil prices, and therefore Energy firms' profits, recovered from the precipitous fall in 2014-2016.

**Figure 6: Energy Trailing PEBV Ratio: March 1999 – 3/23/21**

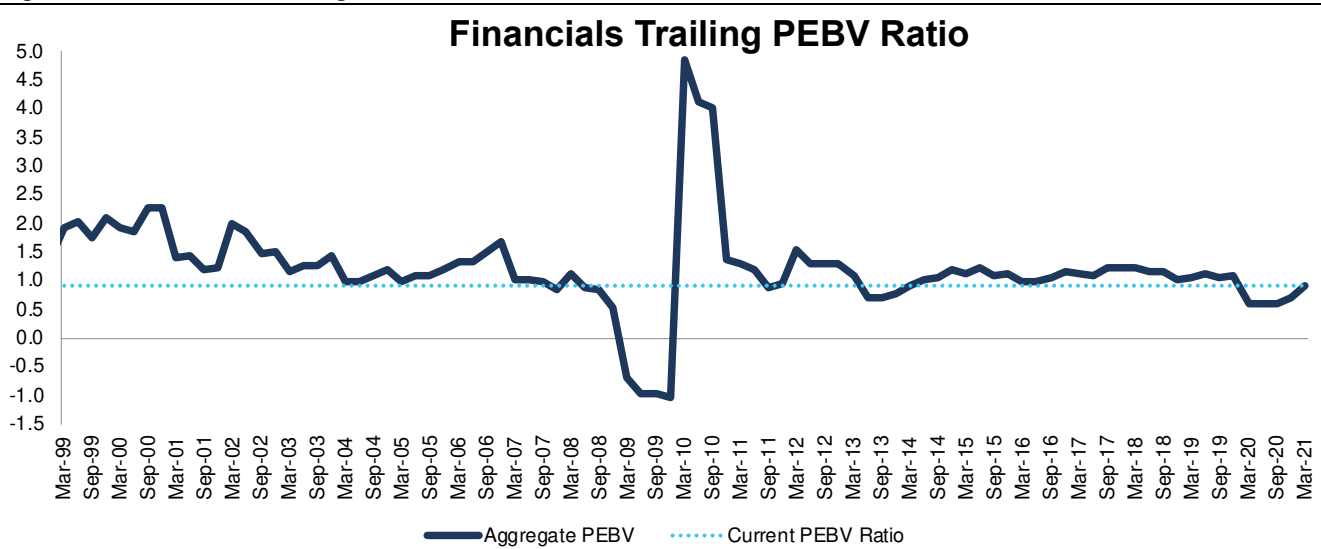


Sources: New Constructs, LLC and company filings. The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

**Financials: Trailing PEBV Ratio = 0.9**

Figure 7 shows trailing PEBV ratio for the Financials sector has been largely stable except for the Financial Crisis and currently trades below recent highs. The Financials sector market cap rose from \$3.1 trillion at the end of 2019 to \$4.9 trillion as of 3/23/21 while its economic book value rose from \$5.3 trillion to \$5.5 trillion in 2020.

**Figure 7: Financials Trailing PEBV Ratio: March 1999 – 3/23/21**



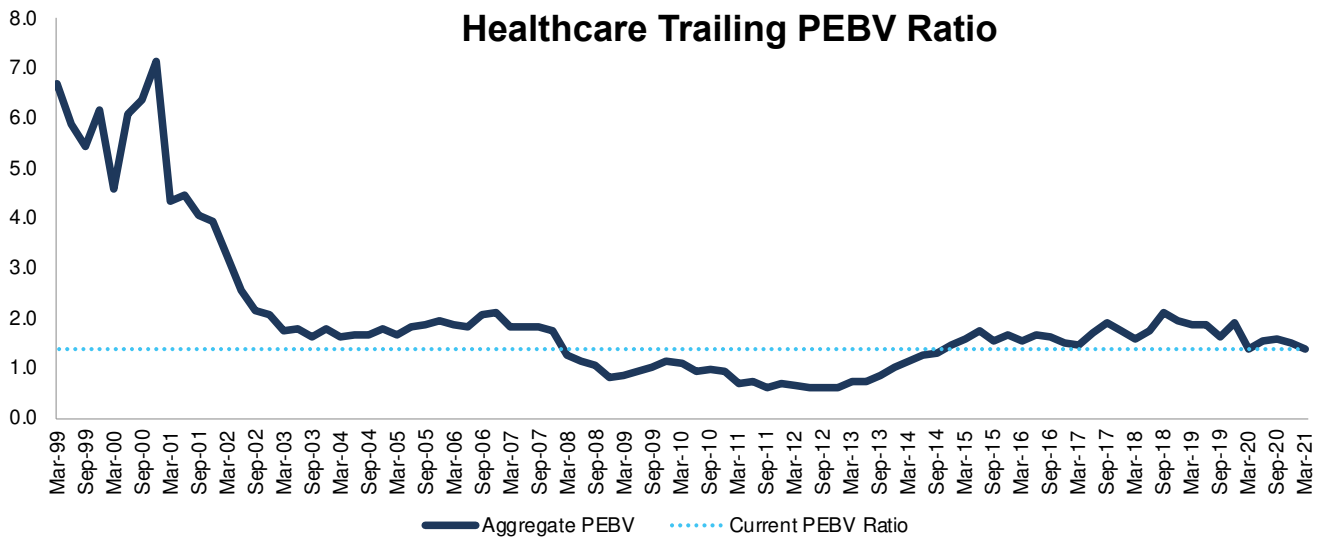
Sources: New Constructs, LLC and company filings. The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.



**Healthcare: Trailing PEBV Ratio = 1.4**

Figure 8 shows trailing PEBV ratio for the Healthcare sector is at its lowest level since mid-2014. Figure 8 also shows how cheap the Healthcare sector was during and after the Financial Crisis as it consistently traded below its economic book value from mid-2008 through 2013. The Healthcare sector market cap increased from \$3.8 trillion at the end of 2019 to \$5.1 trillion as of 3/23/21 while its economic book value improved from \$2.7 trillion to \$3.7 trillion in 2020.

**Figure 8: Healthcare Trailing PEBV Ratio: March 1999 – 3/23/21**

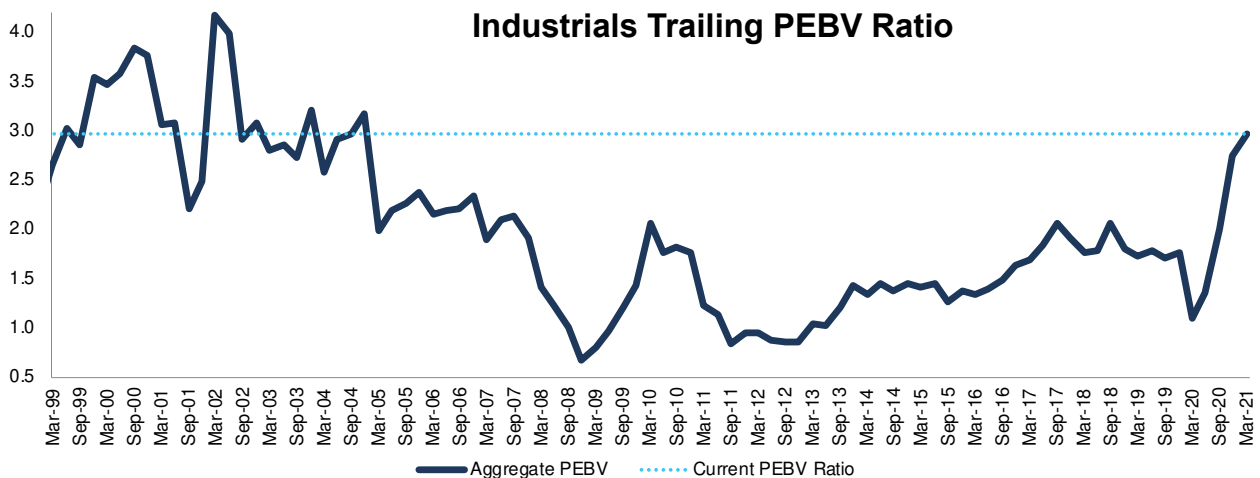


Sources: New Constructs, LLC and company filings. The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

**Industrials: Trailing PEBV Ratio = 3.0**

Figure 9 shows the trailing PEBV ratio for the Industrials sector increased significantly since the end of 2019. The ratio is currently at the highest level since 2004 and indicates investors expect the sector's profitability to rebound in a big way. The Industrials sector market cap rose from \$2.6 trillion at the end of 2019 to \$4.2 trillion as of 3/23/21 while its economic book value declined from \$2.4 trillion to \$1.4 trillion in 2020.

**Figure 9: Industrials Trailing PEBV Ratio: March 1999 – 3/23/21**



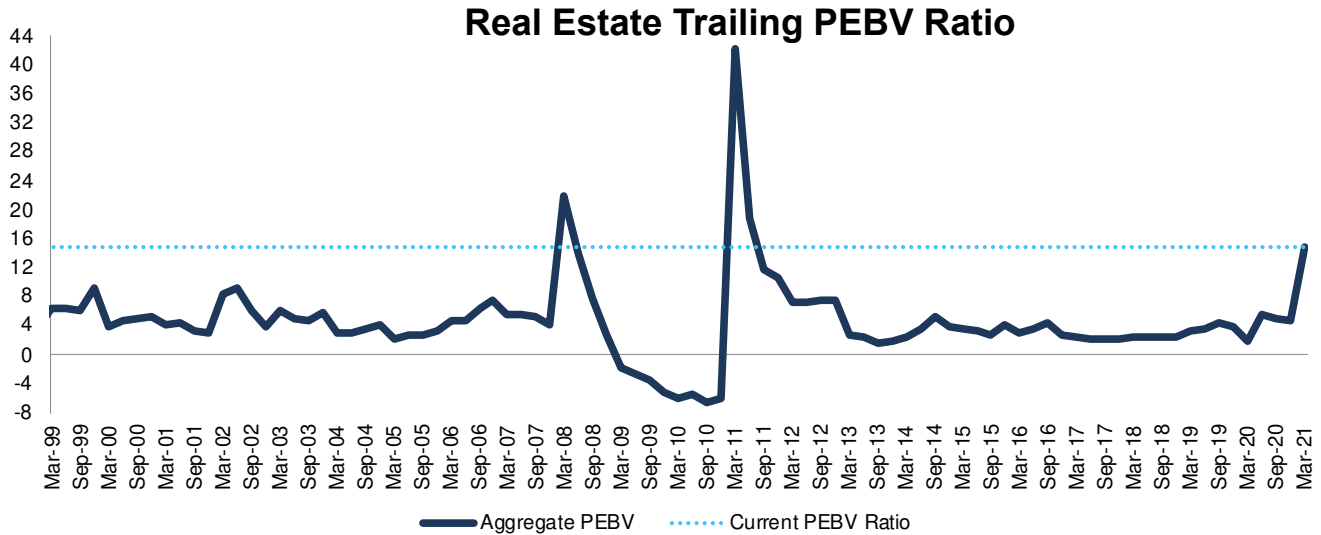
Sources: New Constructs, LLC and company filings. The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.



**Real Estate: Trailing PEBV Ratio = 14.9**

Figure 10 shows the trailing PEBV ratio for the Real Estate sector is relatively stagnant save for the run up and crash around the Financial Crisis. The trailing sector PEBV ratio is the highest since mid-2011. The Real Estate sector market cap slightly rose from \$958 billion at the end of 2019 to \$1.4 trillion 3/23/21 while its economic book value fell from \$544 billion to \$93 billion in 2020.

**Figure 10: Real Estate Trailing PEBV Ratio: March 1999 – 3/23/21**

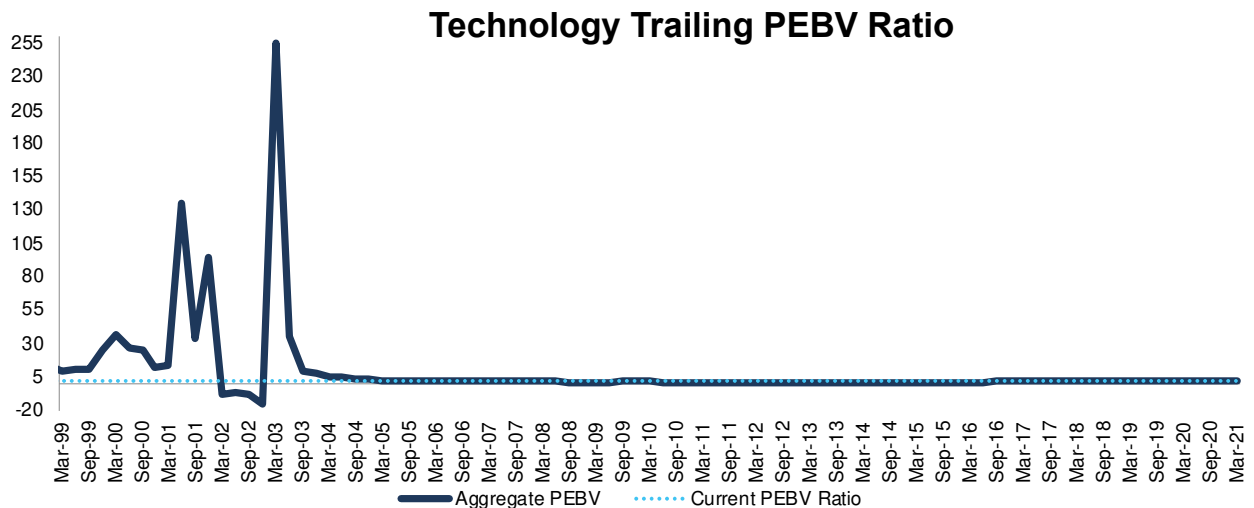


Sources: New Constructs, LLC and company filings. The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

**Technology: Trailing PEBV Ratio = 2.2**

Figure 11 shows the massive volatility in the Technology sector's valuation during and after the tech-bubble. Prior to 2019, the sector's trailing PEBV ratio hadn't reached current levels since its highest level since 2007. The Technology sector market cap increased from \$8.0 trillion at the end of 2019 to \$13.7 trillion as of 3/23/21 while its economic book value improved from \$4.2 trillion to \$6.3 trillion in 2020.

**Figure 11: Technology Trailing PEBV Ratio: March 1999 – 3/23/21**



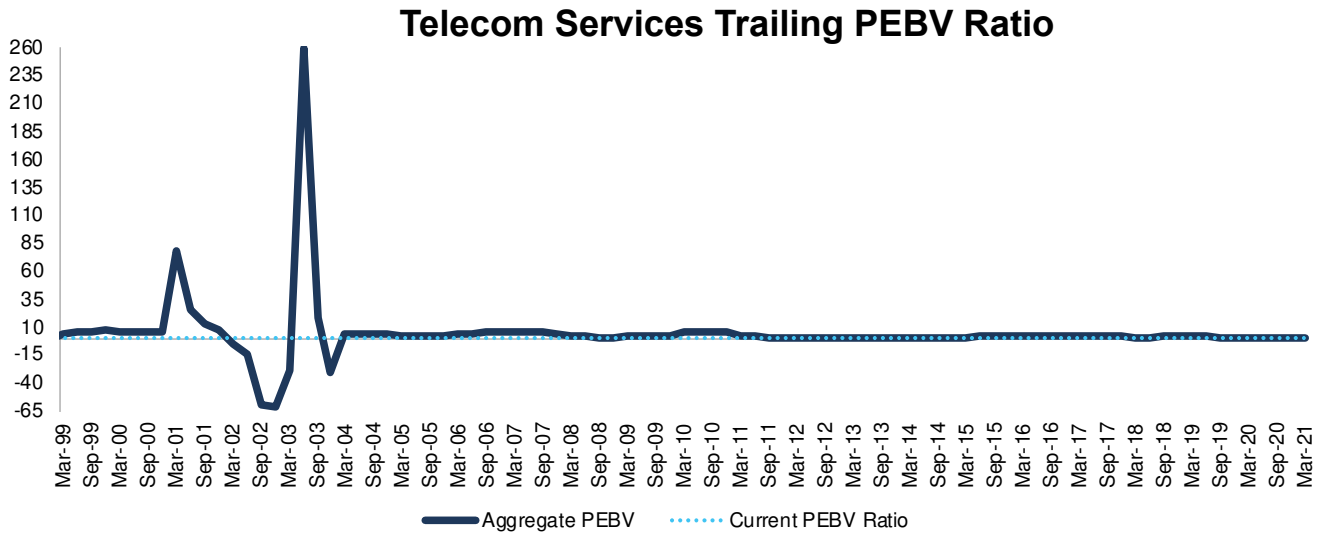
Sources: New Constructs, LLC and company filings. The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.



**Telecom Services: Trailing PEBV Ratio = 0.6**

Figure 12 shows the trailing PEBV ratio for the Telecom Services sector spiked in 2018 but the sector's economic book value has since risen above the sector's market cap. The sector market cap rose from \$652 billion at the end of 2019 to \$806 billion as of 3/23/21 while its economic book value rose from \$927 billion to \$1.3 trillion in 2020.

**Figure 12: Telecom Services Trailing PEBV Ratio: March 1999 – 3/23/21**

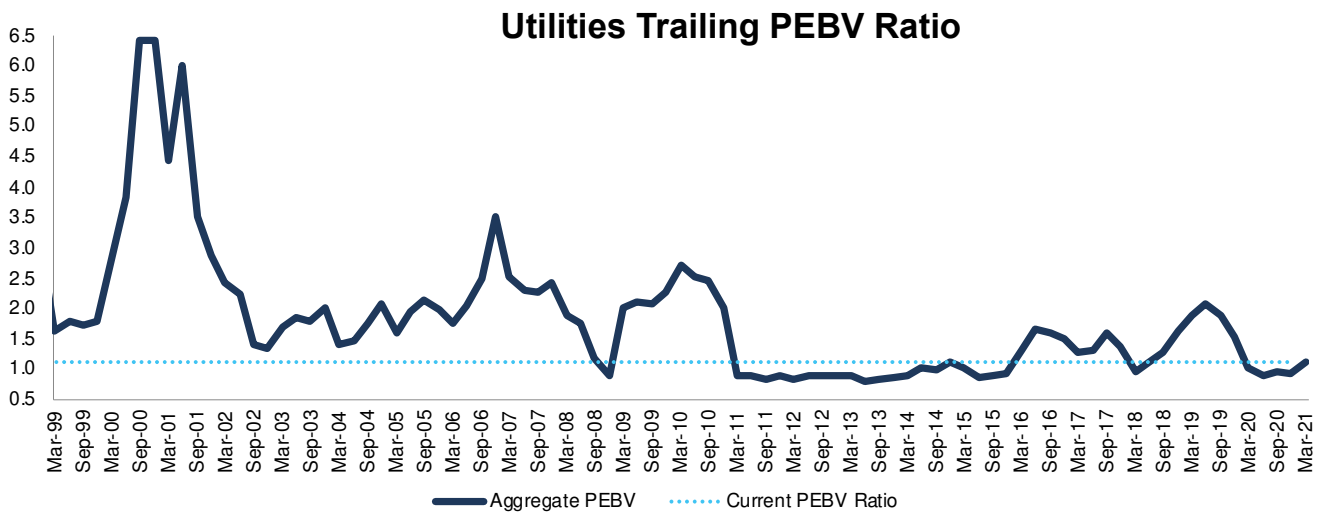


Sources: New Constructs, LLC and company filings. The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

**Utilities: Trailing PEBV Ratio = 1.1**

Figure 13 shows the volatile nature of the trailing PEBV ratio for the Utilities sector. The sector's current trailing PEBV ratio is much lower than mid-2019. The Utilities sector market cap rose from \$901 million at the end of 2019 to \$1.1 trillion as of 3/23/21 while its economic book value rose from \$874 billion to \$935 billion in 2020.

**Figure 13: Utilities Trailing PEBV Ratio: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings. The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.





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**Appendix I: NC 2000: Market Cap & Economic Book Value Since 1999**

This appendix shows the two drivers used to calculate trailing PEBV ratio – market cap and economic book value (EBV) – for the NC 2000 and each NC 2000 sector going back to March 1999. We sum the individual NC 2000/sector constituent values for market cap and economic book 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 market cap as of 3/23/21. It shows the Technology sector’s outsized impact on the NC 2000, with a market cap more than double the size of the next closest sector, Consumer Cyclical.

**Figure 14: Market Cap by Sector – as of 3/23/21**

Sector	Market Cap (\$billions)
Technology	\$12,518
Consumer Cyclical	\$5,909
Healthcare	\$4,933
Financials	\$4,093
Industrials	\$3,813
Consumer Non-cyclical	\$2,620
Real Estate	\$1,257
Basic Materials	\$1,065
Utilities	\$1,063
Energy	\$960
Telecom Services	\$817
<b>NC 2000</b>	<b>\$39,048</b>

Sources: New Constructs, LLC and company filings.  
Prices as of 3/23/21.

Figure 15 ranks all 11 NC 2000 sectors by economic book value based on financial data from 2020 10-Ks. It shows that the Technology sector also has the highest economic book value – though the EBV of the next closest sector is not far below.

**Figure 15: Economic Book Value by Sector – Financial Data From 2020 10-Ks**

Sector	Economic Book Value (\$billions)
Technology	\$5,341
Financials	\$5,098
Healthcare	\$3,270
Consumer Non-cyclical	\$2,806
Consumer Cyclical	\$2,055
Industrials	\$1,349
Telecom Services	\$908
Basic Materials	\$489
Utilities	\$445
Real Estate	\$147
Energy	-\$255
<b>NC 2000</b>	<b>\$21,652</b>

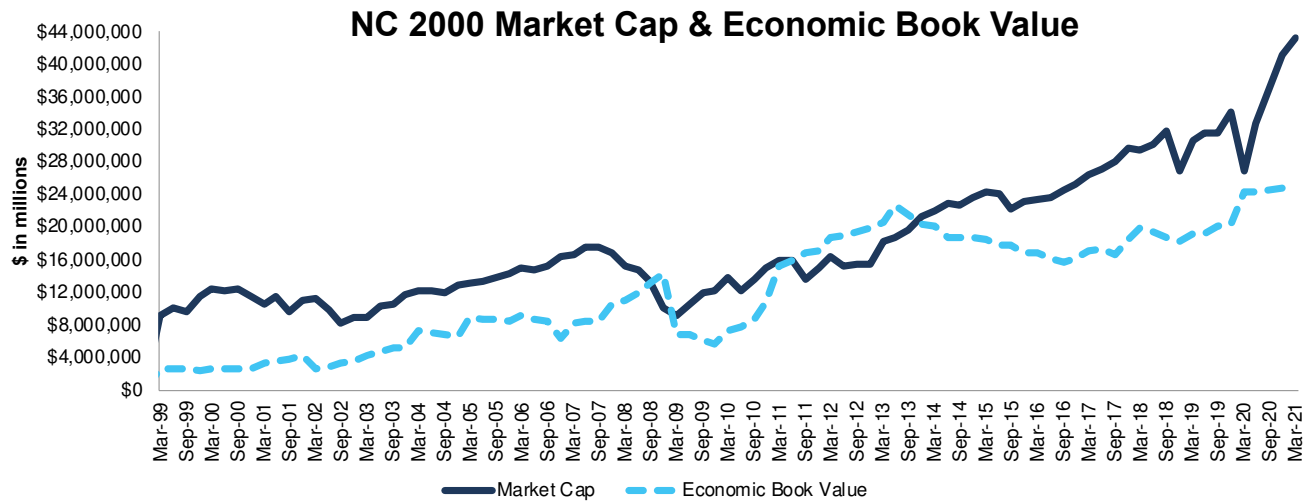
Sources: New Constructs, LLC and company filings.  
Financial data from 2020 10-Ks.

Figures 16-27 compare the market cap and economic book value trends for the NC 2000 and every sector since March 1999.



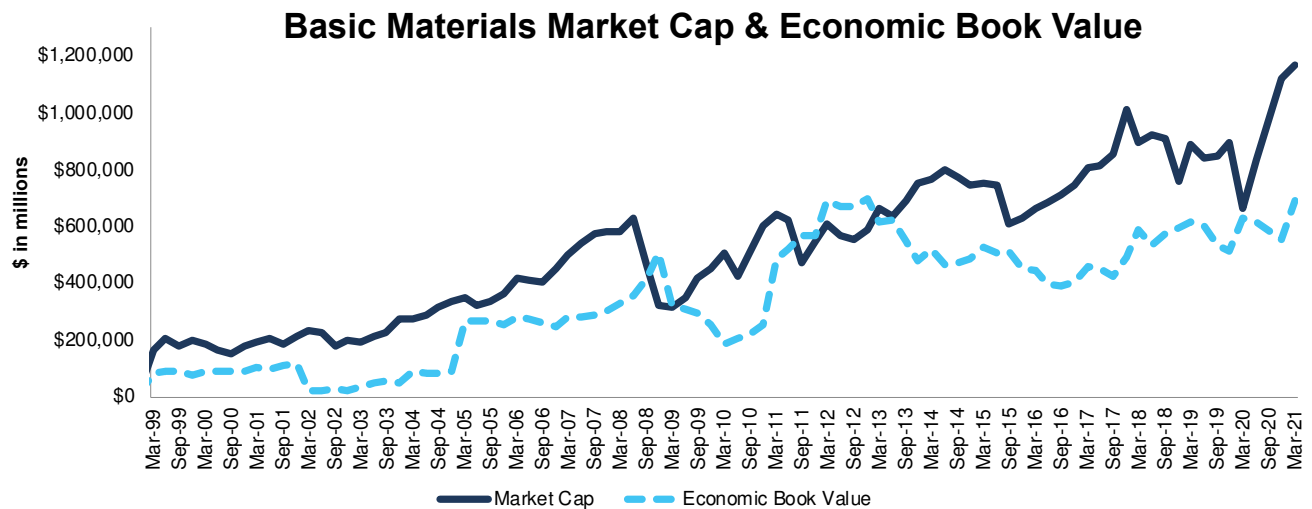
Note the much more prolonged price downturn during the Financial Crisis compared to the rapid recovery after the COVID-19-induced market crash.

**Figure 16: NC 2000 Market Cap & Economic Book Value: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings. The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

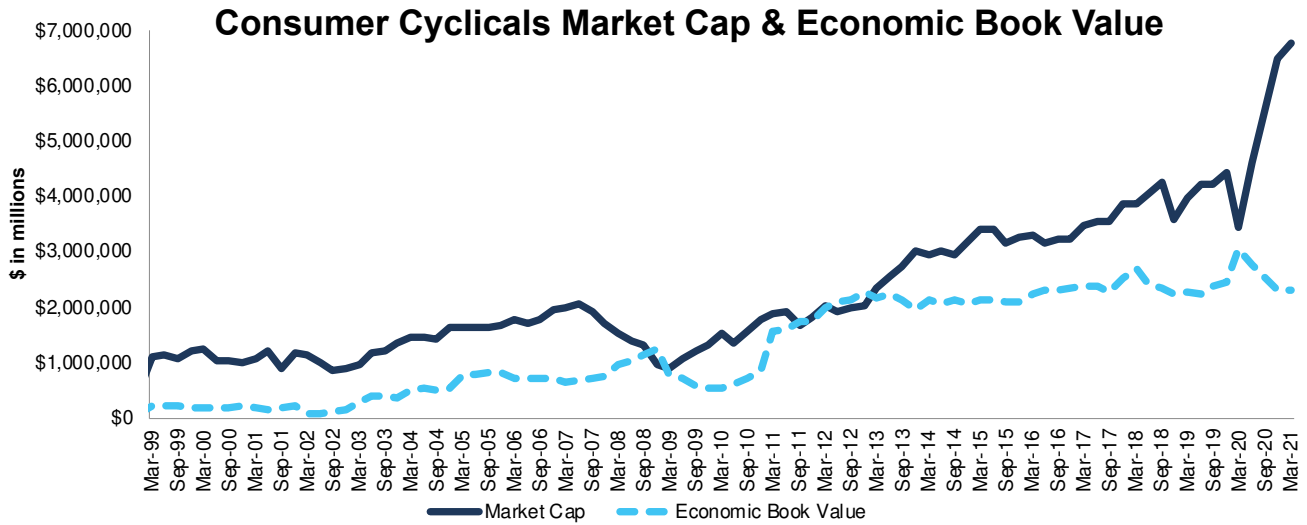
**Figure 17: Basic Materials Market Cap & Economic Book Value: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings. The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

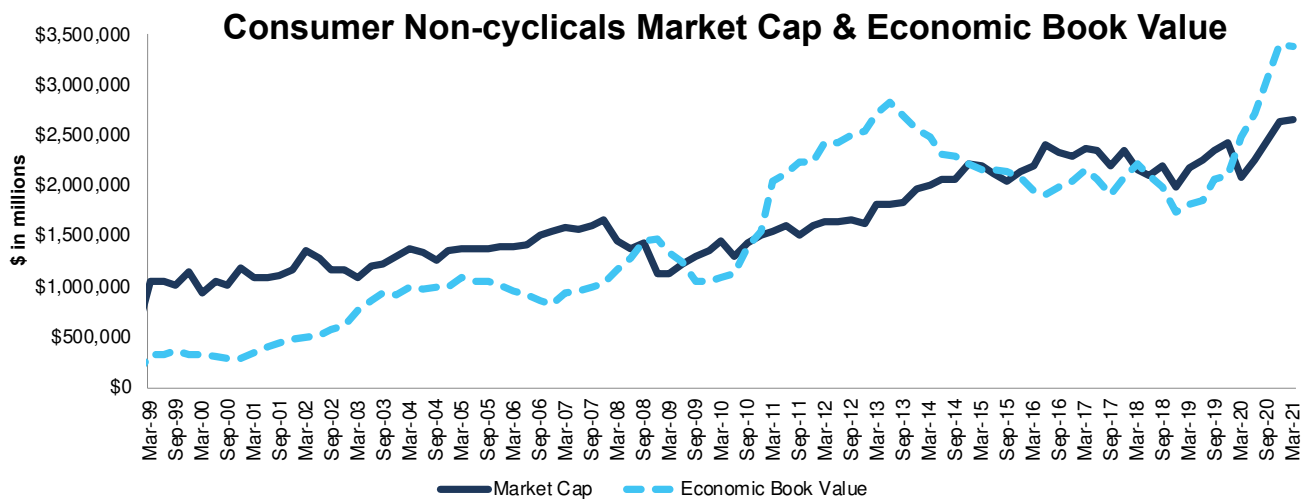


**Figure 18: Consumer Cyclical Market Cap & Economic Book Value: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

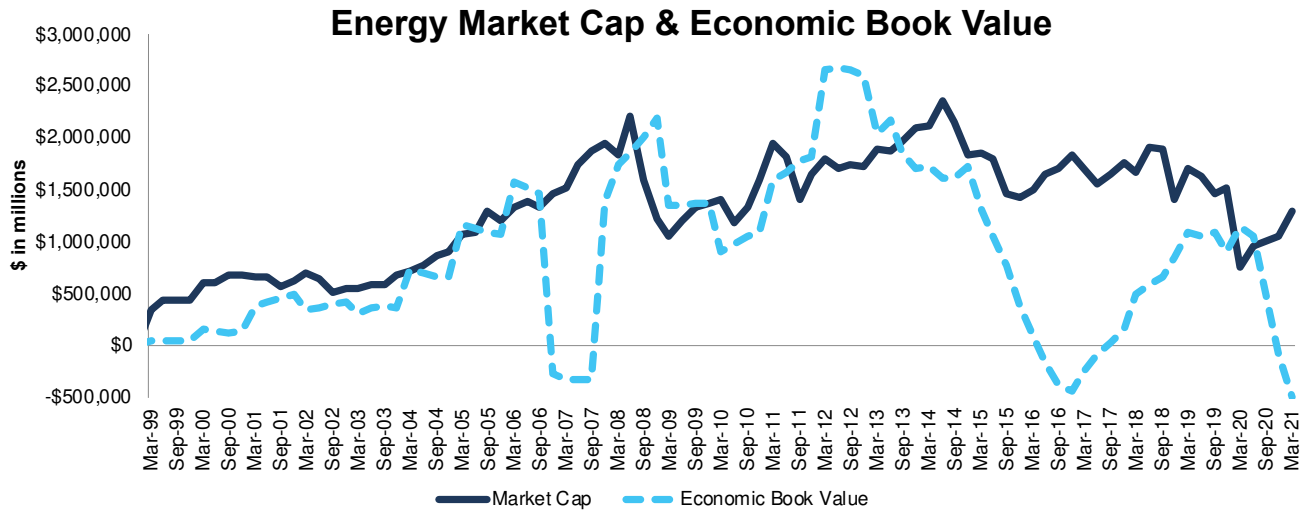
**Figure 19: Consumer Non-cyclicals Market Cap & Economic Book Value: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

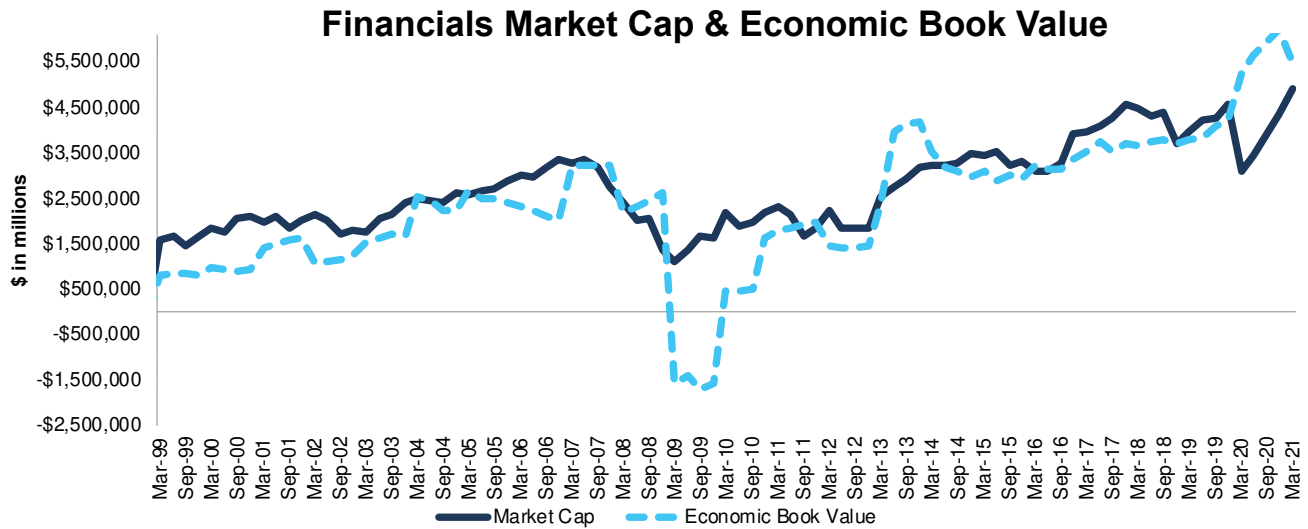


**Figure 20: Energy Market Cap & Economic Book Value: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

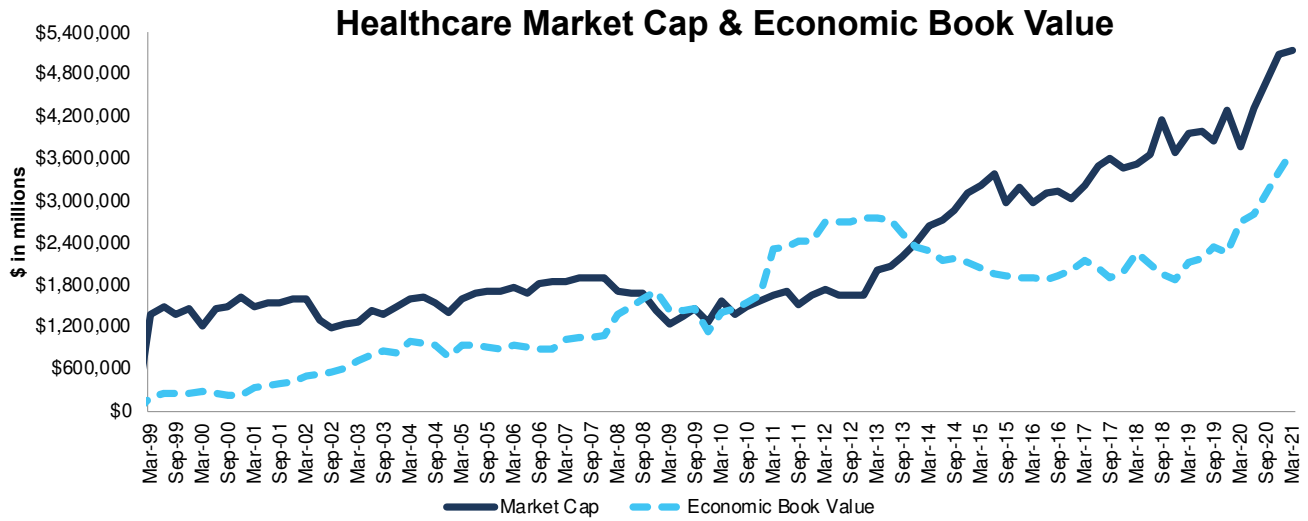
**Figure 21: Financials Market Cap & Economic Book Value: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

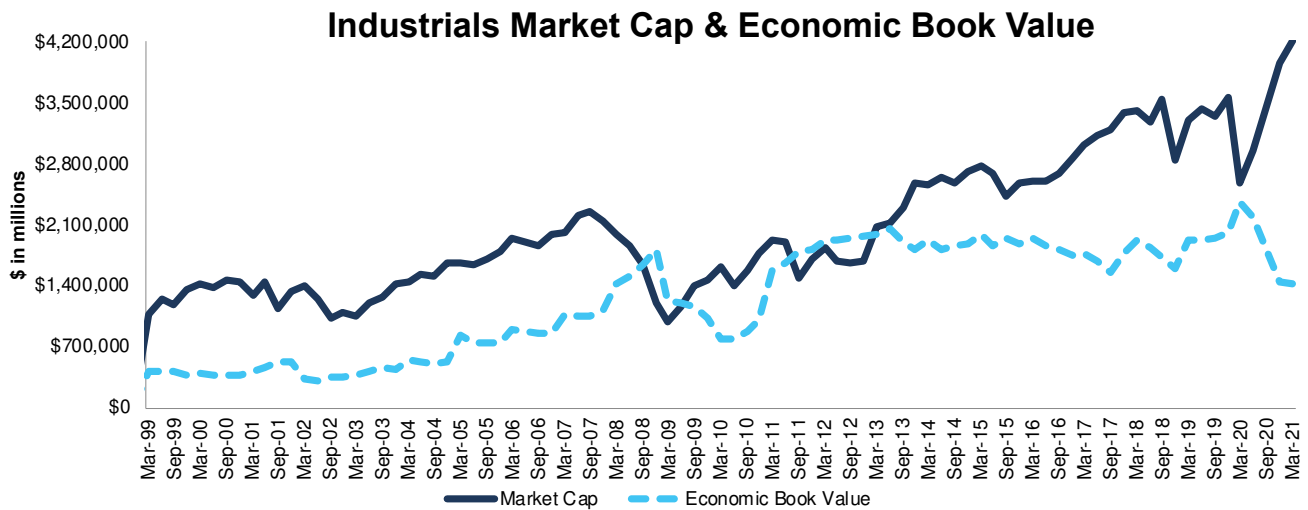


**Figure 22: Healthcare Market Cap & Economic Book Value: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings. The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

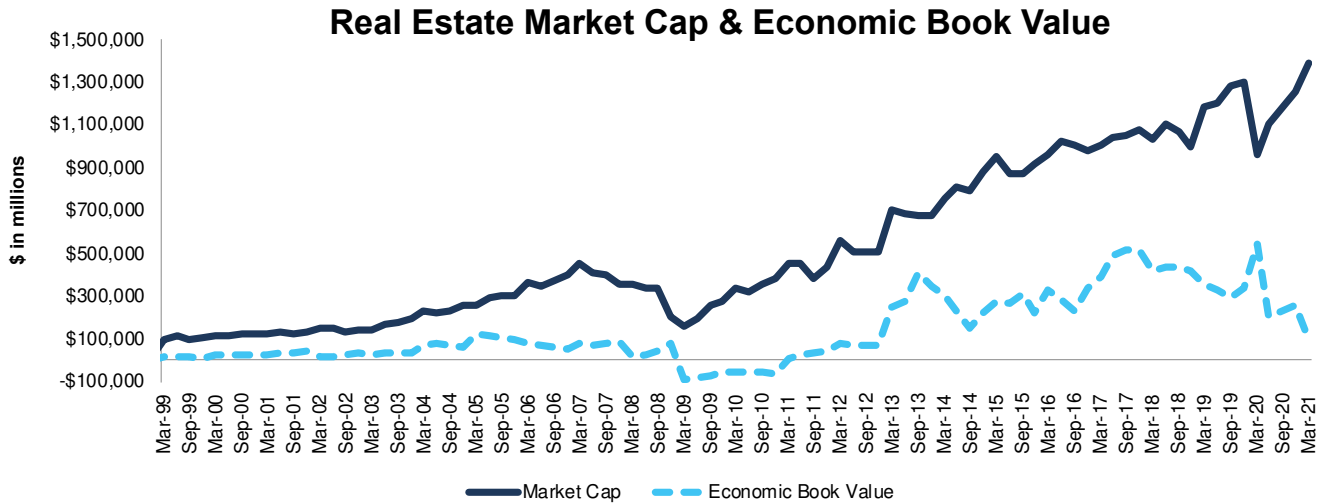
**Figure 23: Industrials Market Cap & Economic Book Value: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings. The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

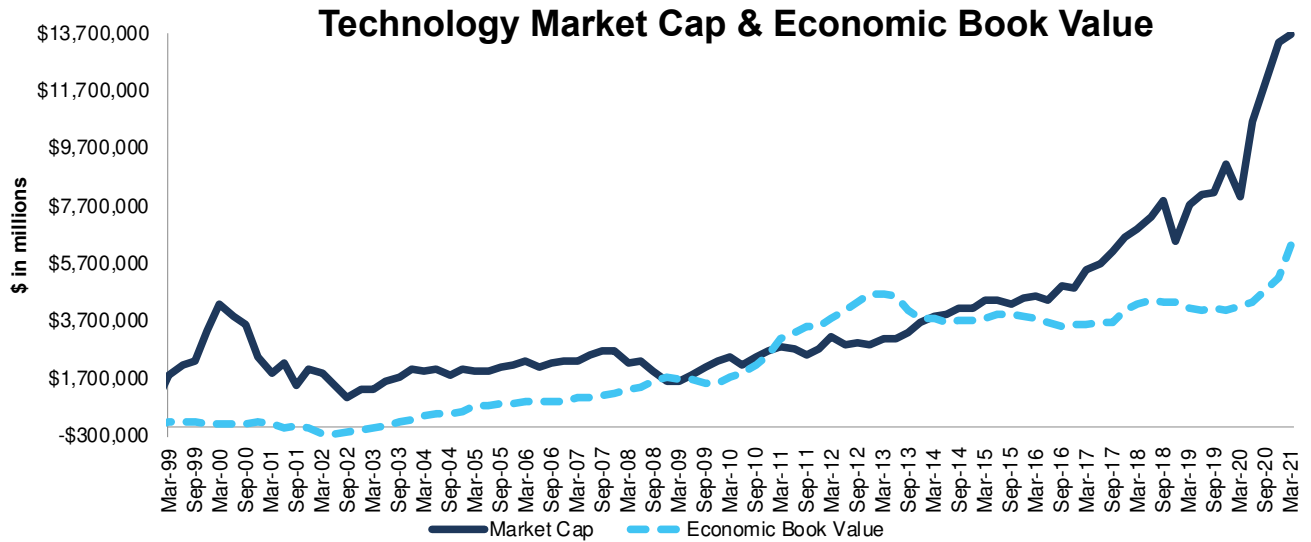


**Figure 24: Real Estate Market Cap & Economic Book Value: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

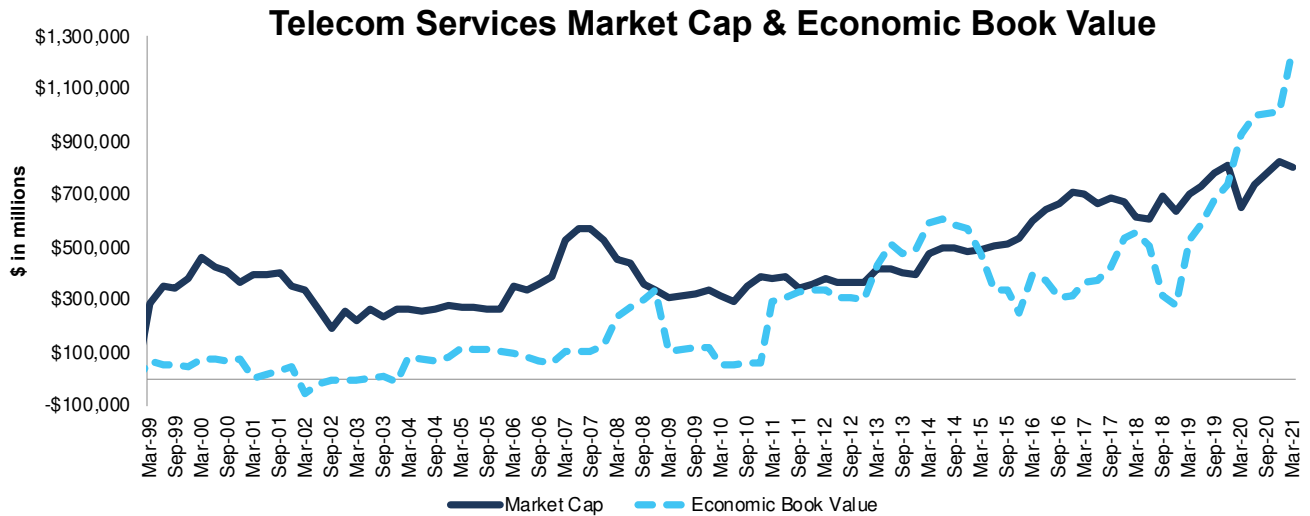
**Figure 25: Technology Market Cap & Economic Book Value: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

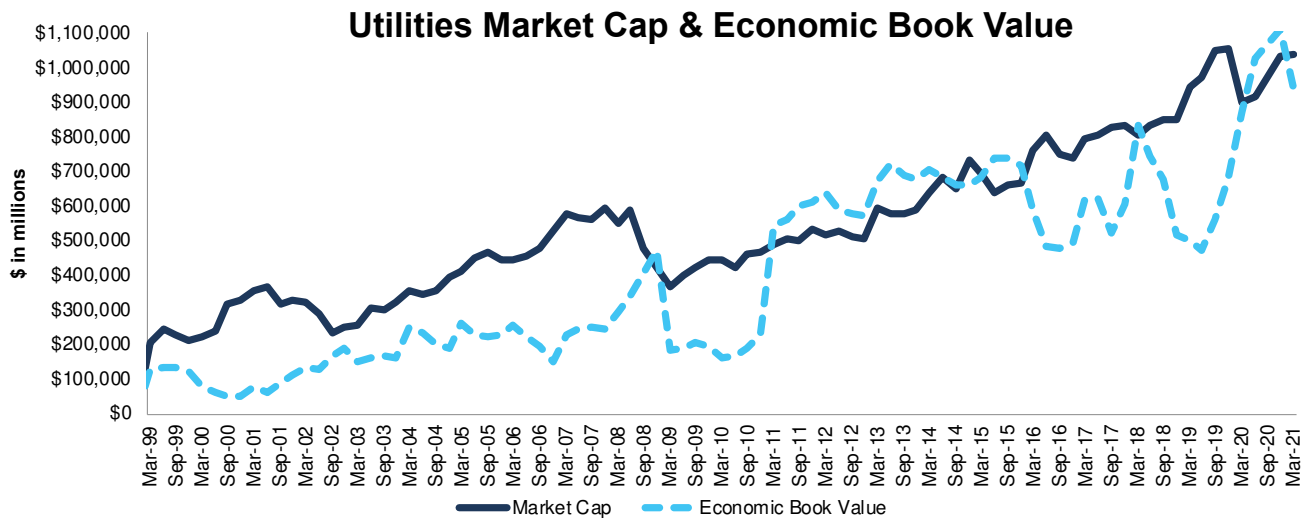


**Figure 26: Telecom Services Market Cap & Economic Book Value: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

**Figure 27: Utilities Market Cap & Economic Book Value: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.





## **Appendix II: Analyzing Trailing PEBV Ratio with Different Weighting Methodologies**

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We derive the metrics above by summing the individual NC 2000/sector constituent values for market cap and economic book value to calculate trailing PEBV ratio. We call this approach the “Aggregate” methodology.

The Aggregate methodology provides a straightforward look at the entire NC 2000/sector, regardless of firm size 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 trailing PEBV ratio 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 trailing PEBV ratio 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 or its sector
  - b. We multiply each company’s trailing PEBV ratio by its weight
  - c. NC 2000/Sector trailing PEBV ratio equals the sum of the weighted trailing PEBV ratios for all the companies in the NC 2000/sector
2. **Market-weighted drivers** – calculated by market-cap-weighting the market cap and economic book value for the individual companies in each sector in each period. Details:
  - a. Company weight equals the company’s market cap divided by the market cap of the NC 2000 or its sector
  - b. We multiply each company’s market cap and economic book value by its weight
  - c. We sum the weighted market cap and weighted economic book value for each company in the NC 2000/each sector to determine the NC 2000 or sector’s weighted market cap and weighted economic book value
  - d. NC 2000/Sector trailing PEBV ratio equals weighted NC 2000/sector market cap divided by weighted NC 2000/sector economic book 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 trailing PEBV ratio, as we’ll show below.

### **Market-weighted drivers method**

Pros:

- Accounts for a firm’s market cap relative to the NC 2000/sector and weights its size and economic book value accordingly.
- Mitigates the disproportionate impact of outlier results from one company on the overall results.

Cons:



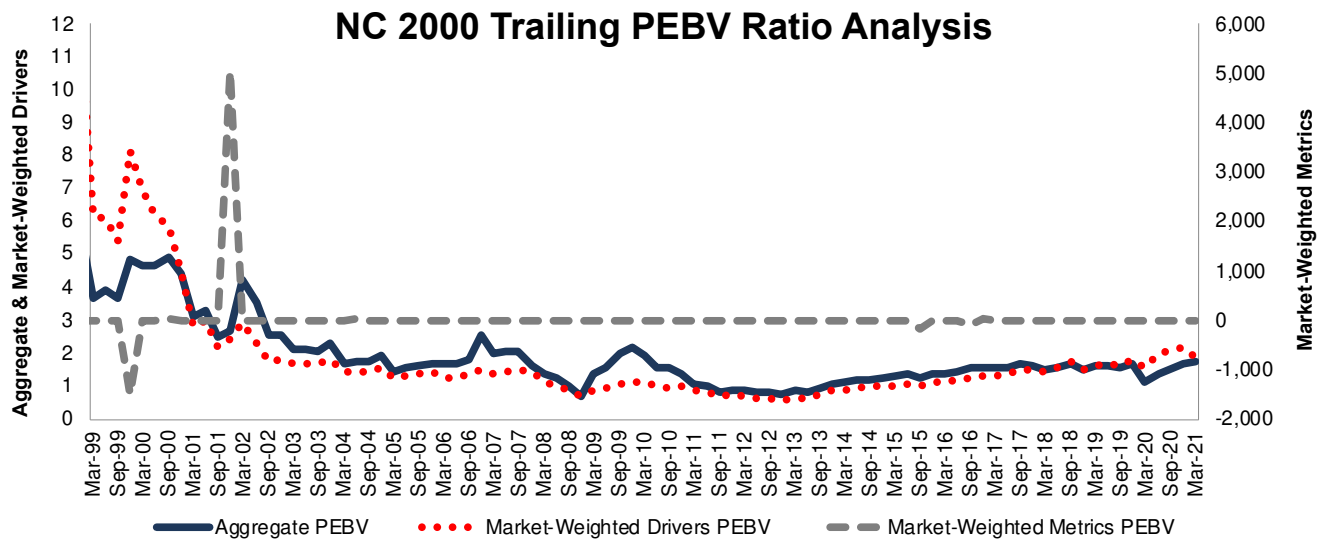
- More susceptible to large swings in market cap or economic book value (which can be impacted by changes in WACC) period over period, particularly from firms with a large weighting in the NC 2000/Sector.

Figures 28-39 compare these three methods for calculating NC 2000 and sector trailing PEBV ratio. We provide some high-level commentary on why certain sectors show some interesting results. Clients can contact us for access to the underlying data to study the results in more detail.

In Figure 28, the sharp spike and decline in the market-weighted metrics trailing PEBV for the NC 2000 in 2001 is driven largely by volatility in Time Warner's (TWX) economic book value during its merger with AOL. A sharp decline in the firm's already negative net operating profit after-tax (NOPAT) coupled with an increase in [total debt](#), [minority interests](#), and [outstanding employee stock options](#) resulted in a highly negative economic book value, and therefore a highly positive trailing PEBV ratio.

This analysis highlights the outsized sensitivity of the market-weighted metrics methodology to outlier results from a single company with a large market cap, such as Time Warner.

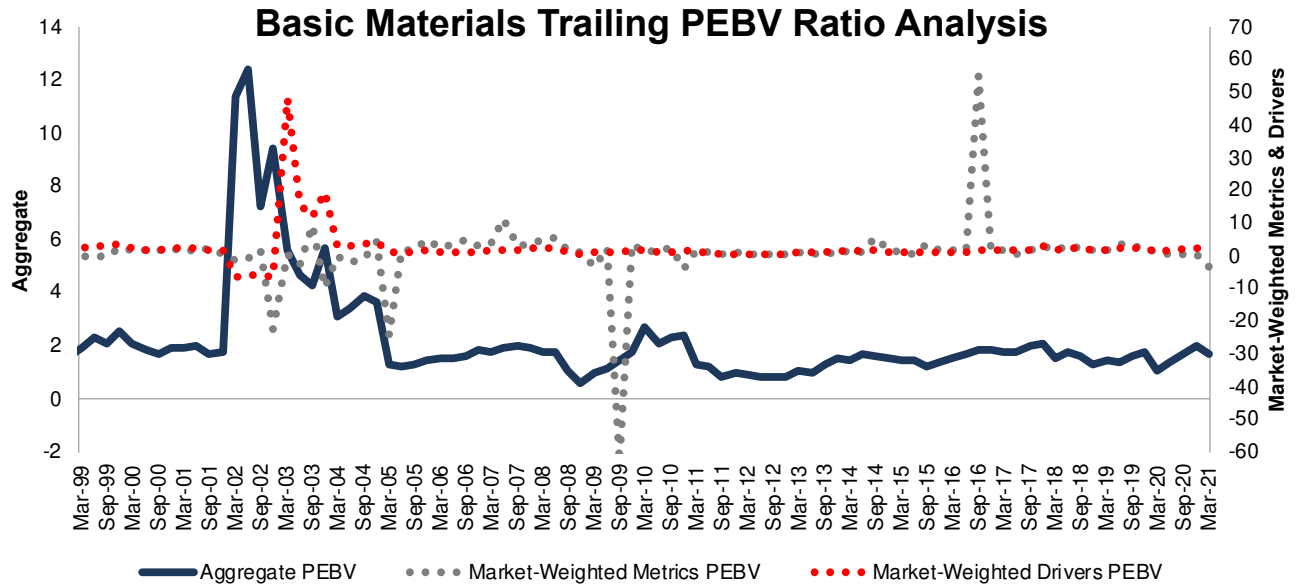
**Figure 28: NC 2000 Trailing PEBV Ratio Methodologies Compared: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.



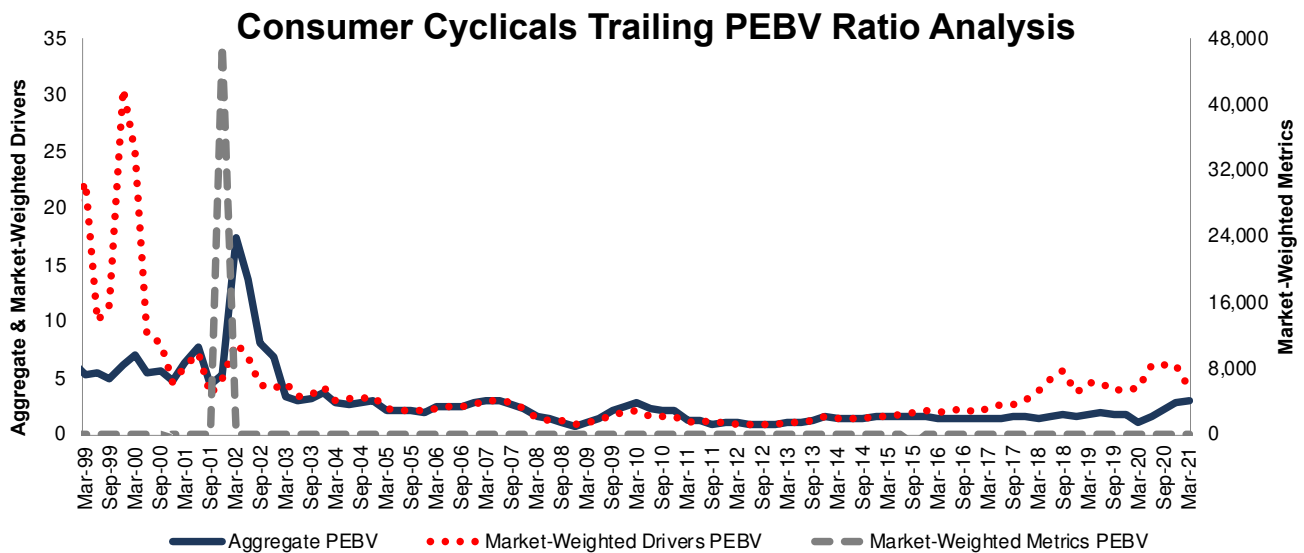
**Figure 29: Basic Materials Trailing PEBV Ratio Methodologies Compared: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

In Figure 30, the sharp spike and decline in the market-weighted metrics trailing PEBV for the NC 2000 in 2001 is driven largely by volatility in Time Warner’s (TWX) economic book value during its merger with AOL, as noted for the NC 2000 above. The impacts are even larger on the sector-level results.

**Figure 30: Consumer Cyclical Trailing PEBV Ratio Methodologies Compared: March 1999 – 3/23/21**

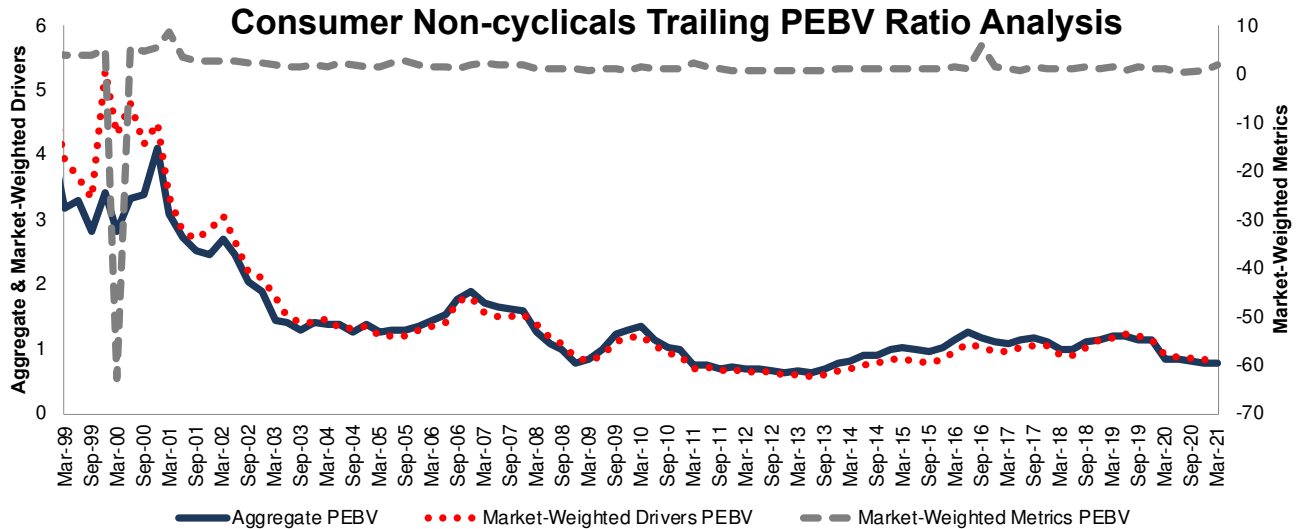


Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.



In Figure 31, the sharp increase in the market-weighted metrics trailing PEBV ratio for the Consumer Non-cyclicals sector in 2016, is driven by Kraft Heinz (KHC). The merger between Kraft and Heinz caused the combined firms' economic book value to improve from -\$15 billion in June 2016 to \$1 billion in September 2016, which resulted in trailing PEBV ratio rising from negative 7 to positive 98 over the same time.

**Figure 31: Consumer Non-cyclicals Trailing PEBV Ratio Methodologies Compared: March 1999 – 3/23/21**

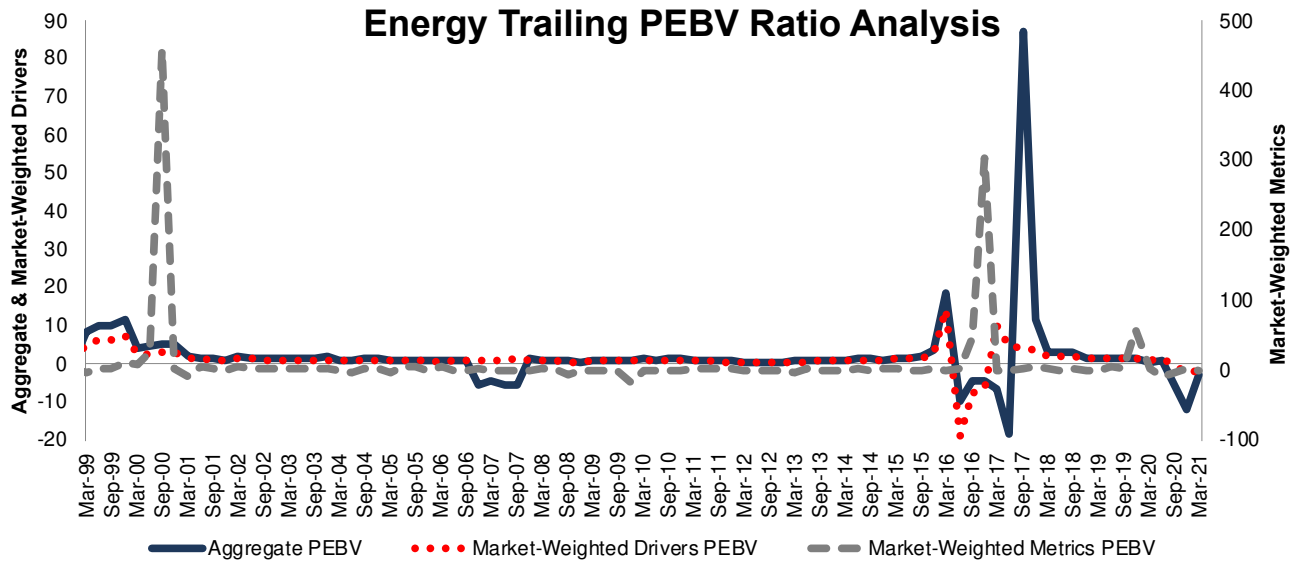


Sources: New Constructs, LLC and company filings.  
The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

In Figure 32, the sharp increase in the market-weighted metrics trailing PEBV for the Energy sector in 2016, is driven largely by Exxon Mobil (XOM), which at the time, made up 25% of the sector's market cap. As a result of crashing oil prices, Exxon Mobil's NOPAT more than halved in 2015 and 2016 was still 41% below 2014. The significant decline in profitability caused an equally large drop in Exxon Mobil's economic book value and resulted in XOM's trailing PEBV increasing from 14 in June 2016 to 425 in December 2016. Given its large weighting in the sector, this increase had an outsized impact on the sector's market-weighted metrics trailing PEBV during this time.



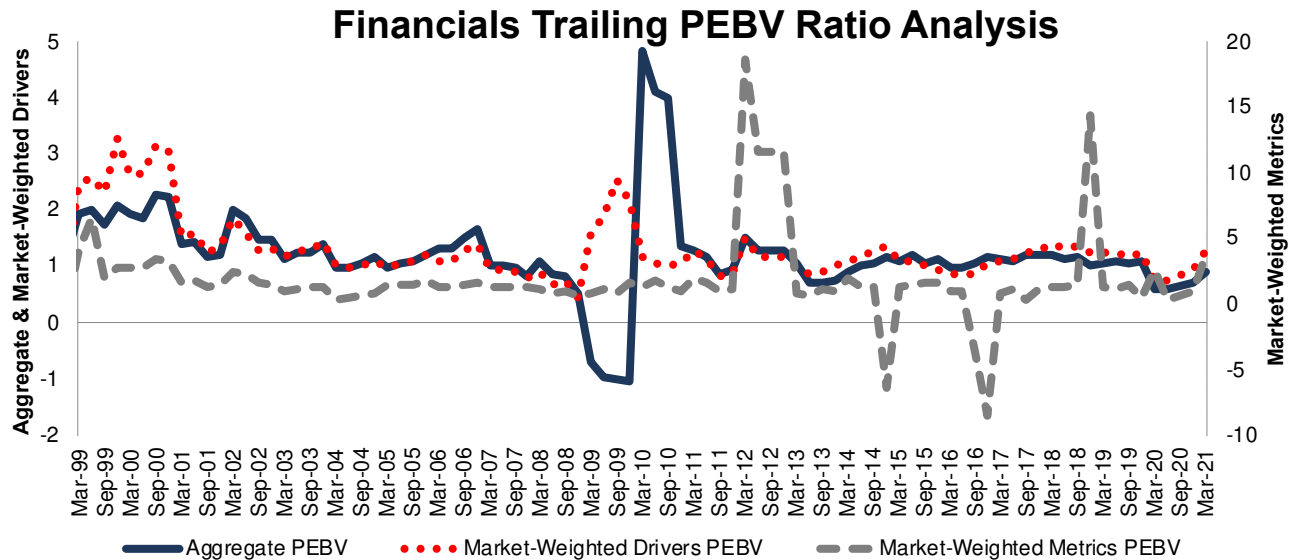
**Figure 32: Energy Trailing PEBV Ratio Methodologies Compared: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

In Figure 33, the sharp decrease in the market-weighted metrics trailing PEBV ratio for the Financials sector in 2019, is driven largely by Fiserv (FISV) and its \$22 billion acquisition of First Data. The acquisition significantly increased Fiserv's total debt, which resulted in a negative economic book value and trailing PEBV ratio that created a drag on the entire sector.

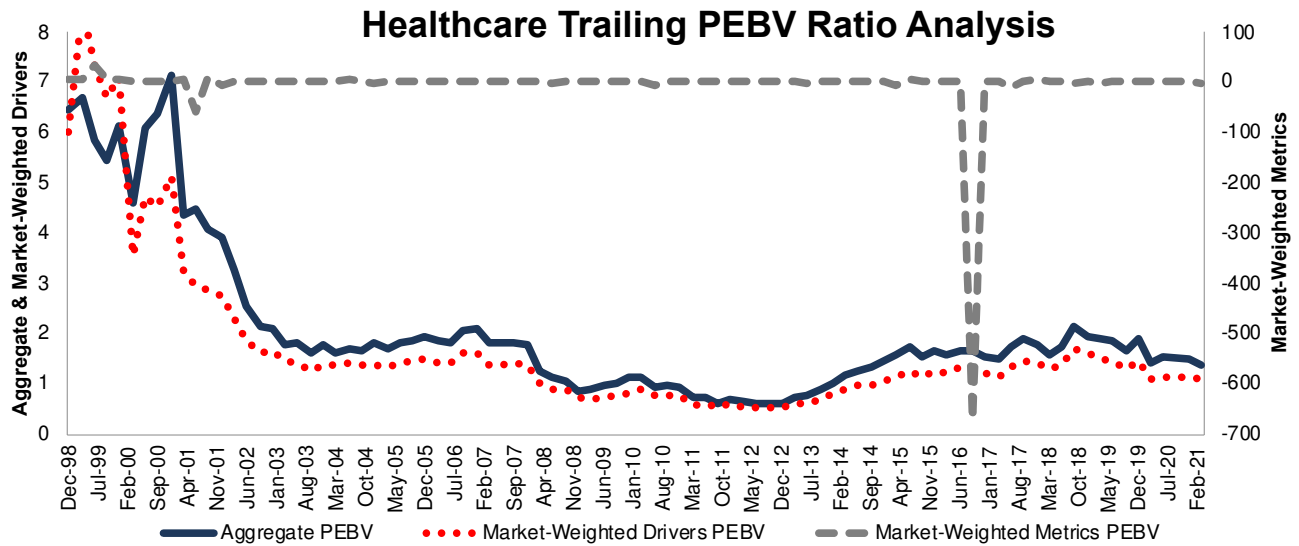
**Figure 33: Financials Trailing PEBV Ratio Methodologies Compared: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

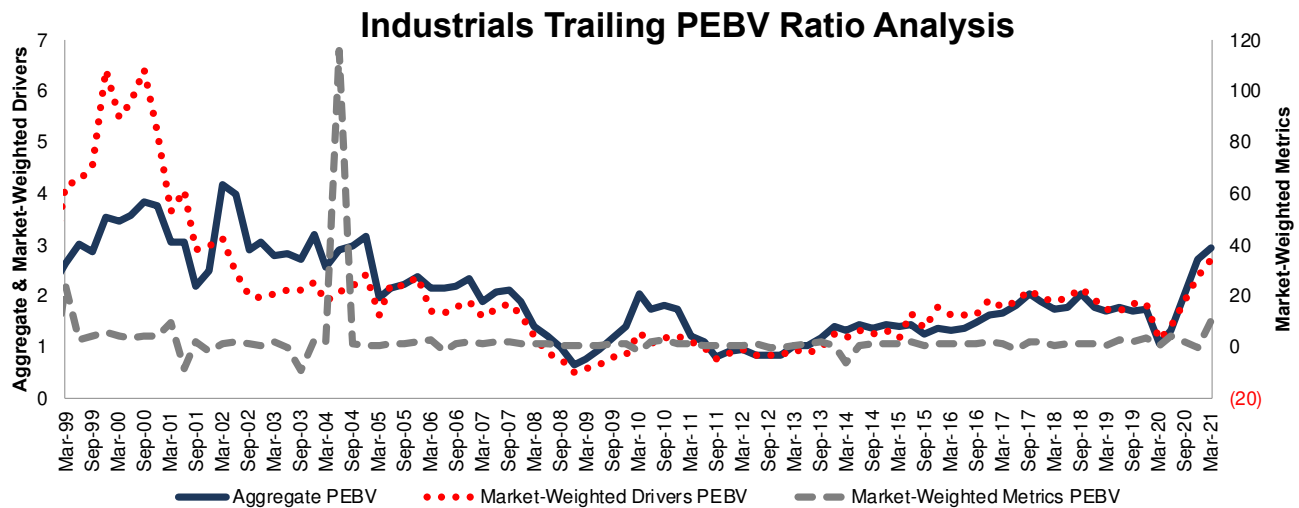


**Figure 34: Healthcare Trailing PEBV Ratio Methodologies Compared: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

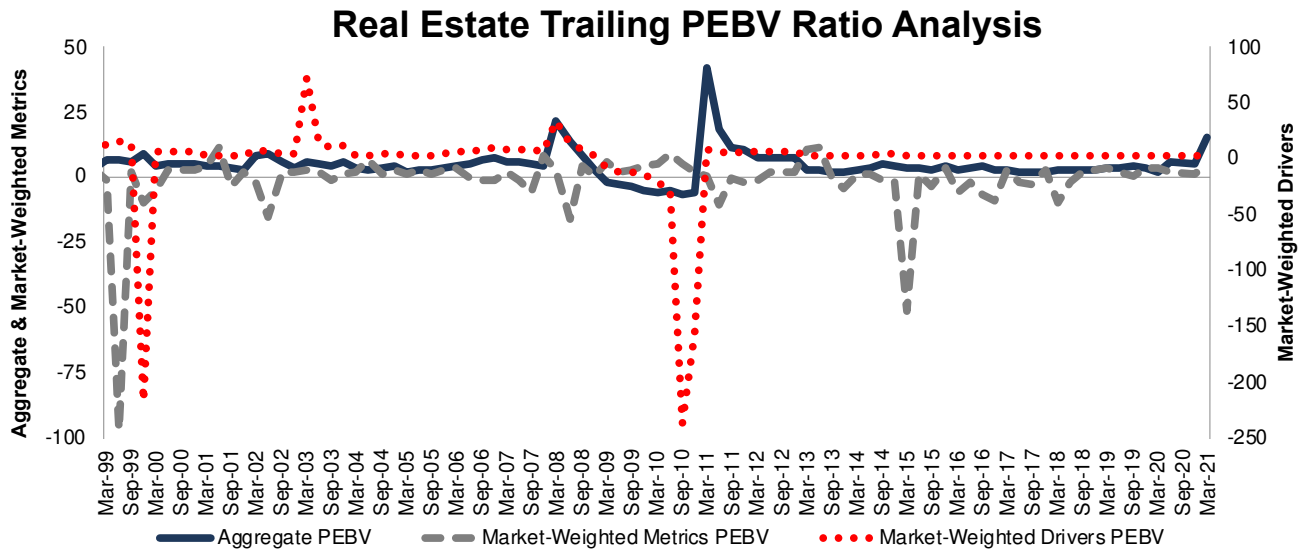
**Figure 35: Industrials Trailing PEBV Ratio Methodologies Compared: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

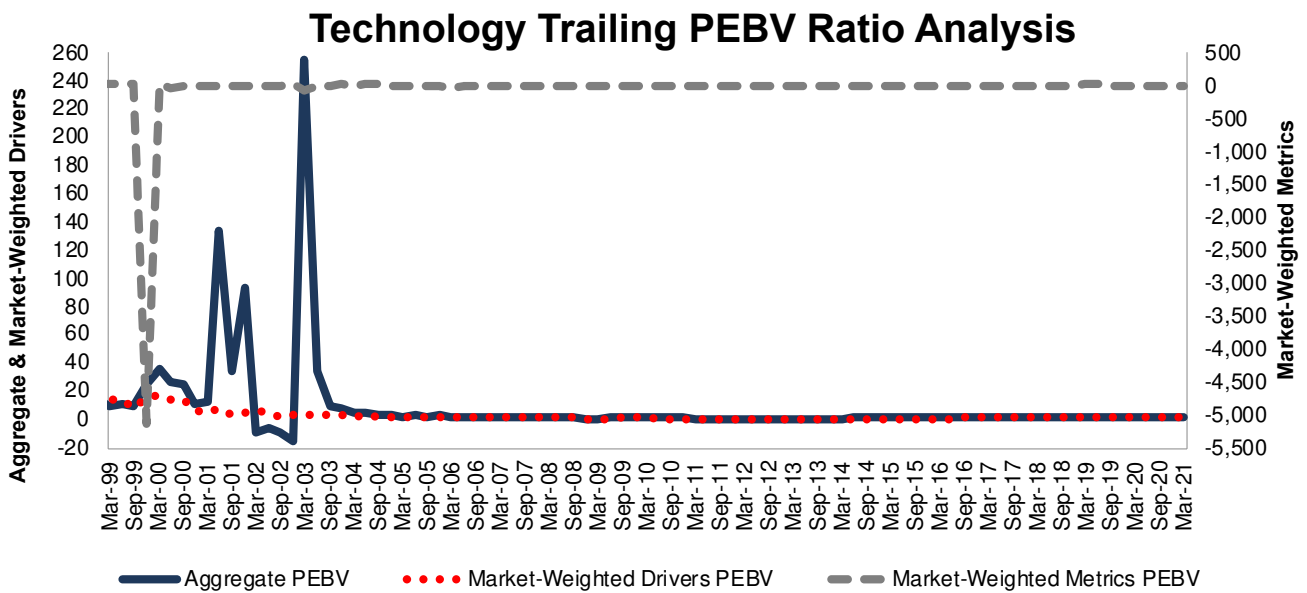


**Figure 36: Real Estate Trailing PEBV Ratio Methodologies Compared: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

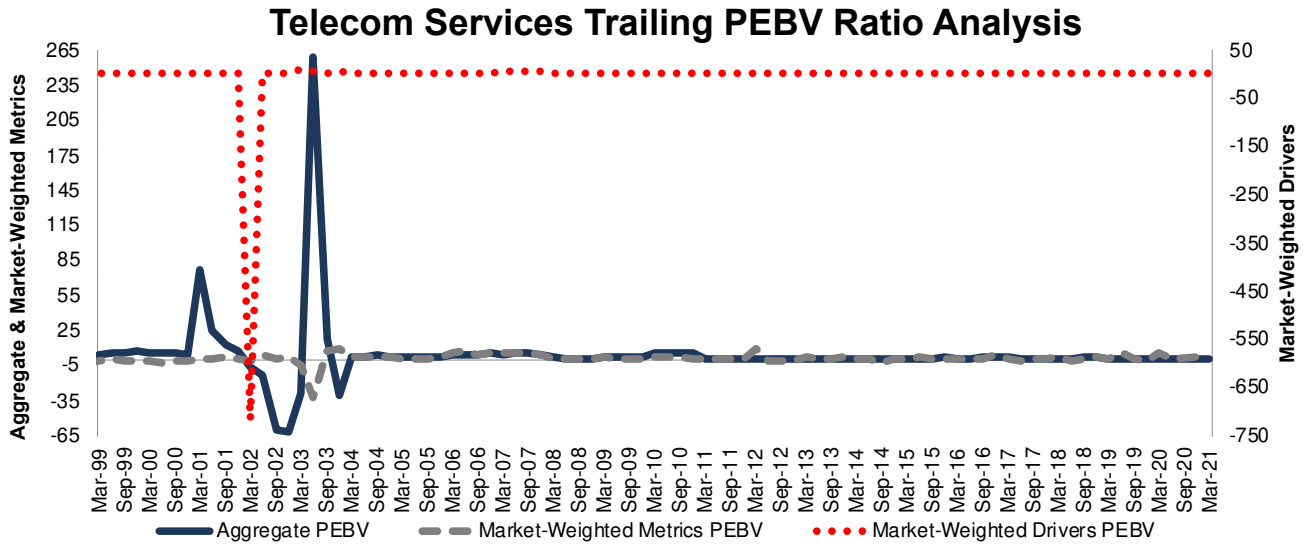
**Figure 37: Technology Trailing PEBV Ratio Methodologies Compared: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

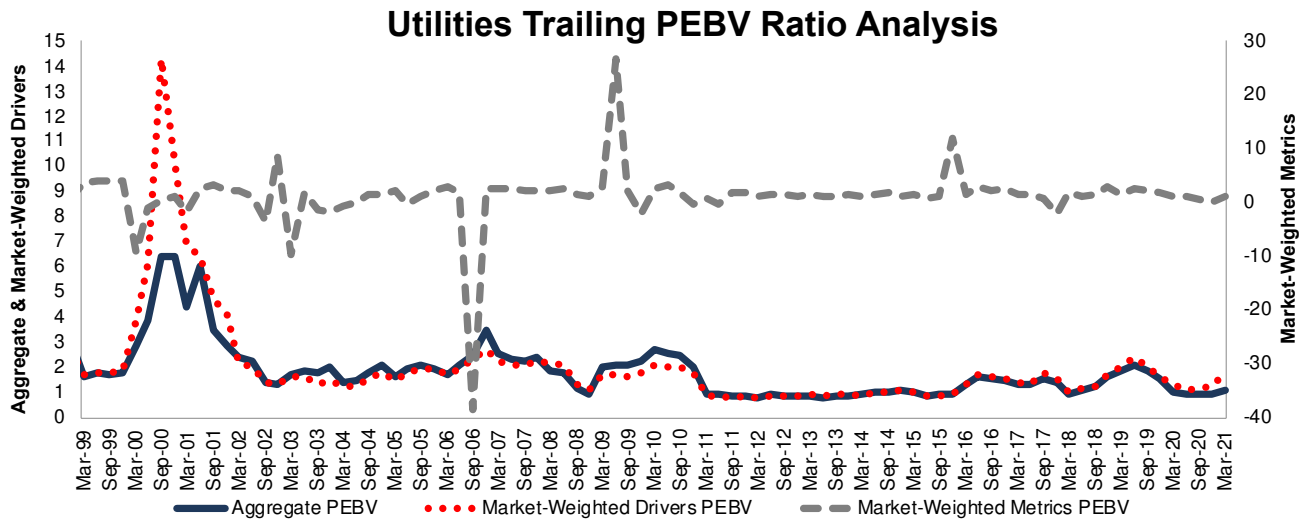


**Figure 38: Telecom Services Trailing PEBV Ratio Methodologies Compared: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.

**Figure 39: Utilities Trailing PEBV Ratio Methodologies Compared: March 1999 – 3/23/21**



Sources: New Constructs, LLC and company filings.  
 The March 23, 2021 measurement period uses price data as of that date and incorporates the financial data from 2020 10-Ks, as this is the earliest date for which all the 2020 10-Ks for the NC 2000 constituents were available.





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Key quotes from the paper:

- “[New Constructs’] *Total Adjustments* differs significantly from the items identified and excluded from Compustat’s adjusted earnings measures. For example... 50% to 70% of the variation in *Total Adjustments* is not explained by *S&P Global’s (SPGI) Adjustments* individually.” – pp. 14, 1<sup>st</sup> para.
- “A final source of differences [between New Constructs’ and S&P Global’s data] is due to data collection oversights...we identified cases where Compustat did not collect information relating to firms’ income that is useful in assessing core earnings.” – pp. 16, 2<sup>nd</sup> para.

### **Superior Models**

A top accounting firm features the superiority of our ROIC, NOPAT and Invested Capital research to Capital IQ & Bloomberg’s in [Getting ROIC Right](#). See the [Appendix](#) for direct comparison details.

Key quotes from the paper:

- “...an accurate calculation of ROIC requires more diligence than often occurs in some of the common, off-the-shelf ROIC calculations. Only by scouring the footnotes and the MD&A [ as New Constructs does] can investors get an accurate calculation of ROIC.” – pp. 8, 5<sup>th</sup> para.
- “The majority of the difference...comes from New Constructs’ machine learning approach, which leverages technology to calculate ROIC by applying accounting adjustments that may be buried deeply in the footnotes across thousands of companies.” – pp. 4, 2<sup>nd</sup> para.

### **Superior Stock Ratings**

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Key quotes from the paper:

- “the portfolios formed following the buy recommendations of Robo-Analysts earn abnormal returns that are statistically and economically significant.” – pp. 6, 3<sup>rd</sup> para.
- “Our results ultimately suggest that Robo-Analysts are a valuable, alternative information intermediary to traditional sell-side analysts.” – pp. 20, 3<sup>rd</sup> para.

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