

# All Cap Index & Sectors: Price to Economic Book Value Through 1Q21

This report analyzes<sup>1</sup> market cap, <u>economic book value</u>, and the trailing price-to-economic book value (<u>PEBV</u>) ratio for the NC 2000<sup>2</sup>, our All Cap Index, and each of its sectors. This research is based on the latest audited financial data, which is the 1Q21 10-Q for most companies. Price data is as of 5/19/21.

For reference, we analyze the <u>Core Earnings</u> for the NC 2000 and each sector in <u>All Cap Index & Sectors: Core Earnings Vs. GAAP Net Income Through 1Q21</u>. We analyze return on invested capital (<u>ROIC</u>) and its drivers in <u>All Cap Index & Sectors: ROIC Vs. WACC Through 1Q21</u>. We analyze free cash flow (FCF), enterprise value, and FCF Yield in All Cap Index: & Sectors: Free Cash Flow Yield Through 1Q21.

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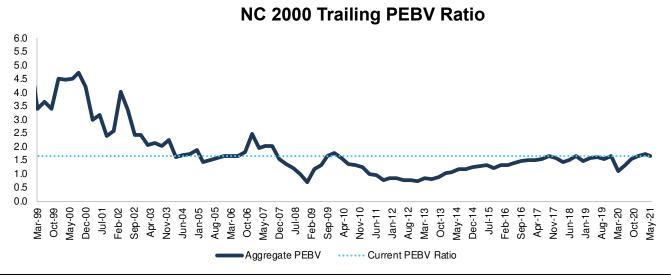
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## NC 2000 Trailing PEBV Ratio Rose YoY

The trailing PEBV ratio for the NC 2000 rose from 1.3 in 1Q20 to 1.7 through 5/19/21, the earliest date all NC 2000 companies provided 1Q21 data. The NC 2000 trailing PEBV ratio last reached this level in 2Q18, per Figure 1. This trailing PEBV ratio compares the NC 2000's expected future profits (embedded in its equity valuation) to TTM profits in 1Q21. At 1.7, the NC 2000's valuation implies the profits of the NC 2000 stocks will increase 70% from 1Q21 levels.

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

Figure 1: Trailing PEBV Ratio for the NC 2000 From March 1999 – 5/19/21<sup>3</sup>



Sources: New Constructs, LLC and company filings.

<sup>&</sup>lt;sup>1</sup> We calculate these metrics based on <u>S&P Global</u>'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>&</sup>lt;sup>2</sup> 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.

<sup>3</sup> We use stock prices from 5/19/21 because that is the date when all the 1Q21 10-Qs for the NC 2000 constituents were available.



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

Figure 2 shows that the Telecom Services sector has the lowest trailing PEBV ratio (excluding Energy) among all 11 All Cap Index sectors based on prices as of 5/19/21 and financial data from 1Q21 10-Qs.

Figure 2: Trailing PEBV Ratios for all NC 2000 Sectors as of 5/19/21

Sector	Trailing PEBV Ratio
Telecom Services	0.6
Consumer Non-cyclicals	0.8
Financials	0.9
Utilities	1.2
Healthcare	1.4
Basic Materials	1.9
Technology	2.0
Consumer Cyclicals	2.6
Real Estate	2.9
Industrials	3.3
Energy	-2.5
NC 2000	1.7

Sources: New Constructs, LLC and company filings. Price as of 5/19/21, financial data incorporates 1Q21 10-Qs.

A trailing PEBV ratio of 0.6 means investors expect the Telecom Service sector's profits to decline by 40% from 1Q21 levels. On the flip side, investors expect the Industrials sector (trailing PEBV ratio of 3.3) to improve profits more than any other All Cap Index sector.

#### 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 = 1.9**

Figure 3 shows the trailing PEBV ratio for the Basic Materials sector rose from 1.4 in 1Q20 to 1.9 in 1Q21. The Basic Materials sector market cap rose from \$831 billion in 1Q20 to \$1.5 trillion 1Q21, while its economic book value rose from \$614 billion in 1Q20 to \$796 billion in 1Q21.

29 **Basic Materials Trailing PEBV Ratio** 27 25 23 21 19 17 15 13 11 9 7 5 3 -1 Mar-13 Jan-05 Jul-08 May-07 Feb-09 Jun-11 Aggregate PEBV ····· Current PEBV Ratio

Figure 3: Basic Materials Trailing PEBV Ratio: March 1999 - 5/19/21

The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

### Consumer Cyclicals: Trailing PEBV Ratio = 2.6

Figure 4 shows the trailing PEBV for the Consumer Cyclicals sector rose from 1.7 in 1Q20 to 2.6 in 1Q21. The Consumer Cyclicals sector market cap rose from \$4.6 trillion in 1Q20 to \$6.8 trillion in 1Q21, while its economic book value remained unchanged at \$2.7 trillion from 1Q20 to 1Q21.

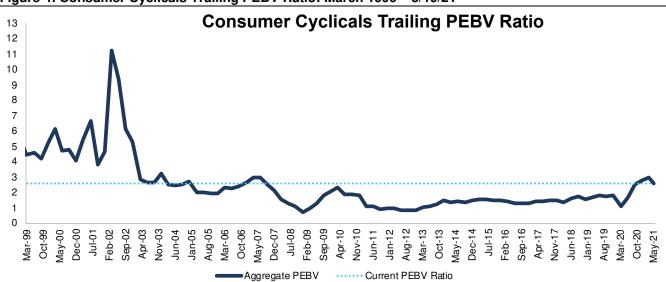


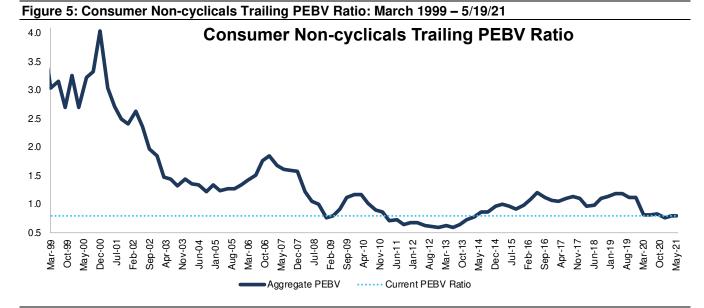
Figure 4: Consumer Cyclicals Trailing PEBV Ratio: March 1999 – 5/19/21

Sources: New Constructs, LLC and company filings.

The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

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

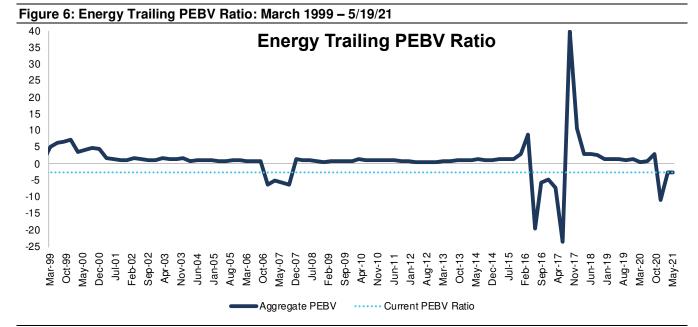
Figure 5 shows the trailing PEBV ratio for the Consumer Non-cyclicals sector remained unchanged at 0.8 from 1Q20 to 1Q21. The Consumer Non-cyclicals sector market cap rose from \$2.3 trillion in 1Q20 to \$2.8 trillion in 1Q21, while its economic book value rose from \$2.8 trillion in 1Q20 to \$3.4 trillion in 1Q21.



The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

## **Energy: Trailing PEBV Ratio = -2.5**

Figure 6 shows the trailing PEBV ratio for the Energy sector fell from 1.0 in 1Q20 to -2.5 in 1Q21. The Energy sector market cap rose from \$965 billion in 1Q20 to \$1.4 trillion in 1Q21, while its economic book value fell from \$985 billion in 1Q20 to -\$555 billion in 1Q21.



Sources: New Constructs, LLC and company filings.

The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

#### Financials: Trailing PEBV Ratio = 0.9

Figure 7 shows the trailing PEBV ratio for the Financials sector rose from 0.6 in 1Q20 to 0.9 in 1Q21. The Financials sector market cap rose from \$3.4 trillion in 1Q20 to \$5.5 trillion in 1Q21, while its economic book value rose from \$5.5 trillion in 1Q20 to \$6.0 trillion in 1Q21.



Financials Trailing PEBV Ratio 3.0 2.5 2.0 1.5 1.0 0.5 0.0 -0.5 -1.0 -1.5 -2.0 Apr-10 Sep-09 Jan-12 Oct-06 May-07 Dec-07 Jul-08 Feb-09 Jun-11 Oct-13 Aggregate PEBV ····· Current PEBV Ratio

Figure 7: Financials Trailing PEBV Ratio: March 1999 - 5/19/21

Sources: New Constructs, LLC and company filings.

The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

## Healthcare: Trailing PEBV Ratio = 1.4

Figure 8 shows the trailing PEBV ratio for the Healthcare sector fell from 1.5 in 1Q20 to 1.4 in 1Q21. The Healthcare sector market cap rose from \$4.3 trillion in 1Q20 to \$5.8 trillion in 1Q21, while its economic book value rose from \$2.8 trillion in 1Q20 to \$4.3 trillion in 1Q21.

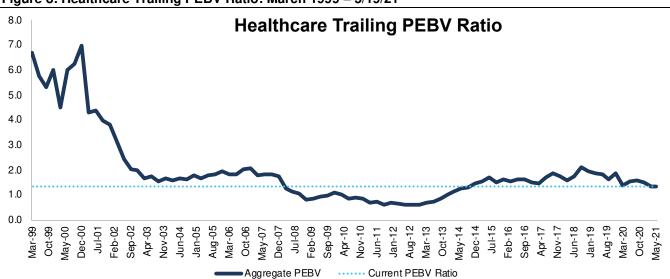


Figure 8: Healthcare Trailing PEBV Ratio: March 1999 - 5/19/21

Sources: New Constructs, LLC and company filings.

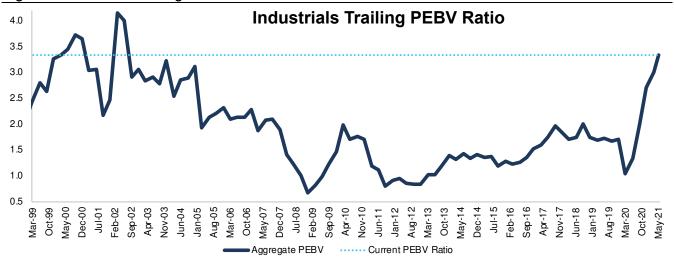
The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

#### Industrials: Trailing PEBV Ratio = 3.3

Figure 9 shows the trailing PEBV ratio for the Industrials sector rose from 1.3 in 1Q20 to 3.3 in 1Q21. The Industrials sector market cap rose from \$2.9 trillion in 1Q20 to \$4.6 trillion in 1Q21, while its economic book value fell from \$2.2 trillion in 1Q20 to \$1.4 trillion in 1Q21. Not surprisingly, the Industrials sector, which is most exposed to the drastic drop in airline travel and reduced capex across the globe, bore much of the brunt of the

global shut downs. The 36% YoY decline in the Industrials sector economic book value in 1Q21 is in line with the 41% YoY decline in Core Earnings in 1Q21 as noted in All Cap Index & Sectors: Core Earnings Vs. GAAP Earnings Through 1Q21.

Figure 9: Industrials Trailing PEBV Ratio: March 1999 - 5/19/21



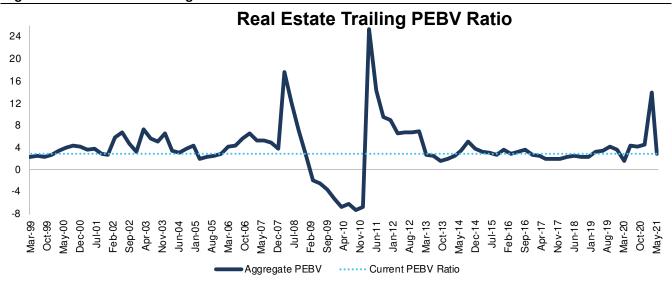
Sources: New Constructs, LLC and company filings.

The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

## Real Estate: Trailing PEBV Ratio = 2.9

Figure 10 shows the trailing PEBV ratio for the Real Estate sector fell from 4.4 in 1Q20 to 2.9 in 1Q21. The Real Estate sector market cap rose from \$1.1 trillion in 1Q20 to \$1.4 trillion in 1Q21, while its economic book value rose from \$251 billion in 1Q20 to \$502 billion in 1Q21.

Figure 10: Real Estate Trailing PEBV Ratio: March 1999 - 5/19/21



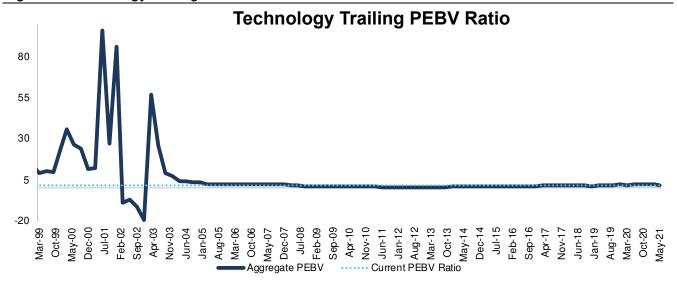
Sources: New Constructs, LLC and company filings.



## Technology: Trailing PEBV Ratio = 2.0

Figure 11 shows the trailing PEBV ratio for the Technology sector fell from 2.4 in 1Q20 to 2.0 in 1Q21. The Technology sector market cap rose from \$10.6 trillion in 1Q20 to \$14.1 trillion in 1Q21, while its economic book value rose from \$4.4 trillion in 1Q20 to \$7.0 trillion in 1Q21.

Figure 11: Technology Trailing PEBV Ratio: March 1999 - 5/19/21



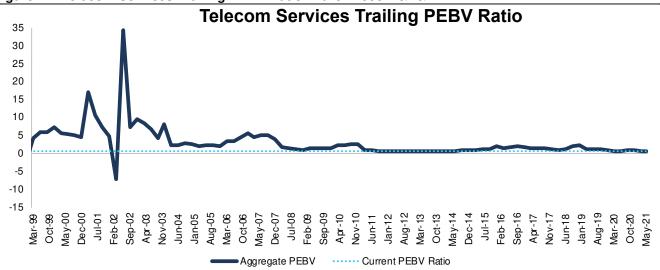
Sources: New Constructs, LLC and company filings.

The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs 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 fell from 0.7 in 1Q20 to 0.6 in 1Q21. The Telecom Services sector market cap rose from \$735 billion in 1Q20 to \$811 billion in 1Q21, while its economic book value rose from \$1.0 trillion in 1Q20 to \$1.3 trillion in 1Q21.

Figure 12: Telecom Services Trailing PEBV Ratio: March 1999 - 5/19/21



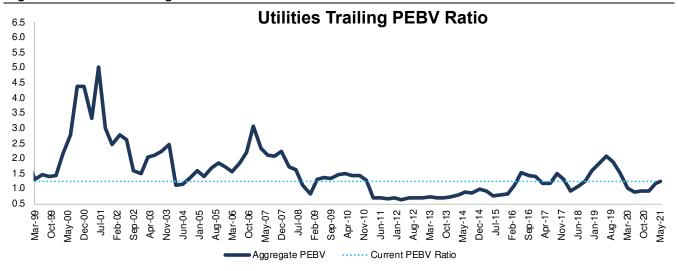
Sources: New Constructs, LLC and company filings.



## **Utilities: Trailing PEBV Ratio = 1.2**

Figure 13 shows that the trailing PEBV ratio for the Utilities sector rose from 0.9 in 1Q20 to 1.2 in 1Q21. The Utilities sector market cap rose from \$917 million in 1Q20 to \$1.1 trillion in 1Q21, while its economic book value fell from \$1.0 trillion in 1Q20 to \$874 billion in 1Q21.

Figure 13: Utilities Trailing PEBV Ratio: March 1999 - 5/19/21



Sources: New Constructs, LLC and company filings.

The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs 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 5/19/21. 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 Cyclicals.

Figure 14: Market Cap by Sector – as of 5/19/21

Sector	Market Cap (\$billions)
Technology	\$14,087
Consumer Cyclicals	\$6,831
Healthcare	\$5,807
Financials	\$5,479
Industrials	\$4,559
Consumer Non-cyclicals	\$3,442
Basic Materials	\$1,473
Real Estate	\$1,437
Energy	\$1,409
Utilities	\$1,076
Telecom Services	\$811
NC 2000	\$45,743

Sources: New Constructs, LLC and company filings. Prices as of 5/19/21.

Figure 15 ranks all 11 NC 2000 sectors by economic book value based on financial data that incorporates 1Q21 10-Qs. It shows that the Technology sector also has the highest economic book value – though not double the EBV of the next closest sector.

Figure 15: Economic Book Value by Sector - as of 5/19/21

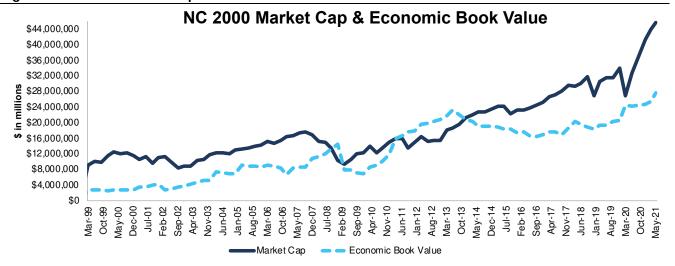
Sector	Economic Book Value (\$billions)
Technology	\$6,972
Financials	\$6,002
Healthcare	\$4,272
Consumer Non-cyclicals	\$3,442
Consumer Cyclicals	\$2,665
Industrials	\$1,366
Telecom Services	\$1,292
Utilities	\$874
Basic Materials	\$796
Real Estate	\$502
Energy	-\$555
NC 2000	\$27,628

Sources: New Constructs, LLC and company filings. Financial data from 1Q21 10-Qs.

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.

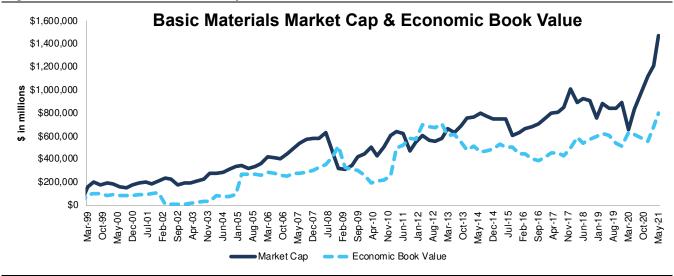
Figure 16: NC 2000 Market Cap & Economic Book Value: March 1999 - 5/19/21



Sources: New Constructs, LLC and company filings.

The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

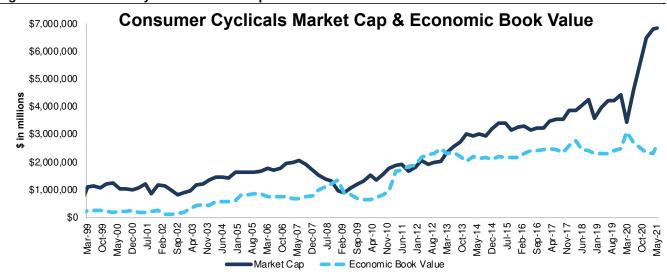
Figure 17: Basic Materials Market Cap & Economic Book Value: March 1999 - 5/19/21



Sources: New Constructs, LLC and company filings.

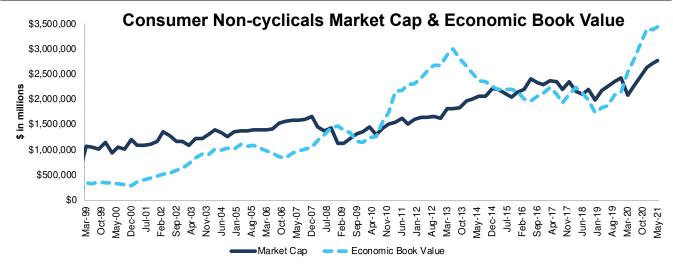


Figure 18: Consumer Cyclicals Market Cap & Economic Book Value: March 1999 - 5/19/21



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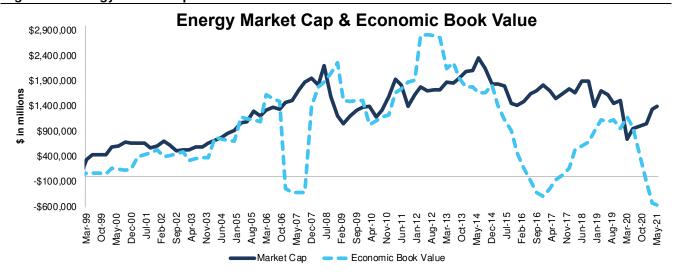
Figure 19: Consumer Non-cyclicals Market Cap & Economic Book Value: March 1999 – 5/19/21



Sources: New Constructs, LLC and company filings.

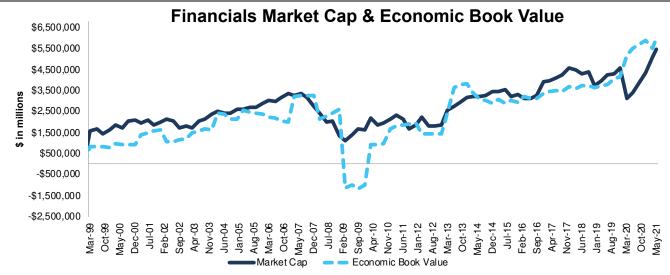


Figure 20: Energy Market Cap & Economic Book Value: March 1999 – 5/19/21



The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

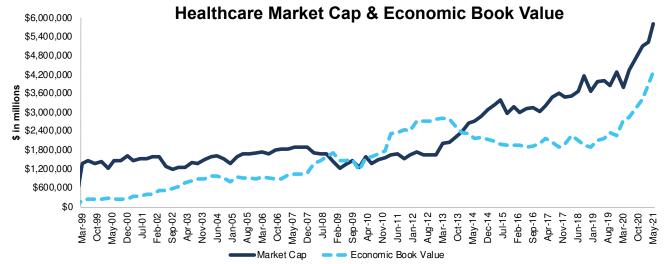
Figure 21: Financials Market Cap & Economic Book Value: March 1999 – 5/19/21



Sources: New Constructs, LLC and company filings.



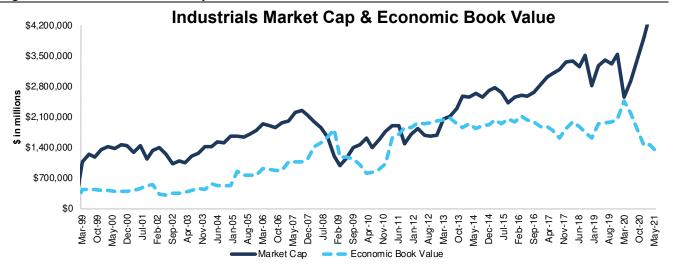
Figure 22: Healthcare Market Cap & Economic Book Value: March 1999 – 5/19/21



The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

As previously noted, the Industrials sector, which is most exposed to the drastic drop in airline travel and reduced capex across the globe, bore much of the brunt of the global shut downs.

Figure 23: Industrials Market Cap & Economic Book Value: March 1999 - 5/19/21



Sources: New Constructs, LLC and company filings.

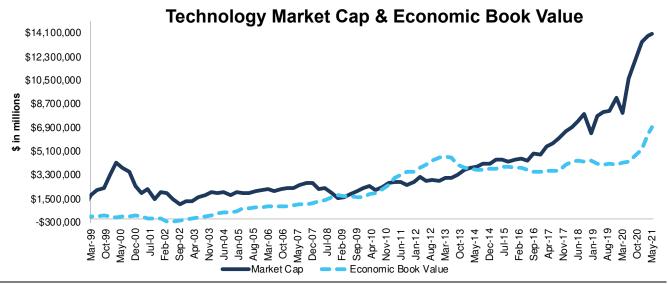


Figure 24: Real Estate Market Cap & Economic Book Value: March 1999 - 5/19/21



The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

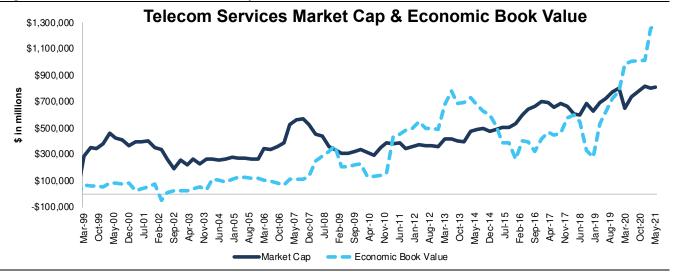
Figure 25: Technology Market Cap & Economic Book Value: March 1999 – 5/19/21



Sources: New Constructs, LLC and company filings.

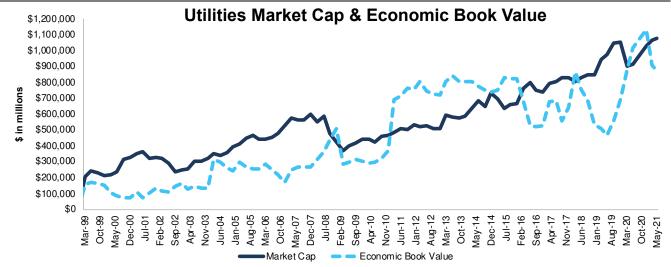


Figure 26: Telecom Services Market Cap & Economic Book Value: March 1999 - 5/19/21



The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

Figure 27: Utilities Market Cap & Economic Book Value: March 1999 – 5/19/21



Sources: New Constructs, LLC and company filings.

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

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:

- 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:
  - 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:
  - 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.

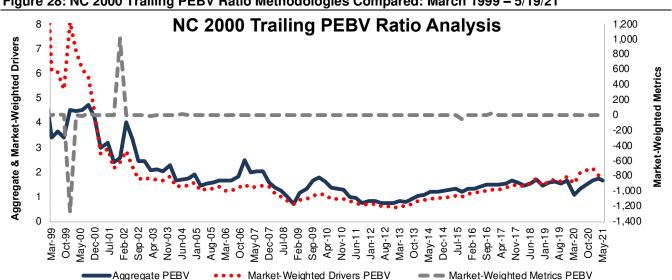


Figure 28: NC 2000 Trailing PEBV Ratio Methodologies Compared: March 1999 - 5/19/21

Sources: New Constructs, LLC and company filings.

Basic Materials Trailing PEBV Ratio Analysis 20 30 28 26 10 24 22 0 20 18 Aggregate 16 14 12 10 8 6 4 2 0 -60 Jul-15 Jul-08 Feb-09 Sep-09 Apr-10 Nov-10 Jan-12 Aug-12 Oct-13 May-14 Feb-16 Apr-17 Oct-06 May-07 Dec-07 Jun-11 **Vov-17** Apr-03 Nov-03 Jun-04 Jan-05 Aug-05 Mar-06 Aggregate PEBV • • • • Market-Weighted Metrics PEBV • • • • Market-Weighted Drivers PEBV

Figure 29: Basic Materials Trailing PEBV Ratio Methodologies Compared: March 1999 – 5/19/21

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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.

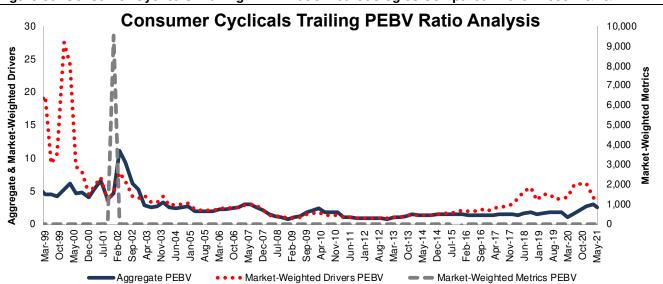


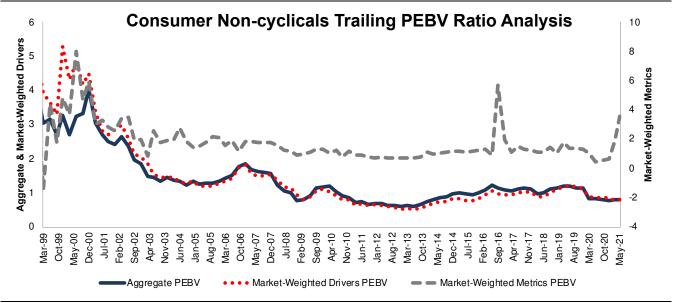
Figure 30: Consumer Cyclicals Trailing PEBV Ratio Methodologies Compared: March 1999 - 5/19/21

Sources: New Constructs, LLC and company filings.



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 - 5/19/21



Sources: New Constructs, LLC and company filings.

The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs 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 - 5/19/21 **Energy Trailing PEBV Ratio Analysis** 50 500 45 Aggregate & Market-Weighted Drivers 40 400 35 30 Market-Weighted Metric 25 300 20 15 200 10 11 5 0 100 -5 -10 0 -15 -20 -25 -100 Jan-12 Aug-12 Feb-16 Sep-16 Jan-05 Jul-08 Feb-09 Sep-09 Apr-10 Nov-10 Oct-13 Dec-14 Jun-18 Oct-20 May-21 Aug-05 Mar-06 Oct-06 Dec-07 Feb-02 Jun-04 May-07 May-14 Jun-11 Aggregate PEBV Market-Weighted Drivers PEBV Market-Weighted Metrics PEBV

The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

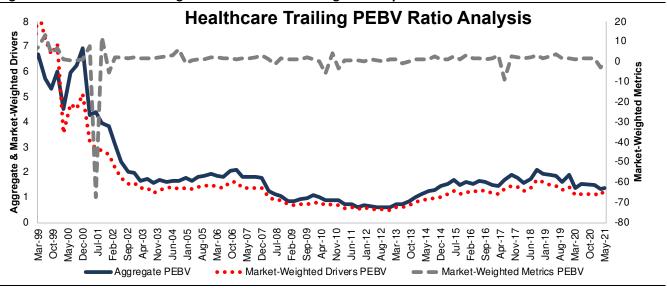
In Figure 33, the sharp decrease in the market-weighted metrics trailing PEBV ratio for the Financials sector in 2019, is driven largely by Fiserv (FISV) and its \$22 billion acquisition of First Data. The acquisition significantly increased Fiserv's total debt, which resulted in a negative economic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

**Financials Trailing PEBV Ratio Analysis** 20 Aggregate & Market-Weighted Drivers 3 15 Market-Weighted Metrics 10 0 0 -5 -10 Jul-08 Feb-09 Sep-09 Apr-10 Aug-12 Jul-15 Feb-16 Apr-17 May-07 Dec-07 Mar-13 May-14 Mar-20 Feb-02 Jun-04 Aug-05 Oct-06 Nov-10 Jun-11 Jan-12 Oct-13 Dec-14 May-21 Nov-17 Aggregate PEBV • • • • Market-Weighted Drivers PEBV Market-Weighted Metrics PEBV

Figure 33: Financials Trailing PEBV Ratio Methodologies Compared: March 1999 – 5/19/21

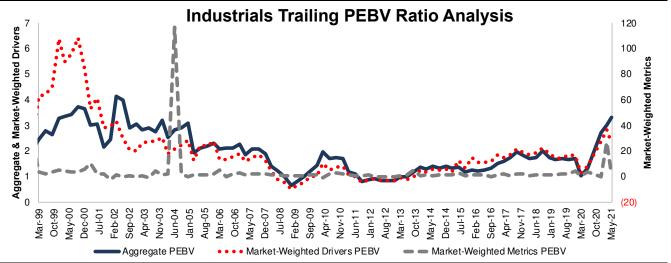
Sources: New Constructs, LLC and company filings.

Figure 34: Healthcare Trailing PEBV Ratio Methodologies Compared: March 1999 - 5/19/21



The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

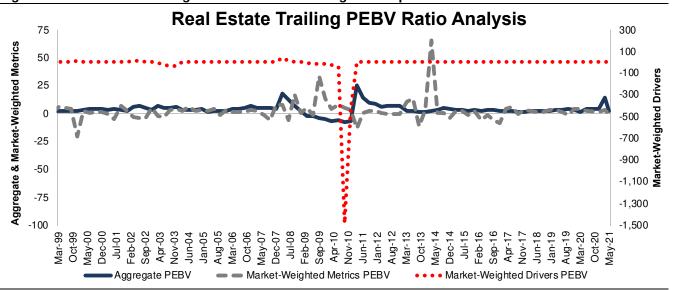
Figure 35: Industrials Trailing PEBV Ratio Methodologies Compared: March 1999 - 5/19/21



Sources: New Constructs, LLC and company filings.

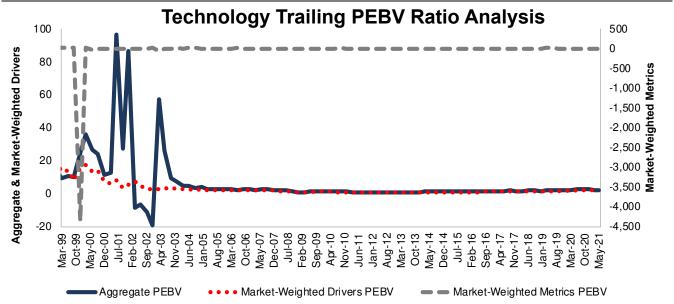


Figure 36: Real Estate Trailing PEBV Ratio Methodologies Compared: March 1999 - 5/19/21



The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

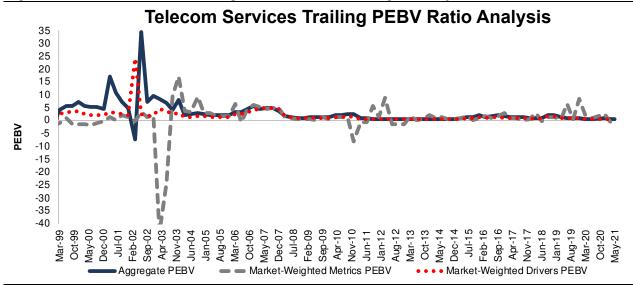
Figure 37: Technology Trailing PEBV Ratio Methodologies Compared: March 1999 – 5/19/21



Sources: New Constructs, LLC and company filings.

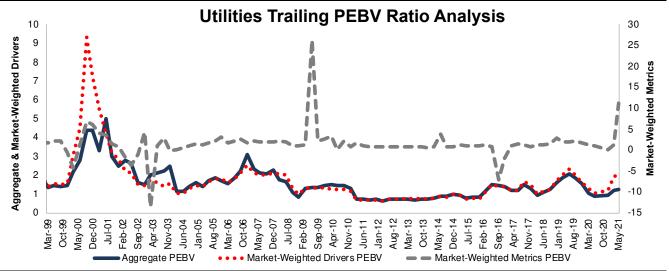


Figure 38: Telecom Services Trailing PEBV Ratio Methodologies Compared: March 1999 - 5/19/21



The May 19, 2021 measurement period uses price data as of that date and incorporates the financial data from 1Q21 10-Qs, as this is the earliest date for which all the 1Q21 10-Qs for the NC 2000 constituents were available.

Figure 39: Utilities Trailing PEBV Ratio Methodologies Compared: March 1999 - 5/19/21



Sources: New Constructs, LLC and company filings.



## It's Official: We Offer the Best Fundamental Data in the World

Many firms claim their research is superior, but none of them can prove it with independent studies from highly-respected institutions as we can. Three different papers from both the public and private sectors show:

- 1. Legacy fundamental datasets suffer from significant inaccuracies, omissions and biases.
- 2. Only our "novel database" enables investors to overcome these flaws and apply <u>reliable</u> fundamental data in their research.
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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, 1st 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 <u>Getting ROIC Right</u>. See the <u>Appendix</u> 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**

Robo-Analysts' stock ratings outperform those from human analysts as shown in this <u>paper</u> from Indiana's Kelley School of Business. Bloomberg features the paper <u>here</u>.

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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