

All Cap Index & Sectors: Price-to-Economic Book Value Ratio Update for 2Q24

This report analyzes^{1,2} the trailing-twelve-months (TTM) price-to-economic book value (<u>PEBV</u>) ratio for the NC 2000³, our All Cap Index, and each of its sectors based on financial filings from 1998 through the trailing-twelve-months (TTM) ended 2Q24.

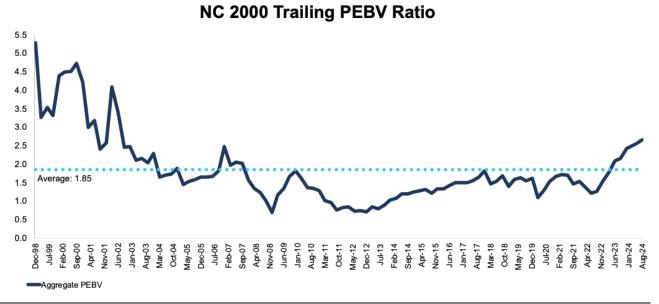
This trailing PEBV ratio compares the NC 2000's expected future profits (as reflected in its price) to its economic book value as of 8/15/24. The NC 2000's PEBV ratio of 2.7 implies the profits (<u>NOPAT</u>) of the NC 2000 will permanently increase 170% from TTM ended 2Q24 levels.

Last quarter's of analysis of the PEBV for the NC 2000 and each sector is <u>here</u>. You can find our macro analysis on other key metrics <u>here</u>.

NC 2000 Trailing PEBV Ratio Rose Slightly from 5/16/24 to 8/15/24

The trailing PEBV ratio for the NC 2000 rose from 2.6 as of 5/16/24 to 2.7 as of 8/15/24, per Figure 1. The NC 2000 market cap increased by \$2.1 trillion while economic book value decreased by \$112.6 billion over the same time. More details in Appendix I.

Figure 1: Trailing PEBV Ratio for the NC 2000 From December 1998 – 8/15/24



Sources: New Constructs, LLC and company filings.

The August 15, 2024 measurement period uses price data as of that date and incorporates the financial data from 2Q24 10-Qs, as this is the earliest date for which all of the 2Q24 10-Qs for the NC 2000 constituents were available.

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

¹ We calculate these metrics based on <u>S&P Global</u>'s (SPGI) methodology, which sums up 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.

² Based on latest available audited financial data, which is the 2Q24 10-Q in most cases. Price data is as of 8/15/24. Price data is as of 8/15/24. QoQ analysis is based on the change since last quarter.

³ The NC 2000 consists of the largest 2000 U.S. companies by market cap in our coverage. Constituents are updated on an end-of-quarter basis. We exclude companies that report under IFRS and non-U.S. ADR companies.



Ranking All Sectors by Trailing Price to Economic Book Value Ratio

None of the NC 2000 sectors trade at-or-below their economic book value. Figure 2 shows that the Energy sector has the lowest trailing PEBV ratio among the eleven All Cap Index sectors based on prices as of 8/15/24 and financial data from 2Q24 10-Qs.

Figure 2: Trailing PEBV Ratios for all NC 2000 Sectors as of 8/15/24				
5	Sector	Trailing PEBV Ratio		
E	Energy	1.1		
F	Financials	1.3		
-	Telecom Services	1.4		
	Consumer Non-cyclicals	1.7		
E	Basic Materials	2.7		
H	Healthcare	2.8		
1	Industrials	2.8		
	Consumer Cyclicals	3.2		
	Technology	4.4		
L	Utilities	5.3		
F	Real Estate	14.5		
	NC 2000	2.7		

Sources: New Constructs, LLC and company filings.

Price as of 8/15/24, financial data incorporates 2Q24 10-Qs.

A trailing PEBV ratio of 1.1 means the market expects the Energy sector's profits to grow only 10% from TTM ended 2Q24 levels. On the flip side, investors expect the Utilities and Real Estate sectors (trailing PEBV ratios of 5.3 and 14.5) to improve profits more than any other NC 2000 sectors.

Details on Each of the NC 2000 Sectors

Figures 3 through 13 show the trailing PEBV ratio trends for every sector since December 1998. Note that the current PEBV ratios are based on prices as of August 15, 2024 and the latest financial data available, mostly 2Q24 10-Qs.

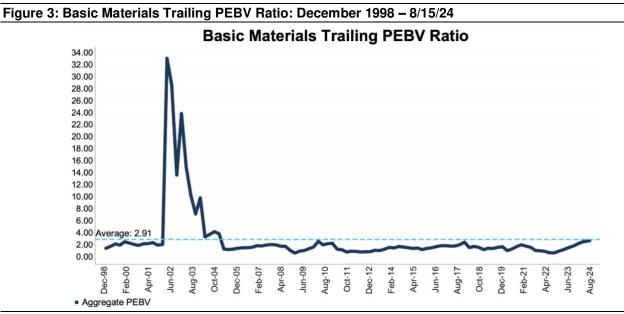
Appendix I presents the components of trailing PEBV ratio: market cap and economic book value for the NC 2000 and each sector.

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



Basic Materials: Trailing PEBV Ratio = 2.7

Figure 3 shows the trailing PEBV ratio for the Basic Materials sector fell slightly from 2.70 as of 5/16/24 to 2.69 as of 8/15/24. The Basic Materials sector's market cap fell from \$1.41 trillion as of 5/16/24 to \$1.36 trillion as of 8/15/24, while its economic book value fell from \$521.5 billion as of 5/16/24 to \$506.1 billion as of 8/15/24.



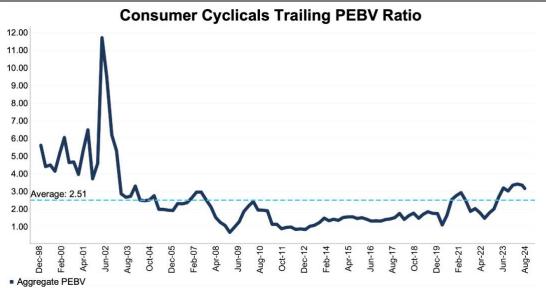
Sources: New Constructs, LLC and company filings.

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Consumer Cyclicals: Trailing PEBV Ratio = 3.2

Figure 4 shows the trailing PEBV ratio for the Consumer Cyclicals sector fell from 3.23 in 5/16/24 to 3.17 in 8/15/24. The Consumer Cyclicals sector's market cap rose from \$6.73 trillion as of 5/16/24 to \$6.80 trillion as of 8/15/24, while its economic book value rose from \$2.08 trillion as of 5/16/24 to \$2.14 trillion as of 8/15/24.



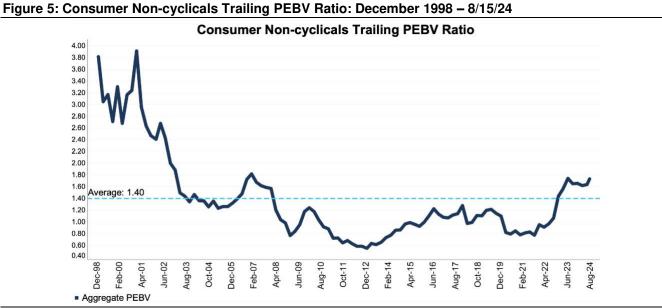


Sources: New Constructs, LLC and company filings.



Consumer Non-cyclicals: Trailing PEBV Ratio = 1.7

Figure 5 shows the trailing PEBV ratio for the Consumer Non-cyclicals sector rose from 1.65 as of 5/16/24 to 1.73 as of 8/15/24. The Consumer Non-cyclicals sector's market cap rose from \$2.95 trillion as of 5/16/24 to \$3.03 trillion as of 8/15/24, while its economic book value fell from \$1.79 trillion as of 5/16/24 to \$1.75 trillion as of 8/15/24.



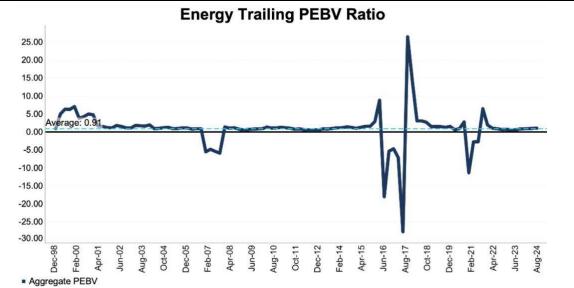
Sources: New Constructs, LLC and company filings.

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Energy: Trailing PEBV Ratio = 1.1

Figure 6 shows the trailing PEBV ratio for the Energy sector rose from 1.02 as of 5/16/24 to 1.06 as of 8/15/24. The Energy sector's market cap rose from \$2.37 trillion as of 5/16/24 to \$2.40 trillion as of 8/15/24, while its economic book value fell from \$2.31 trillion as of 5/16/24 to \$2.26 trillion as of 8/15/24.

Figure 6: Energy Trailing PEBV Ratio: December 1998 – 8/15/24

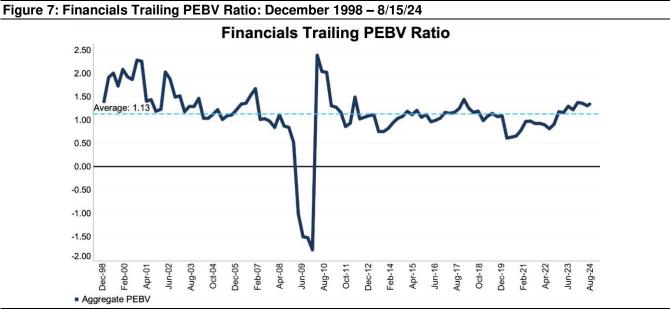


Sources: New Constructs, LLC and company filings.



Financials: Trailing PEBV Ratio = 1.3

Figure 7 shows the trailing PEBV ratio for the Financials sector rose from 1.31 as of 5/16/24 to 1.34 as of 8/15/24. The Financials sector's market cap rose from \$6.16 trillion as of 5/16/24 to \$6.48 trillion as of 8/15/24, while its economic book value rose from \$4.7 trillion as of 5/16/24 to \$4.8 trillion as of 8/15/24.



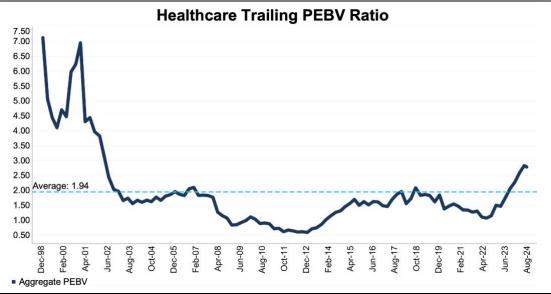
Sources: New Constructs, LLC and company filings.

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Healthcare: Trailing PEBV Ratio = 2.8

Figure 8 shows the trailing PEBV ratio for the Healthcare sector fell from 2.81 as of 5/16/24 to 2.78 as of 8/15/24. The Healthcare sector's market cap rose from \$6.2 trillion as of 11/15/23 to \$6.5 trillion as of 8/15/24, while its economic book value rose from \$2.2 trillion as of 5/16/24 to \$2.3 trillion as of 8/15/24.





Sources: New Constructs, LLC and company filings.



Industrials: Trailing PEBV Ratio = 2.8

Figure 9 shows the trailing PEBV ratio for the Industrials sector rose from 2.77 as of 5/16/24 to 2.84 as of 8/15/24. The Industrials sector's market cap fell from \$5.38 trillion as of 5/16/24 to \$5.27 trillion as of 8/15/24, while its economic book value fell from \$1.94 trillion as of 5/16/24 to \$1.86 trillion as of 8/15/24.

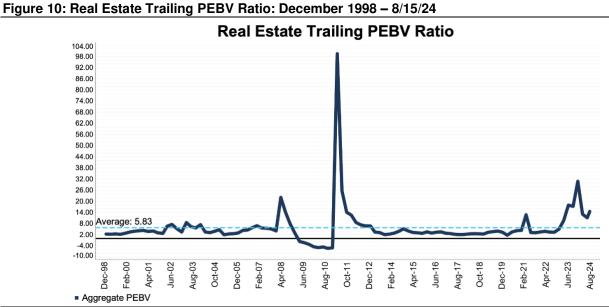


Sources: New Constructs, LLC and company filings.

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Real Estate: Trailing PEBV Ratio = 14.5

Figure 10 shows the trailing PEBV ratio for the Real Estate sector rose from 11.0 as of 5/16/24 to 14.5 as of 8/15/24. The Real Estate sector's market cap rose from \$1.35 trillion as of 5/16/24 to \$1.46 trillion as of 8/15/24, while its economic book value fell from \$122.9 billion as of 5/16/24 to \$100.2 billion as of 8/15/24.

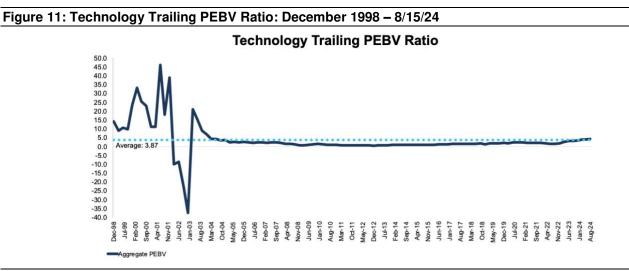


Sources: New Constructs, LLC and company filings.



Technology: Trailing PEBV Ratio = 4.4

Figure 11 shows the trailing PEBV ratio for the Technology sector rose from 4.0 as of 5/16/24 to 4.4 as of 8/15/24. The Technology sector's market cap rose from \$21.0 trillion as of 5/16/24 to \$22.2 trillion as of 8/15/24, while its economic book value fell from \$5.3 trillion as of 5/16/24 to \$5.1 trillion as of 8/15/24.

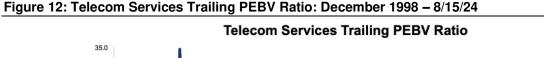


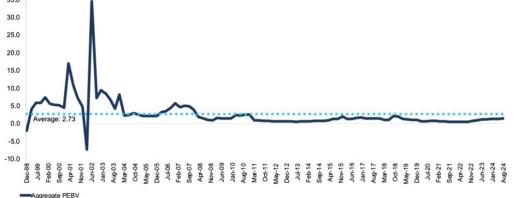
Sources: New Constructs, LLC and company filings.

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Telecom Services: Trailing PEBV Ratio = 1.4

Figure 12 shows the trailing PEBV ratio for the Telecom Services sector rose from 1.3 as of 5/16/24 to 1.4 as of 8/15/24. The Telecom Services sector's market cap rose from \$547.9 billion as of 5/16/24 to \$610.9 billion as of 8/15/24, while its economic book value rose from \$421.5 billion as of 5/16/24 to \$437.8 billion as of 8/15/24.



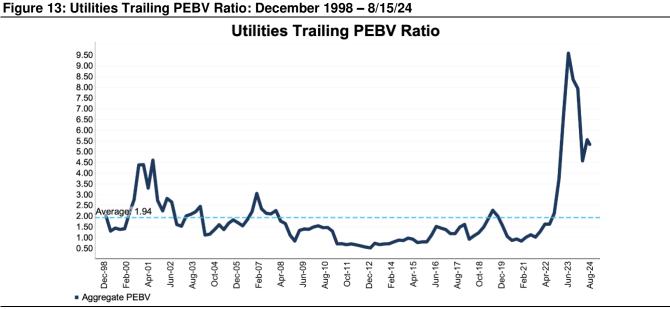


Sources: New Constructs, LLC and company filings.



Utilities: Trailing PEBV Ratio = 5.3

Figure 13 shows that the trailing PEBV ratio for the Utilities sector fell from 5.5 as of 5/16/24 to 5.3 as of 8/15/24. The Utilities sector's market cap rose from \$1.24 trillion as of 5/16/24 to \$1.27 trillion as of 8/15/24, while its economic book value rose from \$227.4 billion as of 5/16/24 to \$238.5 billion as of 8/15/24.



Sources: New Constructs, LLC and company filings.

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This article was originally published on <u>September 6, 2024</u>.

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

Questions on this report or others? Join our <u>online community</u> and connect with us directly.

Appendix I: NC 2000: Market Cap & Economic Book Value Since 1998

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 December 1998. 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 eleven sectors by market cap as of 8/15/24. It shows the Technology sector's outsized impact on the NC 2000, with a market cap more than triple the size of the next largest sector, Consumer Cyclicals.

Figure 14: Market Cap by Sector - as of 8/15/24

Sector	Market Cap (\$billions)	
Technology	\$22,189	
Consumer Cyclicals	\$6,802	
Financials	\$6,482	
Healthcare	\$6,468	
Industrials	\$5,266	
Consumer Non-cyclicals	\$3,034	
Energy	\$2,401	
Real Estate	\$1,457	
Basic Materials	\$1,363	
Utilities	\$1,274	
Telecom Services	\$611	
NC 2000	\$57,349	

Sources: New Constructs, LLC and company filings.

Prices as of 8/15/24.

Figure 15 ranks all 11 NC 2000 sectors by economic book value based on financial data that incorporates 2Q24 10-Qs. It shows that the Technology sector also has the highest economic book value.

Figure 15: Economic Book Value by Sector - as of 8/15/24

Sector	Economic Book Value (\$billions)
Technology	\$5,069
Financials	\$4,828
Healthcare	\$2,323
Energy	\$2,263
Consumer Cyclicals	\$2,142
Industrials	\$1,856
Consumer Non-cyclicals	\$1,753
Basic Materials	\$506
Telecom Services	\$438
Utilities	\$238
Real Estate	\$100
NC 2000	\$21,517

Sources: New Constructs, LLC and company filings.

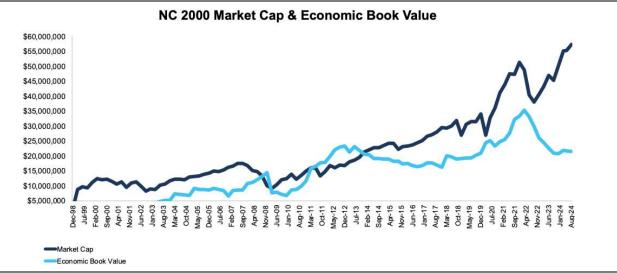
Financial data from 2Q24 10-Qs.



Figures 16 through 27 compare the market cap and economic book value trends for the NC 2000 and every sector since December 1998.

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: December 1998 – 8/15/24



Sources: New Constructs, LLC and company filings.

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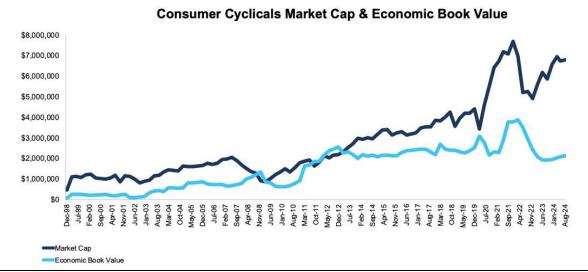
Figure 17: Basic Materials Market Cap & Economic Book Value: December 1998 – 8/15/24

Basic Materials Market Cap & Economic Book Value \$2,000,000 \$1,800,000 \$1,600,000 \$1,400,000 \$1,200,000 \$1,000,000 \$800,000 \$600,000 \$400,000 \$200,000 \$0 Jun-09 Jan-10 Aug-10 Mar-11 May-12 Dec-12 Jul-13 Feb-14 Sep-14 Apr-15 Aug-03 Mar-04 Oct-04 Jul-06 Feb-07 Sep-07 Sep-07 Nov-08 Vov-08 Jun-16 ov-15 96-Inl eb-21 Market Cap

Economic Book Value
Sources: New Constructs, LLC and company filings.

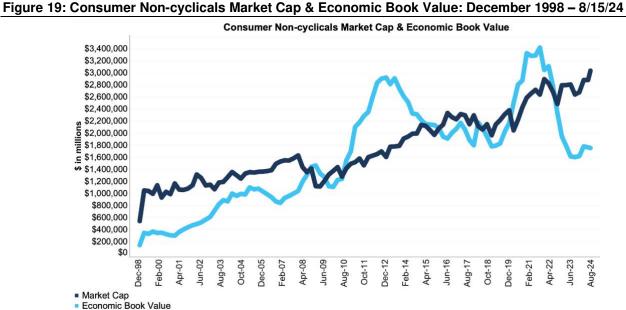


Figure 18: Consumer Cyclicals Market Cap & Economic Book Value: December 1998 – 8/15/24



Sources: New Constructs, LLC and company filings.

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Sources: New Constructs, LLC and company filings.



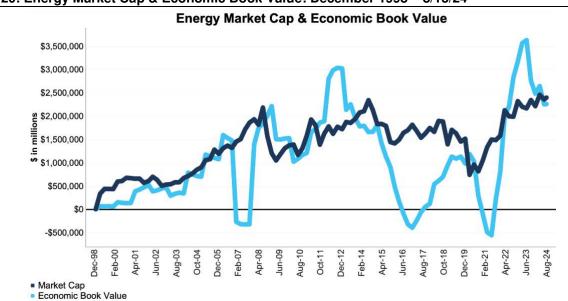


Figure 20: Energy Market Cap & Economic Book Value: December 1998 – 8/15/24

Sources: New Constructs, LLC and company filings.

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Figure 21: Financials Market Cap & Economic Book Value: December 1998 – 8/15/24

Economic Book Value Sources: New Constructs, LLC and company filings.

Market Cap

Feb-00

Dec-98

Jun-02 Aug-03

Apr-01

Dec-05

Oct-04

^{-eb-07}

Apr-08

90-un

\$1,000,000 \$500,000 \$0 -\$500,000 -\$1,000,000 -\$1,500,000

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Aug-10

Oct-11

Dec-12 Feb-14 Apr-15 Jun-16 Aug-17

Oct-18 Dec-19 Apr-22 Jun-23

Feb-21

Aug-24



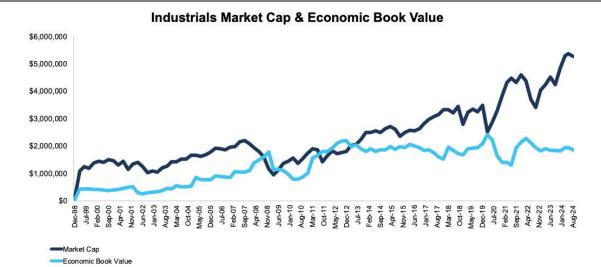


Figure 22: Healthcare Market Cap & Economic Book Value: December 1998 – 8/15/24

Sources: New Constructs, LLC and company filings.

The August 15, 2024 measurement period uses price data as of that date and incorporates the financial data from 2Q24 10-Qs, as this is the earliest date for which all of the 2Q24 10-Qs for the NC 2000 constituents were available.

Figure 23: Industrials Market Cap & Economic Book Value: December 1998 – 8/15/24



Sources: New Constructs, LLC and company filings.



Figure 24: Real Estate Market Cap & Economic Book Value: December 1998 – 8/15/24

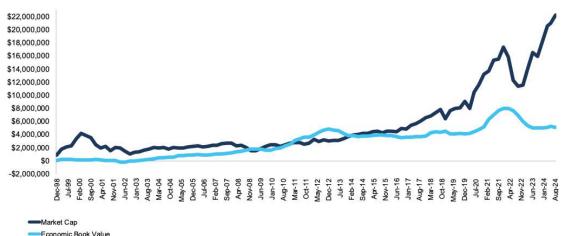


Sources: New Constructs, LLC and company filings.

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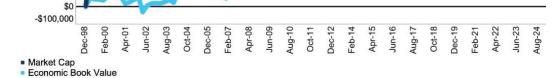
Technology Market Cap & Economic Book Value



Sources: New Constructs, LLC and company filings.



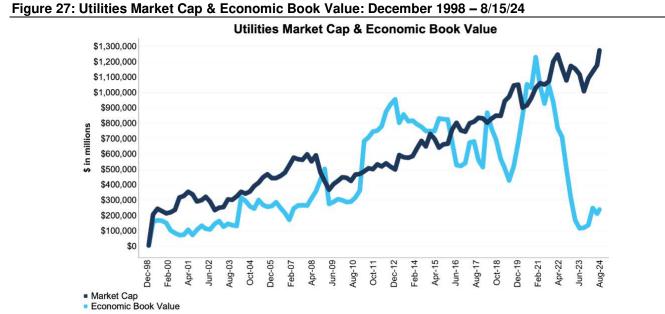
Figure 26: Telecom Services Market Cap & Economic Book Value: December 1998 – 8/15/24 **Telecom Services Market Cap & Economic Book Value** \$1,600,000 \$1,500,000 \$1,400,000 \$1,300,000 \$1,200,000 \$1,100,000 \$1,000,000 \$ in millions \$900,000 \$800,000 \$700,000 \$600,000 \$500,000 \$400,000 \$300,000 \$200,000



Sources: New Constructs, LLC and company filings.

\$100,000

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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 marketweighted 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.
- 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:



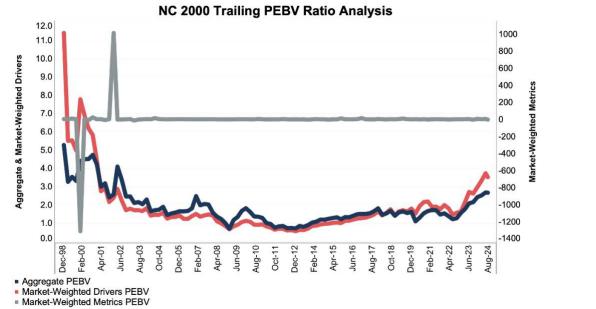
 More susceptible to large swings in market cap or economic book value (which can be impacted by changes in WACC) period over period, particularly from firms with a large weighting in the NC 2000/Sector.

Figures 28 through 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 (<u>NOPAT</u>) coupled with an increase in <u>total debt</u>, <u>minority interests</u>, and <u>outstanding employee stock options</u> 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: December 1998 – 8/15/24

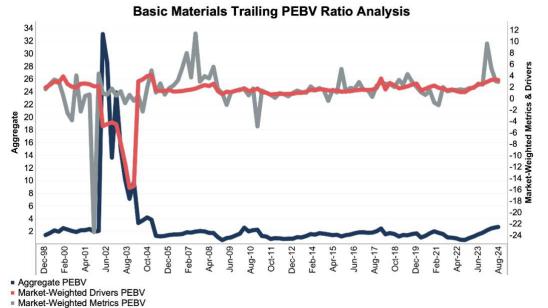


Sources: New Constructs, LLC and company filings.

New Constructs[®]



Figure 29: Basic Materials Trailing PEBV Ratio Methodologies Compared: December 1998 – 8/15/24

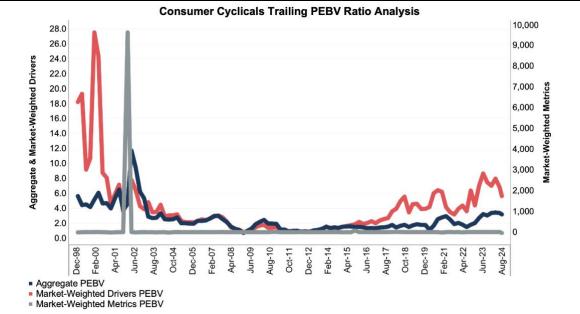


Sources: New Constructs, LLC and company filings.

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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.





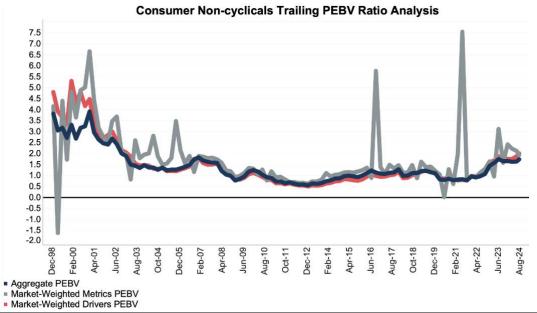
Sources: New Constructs, LLC and company filings.

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In Figure 31, the sharp increase in the market-weighted metrics trailing PEBV ratio for the Consumer Noncyclicals 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: Dec 1998 – 8/15/24

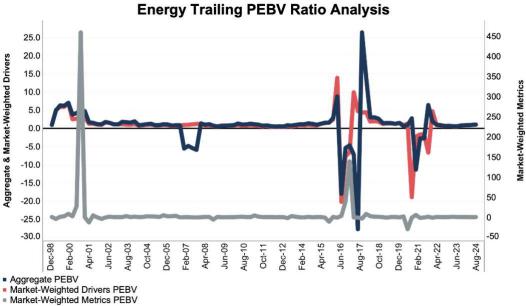


Sources: New Constructs, LLC and company filings.

The August 15, 2024 measurement period uses price data as of that date and incorporates the financial data from 2Q24 10-Qs, as this is the earliest date for which all of the 2Q24 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 in 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.

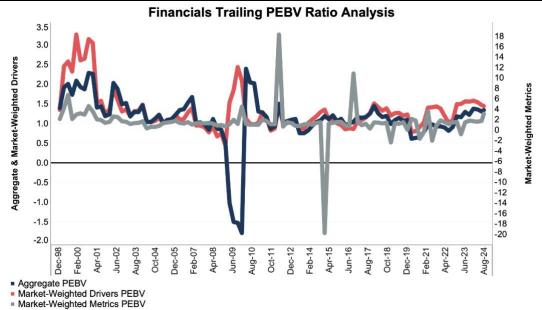




Sources: New Constructs, LLC and company filings.



Figure 33: Financials Trailing PEBV Ratio Methodologies Compared: December 1998 – 8/15/24



Sources: New Constructs, LLC and company filings.

The August 15, 2024 measurement period uses price data as of that date and incorporates the financial data from 2Q24 10-Qs, as this is the earliest date for which all of the 2Q24 10-Qs for the NC 2000 constituents were available.

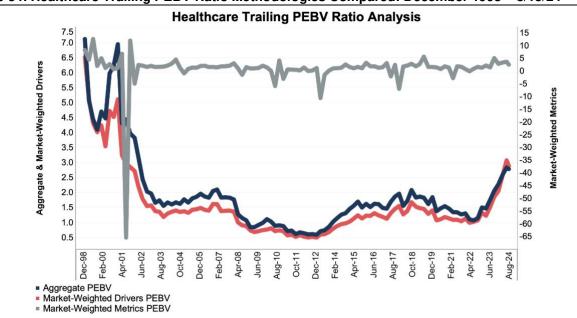
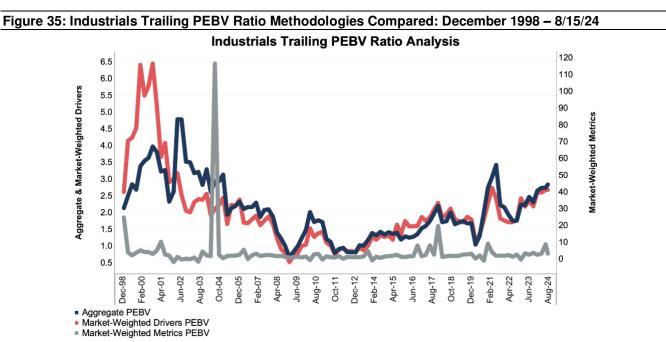


Figure 34: Healthcare Trailing PEBV Ratio Methodologies Compared: December 1998 – 8/15/24

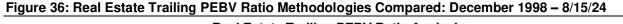
Sources: New Constructs, LLC and company filings.

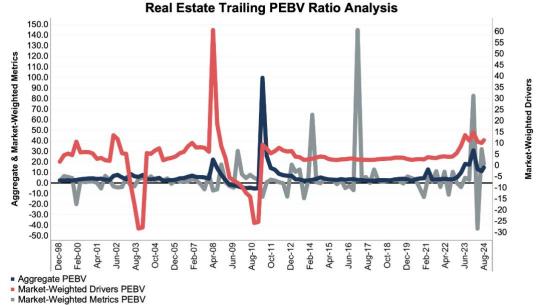




Sources: New Constructs, LLC and company filings.

The August 15, 2024 measurement period uses price data as of that date and incorporates the financial data from 2Q24 10-Qs, as this is the earliest date for which all of the 2Q24 10-Qs for the NC 2000 constituents were available.

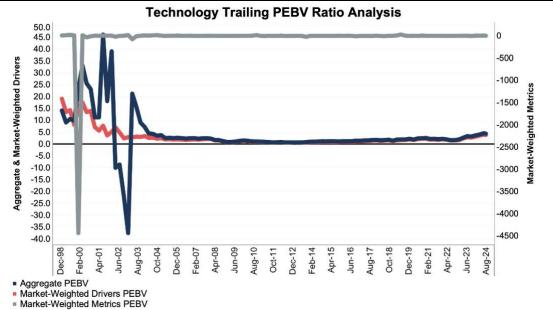




Sources: New Constructs, LLC and company filings.



Figure 37: Technology Trailing PEBV Ratio Methodologies Compared: December 1998 – 8/15/24



Sources: New Constructs, LLC and company filings.

The August 15, 2024 measurement period uses price data as of that date and incorporates the financial data from 2Q24 10-Qs, as this is the earliest date for which all of the 2Q24 10-Qs for the NC 2000 constituents were available.

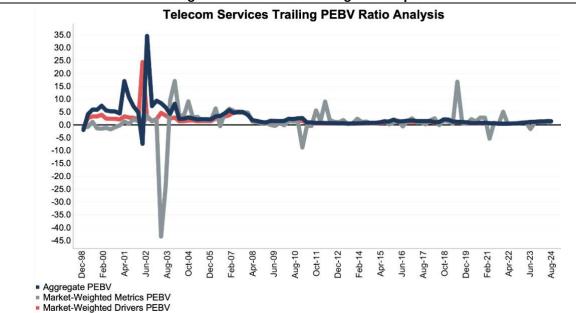
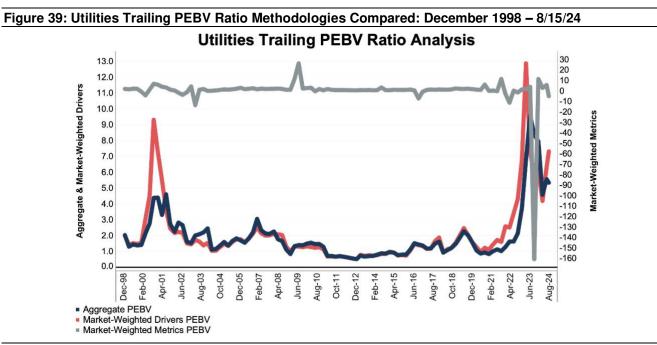


Figure 38: Telecom Services Trailing PEBV Ratio Methodologies Compared: December 1998 – 8/15/24

Sources: New Constructs, LLC and company filings.





Sources: New Constructs, LLC and company filings.



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

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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, 2nd para.

Superior Models

Ernst & Young 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, 5th 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, 2nd 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, 3rd para.
- "Our results ultimately suggest that Robo-Analysts are a valuable, alternative information intermediary to traditional sell-side analysts." pp. 20, 3rd para.

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