

### MACRO FUNDAMENTALS

12/8/22

# S&P 500 & Sectors: Price-to-Economic Book Value Ratio Rises as Prices Jump in 3Q22 (Free, Abridged)

The trailing PEBV ratio for the S&P 500 rose from 1.2 as of 9/30/22 to 1.5 as of 11/25/22.

This report is a free, abridged version of <u>S&P 500 & Sectors: Price-to-Economic Book Value Ratio Rises as Prices Jump in 3Q22</u>, one of our quarterly series on <u>fundamental market and sector trends</u>. The full reports are available to those with our new Professional (previously known as <u>Unlimited</u>) and <u>Institutional</u> membership or can be purchased below.

The full version of this report analyzes<sup>1,2</sup> the trailing price-to-economic book value (<u>PEBV</u>) ratio for the S&P 500 and its sectors based on financial filings through the second quarter of 2022 (last quarter's analysis is here).

This report leverages our cutting-edge <u>Robo-Analyst technology</u> to deliver <u>proven-superior</u><sup>3</sup> fundamental research and support more cost-effective fulfillment of the <u>fiduciary duty of care</u>.

**Buy the Full Version of This Report** 

#### S&P 500 Trailing PEBV Ratio Is Near Year Ago Levels

The trailing PEBV ratio compares the S&P 500's expected future profits (as reflected in its price) to its economic book value as of 11/25/22. The S&P 500's PEBV ratio of 1.5 implies the profits (NOPAT) of the S&P 500 will increase 50% from trailing-twelve-month (TTM) through 3Q22 levels.

See Figure 1 in the <u>full version</u> of our report for the chart of the PEBV ratio for the S&P 500 from December 2004 through 11/25/22.

#### Key Details on Select S&P 500 Sectors

Two S&P 500 sectors, Telecom Services and Energy, trade below their economic book value. The Telecom Services sector has the lowest trailing PEBV ratio among all eleven S&P 500 sectors based on prices as of 11/25/22 and financial data from 3Q22 10-Qs.

At 0.6, the Telecom Services sector's PEBV ratio means the market expects the Telecom Services sector's profits to decline by 40% from 3Q22 TTM level. On the flip side, investors expect the Real Estate and Utilities sectors (trailing PEBV ratios of 4.7 and 2.9) to improve profits more than any other S&P 500 sectors.

Below, we highlight the Basic Materials sector.

<sup>&</sup>lt;sup>1</sup> We calculate these metrics based on <u>S&P Global</u>'s (SPGI) methodology, which sums the individual S&P 500 constituent values for market cap and economic book value before using them to calculate the metrics. We call this the "Aggregate" methodology.

<sup>&</sup>lt;sup>2</sup> Analysis in this report is based on the latest audited financial data available, or 3Q22 10-Qs in most cases. Price data for the current period is as of 11/25/22.

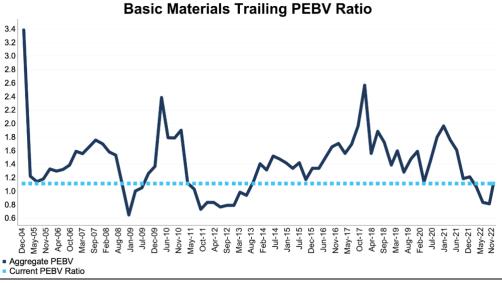
<sup>&</sup>lt;sup>3</sup> Our research utilizes our <u>Core Earnings</u>, a more reliable measure of profits, as proven in <u>Core Earnings: New Data & Evidence</u>, written by professors at Harvard Business School (HBS) & MIT Sloan and published in <u>The Journal of Financial Economics</u>.



#### Sample Sector Analysis<sup>4</sup>: Basic Materials: Trailing PEBV Ratio = 1.1

Figure 1 shows the trailing PEBV ratio for the Basic Materials sector rose from 0.8 as of 9/30/22 to 1.1 as of 11/25/22. The Basic Materials sector market cap rose from \$708.1 billion as of 9/30/22 to \$854.7 billion as of 11/25/22, while its economic book value fell from \$870.5 billion as of 9/30/22 to \$769.0 billion as of 11/25/22.

Figure 1: Basic Materials Trailing PEBV Ratio: December 2004 - 11/25/22



Sources: New Constructs, LLC and company filings.

The November 25, 2022 measurement period uses price data as of that date and incorporates the financial data from 3Q22 10-Qs, as this is the earliest date for which all the calendar 3Q22 10-Qs for the S&P 500 constituents were available.

Figure 2 compares the trends for market cap and economic book value for the Basic Materials sector since 2004. We sum the individual S&P 500/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.

Figure 2: Basic Materials Market Cap & Economic Book Value: December 2004 - 11/25/22



Sources: New Constructs, LLC and company filings.

The November 25, 2022 measurement period uses price data as of that date and incorporates the financial data from 3Q22 10-Qs, as this is the earliest date for which all the calendar 3Q22 10-Qs for the S&P 500 constituents were available.

<sup>&</sup>lt;sup>4</sup> The full version of this report provides analysis for every sector like what we show for this sector.

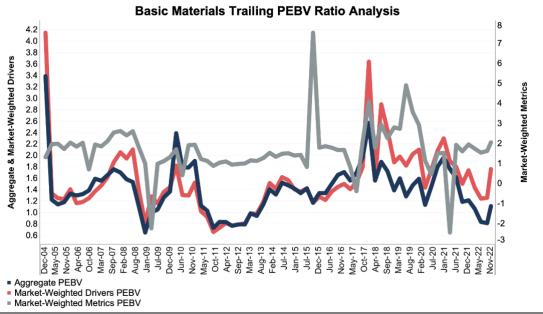


The Aggregate methodology provides a straightforward look at the entire S&P 500/sector, regardless of firm size or index weighting, and matches how S&P Global (SPGI) calculates metrics for the S&P 500.

For additional perspective, we compare the Aggregate method for trailing PEBV ratio with two other market-weighted methodologies: market-weighted metrics and market-weighted drivers. Each method has its pros and cons, which are detailed in the Appendix.

Figure 3 compares these three methods for calculating the Basic Materials sector trailing PEBV ratio.

Figure 3: Basic Materials Trailing PEBV Ratio Methodologies Compared: December 2004 - 11/25/22



Sources: New Constructs, LLC and company filings.

The November 25, 2022 measurement period uses price data as of that date and incorporates the financial data from 3Q22 10-Qs, as this is the earliest date for which all the calendar 3Q22 10-Qs for the S&P 500 constituents were available.

This article was originally published on <u>December 8, 2022.</u>

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

Follow us on Twitter, Facebook, LinkedIn, and StockTwits for real-time alerts on all our research.



# Appendix: Analyzing Trailing PEBV Ratio with Different Weighting Methodologies

We derive the metrics above by summing the individual S&P 500/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 S&P 500/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 S&P 500 in each period. Details:
  - Company weight equals the company's market cap divided by the market cap of the S&P 500 or its sector
  - b. We multiply each company's trailing PEBV ratio by its weight
  - S&P 500/Sector trailing PEBV equals the sum of the weighted trailing PEBV ratios for all the companies in the S&P 500/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 S&P 500 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 S&P 500/each sector to determine the S&P 500 or sector's weighted FCF and weighted enterprise value
  - d. S&P 500/Sector trailing PEBV ratio equals weighted S&P 500/sector market cap divided by weighted S&P 500/sector economic book value

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

#### Aggregate method

#### Pros:

- A straightforward look at the entire S&P 500/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 S&P 500/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 S&P 500/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 S&P 500/Sector.



#### 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.
- 3. Our proprietary measures of <u>Core Earnings</u> and <u>Earnings Distortion</u> materially improve stock picking and forecasting of profits.

#### **Best Fundamental Data in the World**

Forthcoming in <u>The Journal of Financial Economics</u>, a top peer-reviewed journal, <u>Core Earnings: New Data & Evidence</u> proves our Robo-Analyst technology overcomes material shortcomings in legacy firms' data collection processes to provide superior <u>fundamental data</u>, <u>earnings</u> models, and <u>research</u>. More <u>details</u>.

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 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**

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 here.

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.

Our mission is to provide the best fundamental analysis of public and private businesses in the world and make it affordable for all investors, not just Wall Street insiders.

We believe every investor deserves to know the whole truth about the profitability and valuation of any company they consider for investment. More details on our cutting-edge technology and how we use it are <a href="here">here</a>.



#### **DISCLOSURES**

New Constructs®, LLC (together with any subsidiaries and/or affiliates, "New Constructs") is an independent organization with no management ties to the companies it covers. None of the members of New Constructs' management team or the management team of any New Constructs' affiliate holds a seat on the Board of Directors of any of the companies New Constructs covers. New Constructs does not perform any investment or merchant banking functions and does not operate a trading desk.

New Constructs' Stock Ownership Policy prevents any of its employees or managers from engaging in Insider Trading and restricts any trading whereby an employee may exploit inside information regarding our stock research. In addition, employees and managers of the company are bound by a code of ethics that restricts them from purchasing or selling a security that they know or should have known was under consideration for inclusion in a New Constructs report nor may they purchase or sell a security for the first two days after New Constructs issues a report on that security.

#### **DISCLAIMERS**

The information and opinions presented in this report are provided to you for information purposes only and are not to be used or considered as an offer or solicitation of an offer to buy or sell securities or other financial instruments. New Constructs has not taken any steps to ensure that the securities referred to in this report are suitable for any particular investor and nothing in this report constitutes investment, legal, accounting or tax advice. This report includes general information that does not take into account your individual circumstance, financial situation or needs, nor does it represent a personal recommendation to you. The investments or services contained or referred to in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about any such investments or investment services.

Information and opinions presented in this report have been obtained or derived from sources believed by New Constructs to be reliable, but New Constructs makes no representation as to their accuracy, authority, usefulness, reliability, timeliness or completeness. New Constructs accepts no liability for loss arising from the use of the information presented in this report, and New Constructs makes no warranty as to results that may be obtained from the information presented in this report. Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance. Information and opinions contained in this report reflect a judgment at its original date of publication by New Constructs and are subject to change without notice. New Constructs may have issued, and may in the future issue, other reports that are inconsistent with, and reach different conclusions from, the information presented in this report. Those reports reflect the different assumptions, views and analytical methods of the analysts who prepared them and New Constructs is under no obligation to insure that such other reports are brought to the attention of any recipient of this report.

New Constructs' reports are intended for distribution to its professional and institutional investor customers. Recipients who are not professionals or institutional investor customers of New Constructs should seek the advice of their independent financial advisor prior to making any investment decision or for any necessary explanation of its contents.

This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would be subject New Constructs to any registration or licensing requirement within such jurisdiction.

This report may provide the addresses of websites. Except to the extent to which the report refers to New Constructs own website material, New Constructs has not reviewed the linked site and takes no responsibility for the content therein. Such address or hyperlink (including addresses or hyperlinks to New Constructs own website material) is provided solely for your convenience and the information and content of the linked site do not in any way form part of this report. Accessing such websites or following such hyperlink through this report shall be at your own risk.

All material in this report is the property of, and under copyright, of New Constructs. None of the contents, nor any copy of it, may be altered in any way, copied, or distributed or transmitted to any other party without the prior express written consent of New Constructs. All trademarks, service marks and logos used in this report are trademarks or service marks or registered trademarks or service marks of New Constructs. Copyright New Constructs, LLC 2003 through the present date. All rights reserved.