



S&P 500 & Sectors: ROIC Hits New Peak, but Can It Last? (Free, Abridged)

Trailing-twelve-month (TTM) return on invested capital ([ROIC](#)) spiked to a new high for the S&P 500 in 1Q22. All eleven S&P 500 sectors saw a year-over-year (YoY) improvement in ROIC as well. This improvement comes from higher net operating profit after-tax ([NOPAT](#)) margins and [invested capital turns](#).

This report is an abridged and free version of [S&P 500 & Sectors: ROIC Hits New Peak, but Can It Last?](#), one of our quarterly series on [fundamental market and sector trends](#), available to [Pro and higher members](#).

The full version of this report analyzes^{1,2} the drivers of [economic earnings](#) [return on invested capital ([ROIC](#)), [NOPAT margin](#), [invested capital turns](#), and weighted average cost of capital ([WACC](#))] for the S&P 500 and each of its sectors (last quarter's analysis is [here](#)).

This report leverages our cutting-edge [Robo-Analyst technology](#) to deliver [proven-superior](#)³ fundamental research and support more cost-effective fulfillment of the [fiduciary duty of care](#).

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S&P 500 ROIC Continues to Rebound in 4Q21

Trailing-twelve-month (TTM) return on invested capital ([ROIC](#)) spiked to a new high for the S&P 500 in 1Q22. It rose from 7.6% in 1Q21 to 10.1% in 1Q22. Two key observations:

1. Margins are, no doubt, getting an artificial boost from inflation as profits today are based on higher prices for goods sold than the cost of the goods sold. This boost will continue as long as high levels of inflation persist.
2. WACC has increased by less than the yields for AAA corporate bonds. That lag implies firms have shortened the maturities of their outstanding bonds to benefit from the steepness of the yield curve for maturities shorter than five years. Shortening maturities might lower the cost of debt and WACC in the near term, but it leaves firms exposed to sharply rising financing costs if interest rates keep rising.

As a result, the “record” return on capital is a bit of a mirage, and the trend in ROIC could reverse soon.

See Figure 1 in the [full version](#) of our report for the chart of ROIC vs. WACC for the S&P 500 from December 2004 through 1Q22.

Key Details on Select S&P 500 Sectors

All eleven S&P 500 sectors saw a year-over-year (YoY) improvement in ROIC.

The Energy sector performed best over the past twelve months as measured by change in ROIC, with its ROIC rising 900 basis points. Given the impact COVID-19 had on energy companies and energy prices in 2020 and the strength of the rebound, this trend is not surprising.

On the flip side, the Telecom Services sector, at only 3 basis points, saw the slightest YoY improvement in ROIC over the past twelve months. Overall, the Technology sector earns the highest ROIC of all sectors, by far, and the Utilities sector earns the lowest ROIC.

Below, we highlight the Energy sector, which had the largest YoY improvement in ROIC.

¹ We calculate these metrics based on SPGI's methodology, which sums the individual S&P 500 constituent values for NOPAT and invested capital before using them to calculate the metrics. We call this the “Aggregate” methodology.

² Our research is based on the latest audited financial data, which is the 1Q22 10-Qs in most cases. Price data is as of 5/16/22.

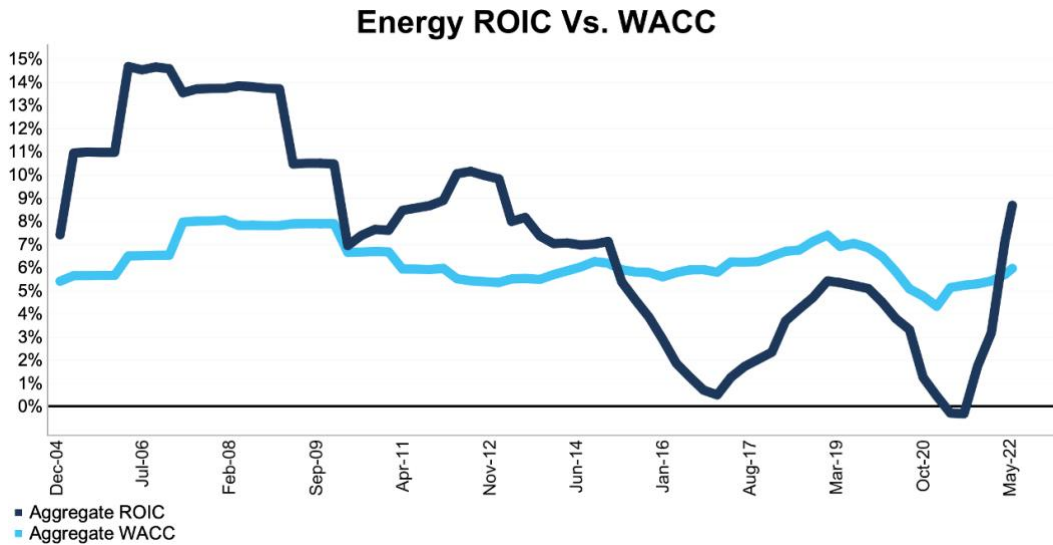
³ Our research utilizes our [Core Earnings](#), a more reliable measure of profits, as proven in [Core Earnings: New Data & Evidence](#), written by professors at Harvard Business School (HBS) & MIT Sloan and published in [The Journal of Financial Economics](#).



Sample Sector Analysis⁴: Energy

Figure 1 shows the Energy sector ROIC rose from -0.3% in 1Q21 to 8.7% in 1Q22. The Energy sector NOPAT margin rose from -0.8% in 1Q21 to 12.5% in 1Q22, while invested capital turns rose from 0.39 in 1Q21 to 0.70 in 1Q22.

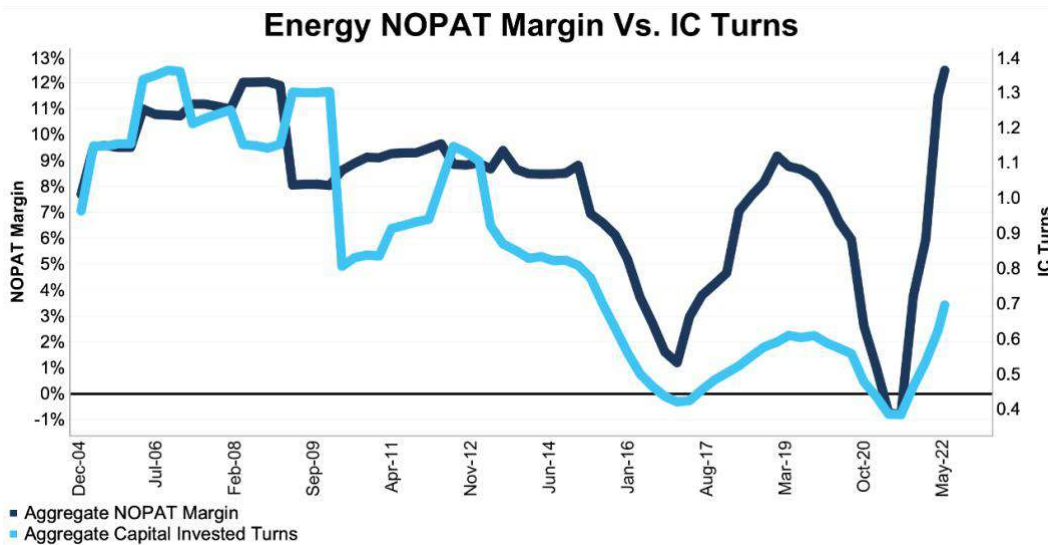
Figure 1: Energy ROIC vs. WACC: December 2004 – 5/16/22



Sources: New Constructs, LLC and company filings. The May 16, 2022 measurement period uses price data as of that date for our WACC calculation and incorporates the financial data from 1Q22 10-Qs for ROIC, as this is the earliest date for which all the 1Q22 10-Qs for the S&P 500 constituents were available.

Figure 2 compares the trends for NOPAT margin and invested capital turns for the Energy sector since 2004. We sum the individual S&P 500 constituent values for revenue, NOPAT, and invested capital to calculate these metrics. We call this approach the “Aggregate” methodology.

Figure 2: Energy NOPAT Margin and IC Turns: December 2004 – 5/16/22



Sources: New Constructs, LLC and company filings. The May 16, 2022 measurement period uses price data as of that date for our WACC calculation and incorporates the financial data from 1Q22 10-Qs for ROIC, as this is the earliest date for which all the 1Q22 10-Qs for the S&P 500 constituents were available.

⁴ The full version of this report provides analysis for every sector like what we show for this sector.

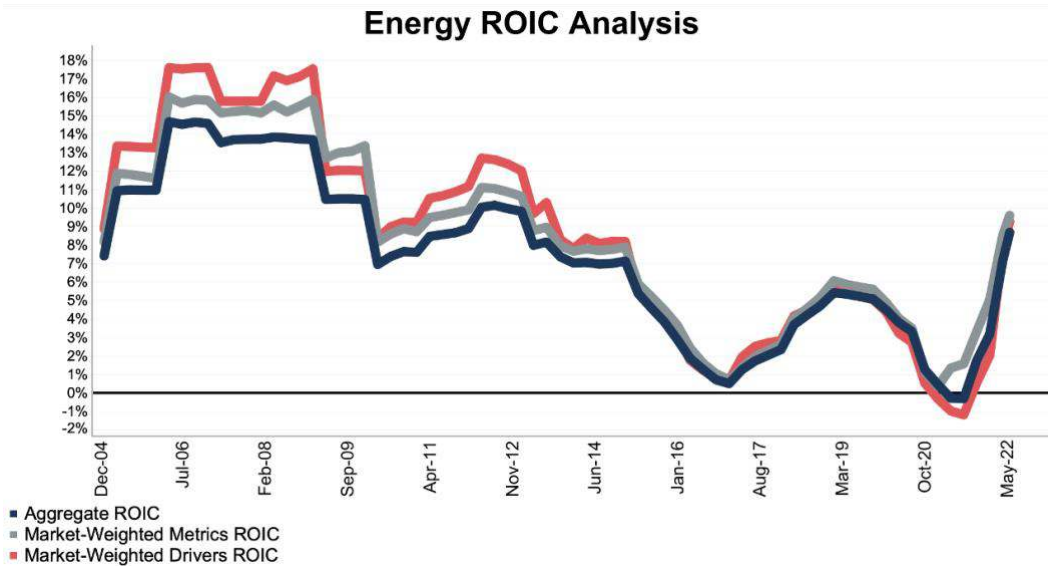


The Aggregate methodology provides a straightforward look at the entire sector, regardless of market cap or index weighting and matches how S&P Global (SPGI) calculates metrics for the S&P 500.

For additional perspective, we compare the Aggregate method for ROIC with two 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 Energy sector ROIC.

Figure 3: Energy ROIC Methodologies Compared: December 2004 – 5/16/22



Sources: New Constructs, LLC and company filings.

The May 16, 2022 measurement period uses price data as of that date for our WACC calculation and incorporates the financial data from 1Q22 10-Qs for ROIC, as this is the earliest date for which all the 1Q22 10-Qs for the S&P 500 constituents were available.

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

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Appendix: Analyzing ROIC with Different Weighting Methodologies

We derive the metrics above by summing the individual S&P 500 constituent values for revenue, NOPAT, and invested capital to calculate the metrics presented. We call this approach the “Aggregate” methodology.

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

For additional perspective, we compare the Aggregate method for ROIC with two other market-weighted methodologies:

1. **Market-weighted metrics** – calculated by market-cap-weighting the ROIC for the individual companies relative to their sector or the overall S&P 500 in each period. Details:
 - a. Company weight equals the company’s market cap divided by the market cap of the S&P 500/its sector
 - b. We multiply each company’s ROIC by its weight
 - c. S&P 500/Sector ROIC equals the sum of the weighted ROICs for all the companies in the S&P 500/each sector
2. **Market-weighted drivers** – calculated by market-cap-weighting the NOPAT and invested capital 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 S&P 500/its sector
 - b. We multiply each company’s NOPAT and invested capital by its weight
 - c. We sum the weighted NOPAT and invested capital for each company in the S&P 500/each sector to determine each sector’s weighted NOPAT and weighted invested capital
 - d. S&P 500/Sector ROIC equals weighted sector NOPAT divided by weighted sector invested capital

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 by companies entering/exiting the group of companies, which could unduly affect aggregate values despite the level of change from companies that remain in the group.

Market-weighted metrics method

Pros:

- Accounts for a firm’s size relative to the overall S&P 500/sector and weights its metrics accordingly.

Cons:

- Vulnerable to outsized impact of one or a few companies, as shown in the full report. This outsized impact tends to occur only for ratios where unusually small denominator values can create extremely high or low results.

Market-weighted drivers method

Pros:

- Accounts for a firm’s size relative to the overall S&P 500/sector and weights its NOPAT and invested capital accordingly.
- Mitigates potential outsized impact of one or a few companies by aggregating values that drive the ratio before calculating the ratio.

Cons:

- Can minimize the impact of period-over-period changes in smaller companies, as their impact on the overall sector NOPAT and invested capital is smaller.



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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

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, 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

Robo-Analysts’ stock ratings outperform those from human analysts as shown in this [paper](#) 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, 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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