

Overstated Operating Earnings Increase Downside Risk for the S&P 500

The <u>Operating Earnings</u> from <u>S&P Global</u> (SPGI) for the S&P 500 overstate <u>Core Earnings</u>^{1,2} through 3Q21, which continue a trend from <u>last quarter</u>. We see the same problems with GAAP Earnings, as detailed <u>here</u>.

Stocks are more expensive than they appear, and, despite falling from prior highs, the S&P 500's valuation depends on more earnings growth than analysts expect, which increases downside risk for the index.

Last quarter's analysis of Core vs. Operating Earnings for the S&P 500 is <u>here</u>. Get all our reports on the trends in fundamentals of the market & each sector <u>here</u>.

Our research leverages more reliable fundamental data³ that overcomes <u>flaws with legacy fundamental datasets</u> to provide a more informed view of the fundamentals of companies and a <u>new source of alpha</u>.

Learn more about the best fundamental research

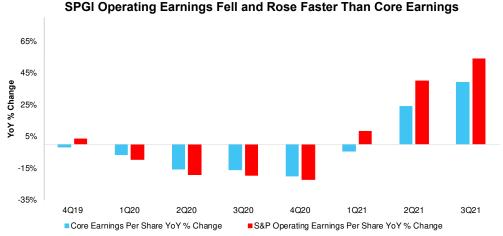
S&P Global's Earnings Rebound Is Misleading

The rebound in earnings is not as robust as SPGI's Operating Earnings suggest. Year-over-year (YoY):

- SPGI's Operating Earnings improved from \$123.37/share to \$189.88/share, or 54%
- Core Earnings improved from \$129.35/share to \$180.31/share, or 39%

SPGI's Operating Earnings for the S&P 500 were 5% below Core Earnings in 3Q20 and were 5% higher in 3Q21. SPGI's Operating Earnings contained unusual gains/losses that led to the exaggerated decline and subsequent rebound in true profits as shown in Figure 1.

Figure 1: Core Earnings vs. SPGI Operating : 4Q19 – 3Q21⁴



Core Earnings Per Share YoY % Change S&P Operating Earnings Per Share YoY % Change

Sources: New Constructs, LLC, company filings, and <u>S&P Global</u> (SPGI). Note: the most recent period's data for SPGI's Operating Earnings is based on consensus estimates for companies with a non-standard fiscal year. Our Core Earnings analysis is based on aggregated TTM data through 6/30/13 and aggregated quarterly data thereafter for the S&P 500

Core Earnings analysis is based on aggregated 11M data through 6/30/13 and aggregated quarterly data thereafter for the S&P 500 constituents in each measurement period. More details in Appendix I.

¹ Only Core Earnings enable investors to overcome the flaws in legacy fundamental data and research, as proven in <u>Core Earnings: New Data & Evidence</u>, written by professors at Harvard Business School (HBS) & MIT Sloan for <u>The Journal of Financial Economics</u>.

² Our Core Earnings research is based on the latest audited financial data, which is the calendar 3Q21 10-Q in most cases. Operating Earnings from S&P Global is based on the same time frame.

³ Three independent studies prove the superiority of our data, models, and ratings. Learn more <u>here</u>.

⁴ November 16, 2021, is the earliest date for which all the calendar 3Q2 10-Qs for the S&P 500 constituents were available.

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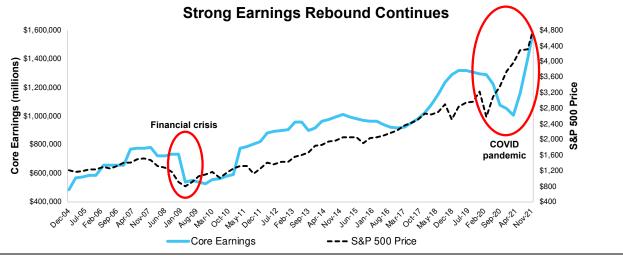
A Continued Rise In the S&P 500 Requires Commensurate Rise in Investor Optimism

Through 3Q21, Core Earnings for the S&P 500 reached new highs, surpassing last quarter's already record levels. However, an even faster rise in the price of the S&P 500 (See Figure 2) stretches the gap between the S&P 500's valuation and its true fundamentals.

As Operating Earnings continue to overstate the S&P 500's Core Earnings, the index requires increasing investor optimism to support its valuation. If future Core Earnings growth does not catch up to current investor optimism, then the index could tumble.

While unusual income can boost EPS in the short term, they do not last forever. In the meantime, downside risk in the market grows as price gains outpace Core Earnings gains (more details in Figure 3 below).

Figure 2: Core Earnings vs. S&P 500 Price: 2004 to Present (through 11/16/21)



Sources: New Constructs, LLC, company filings, and <u>S&P Global</u> (SPGI). Our Core Earnings analysis is based on aggregated TTM data through 6/30/13, and aggregated quarterly data thereafter for the S&P 500 constituents in each measurement period. More details in Appendix I.

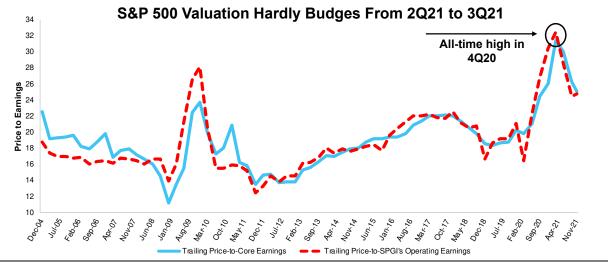
S&P 500 Still Looks Expensive Compared to Historical Averages

Figure 3 shows the S&P 500 has rarely had a higher trailing P/E ratio based on Core Earnings or SPGI's Operating Earnings. The P/E ratio based on Core Earnings of 25.1 is down slightly from 26.3 last quarter while the P/E ratio based on SPGI's Operating earnings actually rose from 24.5 to 24.8 quarter-over-quarter.



MACRO FUNDAMENTALS 12/3/21

Figure 3: Price-to-Core vs. Price-to-SPGI's Operating Earnings: TTM 12/31/04 – Present (thru 11/16/21)

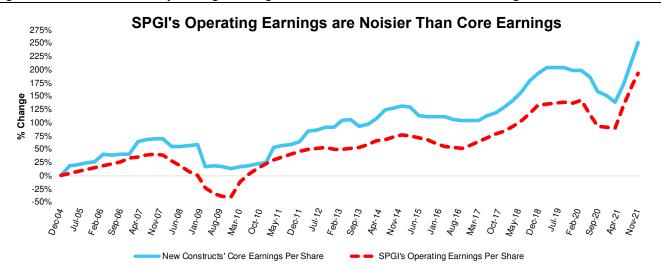


Sources: New Constructs, LLC, company filings, and S&P Global. Note: the most recent period's data for SPGI's Operating Earnings incorporates consensus estimates for companies with a non-standard fiscal year. Our Core Earnings P/E ratio is aggregating the TTM results for constituents through 6/30/13 and aggregating four quarters of results for the S&P 500 constituents in each measurement period thereafter. SPGI's P/E is based on four quarters of aggregated S&P 500 results in each period. More details in Appendix II.

Core Earnings are a Less Volatile Measure of Earnings

Figure 4 highlights the percentage change in Core Earnings and SPGI's Operating Earnings from 2004 to present. The differences are due to <u>flaws</u> in legacy fundamental datasets (detailed in <u>The Journal of Financial</u> <u>Economics</u>) that fail to capture the full impact of unusual gains/losses buried in footnotes.

Figure 4: Core vs. SPGI's Operating Earnings Per Share for the S&P 500 - % Change: 2004 - 11/16/21



Sources: New Constructs, LLC, company filings, and S&P Global (SPGI). Note: the most recent period's data for SPGI's Operating Earnings incorporates consensus estimates for companies with a non-standard fiscal year. Our Core Earnings analysis is based on aggregated TTM data through 6/30/13, and aggregated quarterly data thereafter for the S&P 500 constituents in each measurement period.

An Example of Overstated Earnings in the S&P 500: Celanese Corp (CE)

Below, we detail the <u>hidden and reported</u> unusual items that aren't captured in GAAP Earnings but are captured in Core Earnings for Celanese Corp (CE). We would be happy to reconcile our Core Earnings with Operating Earnings if S&P Global would disclose exactly how Operating Earnings differ from GAAP Earnings.

New Constructs®

After adjusting for unusual items, we find that Celanese Corp's Core Earnings of \$12.40/share are 50% less than reported GAAP Earnings of \$24.81/share.

Celanese Corp's <u>Earnings Distortion Score</u> is Strong Miss. However, despite the likelihood to miss earnings in the short-term, given the company's high ROIC and relatively cheap valuation, our overall <u>stock rating</u>, a more long-term view of risk/reward, for CE is Very Attractive.

Figure 5 details the differences between Core Earnings and GAAP Earnings so readers can audit our research.

Figure 5: Celanese Corp's GAAP Earnings to Core Earnings Reconciliation: 3Q21

	TTM (\$ per share)
GAAP Net Income	\$24.81
– Hidden Unusual Gains, Net	\$0.03
 Reported Unusual Gains Pre-Tax, Net 	\$13.74
– Tax Distortion	(\$1.18)
- Reported Unusual Expenses After-Tax, Net	(\$0.18)
= Core Earnings	\$12.40

Sources: New Constructs, LLC and company filings.

More details:

Hidden Unusual Gains, Net = \$0.03/per share, which equals \$3 million and is comprised of

- <u>\$7 million</u> gain on disposition of businesses and assets in 3Q21
- <u>-\$2 million</u> in asset impairments in 3Q21
- <u>-\$2 million</u> in accelerated depreciation expense in 1Q21

Reported Unusual Gains Pre-Tax, Net = \$13.74/per share, which equals \$1.6 billion and is comprised of

- \$1.4 billion in reported other non-recurring income in the TTM period based on
 - o \$11 million gain on disposition of businesses and assets in 3Q21
 - <u>\$1.4 billion</u> gain on sale of investments in affiliates in 4Q20
- \$133 million in financing gains in the TTM period based on
 - <u>\$35 million</u> in dividend income equity investments in 3Q21
 - <u>-\$9 million</u> in refinancing expense in 3Q21
 - o <u>\$37 million</u> in dividend income- equity investments in 2Q21
 - <u>\$42 million</u> in dividend income equity investments in 1Q21
 - <u>\$28 million</u> in dividend income equity investments in 4Q20
- \$47 million in non-operating pension and other postretirement employee benefit income in the TTM period based on
 - \$37 million benefit in 3Q21
 - o <u>\$38 million</u> benefit in 2Q21
 - <u>\$38 million</u> benefit in 1Q21
 - <u>-\$66 million</u> expense in 4Q20
- \$27 million contra adjustment for <u>recurring pension costs</u>. These recurring expenses are reported in non-recurring line items, so we add them back and exclude them from Earnings Distortion.
 - \$5 million restructuring gains in the TTM period based on
 - -\$2 million restructuring charge in 2Q21
 - -<u>\$2 million</u> restructuring charge in 1Q21
 - <u>\$9 million</u> plant/office closure benefit in 1Q21
 - -\$1 million in foreign exchange loss in the TTM period passed on
 - <u>\$2 million</u> gain in 3Q21
 - -\$3 million loss in 2Q21
 - <u>\$3 million</u> gain in 1Q21
 - <u>-\$3 million</u> loss in 4Q20
- -\$2 million in "other expense" in the TTM period based on
 - <u>-\$2 million</u> other expense in 3Q21



- <u>\$1 million</u> other income in 2Q21
- <u>-\$2 million</u> other expense in 1Q21
- <u>\$1 million</u> other income in 4Q20
- -\$13 million in reported write-downs in the TTM period based on
 - <u>-\$1 million</u> asset impairment in 2Q21
 - <u>-\$5 million</u> loss on disposition of businesses and assets in 1Q21
 - <u>-\$1 million</u> asset impairment in 1Q21
 - <u>-\$6 million</u> loss on disposition of businesses and assets in 4Q20

Tax Distortion = -\$1.18/per share, which equals -\$135 million

We remove the tax impact of unusual items on reported taxes when we calculate Core Earnings. It is
important that taxes get adjusted so they are appropriate for adjusted pre-tax earnings.

Reported Unusual Expenses After-Tax, Net = -\$0.18/per share, which equals -\$20 million and is comprised of

- -\$20 million in losses from discontinued operations in the TTM period based on
 - o <u>-\$13 million</u> loss in 3Q21
 - <u>-\$4 million</u> loss in 2Q21
 - <u>-\$1 million</u> loss in 1Q21
 - <u>-\$2 million</u> loss in 4Q20

How to Make Money with Core Earnings & Earnings Distortion

As demonstrated above, Core Earnings do a better job of excluding unusual gains and losses and provide a <u>more reliable</u> earnings measure. All Core Earnings adjustments are <u>100% transparent</u>; so users can audit and trust the research.

To enable you to easily monetize our new <u>Earnings Distortion factor</u> we present multiple trading strategies that drive alpha. Learn more below.

- <u>ExtractAlpha</u> presents a long/short market-neutral strategy that generates 9.3% annualized return net of Fama-French 5 factors, momentum, short-term reversal, and 12 sectors. More details <u>here</u>.
- <u>CloudQuant</u> presents two strategies to monetize the alpha in Earnings Distortion:
 - the long-only portfolio outperformed the S&P 500 by an average of 4% per annum over 10 years
 the dollar-neutral long-short portfolio returned 60% over 10 years with a Sharpe Ratio of ~1 over
 - the last five years. More details <u>here</u>.
- <u>AltHub</u> presents three strategies to monetize the alpha in Earnings Distortion:
 - Earnings Distortion S&P 500 Smart Beta Portfolio: 10-yr annualized return of 13.9% vs 12.1% for the S&P 500 with a Sharpe Ratio of 0.97.
 - Earnings Distortion ML Model S&P 500 Smart Beta Portfolio: 3-yr annualized return of 18.2% vs 13.7% for the S&P 500 with a Sharpe Ratio of 0.82.
 - Truth Stocks (Companies without Earnings Distortion) Portfolios:
 - S&P 500 Universe: 10-yr annualized return of 16.8% vs 12.8% for the S&P 500 with a Sharpe Ratio of 0.7.
 - Russell 3000 Universe: 9.5-yr annualized return of 28.4% vs 12.6% for the S&P 500 with a Sharpe Ratio of 1.
 - More details <u>here</u>.

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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 I: Core Earnings Methodology

In the Figures above, we use the following to calculate Core Earnings:

- aggregated annual data for constituents in the S&P 500 for each measurement period through 6/30/13
- aggregated quarterly data for constituents in the S&P 500 for each measurement period post 6/30/13 to the present

While we prefer aggregated quarterly numbers, we have examined the potential impacts of the two methodologies and have found no material differences.



Appendix II: P/E Ratio Methodology for Core & SPGI's Operating Earnings

In Figure 3 above, we calculate the price-to-Core Earnings ratio through 6/30/13 as follows:

- 1. Calculate a TTM earnings yield for every S&P 500 constituent
- 2. Weight the earnings yields by each stock's respective S&P 500 weight
- 3. Sum the weighted earnings yields and take the inverse (1/Earnings Yield)

We calculate the price-to-Core Earnings ratio for periods post 6/30/13 as follows:

- 1. Calculate a trailing four quarters earnings yield for every S&P 500 constituent
- 2. Weight the earnings yield by each stock's respective S&P 500 weight
- 3. Sum the weighted earnings yields and take the inverse (1/Earnings Yield)

We use the earnings yield methodology because P/E ratios don't follow a linear trend. A P/E ratio of 1 is "better" than a P/E ratio of 30, but a P/E ratio of 30 is "better" than a P/E ratio of -15. In other words, aggregating P/E ratios can result in a low multiple due the inclusion of just a few stocks with negative P/Es.

Using earnings yields solves this problem because a high earnings yield is always "better" than a low earnings yield. There is no conceptual difference when flipping from positive to negative earnings yields as there is with traditional P/E ratios.

By using quarterly data as soon as its available, we better capture the impact of changes to S&P 500 constituents on a quarterly basis. For example, a company could be a constituent in 2Q18, but not in 3Q18. This method captures the continuously changing nature of the S&P 500 constituency.

For all periods in Figure 3, we calculate the price-to-SPGI's Operating Earnings ratio by summing the preceding 4 quarters of Operating Earnings per share and, then, dividing by the S&P 500 price at the end of each measurement period.

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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:

- 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 &</u> <u>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, 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 <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.

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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, 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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