



## All Cap Index & Sectors: Inflation Inflates ROICs for 1Q22

Return on invested capital ([ROIC](#)) spiked to the highest level since 1998 for the NC 2000<sup>1</sup> in 1Q22. All eleven sectors in the NC 2000 saw a year-over-year (YoY) improvement in ROIC as well. Most of this improvement comes from higher net operating profit after-tax ([NOPAT](#)) margins though [invested capital turns](#) rose, too.

This report presents the drivers<sup>2,3</sup> of [economic earnings](#) [ROIC, NOPAT margin, invested capital turns, and weighted average cost of capital ([WACC](#))] for the NC 2000, our All Cap Index, and each of its sectors (last quarter's analysis is [here](#)). You can find the same analysis on other key metrics [here](#).

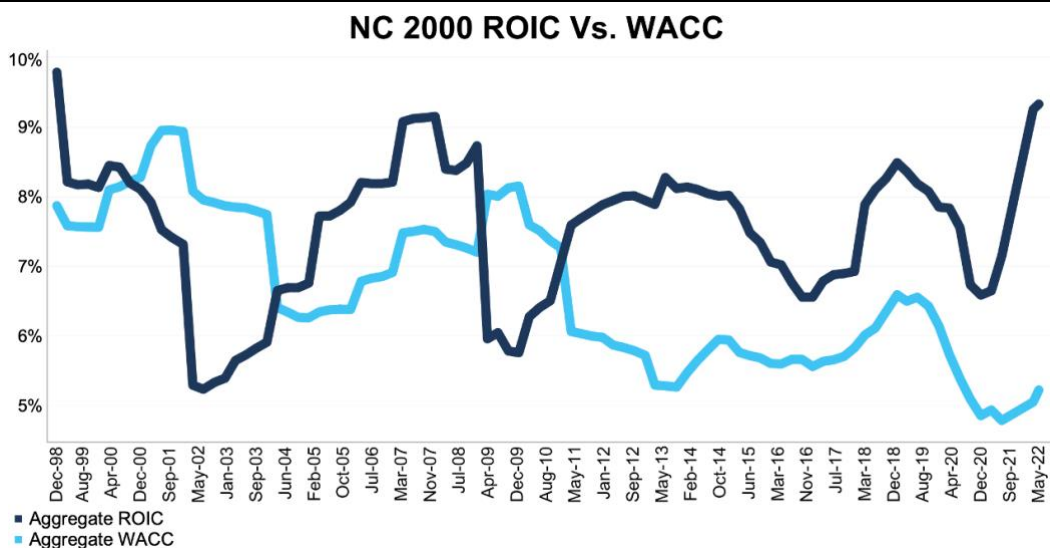
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### NC 2000 ROIC Rises Year-Over-Year in 1Q22

Figure 1 shows the NC 2000's ROIC rose from 7.2% in 1Q21 to 9.3% in 1Q22. The NC 2000's NOPAT margin rose from 10.4% in 1Q21 to 12.1% in 1Q22 and invested capital turns rose from 0.69 in 1Q21 to 0.77 in 1Q22.

**Figure 1: ROIC and WACC for the NC 2000 From Dec 1998 – 5/16/22<sup>5</sup>**



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 NC 2000 constituents were available.

Two key observations on Figure 1:

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 while high levels of inflation

<sup>1</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>2</sup> Calculated using SPGI's methodology, which sums individual NC 2000 constituent values for NOPAT and invested capital. See Appendix III for more details on this "Aggregate" method and Appendix I for details on how we calculate WACC for the NC 2000 and each of its sectors.

<sup>3</sup> This report is based on the latest audited financial data available, which is the 1Q22 10-Q in most cases. Price data as of 5/16/22.

<sup>4</sup> 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](#).

<sup>5</sup> We use stock prices from 5/16/22 for our WACC calculation because that is the date when all the 1Q22 10-Qs for the NC 2000 constituents were available.



persist but will rapidly reverse when inflation slows, or capital expenditure replaces worn out machines at a much higher cost.

2. WACC has increased by less than the yields for AAA corporate bonds. That lag implies companies 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.

### Ranking the NC 2000 Sectors by Change in ROIC

Figure 2 ranks the eleven NC 2000 sectors by the change in ROIC from 1Q21 to 1Q22.

**Figure 2: ROIC for All NC 2000 Sectors**

Sector	1Q22 TTM ROIC	YoY Change (% points)
Energy	8%	7.2%
Basic Materials	12%	5.8%
Technology	21%	2.7%
Industrials	7%	2.6%
Healthcare	11%	2.2%
Consumer Cyclical	9%	1.9%
Financials	9%	0.7%
Consumer Non-cyclicals	9%	0.5%
Real Estate	5%	0.4%
Utilities	4%	0.2%
Telecom Services	5%	0.0%
<b>NC 2000</b>	<b>9%</b>	<b>2.2%</b>

Sources: New Constructs, LLC and company filings.  
Financial data incorporates 1Q22 10-Qs.

The Energy sector performed best over the past twelve months as measured by change in ROIC, with its ROIC rising over 720 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.

### Details on Each of the NC 2000 Sectors

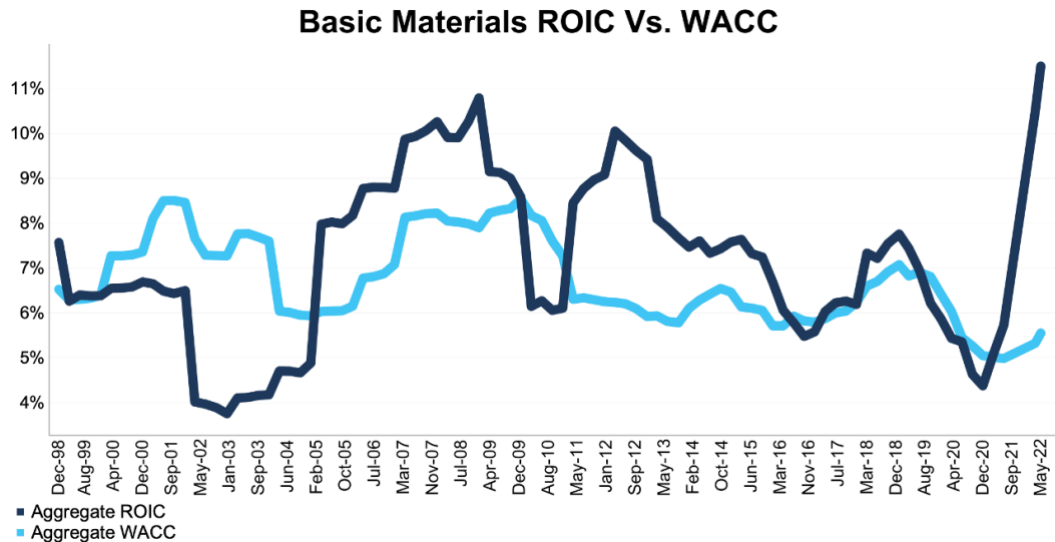
Figures 3 through 13 compare the trends in ROIC and WACC for every sector since December 1998. Appendix I presents the current WACC for each sector.

Appendix II presents the [drivers of ROIC: NOPAT margin](#) and [invested capital turns](#) for each sector.

Appendix III presents additional ROIC analysis using different weighting methodologies to adjust for the impact of a firm's size on sector and NC 2000 metrics.

**Basic Materials**

Figure 3 shows the Basic Materials sector ROIC rose from 5.7% in 1Q21 to 11.5% in 1Q22. The Basic Materials sector NOPAT margin rose from 9.5% in 1Q2Q to 14.5% in 1Q22, while invested capital turns rose from 0.60 in 1Q21 to 0.80 in 1Q22.

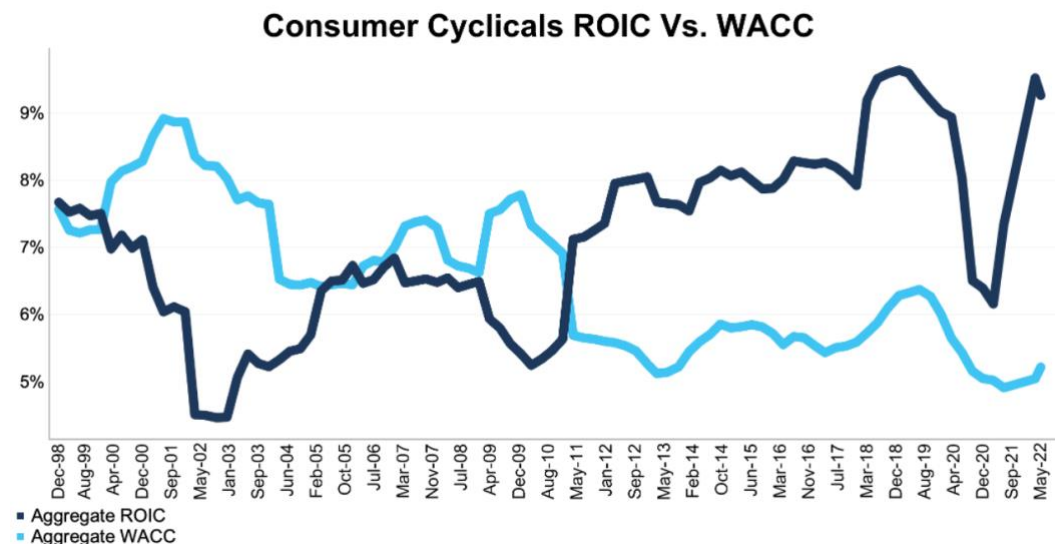
**Figure 3: Basic Materials ROIC vs. WACC: Dec 1998 – 5/16/22**

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 NC 2000 constituents were available.

**Consumer Cyclical**

Figure 4 shows the Consumer Cyclical sector ROIC rose from 7.3% in 1Q21 to 9.3% in 1Q22. The Consumer Cyclical sector NOPAT margin rose from 6.7% in 1Q21 to 7.7% in 1Q22, while invested capital turns rose from 1.09 in 1Q21 to 1.20 in 1Q22.

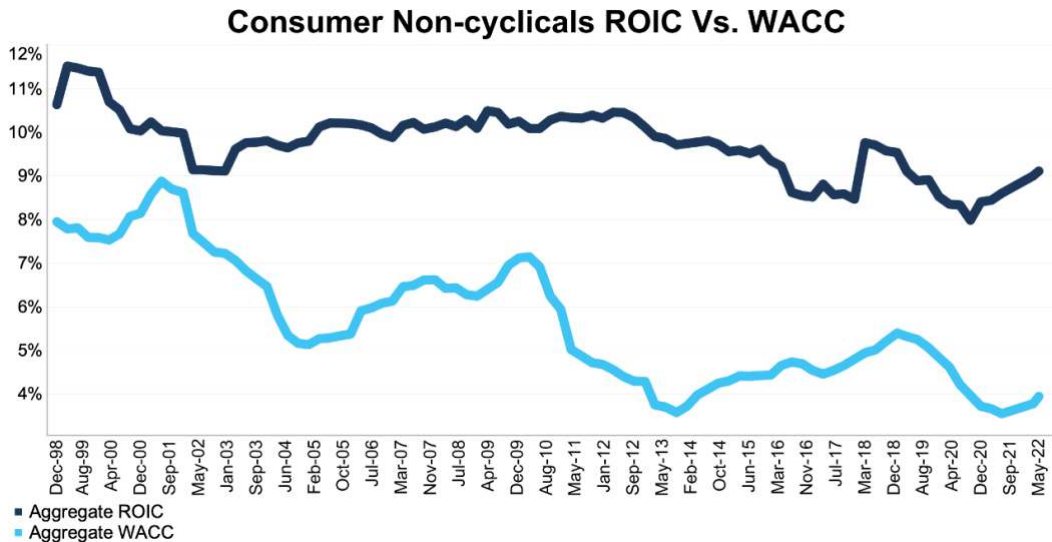
**Figure 4: Consumer Cyclical ROIC vs. WACC: Dec 1998 – 5/16/22**

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 NC 2000 constituents were available.

**Consumer Non-cyclicals**

Figure 5 shows the Consumer Non-cyclicals sector ROIC rose from 8.6% in 1Q21 to 9.1% in 1Q22. The Consumer Non-cyclicals sector NOPAT margin fell from 6.1% in 1Q21 to 6.0% in 1Q22, while invested capital turns rose from 1.40 in 1Q21 to 1.51 in 1Q22.

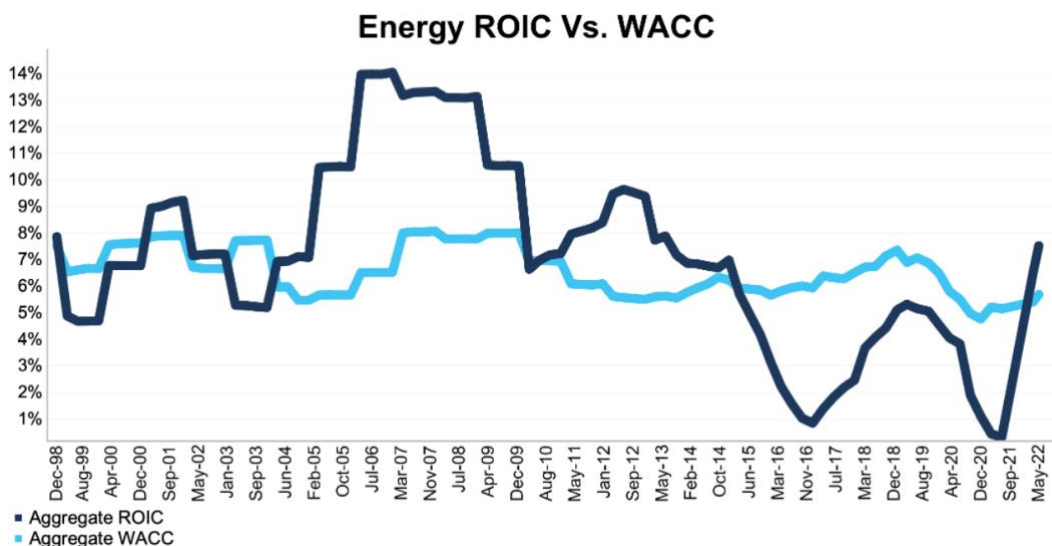
**Figure 5: Consumer Non-cyclicals ROIC vs. WACC: Dec 1998 – 5/16/22**

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 NC 2000 constituents were available.

**Energy**

Figure 6 shows the Energy sector ROIC rose from 0.3% in 1Q21 to 7.5% in 1Q22. The Energy sector NOPAT margin rose from 0.8% in 1Q21 to 11.4% in 1Q22, while invested capital turns rose from 0.38 in 1Q21 to 0.66 in 1Q22.

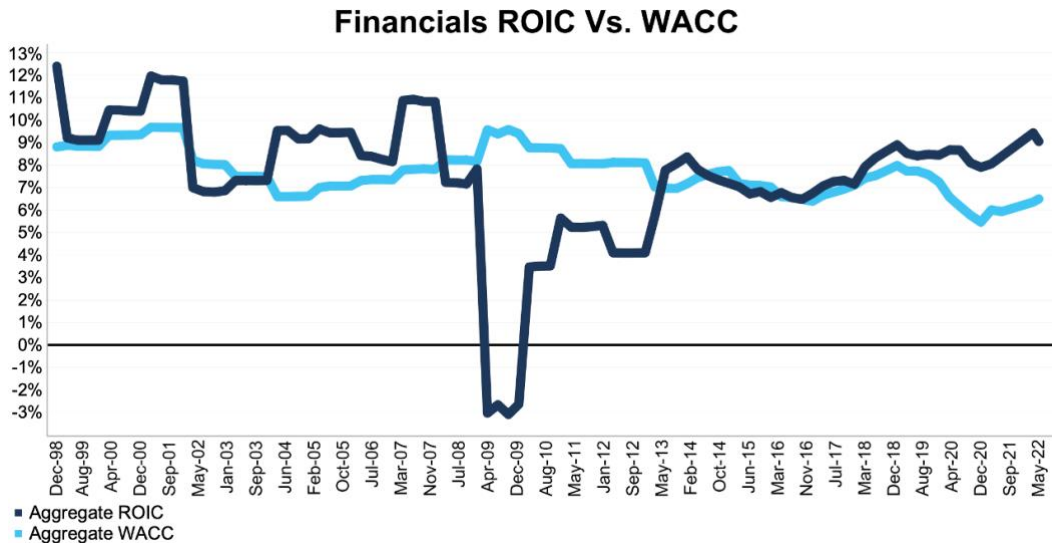
**Figure 6: Energy ROIC vs. WACC: Dec 1998 – 5/16/22**

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 NC 2000 constituents were available.

**Financials**

Figure 7 shows the Financials sector ROIC rose from 8.4% in 1Q21 to 9.1% in 1Q22. The Financials sector NOPAT margin rose from 16.2% in 1Q21 to 17.6% in 1Q22, while invested capital turns fell from 0.52 in 1Q21 to 0.51 in 1Q22.

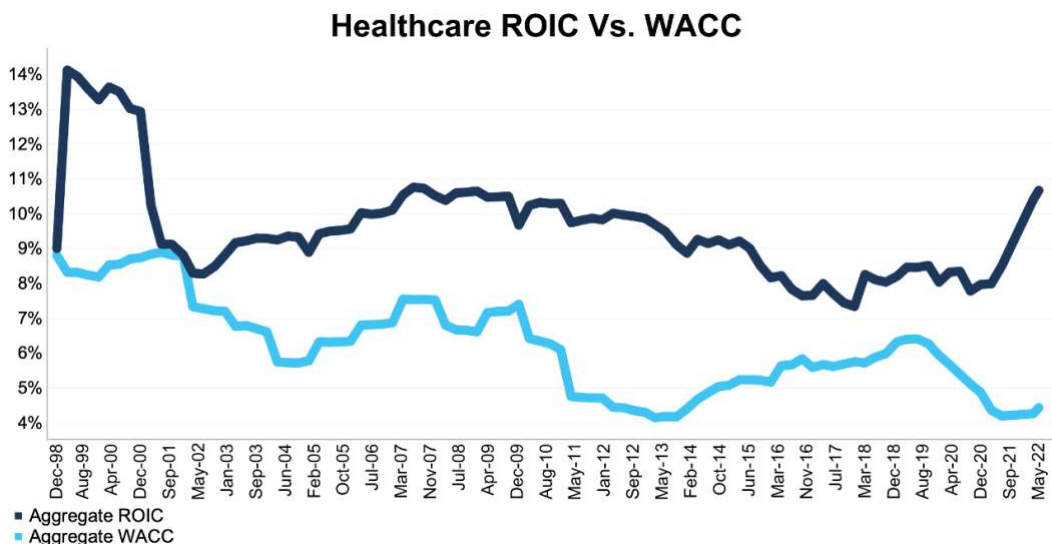
**Figure 7: Financials ROIC vs. WACC: Dec 1998 – 5/16/22**

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 NC 2000 constituents were available.

**Healthcare**

Figure 8 shows the Healthcare sector ROIC rose from 8.5% in 1Q21 to 10.7% in 1Q22. The Healthcare sector NOPAT margin rose from 10.0% in 1Q21 to 11.3% in 1Q22, while invested capital turns rose from 0.85 in 1Q21 to 0.94 in 1Q22.

**Figure 8: Healthcare ROIC vs. WACC: Dec 1998 – 5/16/22**

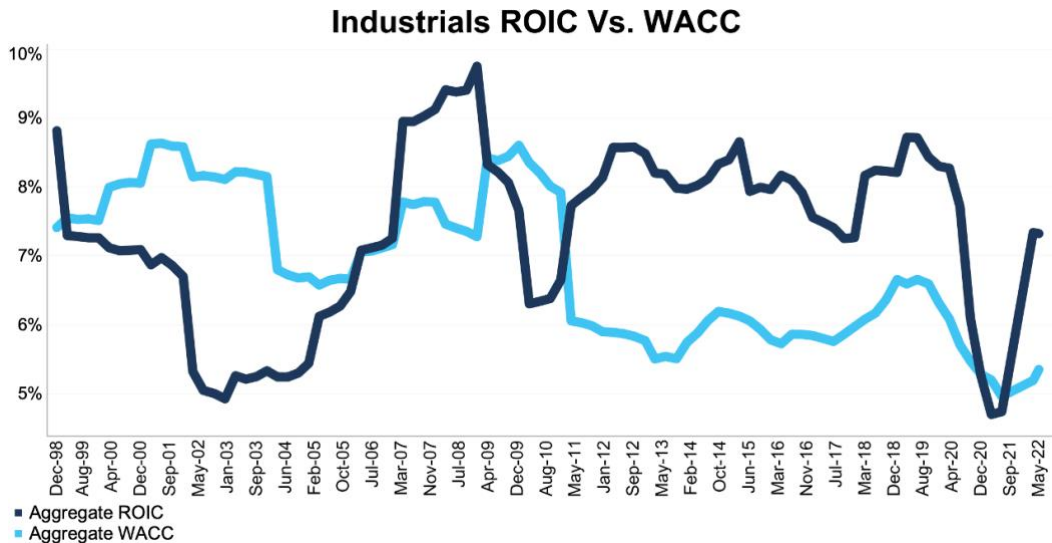
Sources: New Constructs, LLC and company filings.

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 NC 2000 constituents were available.



**Industrials**

Figure 9 shows the Industrials sector ROIC rose from 4.7% in 1Q21 to 7.3% in 1Q22. The Industrials sector NOPAT margin rose from 6.8% in 1Q21 to 9.0% in 1Q22, while invested capital turns rose from 0.70 in 1Q21 to 0.82 in 1Q22.

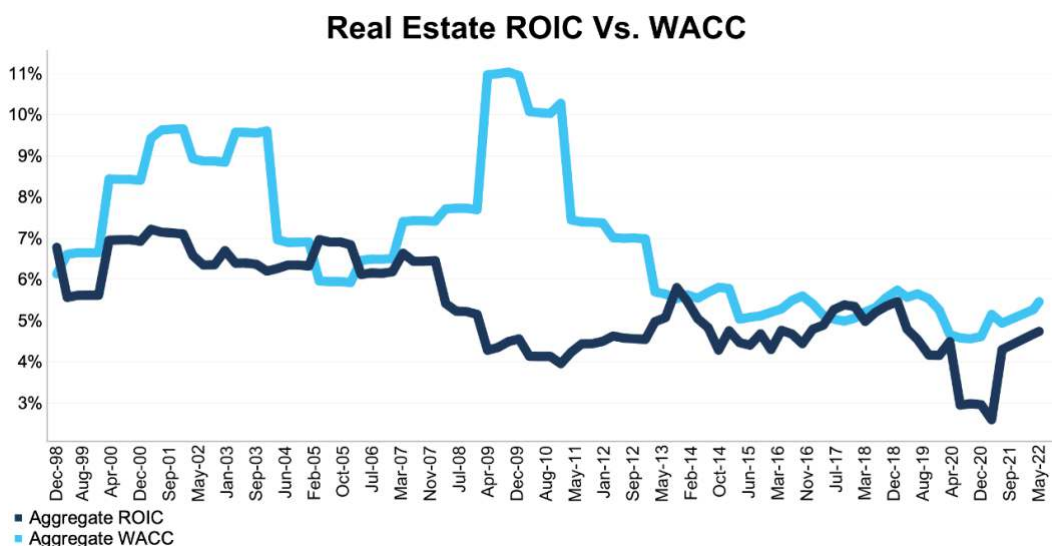
**Figure 9: Industrials ROIC vs. WACC: Dec 1998 – 5/16/22**

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 NC 2000 constituents were available.

**Real Estate**

Figure 10 shows the Real Estate sector ROIC rose from 4.3% in 1Q21 to 4.7% in 1Q22. The Real Estate sector NOPAT margin fell from 22.1% in 1Q21 to 20.9% in 1Q22, while invested capital turns rose from 0.19 in 1Q21 to 0.13 in 1Q22.

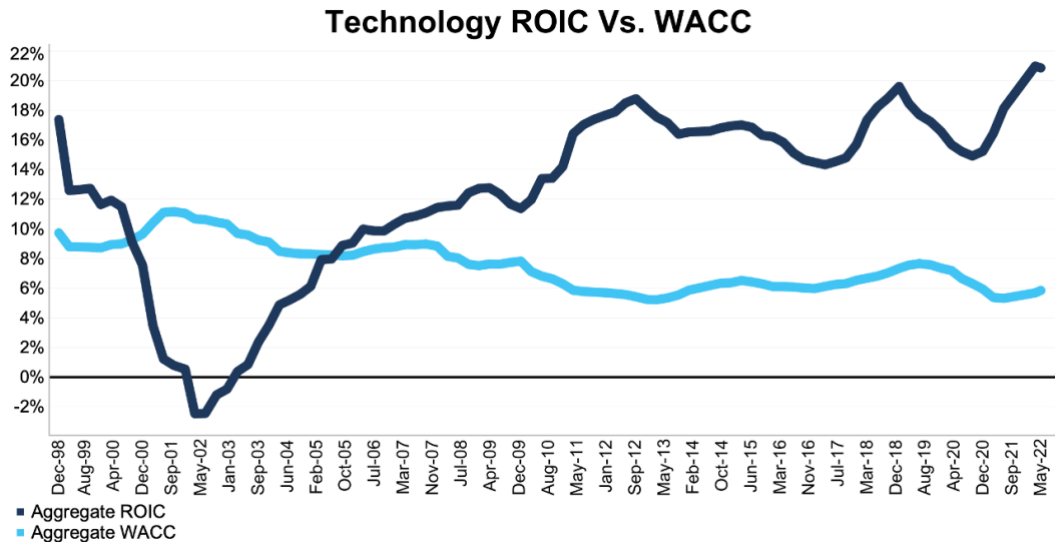
**Figure 10: Real Estate ROIC vs. WACC: Dec 1998 – 5/16/22**

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 NC 2000 constituents were available.

**Technology**

Figure 11 shows the Technology sector ROIC rose from 18.1% in 1Q21 to 20.9% in 1Q22. The Technology sector NOPAT margin rose from 17.4% in 1Q21 to 18.6% in 1Q22, while invested capital turns rose from 1.04 in 1Q21 to 1.12 in 1Q22.

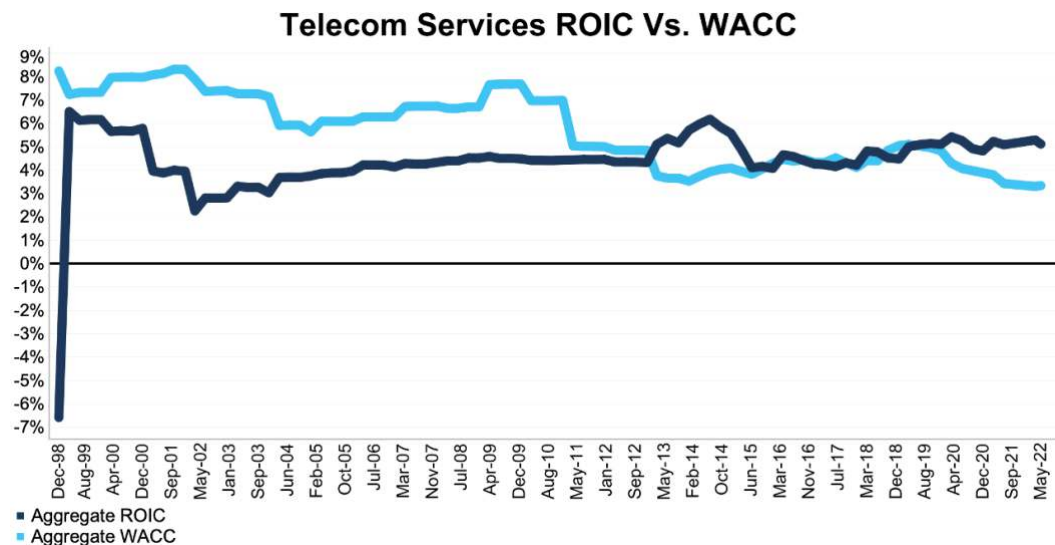
**Figure 11: Technology ROIC vs. WACC: Dec 1998 – 5/16/22**

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 NC 2000 constituents were available.

**Telecom Services**

Figure 12 shows the Telecom Services sector ROIC rose from 5.09% in 1Q21 to 5.12% in 1Q22. The Telecom Services sector NOPAT margin rose from 14.7% in 1Q21 to 15.6% in 1Q22, while invested capital turns fell from 0.35 in 1Q21 to 0.33 in 1Q22.

**Figure 12: Telecom Services ROIC vs. WACC: Dec 1998 – 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 NC 2000 constituents were available.

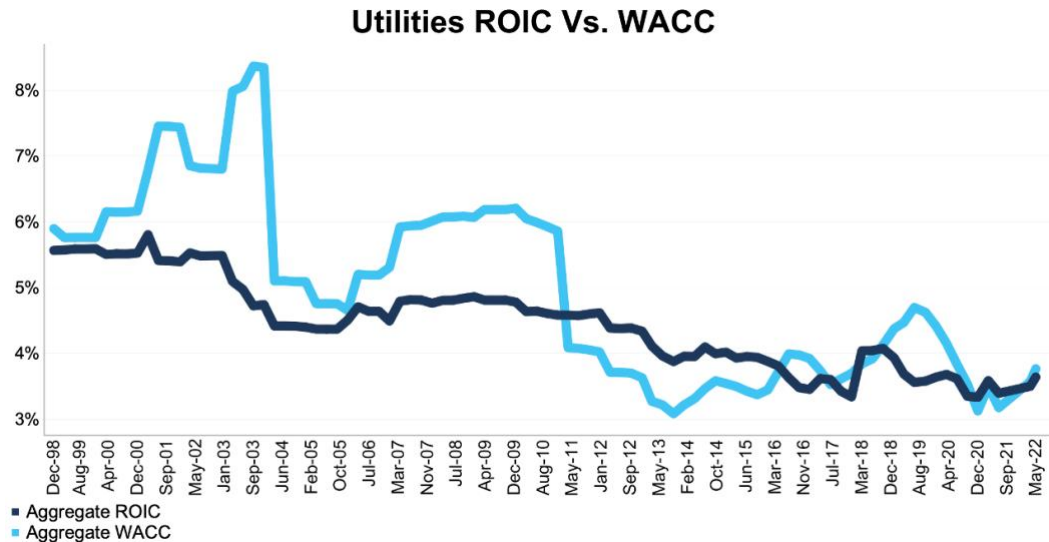
**Utilities**

Figure 13 shows the Utilities sector ROIC rose from 3.4% in 1Q21 to 3.6% in 1Q22. The Utilities sector NOPAT margin rose from 15.9% in 1Q21 to 16.0% in 1Q22, while invested capital turns rose from 0.21 in 1Q21 to 0.23 1Q22.

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**Figure 13: Utilities ROIC vs. WACC: Dec 1998 – 5/16/22**

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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 NC 2000 constituents were available.

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### ***Appendix I: WACC for Each Sector and NC 2000***

This appendix shows the WACC for the NC 2000 and each sector in 1Q22, based on prices as of 5/16/22 and financial data from 1Q22 10-Qs.

We derive the sector and NC 2000 WACCs by solving for WACC in the [economic earnings](#) formula:

$$(\text{ROIC} - \text{WACC}) * \text{Average Invested Capital} = \text{Economic Earnings}$$

translates to

$$\text{WACC} = \text{ROIC} - \text{Economic Earnings} / \text{Average Invested Capital}$$

We calculate Economic Earnings, NOPAT and Invested Capital according to the Aggregate methodology described in Appendix III.

**Figure 14: WACC by Sector – as of 5/16/22**

Sector	WACC
Financials	6.5%
Technology	5.8%
Energy	5.7%
Basic Materials	5.5%
Real Estate	5.5%
Industrials	5.3%
Consumer Cyclicals	5.2%
Healthcare	4.4%
Consumer Non-cyclicals	3.9%
Utilities	3.8%
Telecom Services	3.3%
<b>NC 2000</b>	<b>5.2%</b>

Sources: New Constructs, LLC and company filings.  
Prices as of 5/16/22, financial data incorporates 1Q22 10-Qs.

**Appendix II: NOPAT Margin and Invested Capital Turns Since 1998**

This appendix shows the two key drivers ([DuPont model](#)) of ROIC – NOPAT margin and invested capital turns – for each sector going back to December 1998. We sum the individual NC 2000/sector constituent values for revenue, NOPAT, and invested capital to calculate these metrics. We call this approach the “Aggregate” methodology. More methodology details in Appendix III.

Figure 15 ranks all 11 sectors by NOPAT margin based on financial data from 1Q22 10-Qs.

**Figure 15: NOPAT Margin by Sector – Financial Data From 1Q22 10-Qs**

Sector	NOPAT Margin
Real Estate	20.9%
Technology	18.6%
Financials	17.6%
Utilities	16.0%
Telecom Services	15.6%
Basic Materials	14.5%
Energy	11.4%
Healthcare	11.3%
Industrials	9.0%
Consumer Cyclicals	7.7%
Consumer Non-cyclical	6.0%
<b>NC 2000</b>	<b>12.1%</b>

Sources: New Constructs, LLC and company filings.  
Financial data from 1Q22 10-Qs.

Figure 16 ranks all 11 sectors by invested capital turns based on financial data from 1Q22 10-Qs.

**Figure 16: Invested Capital Turns by Sector – Financial Data From 1Q22 10-Qs**

Sector	Invested Capital Turns
Consumer Non-cyclical	1.5
Consumer Cyclical	1.2
Technology	1.1
Healthcare	0.9
Industrials	0.8
Basic Materials	0.8
Energy	0.7
Financials	0.5
Telecom Services	0.3
Utilities	0.2
Real Estate	0.2
<b>NC 2000</b>	<b>0.8</b>

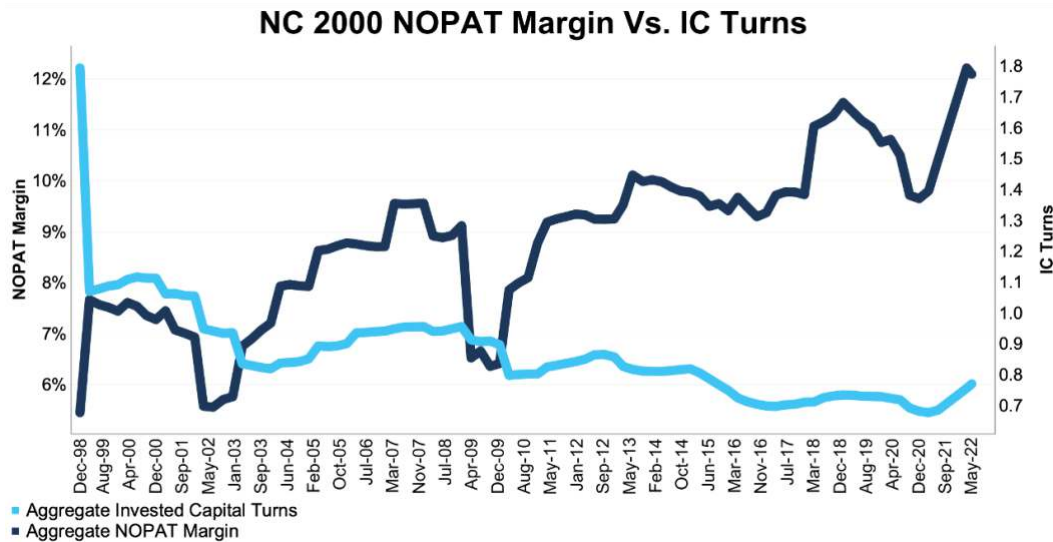
Sources: New Constructs, LLC and company filings.  
Financial data from 1Q22 10-Qs.

These two tables show how rare it is for a sector to have high margins and high capital turns. Real Estate, the highest margin sector, has the worst invested capital turns. Consumer Non-cyclical, the sector with the highest invested capital turns has the lowest margin. The Technology sector has both high margins and invested capital turns, which is why that sector leads the market in ROIC by a wide margin.



Figures 17-28 compare the NOPAT margin and invested capital turns trends for the NC 2000 and every sector since December 1998.

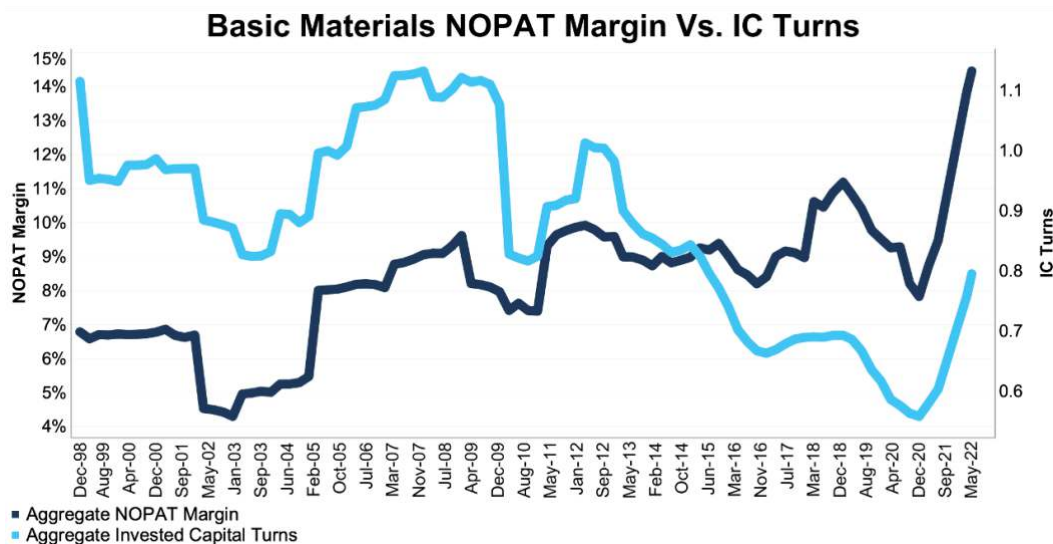
**Figure 17: NC 2000 NOPAT Margin and IC Turns: Dec 1998 – 5/16/22**



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 NC 2000 constituents were available.

**Figure 18: Basic Materials NOPAT Margin and IC Turns: Dec 1998 – 5/16/22**

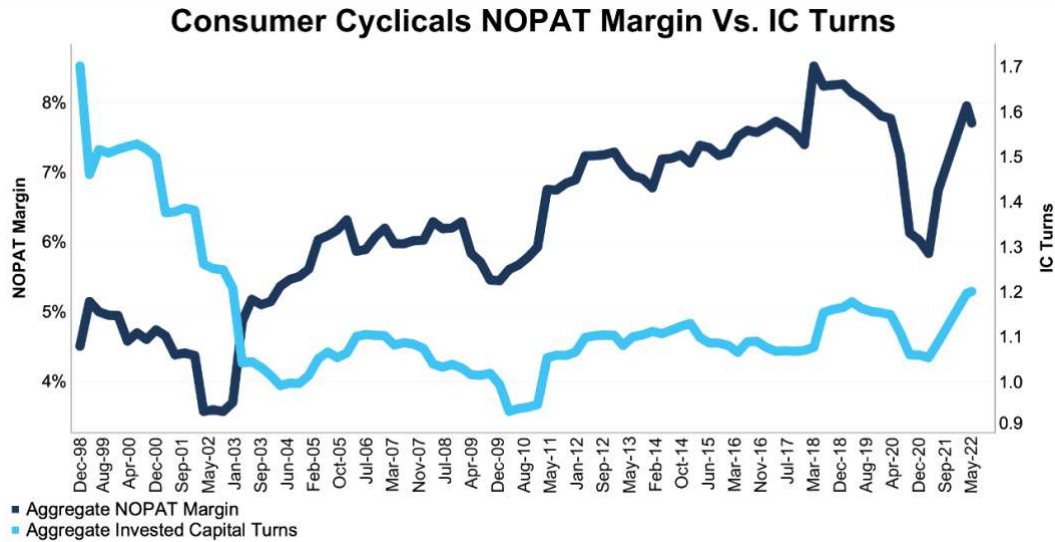


Sources: New Constructs, LLC and company filings.

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 NC 2000 constituents were available.



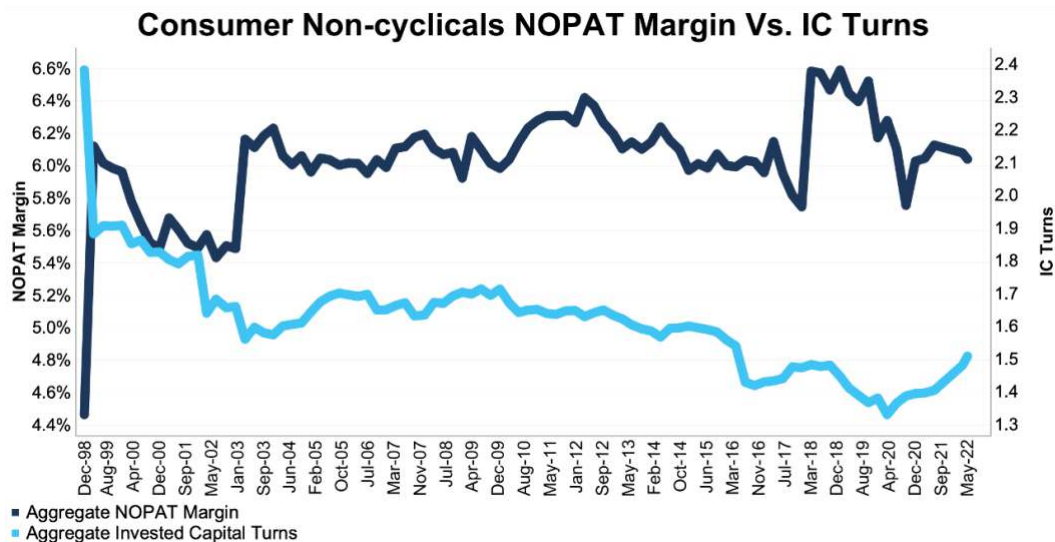
**Figure 19: Consumer Cyclical NOPAT Margin and IC Turns: Dec 1998 – 5/16/22**



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 NC 2000 constituents were available.

**Figure 20: Consumer Non-Cyclicals NOPAT Margin and IC Turns: Dec 1998 – 5/16/22**

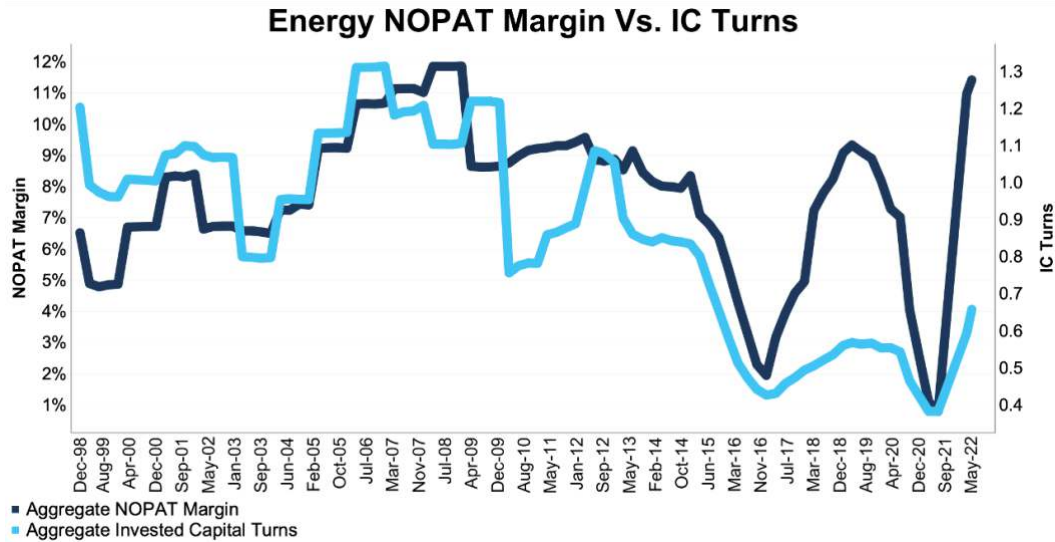


Sources: New Constructs, LLC and company filings.

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 NC 2000 constituents were available.



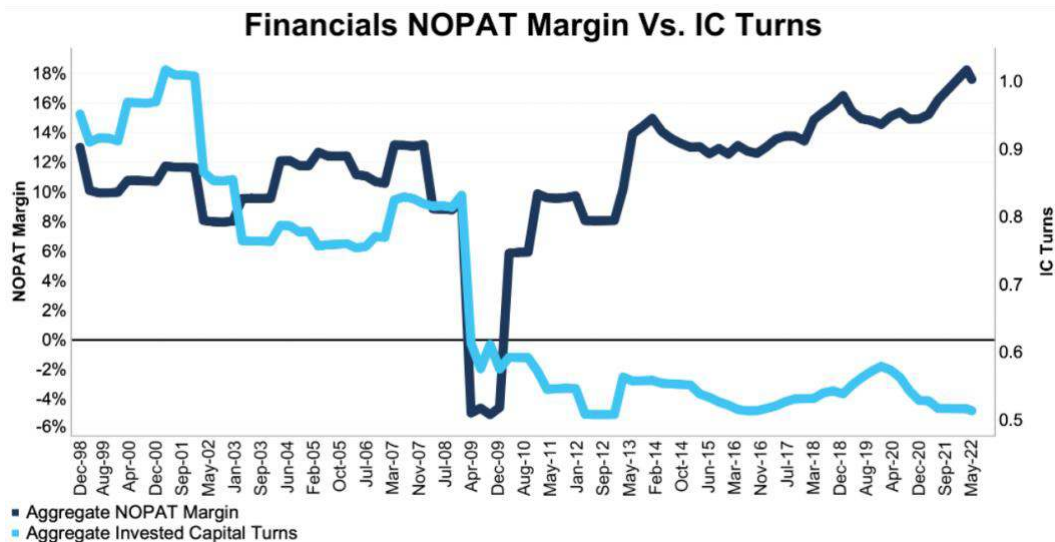
**Figure 21: Energy NOPAT Margin and IC Turns: Dec 1998 – 5/16/22**



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 NC 2000 constituents were available.

**Figure 22: Financials NOPAT Margin and IC Turns: Dec 1998 – 5/16/22**



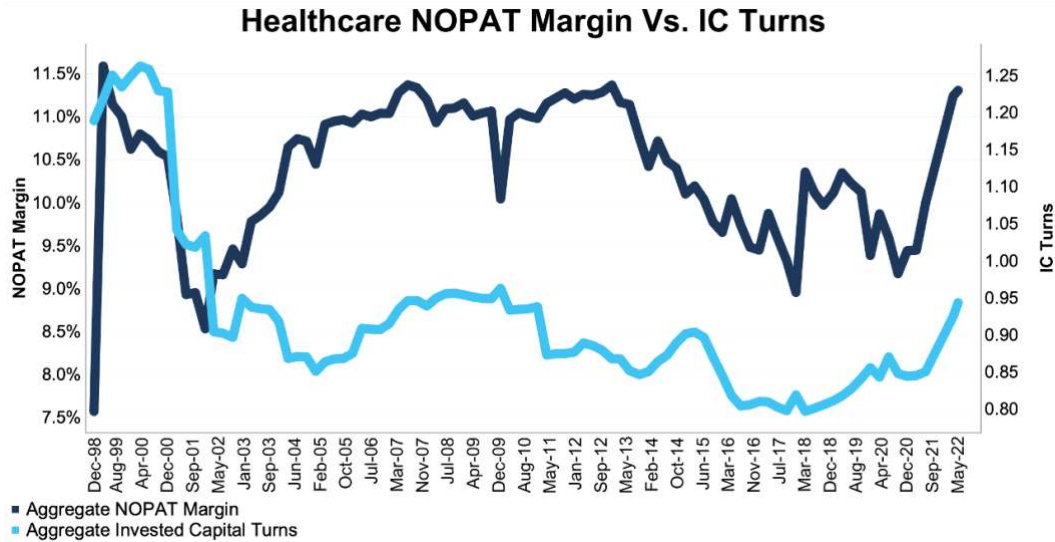
Sources: New Constructs, LLC and company filings.

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 NC 2000 constituents were available.





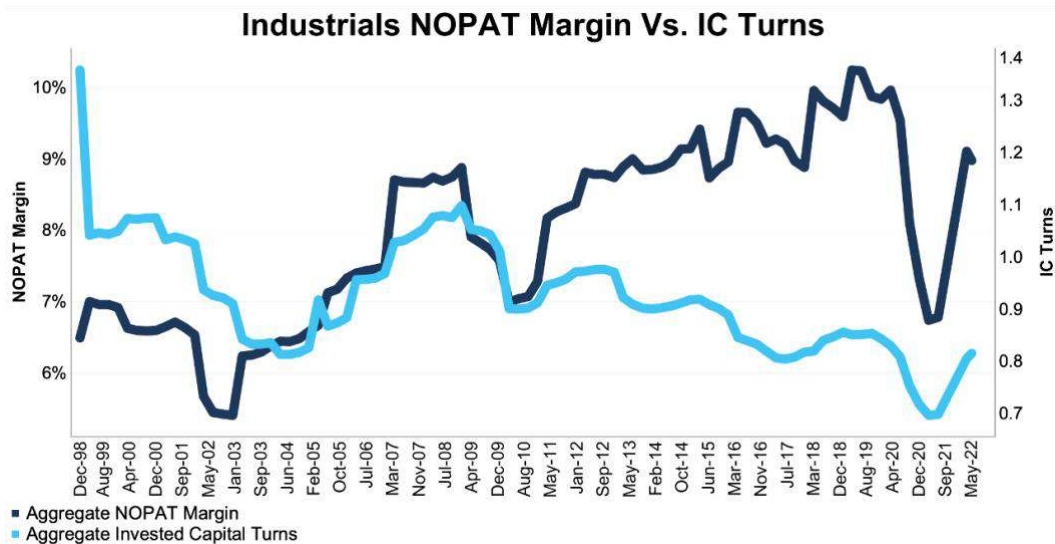
**Figure 23: Healthcare NOPAT Margin and IC Turns: Dec 1998 – 5/16/22**



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 NC 2000 constituents were available.

**Figure 24: Industrials NOPAT Margin vs. IC Turns: Dec 1998 – 5/16/22**

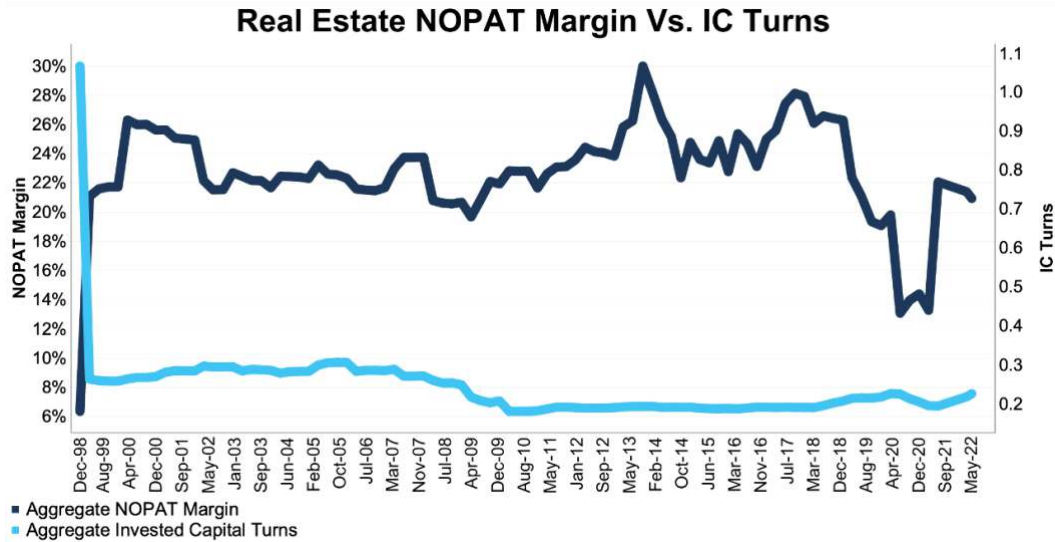


Sources: New Constructs, LLC and company filings.

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 NC 2000 constituents were available.



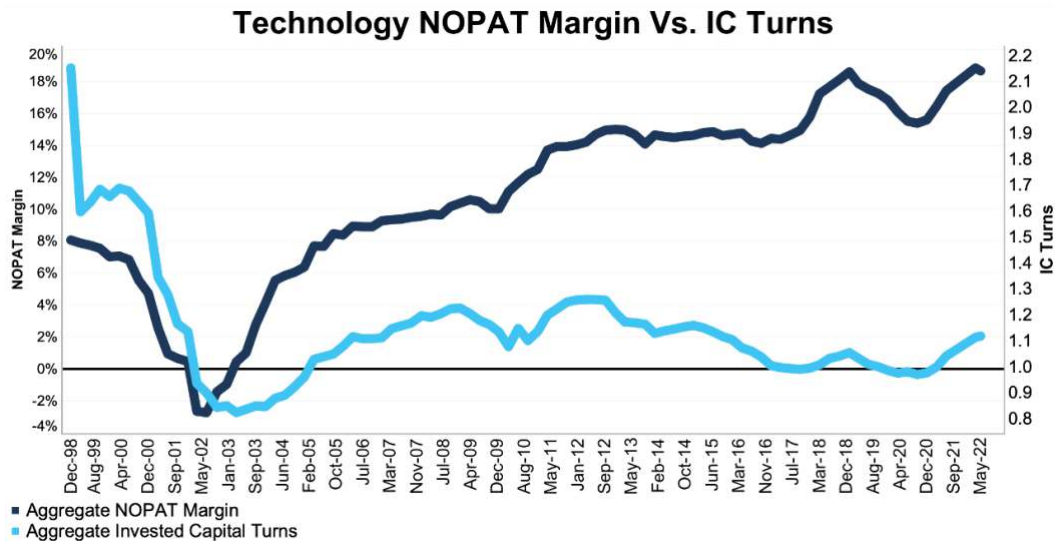
**Figure 25: Real Estate NOPAT Margin Vs. IC Turns: Dec 1998 – 5/16/22**



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 NC 2000 constituents were available.

**Figure 26: Technology NOPAT Margin Vs. IC Turns: Dec 1998 – 5/16/22**

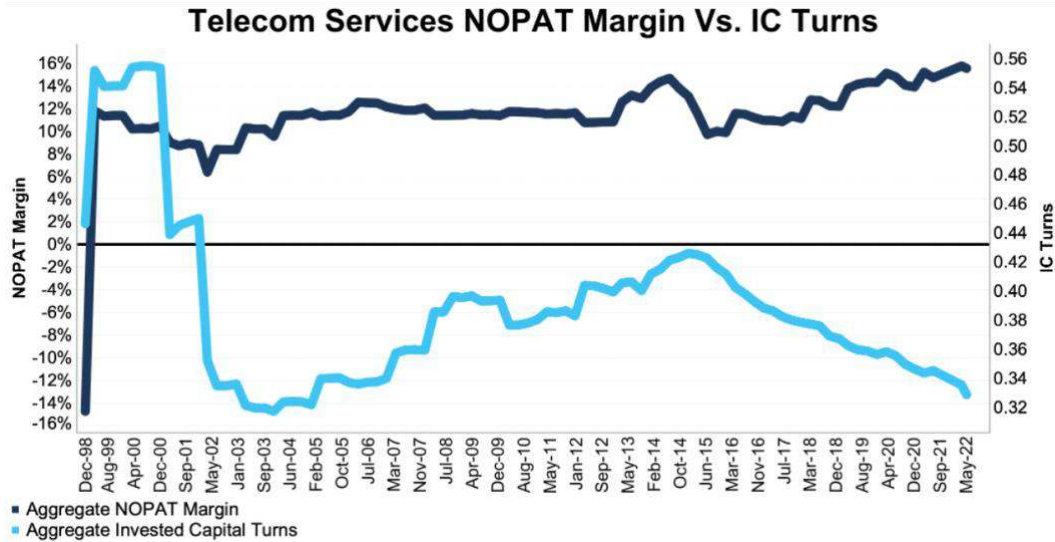


Sources: New Constructs, LLC and company filings.

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 NC 2000 constituents were available.



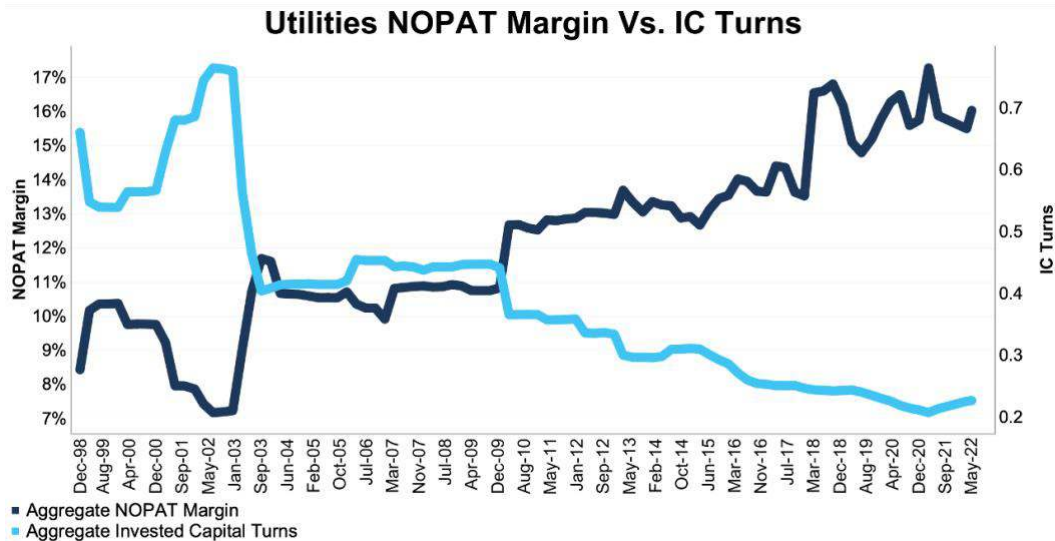
**Figure 27: Telecom Services NOPAT Margin Vs. IC Turns: Dec 1998 – 5/16/22**



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 NC 2000 constituents were available.

**Figure 28: Utilities NOPAT Margin vs. IC Turns: Dec 1998 – 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 NC 2000 constituents were available.



### ***Appendix III: Analyzing ROIC with Different Weighting Methodologies***

We derive the metrics above by summing the individual NC 2000/sector 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 NC 2000 in each period. Details:
  - a. Company weight equals the company’s market cap divided by the market cap of the NC 2000/its sector
  - b. We multiply each company’s ROIC by its weight
  - c. NC 2000/Sector ROIC equals the sum of the weighted ROICs for all the companies in the NC 2000/each sector
2. **Market-weighted drivers** – calculated by market-cap-weighting the NOPAT and invested capital for the individual companies in the NC 2000/each sector in each period. Details:
  - a. Company weight equals the company’s market cap divided by the market cap of the NC2000/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 NC 2000/each sector to determine the NC 2000/sector’s weighted NOPAT and weighted invested capital
  - d. NC 2000/Sector ROIC equals weighted NC 2000/sector NOPAT divided by weighted NC 2000/sector invested capital

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 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 NC 2000/sector and weights its metrics accordingly.

Cons:

- Vulnerable to outsized impact of one or a few companies, as shown below in the Consumer Non-cyclicals sector. 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 NC 2000/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.

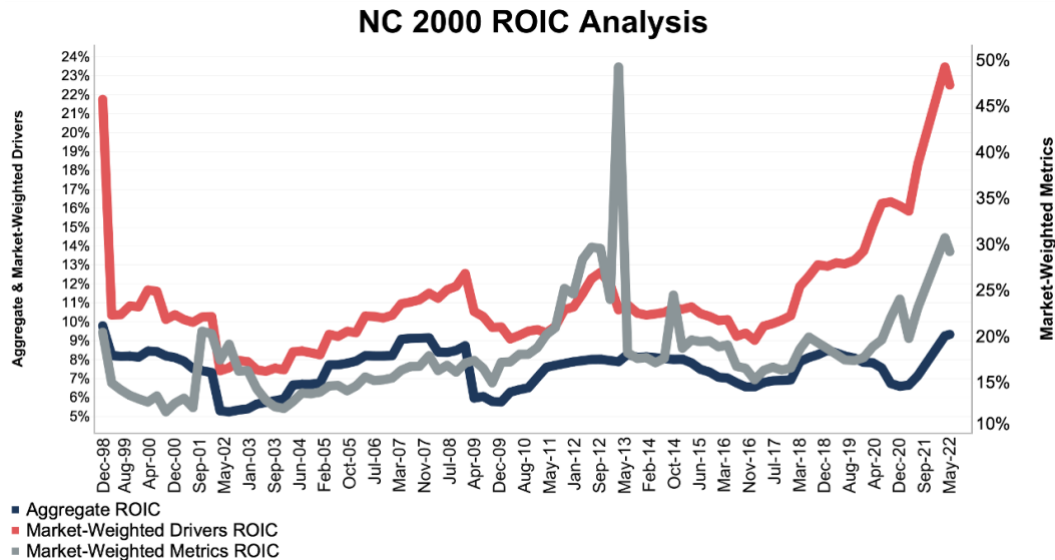


Figures 29-40 compare these three methods for calculating NC 2000 and sector ROICs.

In Figure 29, we chart the market-weighted metrics version of ROIC on its own axis to highlight the differences in the aggregate and market-weighted drivers versions of ROIC.

Note the impact on the market-weighted metrics version of ROIC for the entire NC 2000 from Lorillard (LO) in 2013, when the firm's ROIC was more than 36,000%.

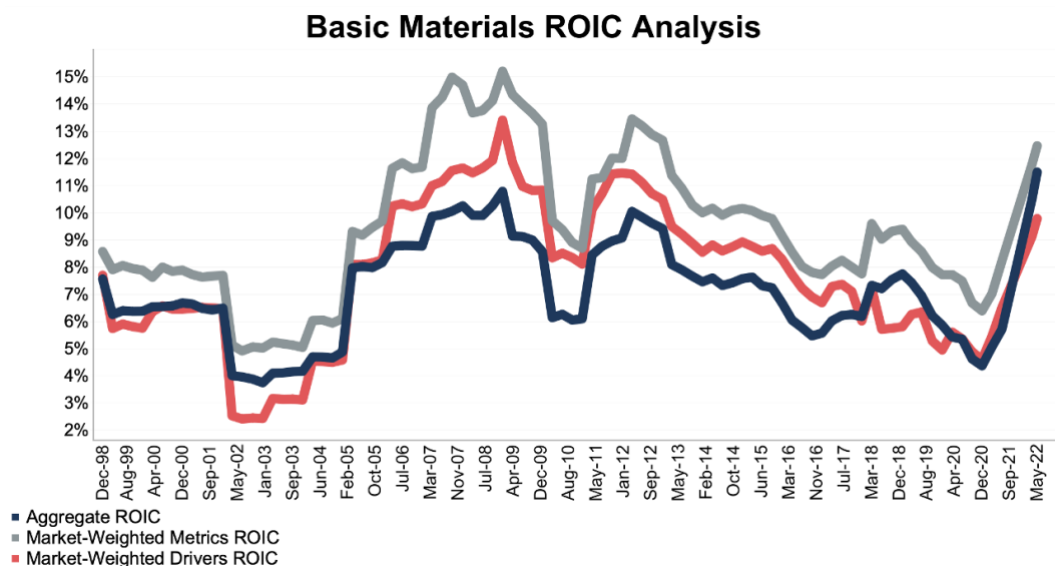
**Figure 29: NC 2000 ROIC Methodologies Compared: Dec 1998 – 5/16/22**



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 NC 2000 constituents were available.

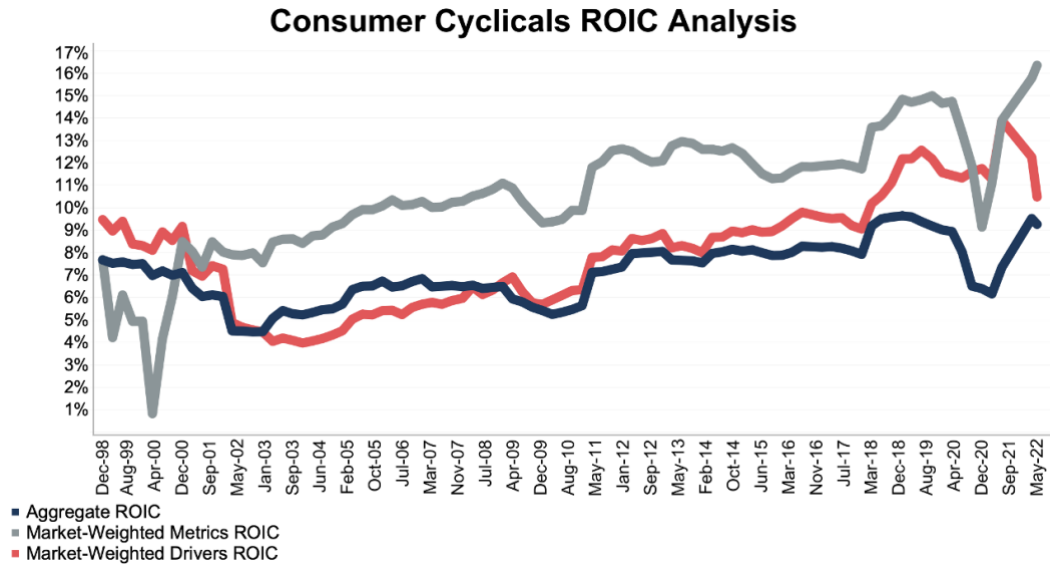
**Figure 30: Basic Materials ROIC Methodologies Compared: Dec 1998 – 5/16/22**



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 NC 2000 constituents were available.



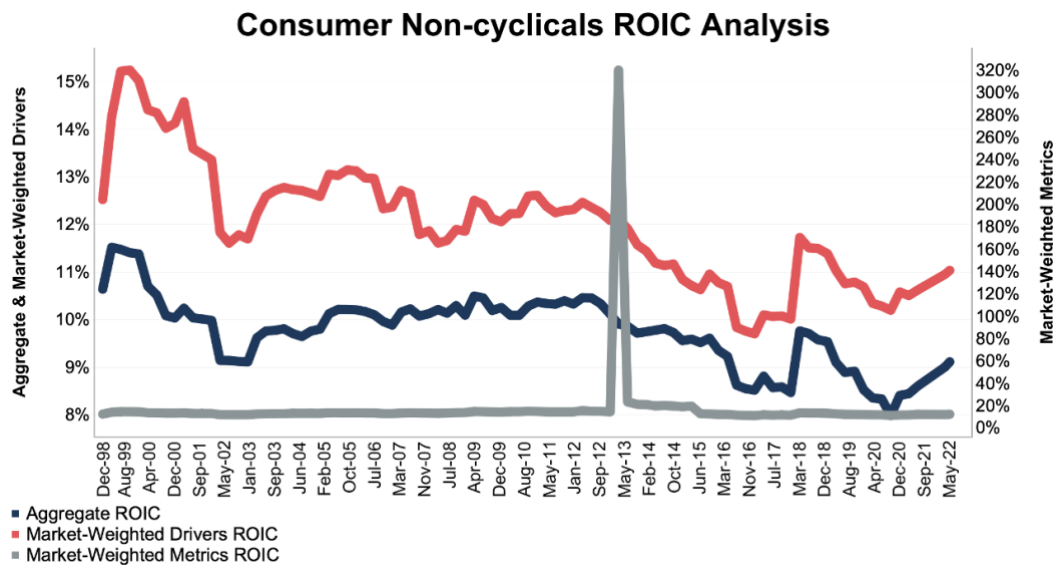
**Figure 31: Consumer Cyclical ROIC Methodologies Compared: Dec 1998 – 5/16/22**

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 NC 2000 constituents were available.

Note the impact on the market-weighted metrics version of ROIC for the Consumer Non-cyclicals sector from Lorillard (LO) in 2013, when the firm's ROIC was more than 36,000%.

This outlier caused the Consumer Non-cyclicals sector's ROIC to increase from 15% to 321% in just one period, before falling to 24% one period later.

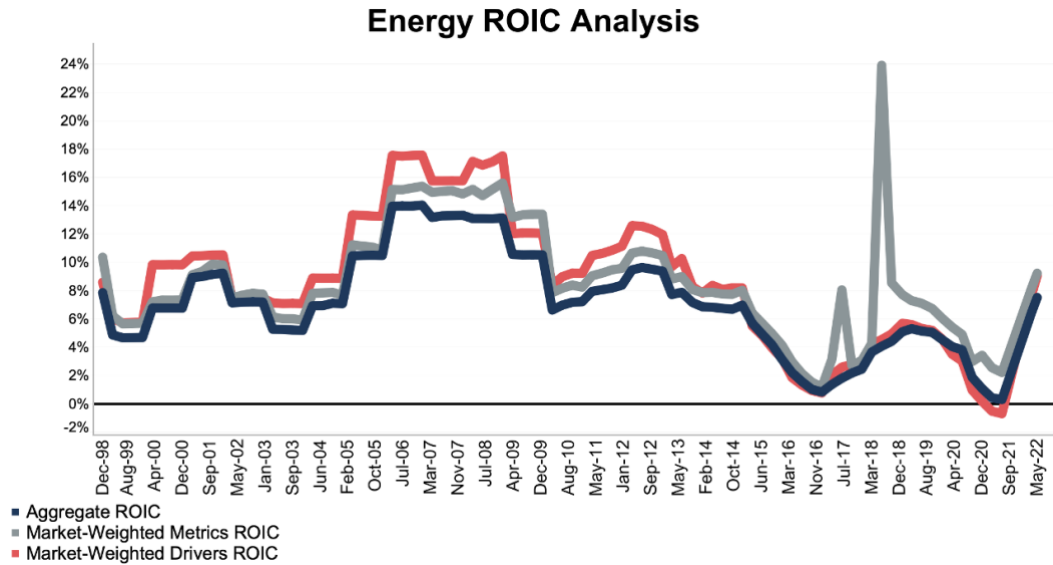
**Figure 32: Consumer Non-cyclicals ROIC Methodologies Compared: Dec 1998 – 5/16/22**

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 NC 2000 constituents were available.



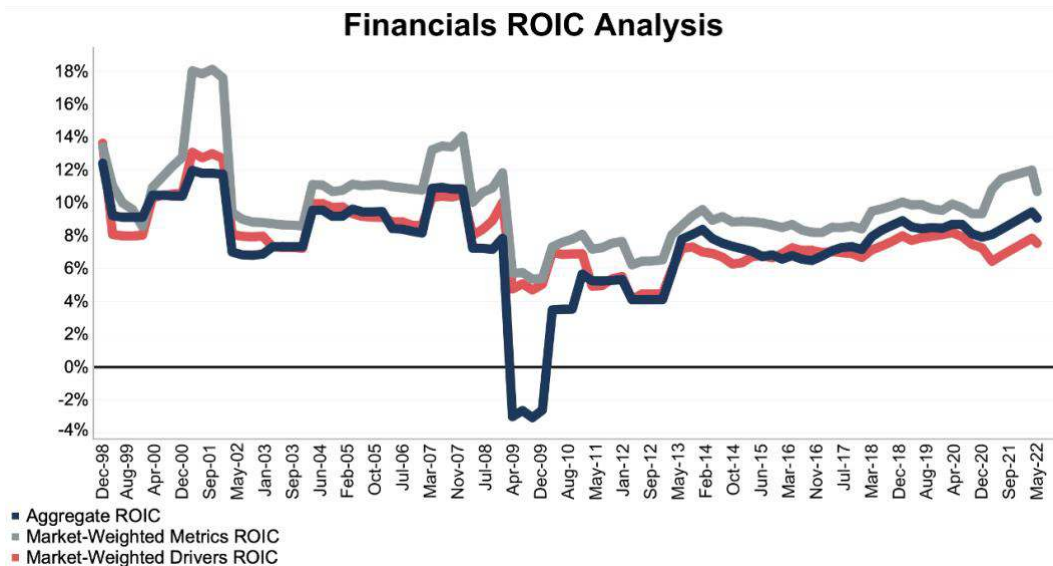
**Figure 33: Energy ROIC Methodologies Compared: Dec 1998 – 5/16/22**



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 NC 2000 constituents were available.

**Figure 34: Financials ROIC Methodologies Compared: Dec 1998 – 5/16/22**

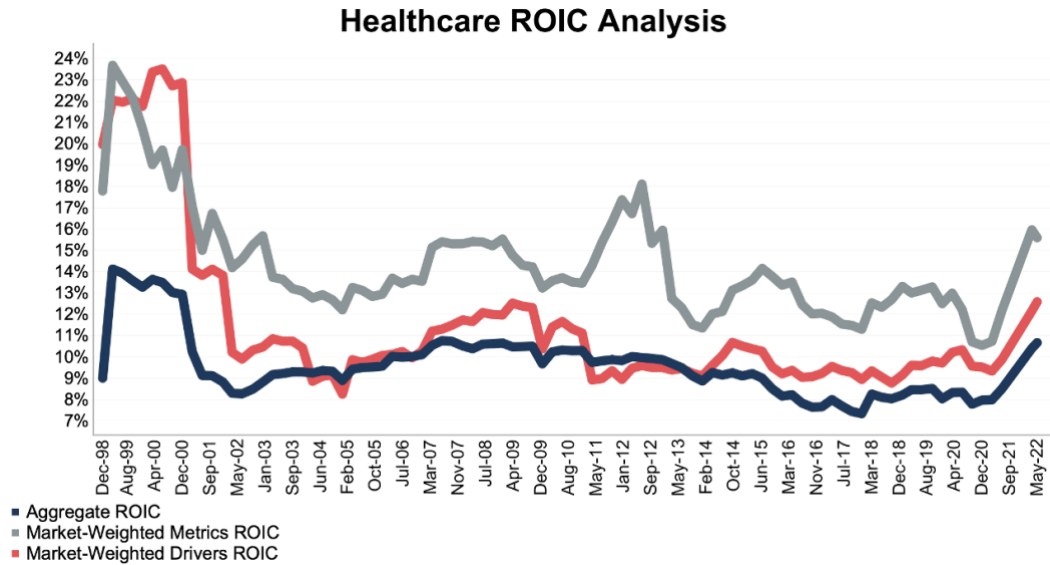


Sources: New Constructs, LLC and company filings.

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 NC 2000 constituents were available.



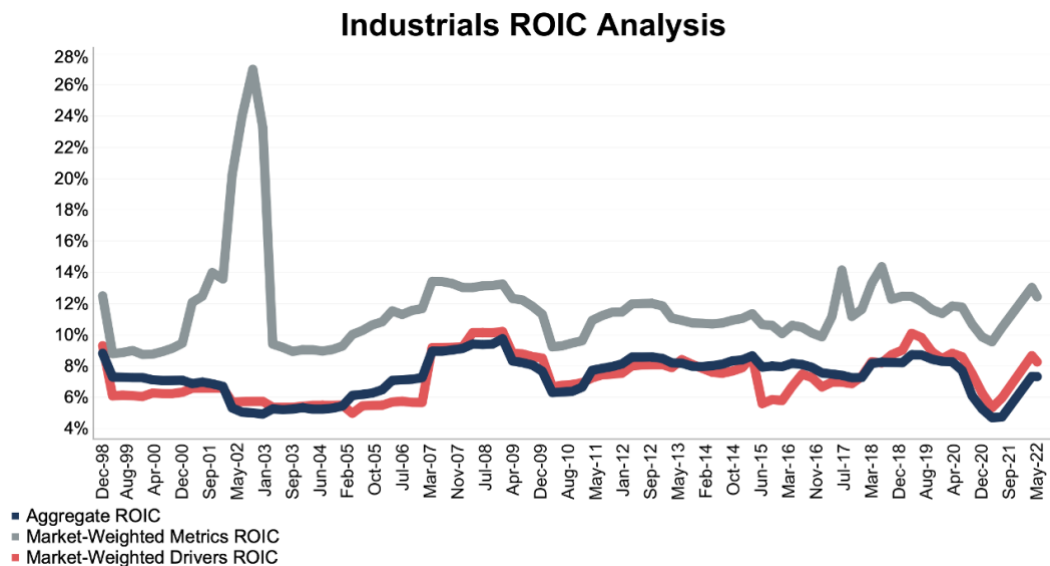
**Figure 35: Healthcare ROIC Methodologies Compared: Dec 1998 – 5/16/22**



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 NC 2000 constituents were available.

**Figure 36: Industrials ROIC Methodologies Compared: Dec 1998 – 5/16/22**

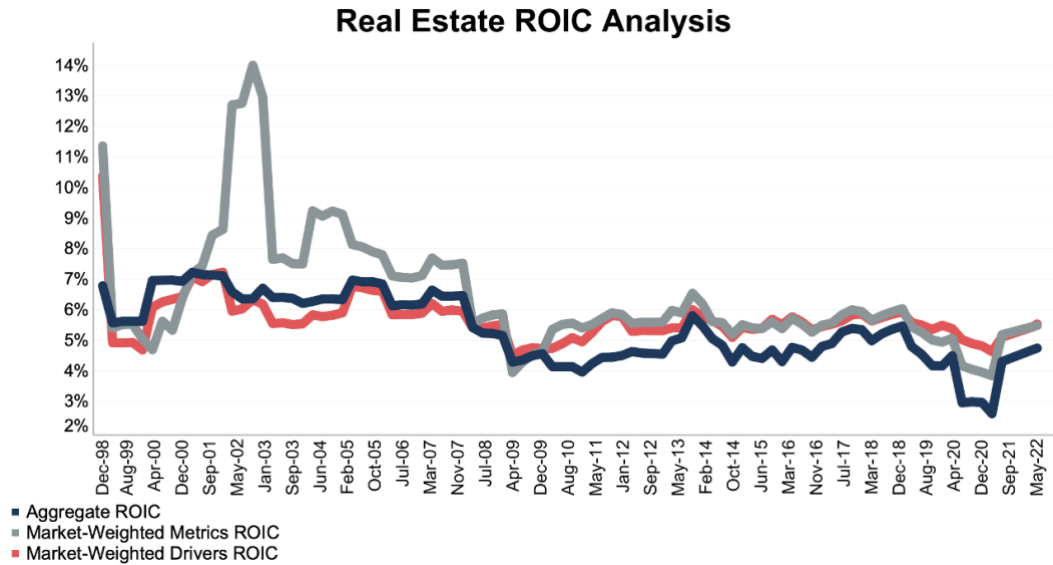


Sources: New Constructs, LLC and company filings.

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 NC 2000 constituents were available.



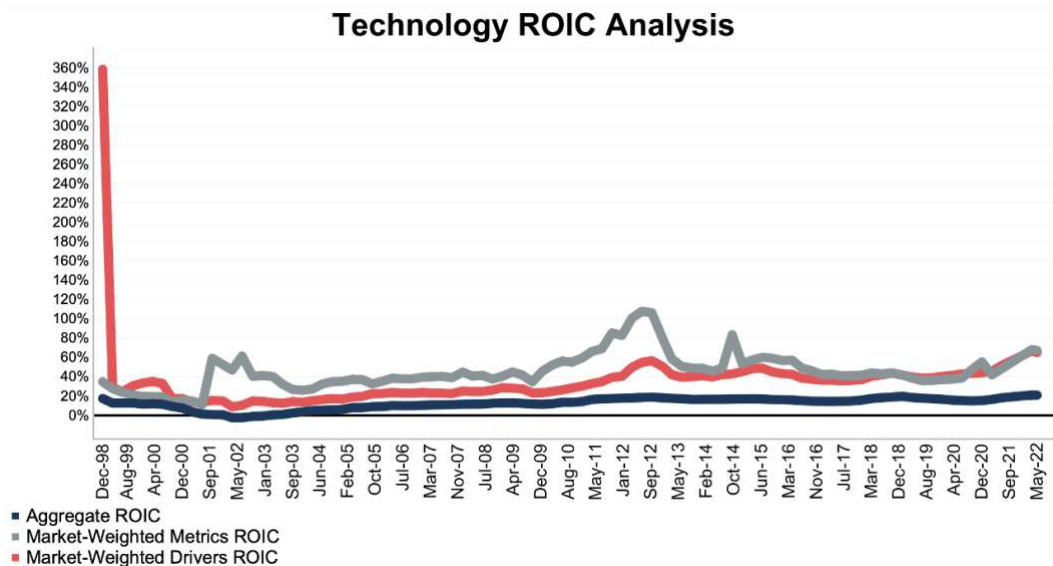
**Figure 37: Real Estate ROIC Methodologies Compared: Dec 1998 – 5/16/22**



Sources: New Constructs, LLC and company filings.

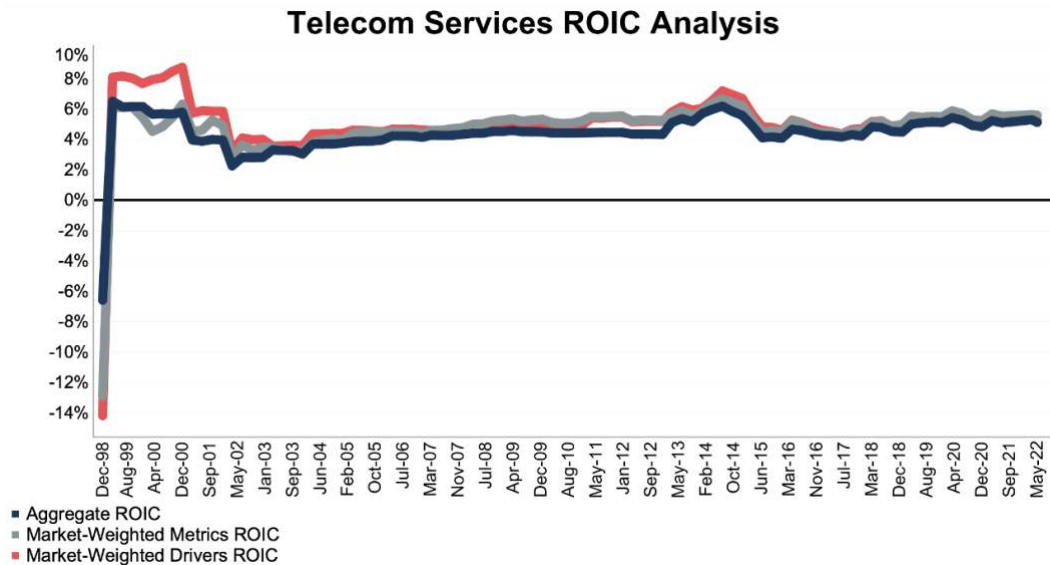
The May 16, 2022 measurement period uses price data as of that date for our WACC calculation and incorporates the financial data from 1Q22 10-Qs for ROIC, as this is the earliest date for which all the 1Q22 10-Qs for the NC 2000 constituents were available.

**Figure 38: Technology ROIC Methodologies Compared: Dec 1998 – 5/16/22**



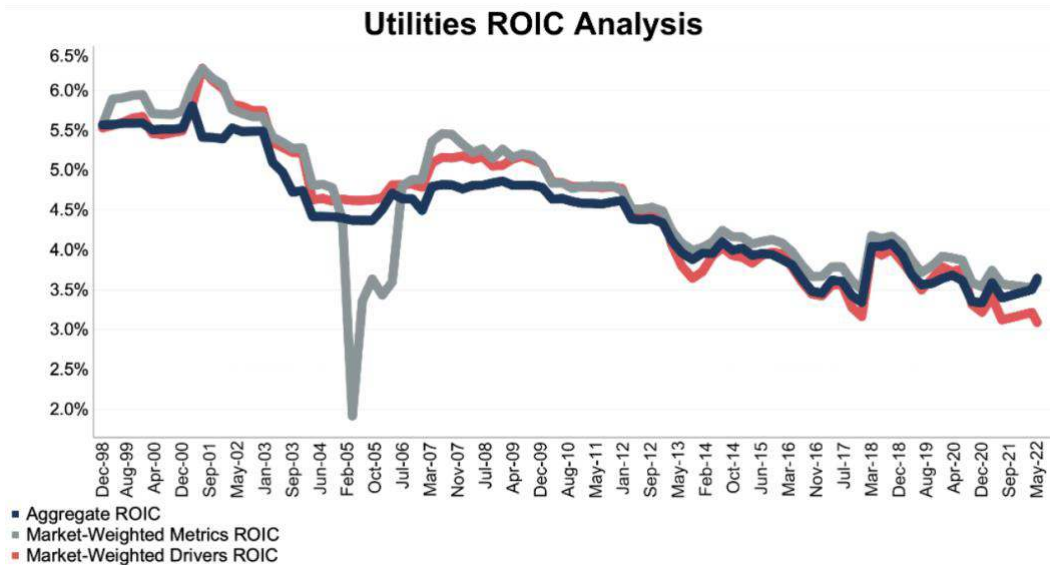
Sources: New Constructs, LLC and company filings.

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 NC 2000 constituents were available.

**Figure 39: Telecom Services ROIC Methodologies Compared: Dec 1998 – 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 NC 2000 constituents were available.

**Figure 40: Utilities ROIC Methodologies Compared: Dec 1998 – 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 NC 2000 constituents were available.





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

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

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, 1<sup>st</sup> 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 [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, 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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