

**Midstream and Natural Resources:** In our 2022 white paper, we showed that commodity CAPEX – not the Fed – determines the length of inflation cycles. Inflation dips when rates rise and reduce demand, but it only ends when CAPEX surges and creates new supply. The key question becomes, “Given high profits, when do commodity companies ramp CAPEX?” Pessimists say a CAPEX surge is (always) coming. Optimists say “capital discipline” makes this cycle different. Both sides are light on evidence and reflect bull/bear biases.

Finance theory says that profit expectations drive CAPEX, but we find that valuation is the key driver of changes in CAPEX. Our EV/IC valuation methodology compares market valuation (EV) to the book value of invested capital (IC). CAPEX drives IC growth, so a company trading at a premium to IC will respond by growing IC further to compound value; meanwhile, a low multiple doesn’t only identify a “cheap” stock – it also identifies a company less likely to ramp CAPEX. At discounted valuations, CEOs will pass on profitable CAPEX to maximize cash returns. After all, cash returns are never valued at a discount.

[Click here for the latest white paper on the long-term relationship between inflation and capex](#)

## MLP & Infrastructure

### Performance review

During the month of December 2022, the Recurrent MLP & Infrastructure Strategy generated net returns of -5.04%, lagging the Alerian MLP Index’s (AMZ) -4.69% return by -0.34%. Since the strategy’s July 2017 inception, Recurrent’s MLP & Infrastructure Strategy has outperformed the AMZ by +4.48% (annualized, net of fees). Please see the performance section at bottom for more detail.

## Natural Resources

### Performance Review

During the month of December 2022, the Recurrent Global Natural Resources Portfolio returned -3.40% net of fees, just lagging the S&P Global Natural Resources Index’s -3.08%. The portfolio’s overweight positions in the metals and mining sectors significantly added to performance, while overweight energy positions detracted from relative performance.

## Midstream and Natural Resources

### High profits, but low CAPEX? Looking for a missing variable to explain CAPEX

In the summer of 2022, Recurrent published a 60+ year analysis of the relationship between CAPEX and inflation. While many investors and academics focus on the role of rate hikes in reducing demand (and inflation), our analysis showed that commodity-driven inflationary episodes typically do not conclude until commodity CAPEX meaningfully increases. Higher CAPEX drives higher supply, which tends to flood the market within 3 years of peak CAPEX, secularly reducing commodity prices and depressing broad PPI and CPI inflation indicators (i.e. mid-1980s and mid-2010s).

If commodity CAPEX is necessary to secularly reduce inflation, then understanding what drives CAPEX is essential. Most investors (and politicians) believe companies should increase CAPEX if expected returns exceed the cost of capital ( $ROIC > WACC$ ). While expected return is a key driver of the decision to allocate CAPEX, we have noted in prior letters that as of 2022, despite high profitability, the commodity CAPEX cycle has yet to begin. Many project ROICs exceed the cost of capital, and yet CAPEX remains low. Why?

## High profits are not enough; valuations are the most powerful incentive (or disincentive) for additional CAPEX

The simple and intuitive idea that “if returns exceed costs, then a company should grow IC” omits a key variable – how will this increased IC be valued by the market? Recurrent’s investment methodology helps to shed light on this additional dynamic. Over time, a company’s ability to generate returns on capital above the cost of capital ( $ROIC / WACC$ ) should equal that company’s enterprise valuation vs. the historical cost of invested capital ( $EV/IC$ ). But the equation is bi-directional – a market that values a company at a low  $EV/IC$  is skeptical of the company’s long-term ability to add incremental value via increased IC.

$$\frac{\text{ROIC}}{\text{WACC}} = \frac{\text{EV}}{\text{IC}} \quad \frac{\text{Recurring cash flow vs. asset value (\%)}}{\text{Cost of financing (\%)}} = \frac{\text{Market value of debt + equity}}{\text{Historical cost to build it}}$$

When invested capital is valued highly (high  $EV/IC$ ), CAPEX is, in effect, being strongly encouraged by the market. A company with \$1 of invested capital valued at \$2 ( $EV/IC = 2x$ ) will find it highly appealing to spend CAPEX and grow invested capital, effectively capturing this 2x premium. Conversely, a company with \$1 of capital valued at 80c will find CAPEX – and growing IC – unappealing. After all, deploying IC with 15-20% expected returns is much less attractive if that IC will be valued at a 20% discount on day 1!

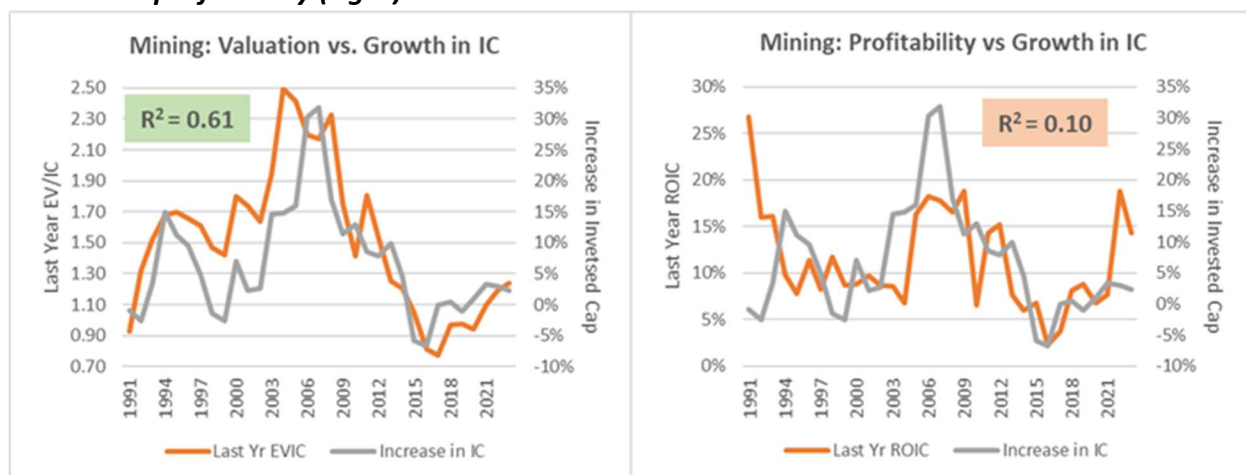
So if valuations suggest that IC growth will destroy value, companies are likely to withhold investment, returning cash and shrinking EV instead. In avoiding CAPEX and distributing cash, the “value” of a dollar returned would remain one dollar, accretive compared to the market’s expectation of CAPEX-driven value destruction. We see that this framework is supported by historical evidence, which shows that inconsistent “capital discipline” is really a consistent response to market incentives.

## History provides clear evidence across sectors that valuations are the primary CAPEX driver

History corroborates the perspective of higher valuations correlating to higher CAPEX levels, particularly in capital-intensive commodity industries.

Below we see that CAPEX cycles (reflected in sector-wide IC growth) have risen and fallen according to the shifting tides of valuation. IC growth peaked when valuations exceeded 2x  $EV/IC$ , while valuations closer to 1x  $EV/IC$  have stopped IC growth in its tracks. For example, we see that the unprecedented CAPEX surge of 2005-2010 was far beyond what ROIC metrics would have suggested, but exactly what we would expect when valuations were anticipating a long-term “China/BRIC boom.” In stark contrast, today’s non-existent IC growth in the face of high ROICs can only be explained as a reaction to bear market  $EV/IC$ s, seen on the left.

**Exhibit 1: Metals and mining: history shows that CAPEX responds to valuation (left) much more than profitability (right)**

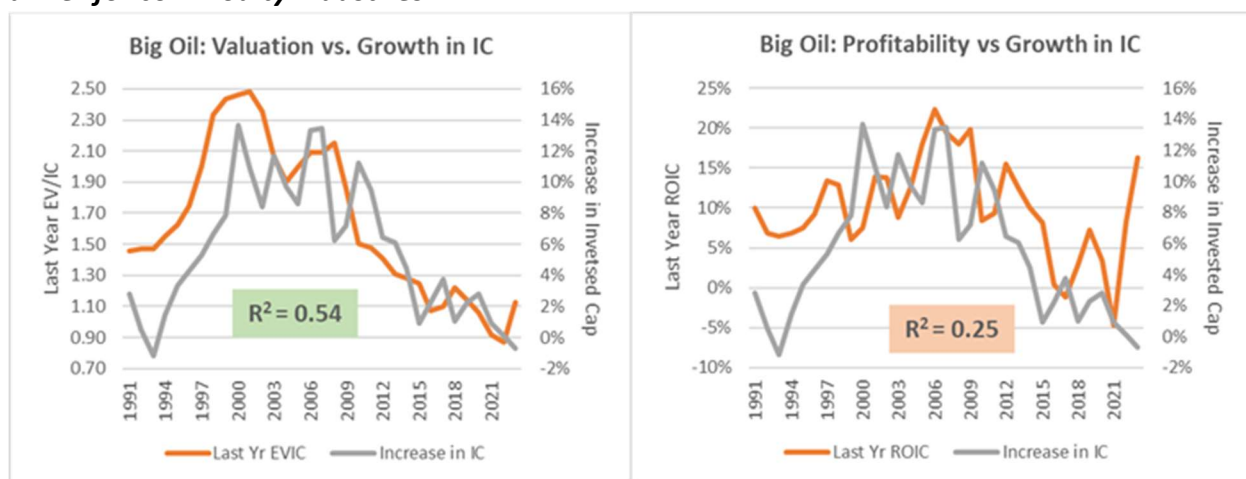


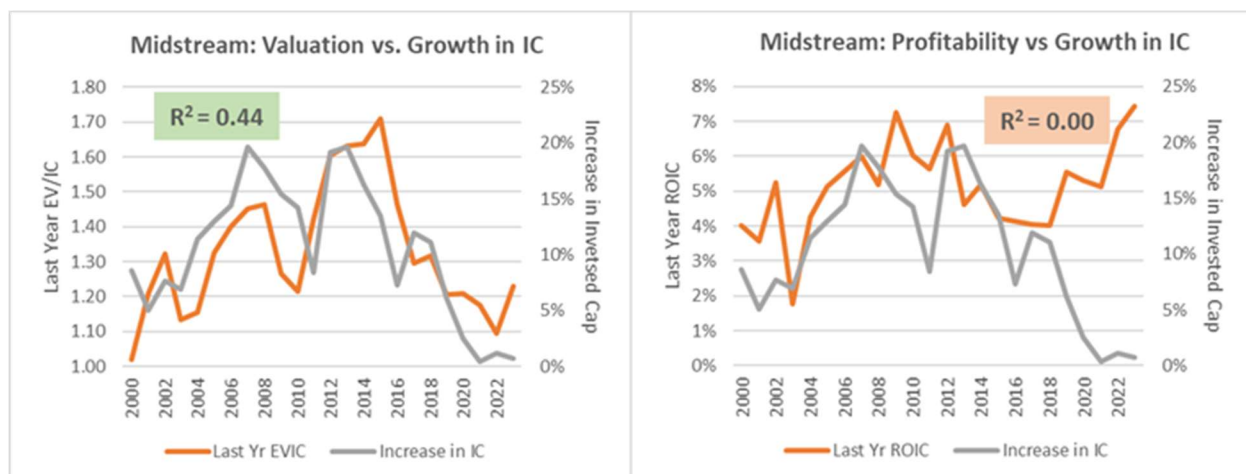
Source: Recurrent research, public filings, and Bloomberg data.

Note: "Metals and Mining" sector includes FCX, RIO, BHP, GLEN, VALE, TECK, AAL.LN, FMG.AU, XTA.LN, FM.CN, ANTO.LN, AA, SCCO, ALB, MT.

Notably, there are historical periods of time when the 2 variables – valuation and profitability – overlap. After all, many profitable periods saw peak or near-peak valuations, and many downturns see weaker valuations. But our regression analysis (shared in R-squared figures on each graph) shows that in all 4 sector studies featured here, that valuation is always a stronger driver. In these industries, profitability actually has a much weaker relationship with CAPEX.

**Exhibit 2: For energy and midstream, the relationship holds – valuation is the key CAPEX driver for commodity industries**





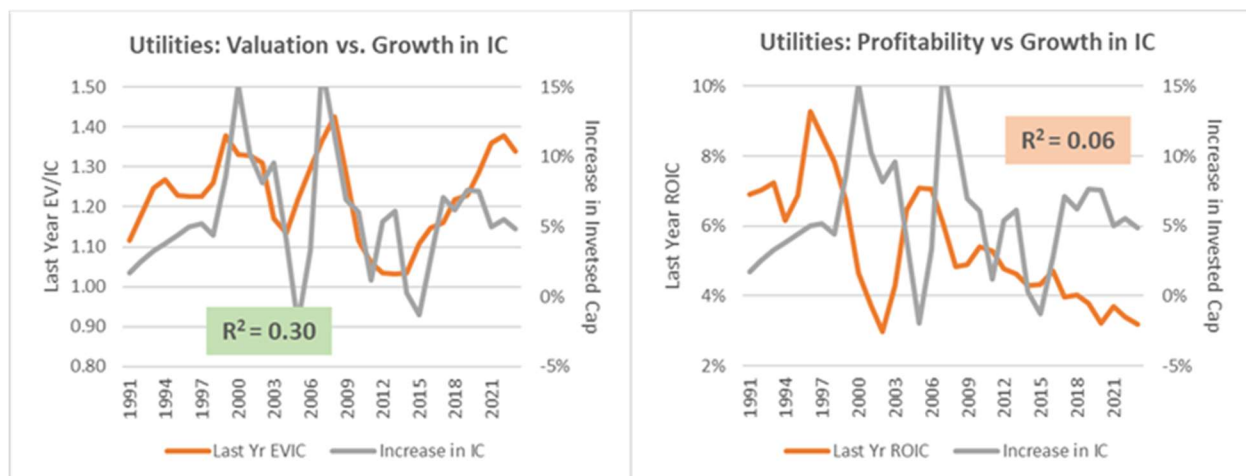
Source: Recurrent research, public filings, and Bloomberg data.

Note: "Big Oil" sector includes XOM, CVX, BP, SHEL, Amoco, Mobil, Unocal, Burlington, CNQ, SU, APC, HES, COP, EOG, PXD, DVN. "Midstream" sector includes data starting in 2000. Includes KMI, EPD, ENLC, ET, WMB, PAA, MMP, TRGP, OKE, MPLX, MWE, PSXP, WES, LNG, TRP, ENB.

### **Exhibit 3: Amazingly, sectors with steadily deteriorating profitability will keep spending – if valuations permit**

As we noted last month, the Big Tech space continues to spend at a record pace, supported by EV/ICs that remain between 3x to 4x (making any dollar of IC instantly worth \$3 to \$4). But Tech profitability remains robust (even if declining on the margin).

Meanwhile, in asset-intensive sectors where ROIC profitability is steadily declining (like utilities), CAPEX will continue at a high level as long as EV/IC valuations are supportive. For utilities, despite falling ROIC, EVICs have dramatically improved in the 2012-2020 timeframe, as investor excitement has grown around the potential for utilities to participate in the solar/wind buildout. As shown on the right, utilities' profitability has not benefitted from this massive renewable buildout (the falling ROICs and high debt loads of solar/wind is a topic we covered in a [previous note](#)).



Source: Recurrent research, public filings, and Bloomberg data.

Note: "Utilities" sector includes DUK, SO, ED, ENEL, AEP, E.ON, PEG, D, WEC, ES, XEL, DTE, AEE, PPL, and NEE.

In conclusion: cheap valuations will keep CAPEX low – CAPEX responds to encouragement from capital markets, and today's capital markets are offering little encouragement to commodity-levered businesses.

For natural resource, energy and midstream investors, inexpensive valuations offer a powerful signal that CAPEX may remain low in coming years, even as profitability remains robust. Excess profits are likely to continue to find their way back to investors, until valuations rise and dictate that a new CAPEX cycle is required. With valuations firmly in "bear market" territory, commodity CAPEX surge is likely years away.

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