More than just Dividend Yield:

In a higher-rate world, surging midstream *earnings* growth will underpin future returns

The objectives laid out in our previous white papers – debt reduction and capex restraint – are largely achieved. Despite the best credit profile in 20 years, midstream dividend yields are stuck near "junk" bond levels. A singular focus on dividends has led investors to ignore rapid midstream earnings growth – the driver of the next leg of the midstream recovery.

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The fundamental improvements we predicted in 2019 have largely come to pass. Still, midstream dividend yields sit between "junk" and investment grade bonds. Is the market giving "partial credit" to midstream?

Since Recurrent's founding in 2017, we have written extensively on the financial health of the energy infrastructure sector ("midstream"), with particular focus on debt leverage. In the last few quarters, investors have noted that debt leverage has been reduced, taking the industry from a high yield credit profile to an investment grade profile. In our 2019 white paper, "The Journey Back From Junk," we looked at dividend yield spreads vs. investment grade and high yield (or "junk") bonds – a commonly-used fixed income valuation tool – and found that investors effectively "downgraded" the midstream industry to "junk" status as midstream debt leverage rose sharply in the 2010s.

Given strong midstream performance in 2021-2022 (plus rising bond yields), midstream dividend yield spreads have tightened, leading some investors to ask if the recovery is already over. This updated analysis shows that dividend yield valuations reflect only "partial credit" for the post-COVID cash flow surge, while earnings yield spreads remain historically wide. It seems the recovery still has a long way to go.

We see midstream in "step 2" of a 3-step recovery process:

1. **Fundamental improvements:** low payout ratios, restrained capex, growing earnings, historically strong credit metrics;
2. **Dividend yield recognition:** Dividend yields are stuck between junk and investment grade – reflecting "partial credit" for these fundamental improvements;
3. **Earnings growth recognition:** earnings have actually surged over 3- and 5-year periods, massively outpacing dividend growth, leaving earnings yields higher than anytime besides COVID.

In the last 5 years, midstream earnings have grown by 70%, as dividends grew 8%. Current dividend yields profoundly understate midstream earnings power.

Today's *dividend* yields sit between "junk" and investment grade bonds. However, *earnings* yields – a better measure of economic value than dividends, with a stronger correlation to valuations historically – are historically wide, ~500 bps wider than investment grade bond yields.

We see multiple paths forward for today's excessively high midstream earnings yields:

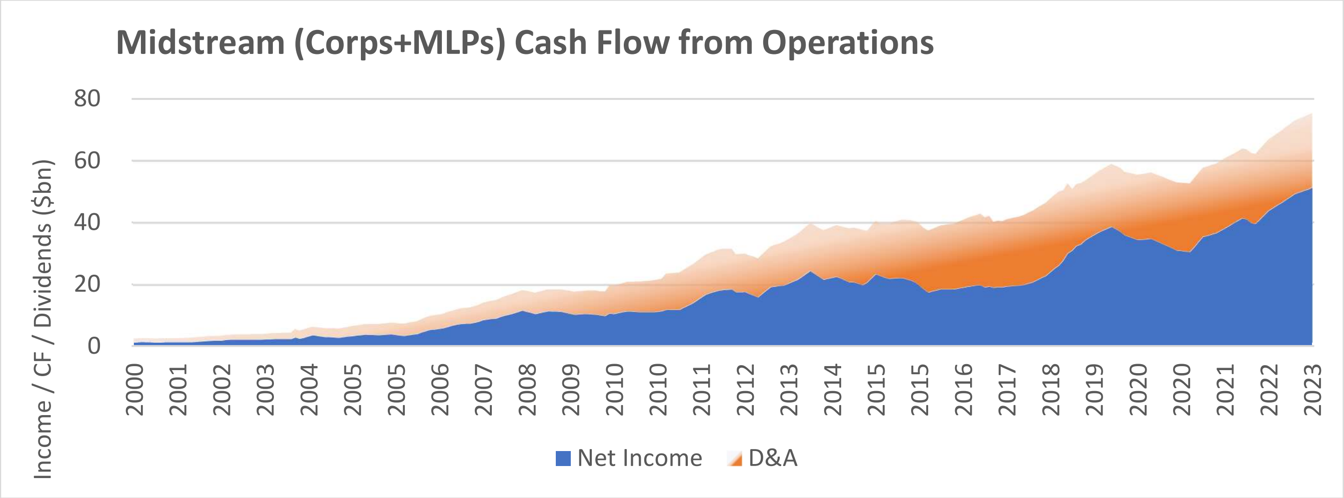
1. **Earnings growth drives higher dividends**. Cash flow payout ratios rise from 40% currently back to the 60% historical average. This implied ~50% dividend growth could attract incremental investor interest.
2. **Earnings yields compress.** Current earnings yields of ~11% could compress by as much as 500 bps to return to the historical spread to BBB bonds. This implies nearly ~100% appreciation across the sector.
3. **Bond yields rise as midstream holds flat.** In this scenario, midstream valuations hold flat but other yield assets drop significantly in value. This scenario offers limited absolute upside for midstream, but entails significant relative outperformance vs. bonds, REITs, and utilities.

We believe there is a strong possibility, if not probability, that the current anomalous earnings yields in the midstream space are resolved with a combination of higher dividend payouts and higher valuations.

For midstream, operating cash flows have never been the problem – capex stifled free cash flow, while excessive dividends drove debt higher

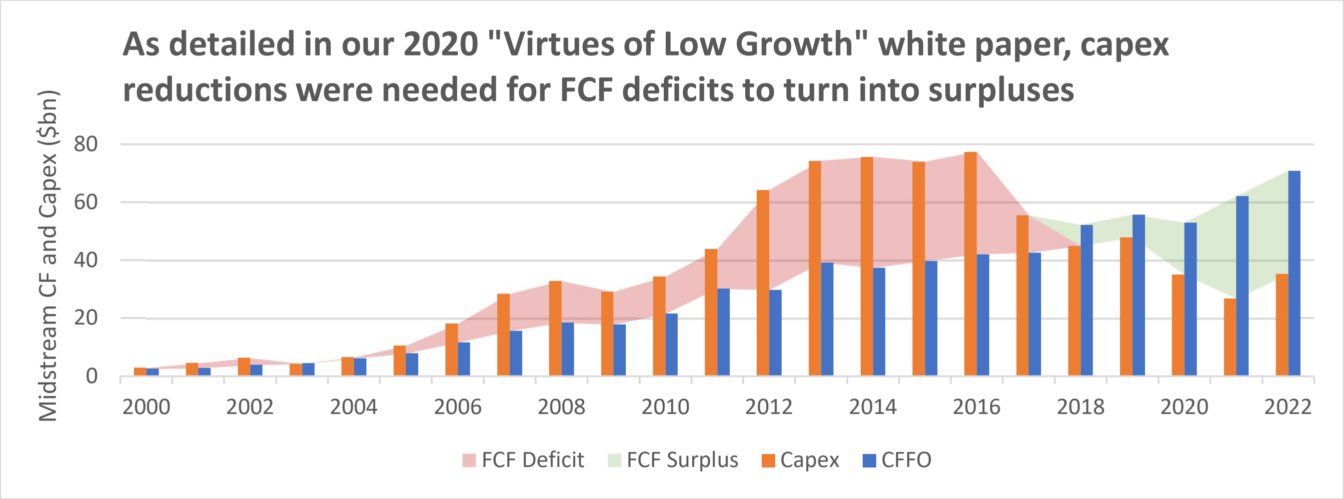
In the modern midstream investing era, beginning with the rise of the MLP structure in the early-2000s, one of the most desirable and widely-cited attributes was the steadiness of midstream operating cash flow, also known as the "toll road" business model. In retrospect, this focus on "toll road" analogies and cash flow stability led to an almost complete disregard of midstream balance sheets.

In the brutal multi-year downturn that followed the OPEC-led oil price crash in November 2014, many assumed midstream equity weakness reflected increasing risks facing operating cash flows. However, this was not the case: in the chart below, we look at the industry's operating cash flows – which grew steadily from 2000 through 2014. Cash flow growth moderated in 2014-18, but never truly fell.



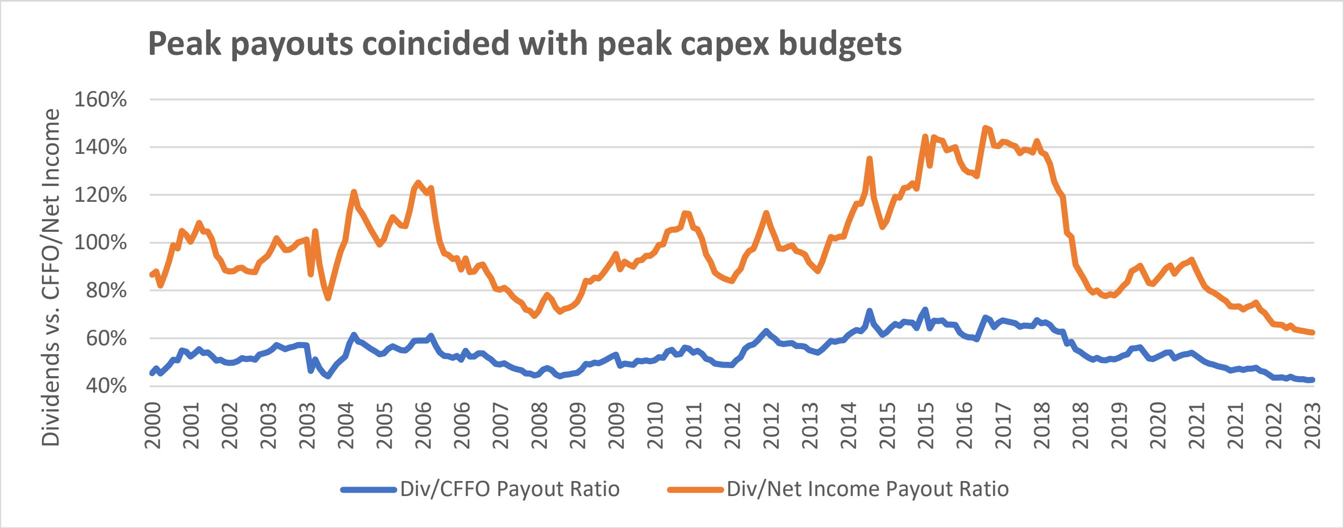
Source: Recurrent research, Bloomberg, SEC filings

As we highlighted in our 2019 white paper, **"The Journey Back from Junk,"** and our 2020 follow-up, **"The Virtues of Low Growth,"** midstream operating cash flows remained strong, but free cash flow during 2010-18 was unprecedentedly negative due to massive capex budgets.



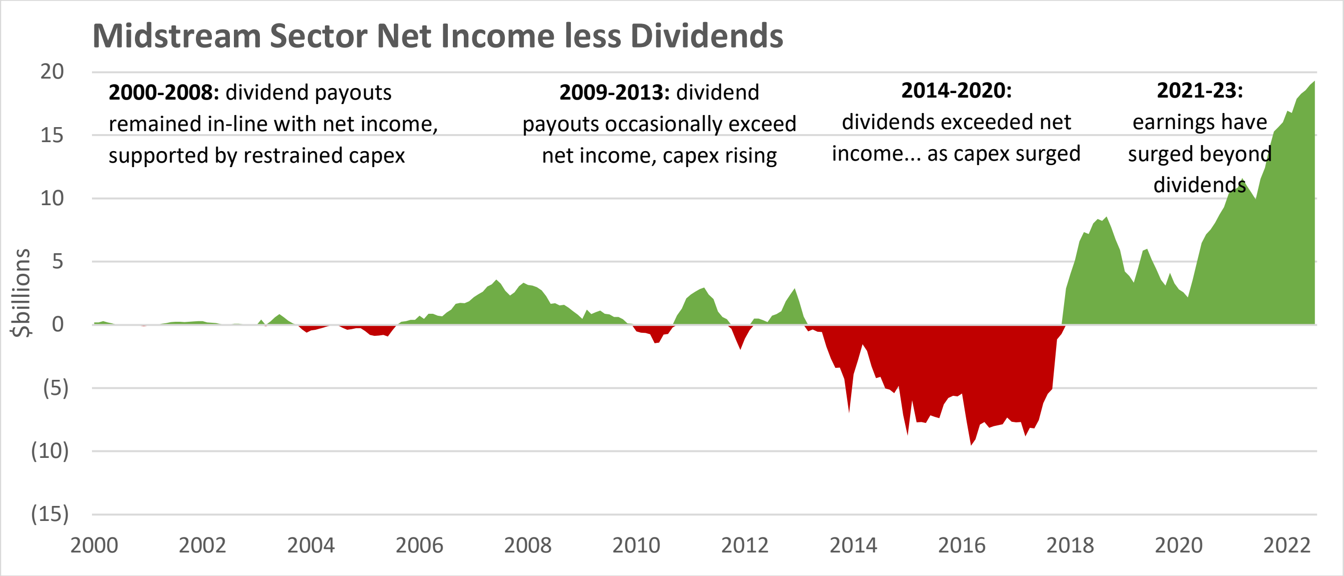
Source: Recurrent research, Bloomberg, SEC filings

The dividend policies throughout the shale era deepened the cash flow deficit. At the beginning of the Shale growth era in the mid-2000s, midstream dividends approximated 50% of operating cash flows and nearly 100% of net income. Over the course of a decade, that figure grew to 80% of operating cash flows, and well in excess of net income. This left minimal free cash flow to finance capex, which then required significant debt financing.



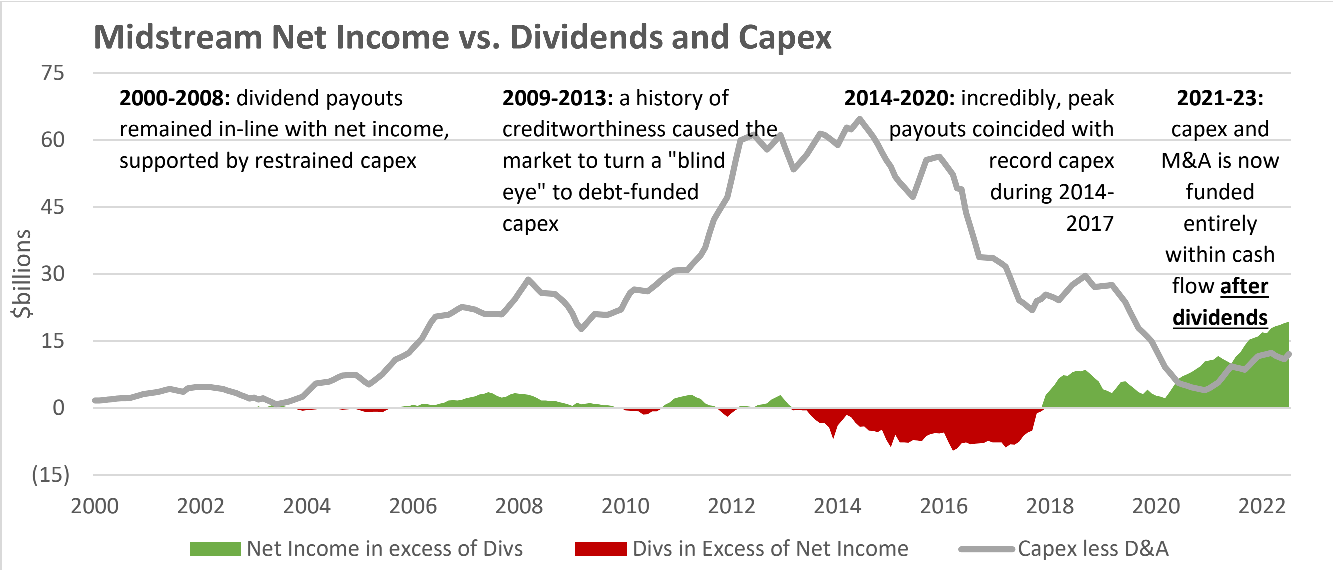
Source: Recurrent research, Bloomberg, SEC filings

Another way to frame the same discussion is to look at the relationship between net income and dividend payout. Through much of the Shale era, the industry paid nearly 100% of net income as a dividend, as seen in the chart above. By 2013, dividends exceeded net income, and would continue to do so until 2019.



Source: Recurrent research, Bloomberg, SEC filings

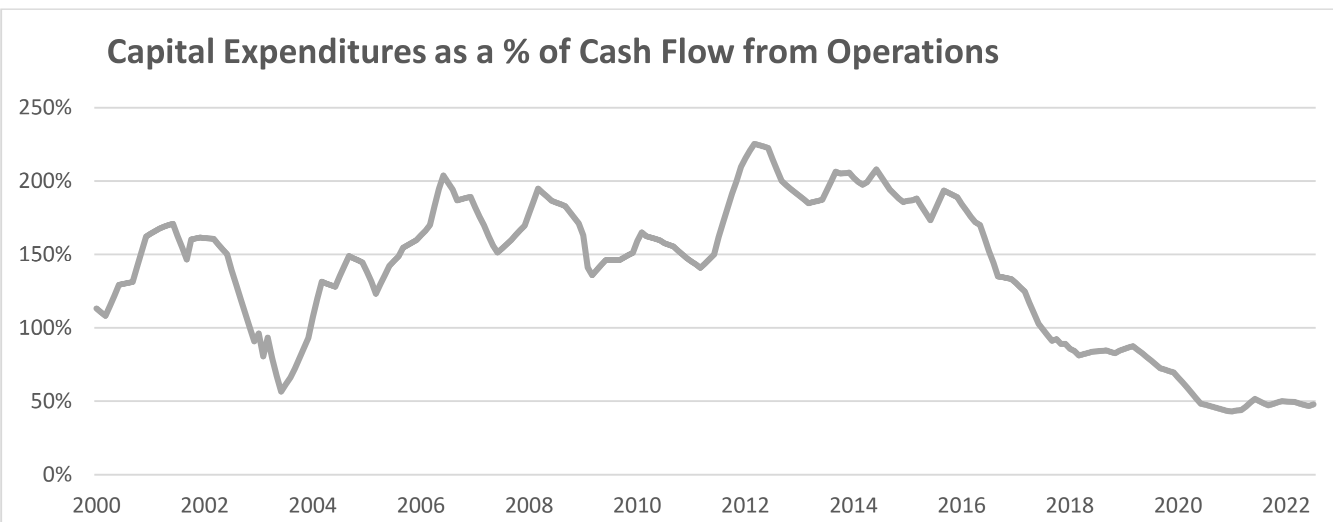
The combination of excessive dividends and unprecedented capex caused a massive accumulation of debt in the 2010s, as seen below. At peak, midstream companies incurred nearly $40 billion of incremental debt <u>annually</u> as dividend and capex burdens outstripped operating cash flows by a staggering $60 billion annually at the peak.



Source: Recurrent research, Bloomberg, SEC filings

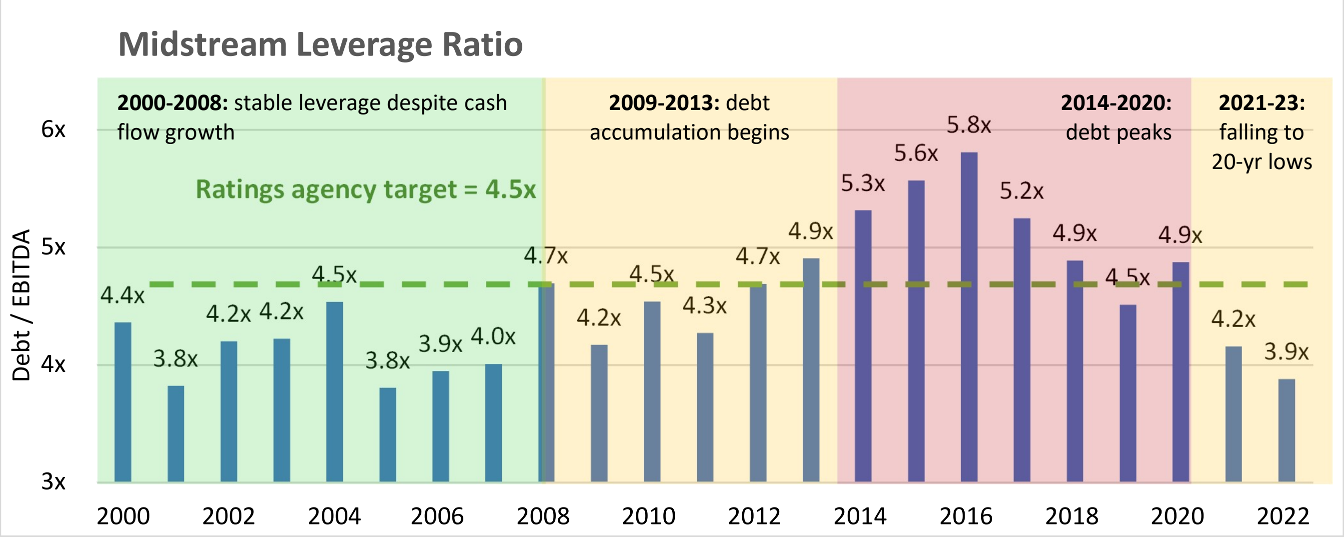
Our 2018, 2019, 2020 white paper "trilogy" called for lower leverage and less capex, midstream has delivered on both counts

While the review of the 2010s highlights the tremendous cash flow drain, today the situation is markedly different. Operating cash flows continue to improve, especially since growth projects completed over the past 10 years are now generating earnings and cash flows. Following a historic buildout of infrastructure, the need for capex is much lower, further accelerating free cash flow.



Source: Recurrent research, Bloomberg, SEC filings

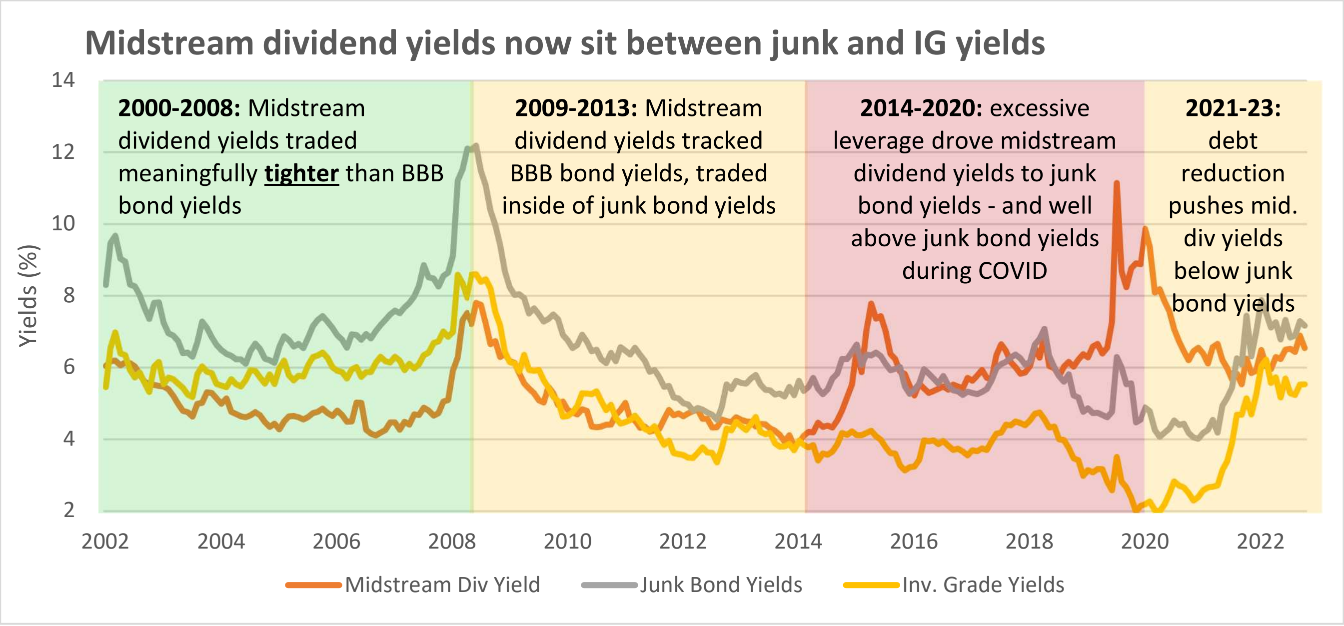
Lastly, dividend cuts in the late 2010s preserved additional cash flow to allow for debt reduction, and dividends since then have not subsequently accelerated at the same pace as operating cash flows. The financial health of the industry is better than it has been since the beginning of shale in the mid-2000s. Debt leverage metrics are lower, cash generation is higher, and capital discipline is largely intact. The fruits of these efforts are on display in the sector leverage chart below.



Source: Recurrent research, Bloomberg, SEC filings

In 2019, we predicted lower debt would drive dividend yields lower; yields have compressed, but remain well above warranted levels

As is the case in fixed income investing, increased debt loads caused midstream (dividend) yields to widen, and equity valuations to suffer in the 2015-2020 period. Midstream dividend yields – which had long tracked investment grade bond yields – began to widen out toward junk bond yield levels, and ultimately traded well above junk bond yields in 2019-2021, as shown below.



Source: Recurrent research, Bloomberg, SEC filings

Notably, midstream bond yields (not shown here) totally avoided the painful dislocation experienced by equity yields. Given significant operating cash flows, the midstream industry was always able to pay its debts. Both drivers of negative free cash flow – high growth CAPEX and dividends – were *discretionary* choices made by corporate management teams, and therefore viewed as less of a threat to bondholders. As midstream debt traded at or above par, equity valuations served as a "cushion" to absorb potential risks resulting from excessive leverage.

As seen in the chart above, the ramifications of the midstream credit cycle were experienced primarily at the equity layer of the capital structure. Midstream dividend yield spreads acted similar to traditional fixed income - widening in times of credit duress and tightening as financial health improved. In our 2019 "Journey Back from Junk" white paper, we noted that that the 2015 widening of midstream dividend yield spreads was akin to the market assessing a "credit downgrade," as dividend yields moved from trading alongside investment grade (BBB) bond yields to "junk" bond (BB) yield spreads.

Since our 2019 white paper, the midstream industry has undergone a noteworthy transformation (even if some of that improvement was obscured by the impact of COVID). COVID caused valuations of energy infrastructure companies to fall precipitously, pushing dividend yield spreads well beyond "junk" bond yields. Ironically, the operational impact of COVID was less notable, with cash flows roughly flat in 2020. As COVID moderated and midstream companies demonstrated significant operational and financial flexibility, midstream dividend yields fell back below "junk" yields, although still above BBB yields.

In 2022, the Russia-Ukraine conflict threatened the world economy with a potential recession and caused commodity prices to jump. Bond yields jumped and midstream yields fell, leading to a brief period in mid-2022 when midstream dividend yields traded in line with BBB bonds. Today, midstream dividend yields have again widened beyond BBB yields, despite continued fundamental improvement.

Credit metrics are pristine, capex is low, earnings are growing – financial health is improved, but dividend yields do not reflect this improvement

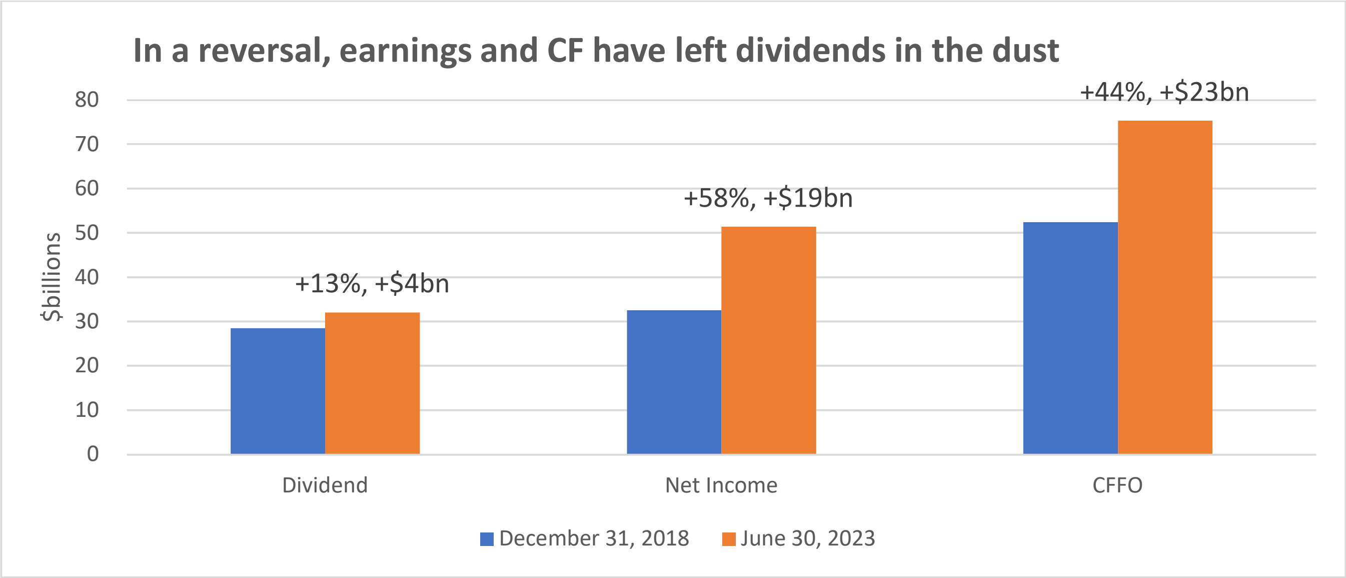
The table below offers a more rigorous analysis of the spread graph above. We can see that during the most favorable midstream market in history, from 2000 to 2008, midstream yields averaged 100 bps lower than BBB bonds. As debt increased after the Great Financial Crisis, midstream yields remained in-line with BBB bonds. During 2014 to 2017, yields jumped +150 bps over IG bonds. Dividends consumed 2/3 of cash flow, and capex consumed an <u>additional</u> 180%! Leading up to and including COVID, dividend yields surged to +350 bps vs. BBB bonds (worse than "junk" bond yields, historically offering ~200 bps above BBB). The COVID era saw a steep drop in capex, but too late to arrest the yield blowout.

Timeframe	2000-2008	2009-13	2014-17	2017-20	2021-23	Today
Credit Rating	BBB+/A-	BBB-/BBB	BB+/BBB-	BBB-	BBB	BBB+
Leverage Ratio	3.5x - 4.5x	4.0x-5.0x	5.0x-6.0x	4.5x-5.5x	4.0x-4.5x	<4.0x
Debt Trajectory	Flat	Slow rise	Steep rise	Slow fall	Rapid fall	Falling
Capex / CFFO	142%	173%	183%	88%	49%	47%
Midstream Div Yield	5.3%	5.2%	5.3%	7.0%	6.4%	6.6%
Dividend/CFFO	52%	53%	64%	56%	48%	43%
Div Yld Spread vs. IG Bonds	-86	+8	+146	+348	+265	+127

Today, midstream dividend yield spreads have tightened back to 127 bps above IG bonds. This reflects record-low dividend payout ratios and near-record low leverage ratios. Given such strong metrics, it is certainly fair to make the case that today's dividend yield spreads should trade 100-200 bps tighter, in line with the 2000-2014 era. This would offer 20-40% appreciation, which is certainly meaningful. **But we believe this dividend analysis meaningfully understates the case for midstream appreciation.**

Examining midstream earnings instead of midstream dividends, we find a yield proposition that remains historically attractive

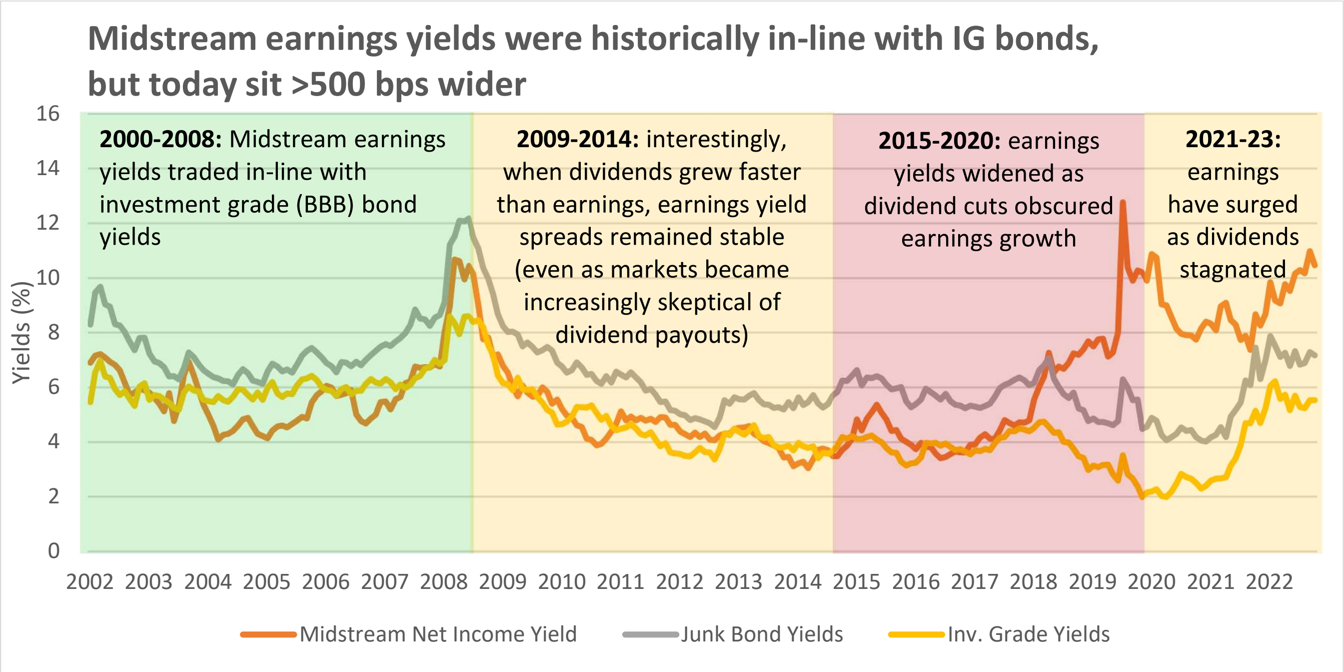
Much of our analysis to this point has focused on midstream dividend yields. However, as we mentioned in the beginning of this report, dividend yields have dramatically lagged both cash flow and earnings growth over the past 5 years. The result has been lower payout ratios and improved credit quality.



Source: Recurrent research, Bloomberg, SEC filings

Historically, dividends represented nearly 100% of net income, so dividend and earnings yields were comparable. Many market observers would naturally expect that if dividends (subject to management discretion) and earnings (not subject to management discretion) were to diverge, the market would focus on earnings as a "higher quality" indicator of value, less subject to manipulation. And indeed, through 2018, this was the case: higher payout ratios translated to higher dividend yields while earnings yields stayed constant, suggesting that the market discounted these riskier dividends.

However, since 2018, the opposite has happened: dividend yields have landed back between BBB and BB bond yields, while earnings yields remain heavily discounted by the market and well above BB bonds. Earnings began to increase rapidly in 2018, as projects went from consuming capex to generating cash flow, but this improvement was drowned out by continuing dividend cuts and shareholder-unfriendly restructurings. Spreads reached record heights during COVID and have barely tightened since. The blowout of earnings yield spreads is especially striking given the fact that earnings yields have exhibited a historically higher correlation to BBB bond yields (prior to 2018, earnings yields exhibited 0.9 correlation to BBB bond yields, vs. 0.7 correlation for dividend yields vs. BBB yields).



Timeframe	2000-2008	2009-13	2014-17	2017-20	2021-23	Today
Credit Rating	BBB+/A-	BBB-/BBB	BB+/BBB-	BBB-	BBB	BBB+
Leverage Ratio	3.5x - 4.5x	4.0x-5.0x	5.0x-6.0x	4.5x-5.5x	4.0x-4.5x	<4.0x
Debt Trajectory	Flat	Slow rise	Steep rise	Slow fall	Rapid fall	Falling
Capex / CFFO	142%	173%	183%	88%	49%	47%
Dividend/Net Income	95%	94%	127%	96%	75%	63%
Midstream Earnings Yield	5.5%	5.6%	4.2%	7.3%	8.5%	10.5%
Earnings Yield vs. IG Bonds	-57	+43	+35	+375	+475	+516
Cash Flow from Ops Yield	10.1%	9.9%	8.2%	12.5%	13.5%	15.5%

Source: Recurrent research, Bloomberg, SEC filings

As we examine midstream yields in the graphs above, we see that dividend yields are materially undervalued, but midstream earnings yields are even more deeply undervalued by today's market. After nearly two decades in lockstep with BBB bond yields, today's 10.5% midstream earnings yield is truly dislocated – it sits >500 bps wide of the BBB, despite dramatically improved credit quality and five-year trailing earnings growth which has been as robust as any prior time in midstream history.

While midstream skeptics could argue that 100-200 bps of excess dividend yield can be easily justified with any number of "energy transition" or "obsolescence" arguments (despite the fact that midstream assets will feature prominently in any imaginable natural gas-, hydrogen-, carbon capture-, or biofuel-facilitated energy transition), it is much harder to argue that midstream earnings deserve a 500 bps discount vs. history. In effect, today's market seems to suggest that the 5.6% earnings yield of the 2000s – in a similar bond yield and interest rate environment – is fairly valued at a 10.5% earnings yield today.

How can midstream continue the "journey back from junk," towards full recognition of dramatic improvements in earnings and credit quality?

So, with today's earnings yield spread sitting 500 bps above the BBB yield, in the 90th percentile of the 20+ year historical range, what could resolve this valuation anomaly going forward?

1. **Midstream earnings yield compression:** First, we could see the market begin to recognize the value of a significantly more creditworthy and less volatile energy infrastructure asset class, and push midstream earnings yields back down to historical averages. To get back to the 2000-2018 average earnings yield spread would entail getting back to in-line with current BBB yields; more than 500 bps of yield compression. This would imply a near-doubling of midstream equity valuations.
2. **Midstream earnings translate into higher dividends:** Second, if the real underlying issue is that dividend-hungry midstream investors are increasingly demanding to be paid in full, the midstream sector has ample capacity to increase dividends from current levels. With the midstream sector generating $75 billion in cash flow over the past 12 months, and only paying out roughly $32 billion in dividends, dividends could rise by roughly 50% and still sit near historical average CFFO payout ratios. Even an aggressive 50% increase would imply an earnings payout ratio of <100%. With a 50% increase in dividend payout and therefore yield, the current 6.6% dividend yield would increase to 9.9%, ~450 bps above BBB bond yields! A return to BBB levels would imply a capital appreciation of 45%.
3. **Market interest rates rise to meet midstream's elevated yields:** Finally, we could see the massive 516 bps excess earnings yield spread compress via significant increases in bond market yields, which would take pressure off the midstream sector to deliver yield compression, but would also entail less exciting total absolute returns for midstream stocks. It would, however, entail significant outperformance vs. all other yield-oriented asset classes, as the midstream sector would theoretically be cushioned from broad interest rate rises thanks to its outsized earnings yield (this is almost exactly a repeat scenario of 2022, when bonds and other yield-sensitive assets fell dramatically as midstream massively outperformed).

With fundamental improvements largely complete, we expect some combination of the above 3 factors – valuation, income growth, and even potential rises in broad interest rates – will drive convergence between historically high midstream earnings yields and broad market yields.

If we are correct, any combination of these 3 factors would entail significant absolute and relative performance for midstream investors in the years ahead.