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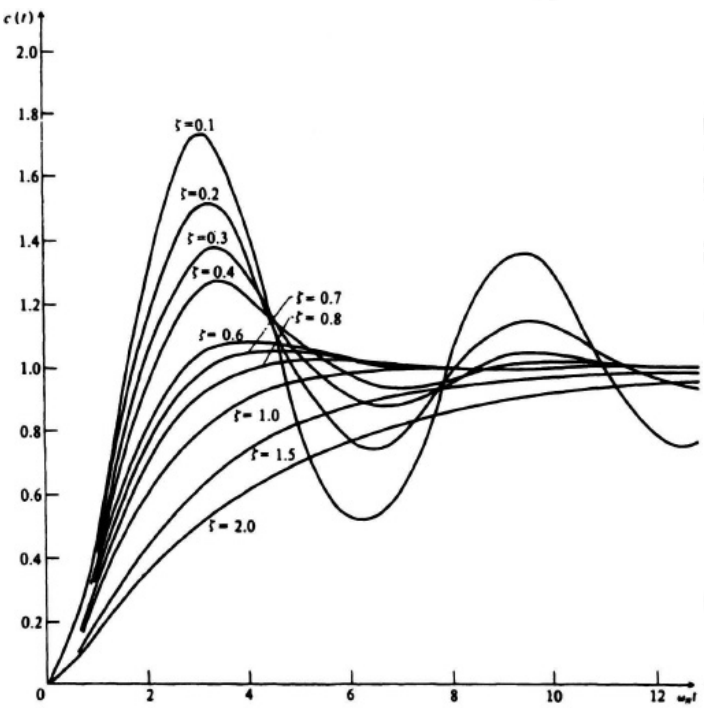
Aversion, Dispersion, and Reversion

2022 Annual Letter | August 2023



"I don't consider myself a home-run hitter. But when I'm seeing the ball and hitting it hard, it will go out of the park."

– Ken Griffey Jr.

"Search for promising stocks overlooked by most fund managers, where their market cap is too low to qualify for their funds. Once these stocks rise in price, so does their market cap, and only then do bigger funds invest in them."

– Peter Lynch

"There are only two or three human stories, and they go on repeating themselves as fiercely as if they had never happened before."

– Willa Cather

"No two minds ever come together without thereby creating a third, invisible, intangible force, which may be likened to a third mind – the master mind."

– Napoleon Hill

Dear Partners,

If you're a fan of the 1980 comedy *Caddyshack,* you'll no doubt recognize the following poem, which Judge Elihu Smails proudly reads at the launch of his sloop, the Flying Wasp:[1]

> *It's easy to grin when your ship comes in*
> *And you've got the stock market beat.*
> *But the man worthwhile is the man who can smile*
> *When his shorts are too tight in the seat.*

Judge Smails is hardly an admirable character. He lacks compassion. He's quick to take offense. He's a liar, a cheat, and a hypocrite. Yet his understanding of investor psychology is exactly correct. How many of us grin and pat ourselves on the back for our superior investing acumen when our portfolio is beating the market – only to wince and wonder what we did wrong the moment that outperformance starts to unwind? Few of us, it seems, can smile when our shorts (pants, that is, not positions) are too tight in the seat.

As we reflect on a difficult 2022, indeed, the worst calendar year in the history of our partnership, one thing is certain: the markets tested our ability to smile from the start. "Quantitative tightening," supply chain and labor inflation, the first large-scale war in Eastern Europe since the 1930s, and more coalesced into the fastest series of rate hikes in history, creating a proverbial "perfect storm" that sent equities sharply lower.

In short, in 2022, fear, bordering on panic, returned. Perhaps the more salient observation was elevated valuations met the gravitational pull of higher interest rates for the first time in nearly fifteen years, causing several bubbles to simultaneously deflate. Predictably, amidst this sea change, investors' aversion to risk in all its forms once again took center stage: Not only did the indices officially tip into bear market territory by June, but the torrential downpour in asset values was uniquely broad-based. Perhaps the easiest way to say it is last year there was no place to hide outside of a narrow band of inflation and interest rate related macro trades.

Even bond markets failed to cushion the steep decline in equities last year. According to Morningstar, core US bond portfolios not only failed to deliver countervailing gains, but bonds in aggregate managed to post their worst loss in modern history.[2] Of course, the severity of the indiscriminate selling pressure in our bread-and-butter small cap niche hit with particularly heavy weight, with small-company valuations cliff diving back towards generationally attractive levels last seen at the lows in 2020 and 2008.

Ultimately, the sobering reality amidst last year's investment landscape was that finding shelter from the macroeconomic storm proved unusually difficult. Unfortunately, our partnership, while never intended to be completely immune to these forces, wasn't the port it has been, as demonstrated by our poor absolute and relative performance. Granted, our refusal to chase profitless growth (at any price) saved us from some of the more painful outcomes of many of our peers, the fact is our use of portfolio structuring as a defensive tool to better preserve capital through downturns was shoddily executed relative to past years. More specifically, my failure to appropriately hedge out various tail risks cheaply looms particularly large as

[1] And if you're a fan of Crossroads, you may recognize this *Caddyshack* reference from a Special Update we sent out way back in 2018. Parts of that update perfectly fit the situation we find ourselves in again now.

[2] Based on the Morningstar US Core Bond Index – for context, prior year calendar losses had never exceeded 2%.

far as "lessons learned." Had I acted while I had the chance, our full year results would have been considerably improved – and that's on me.[3]

However, we found plenty of reasons to grin last year despite this deeply pessimistic backdrop. Case in point: You wouldn't know it by looking at our full-year performance figure, or the individual stock charts of some of our underlying investments for that matter, but the businesses underlying our investments performed quite well by any reasonably objective standard. Better still, we used last year's volatility to add to several of our favorite investments with built-in hard catalysts set to unlock price discovery over the next year at prices we doubt we'll ever see again. Considering the solid underlying operating momentum across our portfolio as a whole has continued to snowball throughout 2023, and we expect it will only accelerate over the near to medium term for idiosyncratic reasons we'll be exploring in the pages to come.

Moreover, as with all market environments dominated entirely by macroeconomic forces, we know that "this too shall pass." Fundamentals and valuation will eventually get their day in the sun. Over the long run, large gaps between price and value inevitably collapse – and with most equities ex the Magnificent 7 firmly in bear market territory,[4] it remains a wonderful time to have cash on hand for bargain hunting. Which reminds me, as you may recall, since our 2017 annual letter we've often described our larger-than-normal cash position as a tactical weapon of sorts. Well, we're happy to report that we're starting to see plenty of reasons to deploy it into battle. In fact, after a long period in which bargains were harder to find, we're positively buzzing with excitement. Mind you, we don't enjoy watching the Fund lose value, but we do like the opportunities that downturns create.

We'll feel the same about upturns like what we've seen year-to-date. They say the only thing more painful than learning from experience is not learning from experience. Needless to say, the best thing we can do in the face of our last year's mistakes is not to deflect blame, but to learn from them. That in mind, as of late July the cost to protect against an S&P drawdown surpassed the all-time lows set in 2017, a period when the VIX reached its lowest point in history and several records with respect to investor complacency were set. As I type here in early August, we're pleased to report that rather than let this historic entry point to hedge out some of our downside related to market risk this cheaply fly by (like I did the last time around in the first half of 2021), we picked up our bat and swung away.

To be clear, we have no idea whether the FED will beat the odds and "stick the (soft) landing" in its battle with inflation. Rather, when various leading indicators of investor complacency are setting records simultaneously (suggesting the risk of the broad market selling off materially through year-end is essentially zero), beginning to hedge out a portion of the partnership's downside via "the cheapest broad market hedge in history" is simple common sense. Never mind a sacred duty owed to every one of you for trusting us with your hard-earned savings. While it's an unfortunate certainty we'll continue to make mistakes, we can and should do our level best to make sure whatever we get wrong in the future isn't included in the top 10 list prominently displayed on our "Wall of Shame". To most that probably sounds strange, but it's an ever present reminder of the value of remaining humble in a business that relentlessly punishes arrogance of those that fail to heed the lessons of past with shocking severity.

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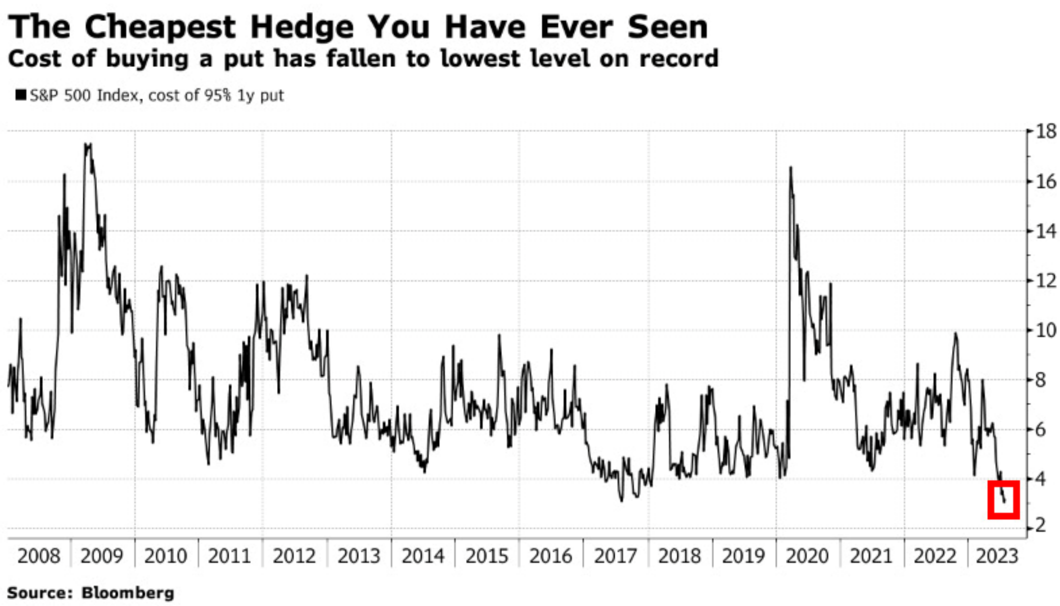
[3] Historically speaking, our partnership had drawn down less than our benchmarks in difficult markets, while significantly outperforming on the way back up as a broader recovery took hold and investors returned to applying reasonable levels of discernment to security selection. Alas, this unbroken streak came to an end last year as predicted – if you recall, we guaranteed the center would not hold the last time we wrote you, about 12 months ago.

[4] "The Magnificent 7" is the name given to the narrow band of mega cap tech darlings that have accounted for most of the the broad market gains powering the S&P 500 higher year-to-date (i.e., Apple, Microsoft, Google, Amazon, Nvidia, Tesla, and Meta).

Speaking of certainties, another we can unequivocally state is that the future is always and everywhere uncertain. And opportunistic macro hedging done correctly, like all intelligent investing more generally, is about maintaining a healthy respect for the limits of one's knowledge. To be sure, we could care less about minimizing volatility for its own sake. Volatility is, after all, the long-term prudent investors best friend. Our job – besides learning from (and owning) past mistakes – is to remain eternally vigilant against risks in all its forms. Framed a slightly different way, the time for putting on macro hedges is at the extremes when risk, whether to the upside or the downside, has become deeply mispriced.

Today, extreme investor complacency is once again on full display, as the Bloomberg chart shown below illustrates:



Which brings us to another iron law of reality: The price paid for any investment is, and always will be, the ultimate hedge. The fact is that most investments, whether they be buying puts on the S&P, the common stock of Nintendo's equity, a home in your neighborhood, or a vintage guitar – take your pick – can all be a mouthwatering bargain at one price, and a one-way ticket to losing your shirt at another. The key is paying a price that results in an asymmetrical payoff.

If it's not entirely clear what we're getting at, consider a bet where you risk $100 where if you're proven right, you'll make 7x your money (so a payout of $700) – and if you're wrong, you'll get your money back. That is asymmetrical to the upside. This is good. The very definition of a great bet. Conversely, a bet where you risk that same $100, but this time if proven correct you'll only make 1% (so a payout of $1) – and if you're wrong, you're saddled with a loss of 70%. Wagering precious saving's where the odds of being proven correct amounts to a coin flip where heads you make $1 and tails you lose $70 (out of the $100 bankroll you began with) is asymmetric to the downside. Not good. Clearly not the type of wager intelligent investors want anything to do with.

The salient takeaway is simply that, all things equal, the more asymmetric the wager to the upside the more you can get wrong and still come out ok and vice versa. By extension, when opportunistically de-risking our portfolio it's critical to do it in a disciplined manner, patiently waiting for the periodic windows when putting on protection from a macro driven shake-up (and the associated reversal in sentiment) only if it makes sense. In other words, only when risk is materially mispriced and the odds of a satisfactory outcome, whatever the future brings, are heavily in our favor. It follows that we want the price of the protection to be so low that even if we are wrong that the risk of the current "Goldilocks" sentiment, for whatever reason, eventually gets undermined is far higher than zero (as the price of the puts we've recently purchased suggests) – and the market continues to go straight up – we can rest assured that the cost of that insurance was cheap enough that the trade-off involved still made perfect sense. In this case, the price of risk was low enough that it's entirely possible that an explosive rally in markets through year end could still result in a profitable outcome as the cost of protection ratchets higher in lockstep despite our bet, directionally speaking, going against us. We don't expect this to happen, we're just highlighting that the price we paid in late July offered exactly one of those extreme asymmetrical payoffs discussed above.

All that said, you know as well as anyone we don't worry about what markets will do in any given year. And the exact same thing is true about performance figures measured over periods of 3 years or less. The fact is our short-term performance in any given year is the definition of meaningless noise in the context of the larger mission we seek to execute on your behalf. Thankfully the long-term outlook and focus of you, our value orientated limited partners, leaves us free to think and act with a very long duration, a luxury that has made our ability to deliver such a large margin of outperformance possible in the first place.

Of course, we also know that unsustainably cheap stocks often get cheaper in the short term, even if their underlying businesses are doing exceptionally well. But that's okay. A willingness to suffer in the short run to maximize long-term outcomes is quite literally the price of success in the investment game.[5] That's not to say that periods where already wide spreads between stock prices and intrinsic business values are further compounded by severe market dislocations are psychologically easy to endure. They aren't. It is to say that successfully navigating environments like 2022 – where fear rules and terrified investors' willingness to make *any* fundamentals-based distinctions rapidly dissipates – in the service of maximizing wealth creation over the long-run is Crossroads' *raison d'etre*. Furthermore, the silver lining of lower prices is higher prospective returns. And make no mistake, the implied forward returns on the Fund's current investments have never been more attractive, both in the absolute sense and certainly on a risk-adjusted basis.

Nevertheless, anything can happen in the short term. Every now and then it won't matter if our investments possess clear paths to value creation or are geared to secular megatrends operating in high return industries benefiting from secular growth. It won't matter if they are market leaders, with defensive, highly attractive operating models, strong balance sheets, accelerating revenue growth, rapidly expanding operating margins, or durable moats. When fear rules, like it did at various points last year. Fundamental considerations go out the window. It's just the nature of the macro corrections beast.

Yet while we can't predict when macro forces will cause the markets to fall out of bed, we can prepare. That's why we place so much emphasis on maintaining iron discipline with respect to accepting like-minded limited partners and implementing a rational and systemic investment process that sets an extraordinarily high bar in terms of the quality of the businesses we're willing to invest in in the first place. It's why we seek out investments with extraordinarily low likelihoods of permanent loss and very certain long-term prospects, and opportunistically layer in alpha generating shorts and cheap macro hedges if and when it makes sense.

It's why we place so much emphasis on owning misunderstood high-quality companies undergoing value-unlocking change. Think "fat pitch" situations where probability-weighted risk-reward is skewed heavily in our favor. Historically speaking, setups like these are typically characterized by small-cap growth businesses with widening moats and large market opportunities relative to their current size that, for one reason or another, are being overlooked or underappreciated by the market. These companies tended to have management teams led by a proven leader with large equity stakes and real skin in the game – not just

[5] https://www.investmenttalk.co/p/what-if-god-was-a-hedge-fund-manager

economically speaking, but reputationally as well. Consequently, these businesses tend to be debt-free or rationally levered; positioned not just to survive difficult times, but to exploit them. And of course, they have to be extraordinarily cheap as well, providing the partnership with solid downside protection.

Granted, the combination of large discounts to stable or growing intrinsic value and the presence of hard catalysts is no panacea, as our results in 2022 made clear. But it, alongside our shorts and macro hedges, does provide the partnership with a balanced tool kit that, when properly leveraged, meaningfully reduces the Fund's reliance on both the market and the economy for our investment gains.[6] Intuitively, if the gap between price and underlying value is likely to be closed quickly, the probability of losing money due to market fluctuations or adverse business developments is reduced.

In the end, though, so long as companies like those continue to grow their true value, steadily compounding their nascent competitive advantages along the way, we pay no mind to short-term price moves. However, we must accept that every now and then "Mr. Market" will trash our portfolio for no good reason, like he did last year. That's fine with us. If our stocks sell off, we can confidently buy more. If they rally, we rack up profits. We sleep well regardless.

♦

We want you to sleep well, too. So, let's look at a few of our investments, some of which were certainly not immune to the aversion we described above, but which since early 2023 have exhibited a dispersion in performance compared to the overall market as investors apply a more reasonable level of discernment towards individual business quality and performance.

RCM

R1 RCM (RCM), the leading technology-driven provider of revenue cycle management to hospital networks, has been in the Fund since late 2016 and has since capitalized on the market opportunity before it in several value-unlocking ways. R1's services help improve healthcare providers' operating margins and cash flow, enhancing patient, physician, and staff satisfaction in the process. Simply put, it handles certain front- and back-office needs on behalf of its partners, helping them streamline operations, cut unnecessary costs, reduce billing errors, and more – all in a bid to maximize revenue and profit while materially improving patient outcomes. With hospitals facing tight 1 to 2% margins, R1 has proven it can make a big contribution by eliminating inefficiency, often doubling or even tripling client profitability over time, while adding value to all stakeholders involved in a variety of win/win ways.

Today, the company's unrivaled value proposition transforms revenue cycle performance across care settings and payment models in a manner its dwindling competition simply can't replicate, placing R1 in a prime position to enhance its partners' bottom lines (and its own) for the foreseeable future. That's no small advantage, considering industry trends toward outsourcing and the ever-present need for hospital networks to run their revenue cycles more efficiently – two secular mega-trends likely to only intensify with time.

But that's not all. R1's reputation as a partner and its overall intimacy level with its clients adds yet another powerful secular tailwind likely to fill its sails in the years ahead. Reputation in the highly attractive niche of

[6] This policy also moonlights as one of the many built-in checks against ex-post justifications of why we own a position whenever reality diverges from (our) expectations. Having such built-in guardrails is the essence of a systematic and rational investment process capable of delivering sustained alpha, as Crossroads has done to date.

healthcare IT tends to have a snowball effect, with R1's industry-leading platform increasingly being recognized as the standard. It's benefiting from a "winner take most" flywheel effect where growth begets growth with every new marquee client win, wins that have been accelerating, seemingly by the day.

For those of you that might be new to R1, some brief history is in order. Indeed, R1 has been in a state of constant transformation since we initially built our stake in September 2016 at around $2.20 per share. At that time, this once high-flying "market darling" was at the tail end of a brutal period of relentless multiple compression, in which the company experienced several setbacks that led to a truly fierce de-rating of its equity over a period of years. For context, from 2012 to 2014, the stock was first beaten down due to scandals, including an SEC investigation into its revenue recognition practices and charges of abusive billing practices brought against it by the state of Minnesota. These troubles culminated in a delisting from the NYSE and a lowball takeover bid from its main client, events that set in motion a reflexive downward spiral as bouts of general investor myopia, shareholder fatigue, and forced selling pressure (due to institutional mandate restrictions) drove the company's equity to unimaginably low levels relative to where it traded just a few years prior. Indeed, R1's equity nose-dived from over $30 per share in 2011 (when we first started following the company) to under $2 by the time we decided to ramp up our diligence shortly after launching the Fund.

To us, the charges of wrongdoing not only appeared baseless, but the company seemed to be doing all the right things: getting its financials in order, settling with the FTC and the state of Minnesota, and replacing prior management with a substantially improved executive suite. Other key developments, too, signaled that durable value-unlocking change was finally afoot. From our vantage point, while its stock was tanking, the company was healing, setting the stage for a phoenix-like rebirth as it put its troubled past behind it. Nonetheless, it wasn't until late 2016, when we witnessed the new management team cleverly kill a stalking take-under bid by negotiating an exclusive long-term contract in its place, that we finally decided to get involved. At the time, R1 was squarely in our sweet spot. It was a textbook example of a catalyst-rich orphaned equity trading at a deep discount to normalized earnings, so rather than suck our thumb, we took the great Charlie Munger's dictum to heart and pulled the trigger as the stars aligned.[7]

Our timing couldn't have been better. In 2017, the company changed its name from Accretive to R1 RCM and uplisted to the NASDAQ. R1 went on to acquire several companies in the interim, including Intermedix, SCI, RevWorks, and CloudMed. Those acquisitions allowed the company to expand its internal capabilities, deepening its growing moat in several key strategic areas – all while announcing several new contract wins with existing and new clients (e.g. Intermountain, Penn State, Rush, St. Clair, Sutter, and others). Today, the company sports an impressive 100% retention rate. Equally as pleasing, R1 has gone on to divest non-core assets, simplify its capital structure, repurchase stock, and permanently improve the overall quality of its business (given the mix shift towards software since the time of our initial purchase).

We mention all this only to properly contextualize the company as it stands today, and to help show why we continue to believe that the best is yet to come for R1. In fact, while R1's share price is now approximately eight times our initial purchase price, we believe its shares remain extraordinarily attractive. The lack of healthcare workers, (both nurses and back-office billing employees) combined with patient volumes returning to normal post-pandemic, has stressed hospital networks to the limit. Despite – or perhaps because of – these developments, R1 is thriving, with potential customers lining up to benefit from its leading end-to-end platform as competitors with single-point solutions continue to fall by the wayside.

[7] Munger, the business partner of Warren Buffett, famously said, "Assume that your really major opportunities in life are going to be few, and when you get a lollapalooza, for God's sake, don't hang by like a timid little rabbit."

Just last year, R1 won its largest customer ever, Sutter Health. The Sutter win is notable on several fronts, but especially because Sutter generates over $13 billion in NPR (net patient revenue) per annum, or about 20% of R1's total NPR under management. Said another way, R1's ability to grow its onboarding capacity relatively seamlessly over the last six years has been extremely impressive. After all, just a few years ago the company was onboarding less than $4 billion in NPR per annum and competed with a few similar revenue cycle management systems. Today, things have changed dramatically for the better, and R1 stands alone as its peers' relative value propositions continue to fade.

Another key development was R1's recent acquisition of CloudMed in early 2022. Make no mistake, R1's bid to press and leverage its already dominant position via CloudMed's data and analytics software looks to be a genuine game changer. Besides further accelerating R1's ongoing transition towards a primarily software-based business model, CloudMed's automation and workflow software combined with analytics should amplify R1's existing capabilities in a variety of powerful ways that aren't generally appreciated or well understood by investors. While hardly comprehensive, there's now a potentially massive opportunity for R1 to further penetrate the combined companies existing installed (NPR) base by leveraging CloudMed's revenue intelligence platform in new ways to eliminate various inefficiencies and add value in a myriad of novel ways to all stakeholders. Structurally speaking, this strategic move put R1 in a league of its own, with much greater earnings power and intrinsic potential over the medium to long term. And yet despite this permanent improvement in business quality and long-term prospects, the market initially seemed more concerned with the acquisition being priced at a 21.5x EBITDA, even with CloudMed's 20-25% per annum revenue growth and operating margins of 40-45% given the marginal premium to its valuation at the time.

Confused? Yeah, us too, if only because the myopia of that concern amidst the larger implications of the permanently improved setup of the combined entities looking forward was breathtaking.

Yet things started to get really interesting in late 2022, when a recently-onboarded customer of R1 blamed the company's poor quarter on billing system integration issues. Less than a week later, R1 reported weaker-than-expected earnings, citing an issue with one customer (above), another that was late on payments due to timing issues related to reimbursement, and fears regarding slower payer times in general. The company then proceeded to guide down on its 2023 EBITDA estimate by 10 to 15% (versus consensus) and announced a CEO transition. Clearly, this onslaught of news was too much for investors, and many reflexively put RCM into the 'too hard' pile. The stock dropped about 60% in two weeks.

While the price action was more shocking to us than the news, we added modestly to our already outsized position as we uncovered several facts. Almost all of the adverse developments appeared to us to be transient in nature:

- The customer that threw RCM under the bus apparently fired too many payment employees before R1's integration could be completed, and their issues would be fixed in a matter of months regardless.

- The accounting charge for a late-paying customer amounted to only about $10 million or about 0.5% of R1's $2 billion revenue base and would likely be reversed the following quarter (it was).

- Its lowered guidance was due to increased investment to accelerate R1's shift to more becoming more software-driven, and not a deterioration in revenue or earnings power related to any of the aforementioned issues.

- Finally, R1's abrupt CEO change, which was likely the biggest driver of its weak share performance, seemed more like an upgrade. While former CEO Joe Flanagan deserves plenty of credit for R1's transformation in recent years, Lee Rivas, the former CEO of CloudMed and current CEO of R1, is a West Point and Harvard Business School graduate with an indisputably impressive track record with data-centric businesses.

In fact, we believe the CEO transition was in the works after the close of the CloudMed deal in mid-2022 and the kitchen sink was thrown at investors in the late 2022 earnings report in order to strike Mr. Rivas's new equity compensation package at a lower share price. If that sounds a bit too "tin foil hat" for you, consider that Mr. Rivas's equity comp package was based on a *fixed dollar amount* target. So R1 had considerable incentive to create a lower share price to issue more shares to its new leader.

It follows that the disclosed business issues in late 2022 were highly likely to be exaggerated, 'spring-loading' Rivas's comp package for a quick turnaround, with shares likely to explode higher upon the announcement of positive progress. Indeed, at the time of Mr. Rivas's equity comp issuance window, he made the rounds to the Street and sell-side analysts, explaining how new RCM leadership was focused on execution and how he planned to prove it. The response was so quick and universal, one can be forgiven for wondering whether the road show had been planned in advance.[8]

What happened next?

Exactly what we expected, given the potential plot described above: RCM reiterated its full-year 2023 guidance earlier this year, and Mr. Rivas put his own CloudMed people in as CFO and COO. Then, on the 4Q earnings call a few weeks later, we learned that most of the accounting charge was unwound, payer trends remained stable, and the company reiterated that the CloudMed integration was on track.

So, was R1's rubber band rebound in its core KPIs in early 2023 mere coincidence? It's certainly possible, although our long history of studying the "dark arts" of corporate governance, not to mention our deep familiarity with the company's historical fact pattern in this specific regard, strongly suggests that it wasn't.

With this backdrop in mind, along with some additional discernment on our part, it makes perfect sense that RCM shares are not only up over 60% year to date, but that they continue to show strength in a tough trading environment for healthcare equities. After all, this is a defensive, competitively advantaged, high-quality business with a growing moat, minimal competition, hurricane-force secular tailwinds, and a large set of deeply-integrated marquee customers that will deliver high-visibility (contractually guaranteed) recurring revenue at high incremental margins for years to come. The reality is that digital-first, dominant healthcare businesses with multifaceted growth drivers and this level of embedded revenue and margin expansion (thanks to contracted business rollouts, automation initiatives, and efforts associated with digitizing patient experiences, etc.) should never trade at a no-growth valuation like R1 does today.

All that explains why we continue to believe the shares remain extraordinarily attractive at or around $17, where they currently trade. Given the company's revenue outlook based solely on the maturation of its existing and contracted NPR, and assuming 30% margins in steady state, R1 should post 2027 EBITDA of $1.3 billion. At a 12.5x EV/EBITDA multiple (more than reasonable to us on both an absolute basis and given where private transaction and public market multiples for revenue cycle management firms, and

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[8] After all, R1's history since late 2016 shows that it will engage in non-economic selling pressure to drive symbiotic alignment with its execs and partners via economic incentives. For example, in the original Ascension transaction, the hospital network bought $200 million worth of 8% convertible preferred shares in Accretive and got warrants for another 60 million in common shares. Note too that R1's deal with Intermountain resembled the one with Ascension: Intermountain bought $20 million worth of R1 shares north of $4, with warrants for 1.5 million additional shares at $6 thrown in. In exchange, R1 got a 10-year exclusive service renewal and contract extension, plus rights to serve hospitals Intermountain might acquire over time. The Ascension deal was modified similarly.

healthcare IT peers more generally, have balanced out historically), that gives us an implied EV of $16 billion four years out. From there, we need to subtract out the remaining warrants and add back R1's cash and interim free cash flow, and we get an implied 2027 market cap of roughly $16.8 billion. With 460 million shares outstanding (factoring in dilution, etc.), that places R1's fair value share price at $40 in 2027. That's over two times where it trades today, resulting in an annualized IRR of around 30% despite our irrationally punitive underlying assumptions.

Framing our exit multiple slightly differently, it's hard to lose money paying 12.5x EBITDA and sub-2x EV/revenue multiples for a low-double-digit revenue grower with multi-year margin expansion baked in (i.e. with mid-double-digit EBITDA growth on the low end). If we used a more reasonable 15x EBITDA, the average of public and private transaction multiples currently, or assumed continued growth in NPR along the lines of what R1 has done historically, the implied annualized forward IRR over the next 4 years would be ~40%.

Most important, the implied returns we anticipate are not based on pie-in-the-sky TAMs, marketing phrases, or overenthusiasm or aggressiveness on our part in any way. They rest on a framework of rational assumptions, and on competent business operators continuing to execute a multi-year value-unlocking transformation that's immune to the whims of market sentiment or the general health of the economy.

CLMT

Next up is Calumet Specialty Products Partners, LP ("CLMT"), yet another uniquely advantaged core holding that has been in a relatively constant state of transformation since we got involved in the summer of 2019. Calumet is a highly attractive and grossly underappreciated business poised to benefit from the global push towards renewable fuels in a way that no other players in the industry should be able to match for the foreseeable future – and as such, in our view, is staggeringly undervalued with several clear near-term catalysts that should allow the company to continue to compound at an extraordinarily high rates.

As things stand today, CLMT operates two high-quality businesses: (1) a specialty products company that manufactures various oils, solvents, lubricants, and waxes, and (2) Montana Renewables ("MRL"), an industry-leading renewable diesel operation and the largest producer of sustainable aviation fuel ("SAF") in North America. Critically, both segments are characterized by significant competitive advantages and highly visible growth runways propelled by sound business strategies that should allow the company to capitalize on the unique opportunities in front of it with respect to each of its core earnings engines, which we will outline in detail throughout these pages.

That said, one of the goals of this writeup is to help our partners properly understand the opportunity in front of unitholders over the next 18 to 24 months, and to do that right, a quick run-through of the business and its recent history is a particularly valuable exercise, if only to better appreciate just how far the company has come in recent years. Better yet, while the first act of the larger story at Calumet has played out rather beautifully since we initially built our stake, we believe the second act underway is shaping up to be even better. Yet, in the spirit of keeping first things first, let's begin by reviewing each of Calumet's business segments and build from there.

Specialty Products

The first thing to understand about Calumet's Specialty Products business is that it's a stable, niche producer focused on low-volume intermediates characterized by meaningful switching costs and several high-performance consumer brands with pricing power.

Given the nuances of the Specialty Products business, perhaps the best way to think about the division is by further subdividing the business into two core segments: Specialty Products and Solutions ("SPS") and Performance Brands ("PB").[9] Below, we drill down a bit deeper and look at each in turn.

Specialty Products and Solutions ("SPS")

The SPS subsegment produces various waxes, lotions, and oils, often for cosmetic use, that dominate several small non-commoditized markets characterized by limited competition and sticky customer relationships.[10] In other words, think of SPS's various subsegments as market leading businesses operating in niche categories too small to be attractive to bigger players[11] – these are high-touch, small-batch products made for specific customers characterized by substantial switching costs demonstrated by the long duration of its average customer relationships.

For example, SPS's Penreco personal care products division makes the product content for Vaseline, Vicks VapoRub, Chapstick lip balms, Hawaiian Tropic tanning lotions, and Johnson and Johnson baby oil to name just a few of the ubiquitous household products the SPS division produces on behalf of its partners. These are intensely "personal" products that people put on their bodies, and naturally, companies are loathe to change the trusted suppliers they've come to rely on. Other divisions of SPS produce content for other common household products, including a formulation that has been used in cans of WD-40 for decades, in addition to well-known brands like Turtle Wax car polish, Pledge cleaning solutions, Zippo lighter fluid, and Raid pest control. The commonality between SPS's various subsegments is they all produce recurring, consumer staple like products whose end demand in any given year has little to no sensitivity to market and economy related factors. For example, whether or not you decide to get some tanning oil to lay out by the pool or decide to polish your new car isn't going to turn on macro factors like the price of oil or the year to date the returns of the stock market.

The general point here is that while SPS's various lotions and waxes may be slippery, its business relationships, as well as the demand drivers supporting the consumer product end markets it serves, are rock-solid. (Granted, SPS also has a non-branded lubricants and greases division, representing about 20% of subsegment profits, that's far less attractive – but we'd argue that weakness is more than offset by the subsegment's strengths.)

Performance Brands (PB)

Speaking of strengths, next up is the branded products division, Performance Brands ("PB"). Boasting a lineup of iconic consumer products with pricing power and extremely loyal customers, PB is arguably the real crown jewel of the Specialty Products businesses various subsegments. Its offerings include brands like Royal Purple, a high-performance synthetic engine oil beloved by car enthusiasts that lets engines run cooler and throw off more power. It also makes Belray high-performance heavy greases and lubricants, with a similar value proposition and various applications in the aerospace, food, industrial, marine, mining, and power sports industries. Another gem is BioMax, which makes biodegradable solutions for the maritime

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[9] Technically speaking, CLMT classifies the remaining operations from its specialty asphalt carve out from its traditional refining assets as part of the Specialty Products business for reporting purposes, but we've decided to leave any discussion on it for another day given its contribution is marginal to CLMT's consolidated operations and our thesis overall.

[10] This high-quality attribute is arguably best highlighted by the fact that the average tenure of the SPS divisions longstanding relationships is over 10 years.

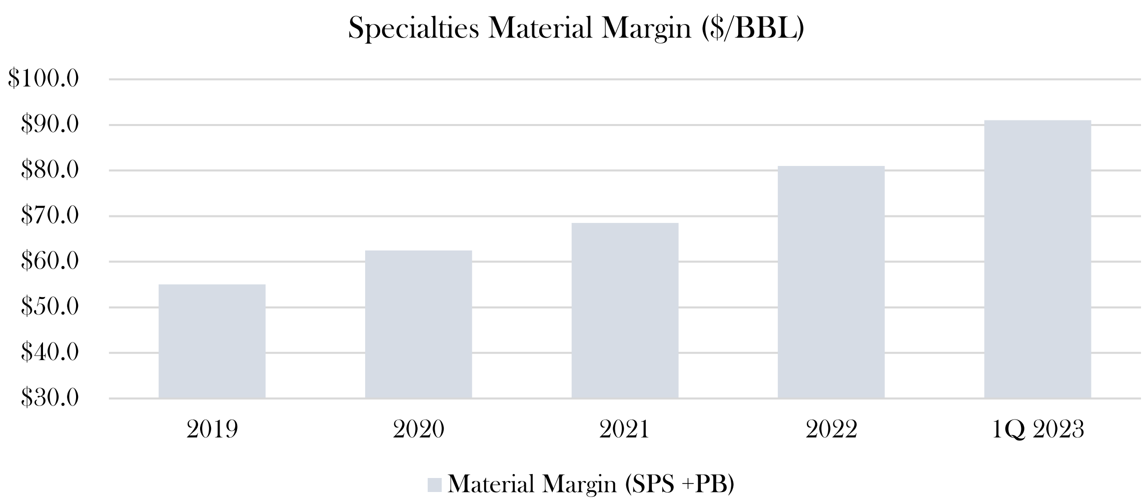
[11] E.g., These markets are too small for a large integrated refiner like Valero, as demonstrated by the fact that most larger refiners operating in the space historically have shuttered capacity and exited these businesses at various points in the last 15 years.

industry that is embedded with a similarly attractive level of latent, early-stage growth potential by taking its high-performance solutions into other high-value industrial end markets. And then there's TruFuel, arguably the best business of the bunch, which produces high performance, ethanol-free, engineered fuels that are pre-blended for use with outdoor power tools.[12]

Finally, we'd be remiss not to mention that the SPS and PB subsegment's recent push into sustainable versions of its various brands and product lines offers some intriguing optionality that is unfortunately beyond the scope of today's analysis. Suffice to say the ability to integrate the molecules and learnings associated with Calumet's other core earnings engine, MRL, into its specialty products is material.

Nevertheless, the salient takeaway is that Calumet's Specialty Products segment is a well-diversified, competitively advantaged business with highly diversified product offerings across multiple industries and end markets, with an equally diversified and prominent customer base. **Critically, Specialty Products performs well through all economic cycles and exhibits a fraction of the cyclicality relative to what is typically seen in refining or base chemicals assets.** We think of it as a low-double-digit EBITDA multiple-type business with high visibility, limited ongoing capital requirements, and a long history of generating consistent annual free cash flow (FCF) of between $200-$250 million with decent consolidated growth prospects.

To drive those points home, it's instructive to note that even against a tough economic backdrop like last year's, the segment broke multiple production records on the back of its fifth straight year of margin growth. Those two data points alone should crystalize our contention that Specialty Products is a highly resilient business well suited to generating lots of annual FCF irrespective of the macroeconomic environment or the health of the economy more generally.



But don't take our word for it. As the chart above demonstrates well, Specialty Products' gross profit per barrel speaks volumes about the stability and quality of the segment's cash flows irrespective of quarterly or

[12] Consider how TruFuel came to prominence, as just one example. The story begins in the aftermath of the US introducing laws mandating blending ethanol into gasoline requirements. You may recall these mandates caused a crisis for 2-cycle engines like those in leaf blowers, lawnmowers, and chainsaws. Consequently, instead of driving around for hours in search of gasoline not blended with ethanol – or doing the blending themselves, in this case, by carefully measuring the right ratio of gasoline to engine oil – consumers chose an off-the-shelf option instead. (Shocker, we know.) Besides its core product line, TruFuel also has a private label offering it does for leading brands like Stihl and Husqvarna, a data point that highlights just how dominant this business truly is, but we digress.

year-over-year fluctuations in its primary input cost, the price of oil. And the historical financials prove this out, having consistently been in the high 30s to low 40s from 2011 on, before growing significantly in the last four years thanks to the fruits of various self-help initiatives and investments taken on to optimize, and permanently improve, the performance of its Specialty Product assets.

While the segment's prices tend to lag the price of oil in both directions, its margins are more resilient in a falling price environment where gross margins per barrel sold tend to expand. Conversely, whenever crude spikes, gross profit per barrel tends to decline (marginally). **The key point is that over the course of several quarters, these swings even themselves out.** What you're left with is a predictable, counter-cyclical business generating consistent, highly visible cash flows through the cycle thanks to limited ongoing maintenance capex, the stability of its gross profit per barrel sold, and a modicum of built in margin expansion during economic downturns. That's hardly the type of zero visibility, no-moat commodity business you'd expect to find given the throwaway consolidated valuation at Calumet today.

Montana Renewables ("MRL")

Switching gears to Calumet's other core earnings engine, MRL's business uses large processing facilities called hydrocrackers to turn low-quality "feedstocks" into higher-quality renewable fuels in the same way the Specialty Products business turns Canadian crude oil into consumer products like Vaseline and WD-40. The difference is that instead of using crude as its primary input, MRL makes renewable diesel ("RD") by processing plant-based fats and oils, such as soybean or canola oil, into a chemically identical liquid substitute to petroleum-based diesel fuel. Similarly, SAF is made from plant-based materials including grains, fats, and oils in order to accomplish the same. The basic takeaway is that in both examples, MRL transforms lower value commoditized inputs into higher-margin, less cyclical climate-friendly products intended to lower the carbon-based footprint of diesel-run truck fleets and planes using traditional kerosene-based jet fuel.

With a basic understanding of the nature of MRL's business out of the way, another critical point to understand about the opportunity at MRL today is that high-quality renewable assets with sustainable cost advantages are incredibly scarce, and thus uniquely valuable to both large integrated energy companies seeking carbon offsets, and to sustainability-focused investors looking for investments leveraged to global decarbonization trends. A beautiful thing for a firm like Crossroads that loves to buy things everyone else would like to own but can't due to temporary barriers to investment and other mandate related handcuffs set to go away at various points over the course of the time horizon of our investment thesis.

As an unrestricted carve-out that with proper execution related to management's 2023 monetization playbook should IPO at some point early next year, the crumbling of the barriers that remain are right around the corner. If that doesn't strike you as particularly germane to Calumet's endgame, it should, as the IPO represents the proverbial "big bang" monetization event that tells us not only what will make our investment in CLMT's units "work", but specifically "when" given it will unlock massive new investment demand not only for MRL's newly issued equity, but Calumet's units as well. Indeed, the IPO of MRL acts as a workaround to the non-dividend paying "broken MLP" related mandate restrictions that have prevented sustainability-focused institutions that want to own shares today but must wait for reasons that have nothing to do with the intrinsic value of MRL's operations or the merits of the larger investment opportunity. Of note to the bigger picture here as well, is that the successful monetization of MRL sets in motion the de-levering and liquidity driven flywheels that will ensure the technical factors currently plaguing CLMT's units will work themselves out one way or another in the end.

But that's not all. In addition to the value creating chain reaction above, the fact that MRL's differentiated business is worth well in excess of Calumet's entire current enterprise value means the IPO will force the

Boeing 787 sized gap between price and value available in CLMT's units today to converge in lockstep with the transaction. Think of the IPO then as the key that fits the lock that will open the door to a value creation pathway whereby the Specialty business receives a valuation commensurate with its intrinsic quality for the first time in over 15 years.

Monetization considerations aside, the most salient point any investor long Calumet today needs to understand is that MRL is a uniquely high-quality business due to a rare trifecta of wealth-creating attributes: Low-cost operations, highly stable gross margins per barrel sold and low ongoing capital requirements, and first-mover status in a high-return niche likely to experience mind-boggling growth. We take each in turn below:

Low-cost operations

As quality-obsessed, highly concentrated value investors, it's only appropriate that we begin by reiterating that low-cost operations like MRL's offer the only truly durable moat for any producer operating in a commodity-based industry. Indeed, at the heart of its deeply underappreciated, low-cost moat sits two structural cost advantages rooted in MRL's geographic location: Superior rail economics and access to low-cost feedstock.[13] Add in the yield- and flexibility-related edge provided by MRL's ownership of an outsized hydrocracker and world-class pretreatment unit – on top of the feedstock and short-haul logistics advantages above – and it seems that MRL has a 40% structural cost advantage relative to its peers on the Gulf Coast in the worst case.

Which reminds us, we're honestly hard pressed to find a better testament to why it's better to be lucky than good than the serendipity on display with MRL's facility in Great Falls, Montana. Chairman Mawer appears to hold a similar sentiment given his commentary that "just by fortunate, pure dumb luck," Great Falls happens to be perfectly nestled right in between the Canadian canola belt to the north and the US wheat belt to the south. CEO Todd Borgmann hammers the same point in a slightly different way, by noting how "the geography just sets us apart from everyone else…We sit on top of a boatload of feedstock."[14]

To put both comments in perspective, MRL's location in Great Falls provides the facility with more than ten times its annual feedstock requirements within a 500-mile radius. plus access to a wide variety of alternative feedstocks, all of which can be sourced at a much lower all-in cost relative to its competition in Gulf Coast. Consequently, this serendipity guarantees some level of "locked-in" cash flow through the cycle as MRL can source cheaper feedstock relative to its Gulf Coast peers in perpetuity, and in whatever quantity desired. Moreover, given that two of the biggest issues plaguing higher cost RD and biofuel producers today is both the cost of feedstock and the ability to source enough to meet production goals,[15] we can begin to

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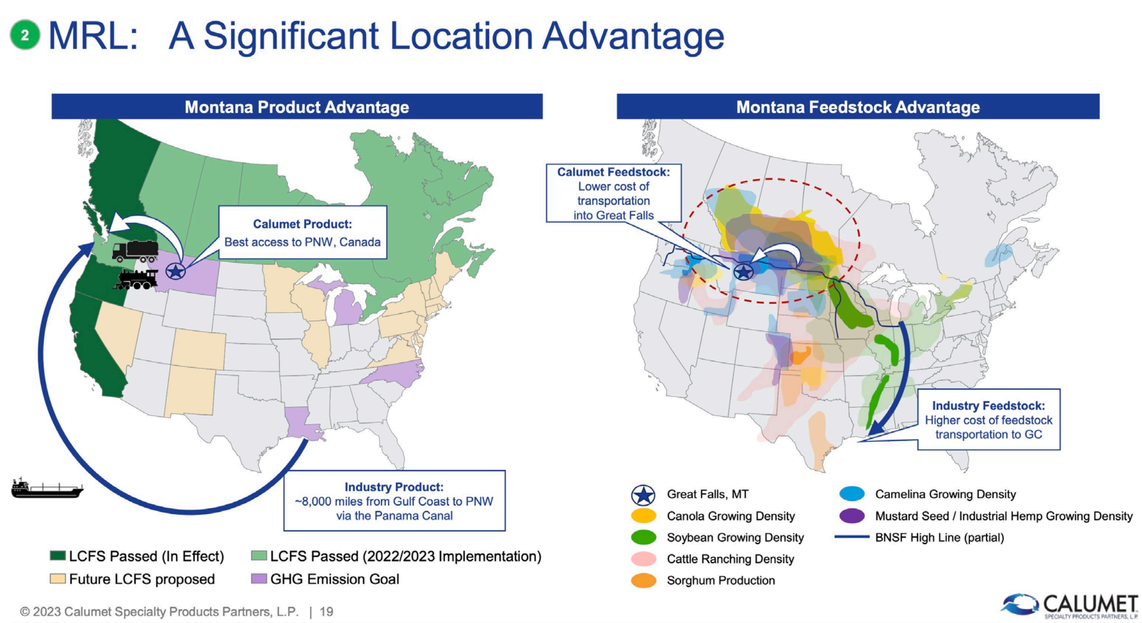
[13] Less obvious, but also important, was Calumet's decision to convert a 25k bpd (barrels per day) hydrocracker (bought in 2012 by a prior management team) to renewables and use ARA technology, an inspired move that let MRL produce SAF and RD at price parity, a distinction no other facility can claim.

[14] This cost differential should only widen with MRL's planned transition to a "max SAF" production mix over the next 18 months, due to a margin-accretive shift in consumption away from food-based, politically charged vegetable oils towards tallow (animal fat) and other non-food oilseed based low-cost feedstocks like canola and camelina. Estimates put Great Falls in the backyard of roughly 2 million acres of Canola grown in the northern tier counties of Washington, Montana, North Dakota, and Minnesota, with 10 times that grown in Canada's prairie provinces.

[15] When all your competition is located on the Gulf and there are multiple potential buyers all bidding for a finite supply of available feedstocks, it's hardly a surprise that your input costs rise or that the relative profitability of various feedstocks tends to be the same as this competition results in the profit pool shifting upstream to feedstock aggregators.

understand why CEO Borgmann is exactly right. In short, when it comes to MRL's ability to source ample low-cost feedstock, MRL is truly in a league of its own.

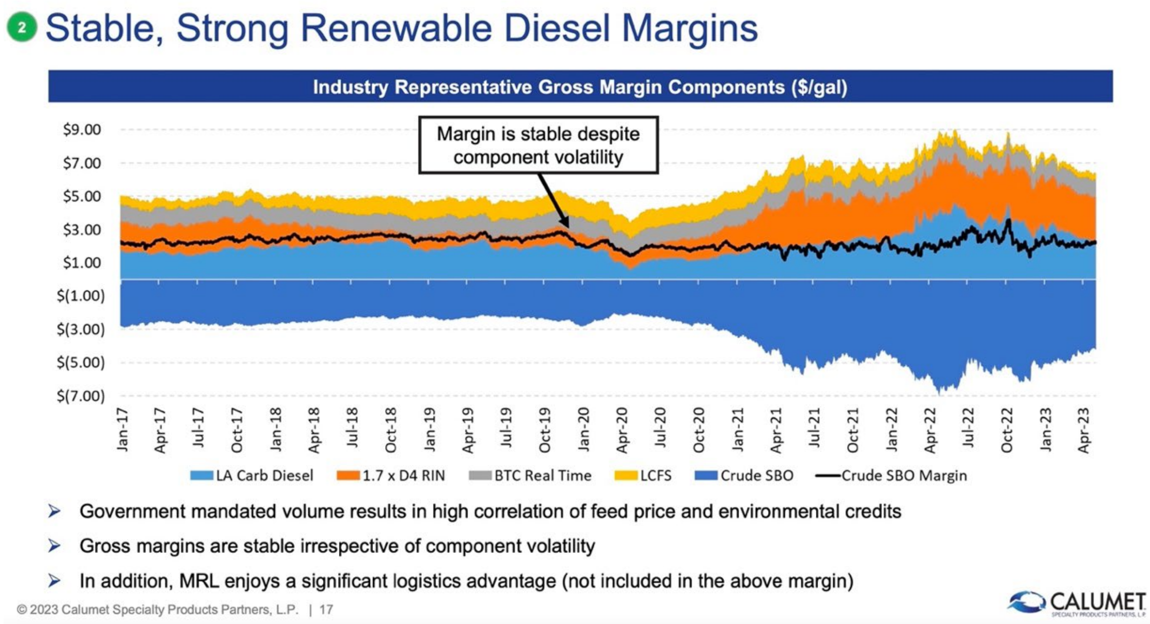
The thing is, even if its Gulf Coast competition had access to a similarly diverse array of alternative low-cost feedstock, they would still need to be able to transport the finished product in order to sell it – and that brings us to the next critical point: MRL's short-haul logistics advantages are similarly powerful given its plant in Great Fall's proximity to the Burlington Northern Santa Fe main line provides direct access to both cities with major airports and Low Carbon Fuel Standard markets in California, the Pacific Northwest, and Western Canada. This lowers MRL's transportation costs per gallon to an average of 10 cents vs. an average of 40 cents for volumes of RD and SAF shipped from the Gulf Coast via the Panama Canal:



Maybe it's just us but having ~4x the transportation costs and access to more expensive, inferior feedstock – assuming peers in the Gulf can source enough in the first place – is a difficult moat to cross. And we haven't even begun to discuss MRL's various technology related advantages we'll be discussing soon enough. We'll just leave it at that.

Stable gross margins and low ongoing capital requirements

MRL's second wealth-creating attribute is its incredibly stable margins on each RD and SAF barrel sold. Perhaps the easiest way to understand this dynamic is that **while each of MRL's respective inputs is highly volatile in isolation, the aggregate output over time has proven quite resilient and predictable.** Management is pithier, noting that seven volatile inputs have historically produced a very visible output, as shown by the chart below:



We would only highlight that the margin stability on display above is quite literally the opposite of what you might expect from a traditional refining operation or cyclical commodity business. And if that wasn't enough, the extremely narrow variance in terms of MRL's freakishly consistent gross margin per barrel sold is reminiscent of the dynamic highlighted earlier on with Calumet's Specialty Products business, only better.[16]

Fortunately, MRL shares one of the Specialty Products segments other key virtues discussed earlier on, specifically the low ongoing capital requirements that keep the free cash flows on tap so consistently strong. This is important for a business whose production volumes are in the process of inflecting from basically zero towards run rate EBITDA of ~$250 million starting at the beginning of the current quarter (Q3), as it means the step change increase in EBITDA will convert into incremental free cash flow. This is critical to comprehending just how attractive it is in the larger context of other renewable power assets (apart from hydroelectric investments), like wind and solar, which have useful lives of only 20-25 years. In stark contrast, MRL's capital efficient, high return, one of a kind asset in Great Falls, with its highly predictable, rapidly growing cash flows, is perpetual. From the point of a value-orientated renewable power investor with a keen eye for quality, like the Brookfield Corporation's ("BN") renewable power subsidiary, these attributes make all the difference in the world.

And for those of you paying close attention, let us quickly interject to let you know you're absolutely correct to pick up on the fact that the imminent explosion in MRL's earnings power isn't visible in the company's historical financials, a rather important point, if only because it happens to be the segments very last milestone prior to pulling the monetization rip cord. All that changes the next time Calumet reports, and the doubling of its earnings power finally begins to not only flow through a set of audited financials, but also show up in the financial databases that drive so much of today's capital flows.

[16] Taking into account MRL's ability to shift away from food based vegetable oils as its primary input alongside its plans to optimize its operations over the next 18 months towards the max-SAF scenario we'll touch on later in detail, we'd argue MRL's renewables business is superior to the Specialty segment given its inputs will become increasingly less exposed to the whims of vegetable (or crude oil demand in the case of the Specialty segment), which gets battered around more violently due to their broad end uses and the variety of buyers competing for supply. Something to keep in mind.

First mover in a high-growth, high-return niche

Rounding out the trifecta, MRL's final wealth-creating attribute is that it's the first mover in the high-growth, high-return niche market of sustainable aviation fuel. Unlike its RD peers, MRL is poised to benefit from extraordinarily powerful multi-decade decarbonization tailwinds propelling SAF adoption across the aviation industry.

The massive latent growth potential of renewables refining generally (given incentives and demand), versus that of traditional refining (which is in secular decline), explains why RD assets trade at large valuation premiums to traditional refining assets – and what's true for RD should be even more so for SAF.[17] Relative to other renewable fuels like RD and biodiesel, SAF offers superior economics and a better industry structure given SAF is the world's best, fastest, and most practical path to airline decarbonization and the lack of any known viable substitutes. And as you'll see later in this letter, when we say, "massive growth potential," we're not kidding. SAF is projected to be the fastest growing fuel in the world over the next several decades, so clearly, we're talking about a nascent industry very early in the S-Curve.

MRL isn't resting on its laurels either. Now that the company sits at the top of the stack in terms of competitively advantaged North American SAF and RD producers, it's good to know it remains laser focused on making the most out of the industry's exponentially growing demand profile. Primarily by better leveraging its market leading position and other key differentiators like its reputation for reliability, strong customer relationships, and uniquely successful operating history in an ongoing bid to lock-in multi-year fixed margin contracts on the entirety of its future production goals.

This can be seen by MRL's recent decision to reposition the company away from RD production, towards higher-margin, less cyclical SAF volumes over the next 18 months in the second act of an ongoing transformation we'll be referring to as MRL's max-SAF scenario. Furthermore, should it be as successful optimizing its asset base towards higher value products as it was converting its facility from traditional refining towards renewable fuels, its margins on SAF production will be highly attractive, not to mention contractually guaranteed over the long-term by one of the more credit worthy counterparties in the world. Add it all up and the segment should experience highly visible, geometrically growing volumes, revenue, EBITDA, and FCF over the next several years regardless of what happens in the macro economy or the capital markets.

Right about now is the time we can see you all asking yourselves, if Calumet has so much going for it, how did its units come to be so undervalued? It's a great question. Let's take a look at its history and see.

The Rearview – 2011 to 2019

In terms of the general fact pattern, we want to highlight that the story with CLMT remains largely the same as we outlined earlier on with R1. In essence, we're looking at a classic "orphaned equity" with an unsustainably cheap valuation, underappreciated economics, durable competitive advantages, and a near-term "event path" that all but guarantees a favorable, high probability outcome.

Ok, but why is it so cheap? Simply put, Calumet's former management team was responsible for perhaps the biggest strategic blunder we've ever seen: placing hugely capital-intensive, highly volatile refining assets in a master limited partnership ("MLP"). For context, an MLP is a corporate structure that requires stable cash flows, low ongoing capital requirements, and access to cheap capital to make things work. Calumet's refining

[17] In fact, one of our colleagues joked that SAF should stand for "Sexy as f---."

businesses, which were not integrated into the Specialty Products value chain, had none of these critical attributes.

Unsurprisingly, the wheels didn't really start to fall off Calumet's wagon, operationally speaking, until management launched a 4-year push into refining and oilfield services M&A in 2011. To characterize spending roughly $1 billion on subscale, geographically disadvantaged refining and oilfield service assets with volatile (highly cyclical) earnings and heavy capital requirements as foolish, within an MLP no less, is probably too kind. At best, this looks like a highly questionable decision, but we digress.

Big picture, management ended up doing about $2.5 billion in total M&A, purchasing 10 companies in rapid succession from 2011 through 2015. However, it failed to fully integrate any of these new acquisitions. The ultimate, perhaps inevitable result was a business flying blind, weighed down by a bloated cost structure and a complete lack of basic forecasting tools. Even worse, company segments had no incentive to communicate with each other, let alone operate at a consistent profit, as the managers of these siloed businesses didn't even have segment-level P&L responsibility, which was just as well since they also had no internal systems to manage inventory or otherwise maximize their bottom line by customer or by product. And as you might expect, the results from the cumulative weight of compounding mistakes were as disastrous as they were predictable. By April of 2016, the old guard in the C-suite had been shown the door and new leadership was tasked with remedying the errors of the past and returning the company to its roots as a specialty products pure play.

With adults back in charge, new leadership decided to do what needed to be done and cut the dividend to zero as part of a larger effort to repair Calumet's balance sheet in conjunction with a large capital raise through senior and unsecured notes. This was bitter medicine the company needed, but with its dividends gone, its generally low-information, dividend-chasing investor base predictably stampeded for the exits. To make matters worse, MLP's as an asset class experienced a tidal wave of outflows. As a result, Calumet's precipitous, R1-like de-rating – a process that started long before the company's 2011 M&A plunge – continued. The unit price, which had once reached an all-time high above $55 back in 2007, stood at less than a dollar by early 2020. Safe to say that the net result of the first 15 years of Calumet's life as a publicly traded MLP was anything but charmed.

What attracted us to such a dumpster fire? The short answer is that we'd been following the developments at CLMT out of mere curiosity, simply because a few longtime friends of mine are members of the controlling unitholder's family. So, our interest in the company, at least initially, was more of a personal hobby than a professional consideration of Calumet as a potential long-term investment.

Yet, by the time things got interesting at the end of Q1 2019, we'd grown to know quite a bit about Calumet, its General Partner, the Heritage Group, and its Specialty Products business. At that point, the devastation in CLMT's unit price, coupled with our appreciation of the Specialty Products segment, turned our hobbyist's interest into a genuine focus on Calumet as a potential true 20-hole punch card fat pitch.[18]

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[18] Here we're referring to two wonderful bits of investing wisdom from Warren Buffett. First, his concept of the 20-hole punch card. As Buffett put it:

> *If you were given a punch card with 20 ticks on it when you graduated, and those were the only investment decisions you could make throughout your entire career, how would you use them? You would likely be very selective, and probably very rich. This type of mentality will force you to be patient.*

And that patience will help you wait for what Buffett dubbed "fat pitch" investments:

> *I call investing the greatest business in the world because you never have to swing. You stand at the plate, the pitcher throws you General Motors at 47! U.S. Steel at 39! and nobody calls a strike on you. There's no*

The Backdrop at the Time of Investment: 2019

In the interest of brevity (since one could probably write an entire book summarizing the drama that took place surrounding Calumet's equity over its first decade as public company), we'll turn to the primary issues underpinning the company's gross mispricing and how we were thinking about the larger investment by the time we started buying the company's units.

The first thing to consider is that Calumet was a true pariah on Wall Street: A broken, non-dividend paying MLP and leveraged equity stub **priced far below its bankruptcy liquidation value**. By then, whatever credibility it may have possessed "once upon a time" in public markets was long gone. It's also fair to say the "hair" on this particular investment, at least in terms of the optics, was considerable. Granted, the immediate fallout from the comedy of unforced errors noted above was in a meaningful sense long gone.

Even so, profound credibility issues at both the GP and management level remained. As did misplaced concerns surrounding the company's debt load, a spate of ERP related cost overruns (and related financial restatements and filing delays), temporary losses from plant outages due to a hurricane, and sloppy investor communications around the magnitude of one-off's related to its turnaround efforts in 2018.[19] Add Calumet's small size,[20] illiquid float, minimal (mostly refining-based) sell-side coverage, and the absence of a natural shareholder base to offset wave after wave of non-economic selling pressure, and perhaps it's not much of a surprise Calumet's units were priced like the company was worth more dead than alive.

Long story short, by the time we started buying, the gap between Calumet's price and intrinsic value had grown so large that we genuinely struggled to identify a single reasonable future scenario where we would permanently lose money. Better still, from our vantage point all was not necessarily as it seemed. Indeed, in the intervening years while Calumet's equity was either moribund or tanking, a deeper look suggested the business itself was healing. Not only had the company's valuation become completely detached from economic reality, but we were able to identify several clear catalysts set to unlock incremental value at various points over a predefined 2-3 year timeline.

Ultimately, amidst all the durable value unlocking change taking place under the hood 3-4 years ago Calumet was clearly "pound the table" cheap. One didn't have to have a galaxy brain like Warren Buffett to realize this wasn't a business set to disappear over the next ten years. Likewise, based on public market comps and historical transaction multiples in the space for similar assets, the proper multiple for the core Specialty Products business, with its decades long history of generating stable margins and consistent free cash flow, was clearly worth far more than what Calumet's units implied.

Mind you, with new leadership taking the reins and implementing a "back to basics" strategy intended to return Calumet to its roots as a Specialty Products pure play, the realization of its value seemed a matter of when, not if, it would take place as alluded to above. After all, the previous management teams' foray into low quality, highly volatile refining and oilfield service assets resulted in a complex, confusing story that masked the value of its dramatically higher quality Specialty assets and heavily weighed on the consolidated

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> *penalty except opportunity lost. All day you wait for the pitch you like; then when the fielders are asleep, you step up and hit it. Wait for a fat pitch and then swing for the fences."*

[19] Tim Go, for all his shortcomings, was a solid operator at Koch (and arguably at CLMT). He spent years as a very well-respected refining executive at Koch Industries. Nonetheless, while the communication issues created by his inexperience as a public market CEO were significant, considerable value was created via his operational reforms.

[20] Calumet's implied market cap was around $250 million.

company's valuation, causing CLMT to trade in line with traditional oil refining assets. Hence, a strategy of unwinding this incoherent package of vastly different businesses with varying degrees of volatility, pricing power, and growth prospects to unlock value was not just logical, it had the added benefit of simplifying the story into one that investors could easily understand.

On a related note, part of the new management teams gameplan revolved around using the proceeds from the planned asset sales to deleverage, a move that would de-risk the palpable fear from a good portion of existing and potential investors that the consolidated company was destined for a Chapter 11 scenario. While reasonable, our familiarity with The Heritage Group's historical MO when dealing with a struggling company within its portfolio alongside other reputational dynamics related to how these units played into the controlling family's long-term philanthropic goals gave us plenty of comfort there was basically no scenario where Calumet's units would be allowed to go to zero.

Consequently, by the time we decided to pull the trigger a very rare setup had emerged. Our admittedly simplistic view after a few months of intense diligence was that the price action to the downside had overshot to levels that bordered on the absurd, providing Crossroads with a chance to purchase an underappreciated, high-quality Specialty Products business with predictable cash flows that was worth at least $10 per unit even in a draconian bankruptcy scenario where the capital markets closed.

Recall too the sad situation concerning Calumet's revolving door of incompetent leadership and the related shareholder fatigue from what many viewed as a nepotistic and self-dealing GP. Yet, even here, the situation was quite a bit more than meets the eye. Tim Go, who most certainly lacked the communication skills of a seasoned public company CEO, did do a good job fixing what was broken operationally. And by the time we got involved in size by the summer of 2020, CLMT was led by a genuine "A" player in Stephan Mawer, who was not only fully empowered to effectuate change and unlock value but was clearly the right person for the job.

Even now, after all that Stephan Mawer, current CLMT CEO Todd Bergmann, and MRL chief Bruce Fleming have accomplished, the equity is arguably even cheaper than it was in 2019 – despite Calumet's new leadership being not just proven, but clearly focused on all the right things: Deleveraging Calumet's balance sheet, maximizing value at MRL, and continuing to harvest low-hanging fruit at Specialty Products.

Moreover, should they deliver an endgame as deftly played like what we've seen so far, these guys deserve not just our respect, but nothing less than stand-up applause. And while we're at it, The Heritage Group does too, not just for hiring them, but for never giving up and pulling off a turnaround for the record books while doing what needed to be done to maximize value for everyone.

Speaking of the GP, whatever governance and capital allocation issues existed that deserved a discount in the past, let us ask any skeptics that may be reading, where are they now?

The company has taken definitive action to alleviate the governance overhang, as demonstrated by the removal of The Heritage Group/GP from the day-to-day, and its recently upgraded CEO and Board. Same deal with Calumet's operational issues. Not only have many of the incremental improvements relating to process, incentives, alignment, and culture been put in place, but the magnitude of far more impressive achievements like what has been accomplished with MRL continue to be outright ignored by the general investment community. At least the governance discount 3-4 years ago when we first got involved made sense as far as these things go. The reality is the opposite today. If anything, these assets deserve a premium based on the incredible executive level decision making on display, as the operational and strategic brilliance demonstrated to date dealing with the inheritance of what was clearly a bad hand speaks for itself.

In summary, just as we've seen with R1 at various points in the life of our investment, by 2019 and into 2020 Calumet had been largely de-risked and yet the already massive gap between its unit price and fair value in liquidation kept on widening when the opposite should have taken place. Hence, we were able to acquire most of the Fund's original position at an average cost base of around $3/unit, a discount so large relative to our worst-case scenario above that the odds of permanently losing money whatever the future held was, probabilistically speaking, close to zero. In fact, the stable cash flows thrown off by its dominant Specialty Products segment combined with the expected near-term sale of its traditional refinery in Great Falls, Montana, covered our principal at risk several times over.

Heads we won, tails we didn't lose, in other words.

Worst-Case Scenario Valuation Walk

The way we thought about it was admittedly simple. First, we assumed the absolute worst case would come to fruition and hence, for whatever reason Calumet wouldn't be able to roll the debt it had raised in conjunction with the dividend cut upon its due date in 2021 and would be required to file bankruptcy as a result.

We further assumed the Specialty Products business was worth 8x normalized EBITDA in this worst-case bankruptcy outcome. Keep in mind that 8x was the absolute low end of where these assets should trade in a reorganization given that historical transaction multiples in the space were in the double digits, never mind that the level of demonstrated strategic and financial interest that a high-quality Specialty Product business like Calumet's SPS and PB assets would likely garner in a sale was tremendous. Which is to say we're more than comfortable with this as the foundational premise of our initial investment thesis.

Another core premise of our original thesis was that any monetization event at Great Falls would take place at a multiple of ~3x depressed cash flow, plus several other irrationally punitive assumptions related to values associated with its San Antonio refinery and JV interests – and zero contribution from better payment terms with its vendors (terms that would come with the eventual sale of Great Falls and the associated debt paydown, giving way to an inevitable credit upgrade), as well as other sources of low hanging fruit and related optionality we thought were likely at the time.

Finally, after considering the company's short and long-term debts, its existing cash balance, interim cash generation, an appropriate level of professional fees related to the bankruptcy over our 12-month forecast period etc., the implied value per unit was still over $10 even in a genuine doomsday scenario. In short, despite all these draconian assumptions Calumet's fair value was still over 3x our initial cost basis.

Even if we got some of the details wrong, so long as the Great Falls refinery could be sold in bankruptcy for at least $350 million, the center of our $10+ per unit fair value estimate would easily hold.[21] The near-term sale of Great Falls – even at a valuation commensurate with fire sale liquidation you'd expect from a traditional refiner – ensured Calumet would be able to get its earnings power relative to its debt load back in line. It followed that with the Great Falls sale proceeds providing financial breathing room, the Specialty Products segment's strong and stable cash flows would have let Calumet quickly de-lever regardless of what the future held. In short, if we got Great Falls right, we knew we could be wrong about pretty much everything else and still make money when all was said and done. Our kind of setup, to be sure.

[21] Of course, we weren't expecting our ridiculously punitive worst-case scenario to occur: In several far more realistic scenarios where the Great Falls refinery was monetized at something better than what you'd expect in a fire sale, and where Calumet simply kept its head down as a specialty product pure play and paid off the remainder of its post-reorg debt load, fair value doubled to upwards of $20 per unit.

Before we move on, let's spend some time "checking our premise", if only to better bring our conviction above to life in a more fully fleshed out way. Was it realistic for us to assume a quick sale of the Great Falls refinery?

First, even without delving into the strategic merits of CLMT's Great Fall's asset to a potential acquirer back then (i.e., prior to its recent carve out and conversion to MRL), the feedback we were receiving implied that getting the Great Falls asset sold quickly at an acceptable price in any potential reorganization was all but certain. Between our existing relationships and several channel checks with specialists, literally everyone we talked to suggested that the Montana refinery could be fire sold in a bankruptcy meaningfully above the $350 million value we underwrote – even if high yield markets froze.

While we remained appropriately skeptical, this assessment was based on several top-down drivers, including (1) strong demand for refined fuels globally and (2) the NIMBY phenomenon, which makes building new greenfield refinery projects in the US notoriously difficult, restricting supply despite growing demand. Add in the fact that refineries like Calumet's Great Falls facility represent fundamental pillars of America's energy infrastructure, and we began to realize that our sources universal conviction that Calumet could have gotten a sale financed at about 3x EBITDA even in a financial crisis like scenario was far more reasonable than we'd initially thought possible.

Despite all that, the light bulb over our heads only really switched on once we delved into the idiosyncratic factors that would determine the value of the Great Falls facility through the eyes of a Canadian strategic buyer. A large, integrated Canadian oil sands producer would have benefitted immensely from a Great Falls acquisition in two significant ways (prior to the refinery's more recent pivot towards renewables), based solely on the fact that the refinery was located right in the backyard of Canada's oil sand fields:

- First, all the large integrated oil sands producers across the border would gain an immediate hedge against takeaway capacity not getting built. If that doesn't sound sexy, consider that there isn't enough takeaway capacity to handle Canadian E&P's production volumes as is, so clearly the value of the hedge was substantial based on this nuance alone.

- Second, a large, integrated strategic buyer would have gained an incremental $20 on every oil barrel sold. That's because, in an ironic twist of fate related to MRL's value today, they would immediately recoup the $20 cost of shipping those heavy crude barrels by rail from Canada to the Gulf Coast.

In a nutshell, a large integrated Canadian producer's ability to gain a valuable hedge while recapturing the spread between WCS and WTI[22] by gobbling up Great Falls – at 3x its depressed cash flow, no less – would have been an absolute no-brainer considering the immensely accretive nature of the transaction. Of course, the fact that a few of the larger players could have found the requisite cash for the transaction in between their couch cushions eased any remaining concerns. So, having the dots connect in this way was wonderful news considering that the strategic value of the refinery to an oil sands producer all but guaranteed substantial demand for the asset irrespective of the state of the capital markets and other macro considerations. (And again, this was true *before* its recent conversion to a RD/SAF pure play, which multiplied the value of this one-of-a-kind strategic asset several fold.)

To sum up, at the time of our initial investment we were able to scoop up Calumet units at prices that offered relatively predictable absolute returns of several hundred percent over the next five years even in a

[22] Western Canadian Select and West Texas Intermediate, two types of crude oil.

worst-case outcome. So even in a scenario where the company couldn't roll its debts or otherwise kickstart the de-levering flywheel from the monetization of Great Falls prior to filing. As we hope we've shown, the endgame at Calumet would have remained largely the same even in a scenario where it spent a year in bankruptcy court and the capital markets were closed.

Investment Highlights: Lollapalooza at MRL

Now that we've looked at what would have happened in our worst-case scenario, that begs another question: What actually happened since we built our position? Better yet, where do things currently stand and what lies on the road ahead?

Well, we'll get to all the incredible value creation that's taken place in the interim below, but would you believe that the implied upside at or around today's price of $16/unit is arguably as good as, if not better than, the five-bagger we've experienced thus far?

Before you answer that question, we need to keep a few things in mind as it relates to the drivers of value today and how things have evolved. And nowhere is this truer than the value uplift that's taken place at Calumet's asset in Great Falls.

To be completely honest, we're not sure we've ever seen a combination of shrewd executive level decision making and serendipitous luck come together quite like the value creation bonanza that's taken place since Chairman Mawer took the reins in 2020. Indeed, the key to Calumet's current upside potential was management's courageous decision to abandon the sale of the facility and convert it from a traditional refiner processing Canadian crude into a clean energy asset that turns beef fat and other non-food-based oil seeds into sustainable jet fuel. Granted, the idea of turning farm products into renewable energy is hardly novel or worthy of admiration, but the structural improvements that have taken place at its facility in Great Falls, which as you know was one of its more volatile, lower quality assets when we first got involved, has been truly next level. In fact, pound for pound we view the conversion of Calumet's Montana asset as one of the more impressive strategic pivots we've ever witnessed.

If that sounds like hyperbole, it's instructive to look at MRL's $2.25 billion mark set by Warburg Pincus last year. Consider that this highly sophisticated investor known for its franchise in renewables was willing to purchase its stake at an implied valuation that was almost *six times* the $350 million value we underwrote in our initial worst-case scenario detailed above. We think this is notable, if only because we'd be the first to tell you we don't generally accord huge amounts of value to early-stage assets that are in the pre-production stage, let alone assets still in the financing stage that have yet to even be constructed. Yet that's exactly what took place at Calumet's Great Fall's refinery from one of the more dialed-in investors in the renewables game. At the very least it's the type of poker tell that should focus your attention (rest assured it focused ours).

However, reality is quite a bit better than that if one considers where qualitatively inferior renewable assets have traded hands in public markets of late. And for many reasons, this is a far more appropriate yardstick, if only because in the intervening period management has successfully financed the project, constructed it, and proven it all works on time and on budget – and according to the exact specifications estimated all the way back in 2021. Grasping just how impressive this accomplishment has been anything but easy unless you understand that most renewable projects that have been stood up in recent years have been a series of mine fields plagued by construction snafu's, cost overruns, and other common problems that have resulted in perpetual disappointment. And this doesn't even account for the state-of-the-art ARA technology integrated into the project, which had never been used before. Yet MRL's conversion has been seamless.

While MRL's evolution from hypothesis to a fully realized market leading producer in roughly two years' time alongside managements unrivaled track record of success and reputation as a reliable operator are indisputably huge differentiators, perhaps the biggest reason to triangulate MRL's worth this way is because MRL is objectively superior to its publicly traded peer group in every meaningfully way. Whether we're talking about its market leading position in SAF and/or the presence of numerous structural cost advantages related to its geographic location and its advanced pre-treater technology, or all the other factors that set this segment of Calumet apart, basic logic, not to mention common sense, suggests a large premium to the average multiple awarded to its publicly traded comp set is the most appropriate course.

All of which is to say that to argue otherwise when confronted with the larger fact pattern to date, is not just intellectually dishonest, but downright delusional. And that's important, if only because framing MRL's value in this way means the magnitude of the value uplift that's taken place at Calumet since 2019 is far higher than what the Warburg transaction implies. Consider the strategic acquisition of lower quality RD assets like what we recently saw with the purchase of REGI (by Chevron), suggests an EBITDA multiple closer to 12x is closer to the mark, **implying MRL's fair value today is more than double the $2.25 billion valuation implied by the Warburg transaction, so about $5 billion today and around $10 billion by the end of next year** (i.e., assuming management successfully executes on its planned "max SAF" expansion that we'll be discussing in detail later on).

To say the same thing through a slightly different frame, our $350 million valuation of Great Falls in bankruptcy turned out to be approximately 15% of what Warburg valued it pre transformation (and less than 7% of where a lower quality asset was recently valued at by one of the largest integrated oil and gas producers in the world), making this one of the few times in our career where we've been so grateful to see our initial valuation range of an asset prove so (comically) off.

But to really understand why MRL's facility in Great Falls is so valuable today we'll need to discuss the demand outlook for one of the more explosive multi-decade growth stories in the world today.

High-return SAF niche cleared for takeoff

To kick things off let's begin with a few highlights on the bigger picture: According to the U.S. Energy Information Administration (EIA), overall jet fuel consumption is forecast to more than double over the next 40 years, from roughly 6.9 million bpd today to 15 million by 2050. But SAF currently represents just 0.10% of total jet fuel consumed globally, despite offering up to 80% less emissions than traditional kerosene-based jet fuels. (Just so we're clear, SAF's current market share is *one-tenth of one percent*, not 1% or 10%.) Moreover, recall that most SAF production in North America today already comes from MRL.

As the current dominant market leader, our belief is that MRL is poised to earn many years of outsized profits as airlines and other common forms of aviation-based transport begin their long march towards decarbonization. However, that march might soon speed up as governments start to give renewable fuels a boost:

- In the United States, federal subsidies already being issued under the Inflation Reduction Act of 2022 ("IRA") may help jumpstart SAF sales volume growth, as per-gallon credits give producers greater certainty that production will be profitable given the visibility that comes from a guaranteed price.[23]

[23] On the other hand, because these credits expire in just 2 years or so, they may not be in effect long enough to truly kickstart large-scale SAF production, considering the massive capital requirements and multi-year lead times that refinery projects require. We're hopeful that the credits will eventually be extended over a longer period of time.

- The European Union recently mandated that 2% of all aviation fuel be mixed with biofuels like SAF as soon as 2025, with that level rising to a massive 70% by 2050.

- Canada just launched its own US-style credit program last month (July).

- US and Canadian state and provincial-level governments, including California, Oregon, Washington, and British Colombia, are also already offering credits of their own. (We note that all these credit issuers are located in the backyard of Montana-based MRL.)

Even with all that government action, incentivizing a supply response large enough to meet snowballing demand won't be easy. The International Air Transport Association's "Fly Net Zero" (i.e. zero net carbon emissions) targets imply global SAF demand of 10 million bpd by 2050. That's 45% more jet fuel per day than the industry burns in its entirety today. Yet total SAF production in the US today (which, again, is mostly produced by MRL) is only *five thousand* bpd. It's true that MRL is aiming to almost triple output by late 2024 under its "max SAF" plan, but even so, "Fly Net Zero" calls for 2050 SAF output of close to *700 times* that level.

Industry forecasts for SAF demand are so aggressive because no "Net Zero" alternative to SAF exists today, and none is likely to emerge in the foreseeable future. That means that if the transportation industries hope to reach – or even just approach – their Net Zero targets, they'll need to start blending SAF into their fossil-based jet fuel right away.

This huge, ESG-inspired drive toward a more climate-friendly future amongst corporations, plus all the incremental demand being pulled forward by governmental mandates underpinning low carbon fuel subsidies, means that demand for SAF over the next 3 years and beyond has only one way to go: Up. Way up. Literally 1,000 times higher, if one puts any faith in the forecasts above. And just as you don't need a scale to know a man is fat, you don't need precise forecasts to recognize that demand for renewable jet fuel should remain well above supply for the foreseeable future.

Moreover, even without all the barriers in place likely to mute a more appropriate supply response from RD producers (more on these shortly), ramping up supply in sufficient quantities is going to take time, especially because current subsidies aren't large or long-lived enough to adequately incentivize investment in increased production, and even less so in today's higher interest rate environment. With money no longer free, will hugely capital-intensive marginal experiments on unproven technologies – with lead times typically measured in years – really continue to get financed in the near to medium term?

Indeed, a recent report from Bloomberg, for all its faults, notes correctly that the construction of new capacity for new RD and other renewable feedstock plants has pulled back substantially in the last year.[24] Now compare that grim reality to the situation at Calumet: Not only is the conversion at MRL's Great Falls facility complete and the facility currently up and running (problem-free), but the company also has plenty of low-cost options to fund its expansion plans, including the ability to self-fund via cash flow from operations if necessary.

Consider as well that with end demand from Canada and the northwestern US – indeed, demand from a single marquee partner with offtake agreements already in place, i.e., Shell Aviation, is several orders of magnitude above what MRL can yield at max utilization ~18 months from today**.** A dynamic that should

[24] https://www.bloomberg.com/news/articles/2023-06-08/green-fuel-bubble-starts-to-burst-as-high-costs-spark-pullback

create a highly attractive pricing umbrella for MRL's exponentially growing SAF volumes until enough incremental production comes online to bring the SAF supply/demand imbalance back into equilibrium.

Safe to say, we wouldn't hold our breath waiting for the day when this imbalance goes away. Given the nascent stage of the industry and the paucity of SAF supply and related infrastructure presently in place – and even more critically, the fact that the value of the total incentive stack in place prevents SAF from gaining share relative to RD amongst potential swing producers that are fully operational today – it seems the one thing we can say with certainty is that rectifying the growing supply/demand imbalance won't be easy – at least anytime in the medium term. Educated guesses imply we are 5+ years away at best.

So, while it's true that new funding and rules aimed at accelerating growth in SAF production via the US Inflation Reduction Act (IRA) is a step in the right direction, it's equally true that solving the present bottleneck will be a herculean task. And that brings us to perhaps the most salient point of all: Exactly how that happens or how long it takes is impossible to say, but for the foreseeable future we see *no solution* until SAF production becomes economic for every RD plant operating today in the US that isn't named Montana Renewables.

To reiterate, as long as the total incentive stack available to renewables producers makes SAF production un-economic relative to RD, as it is now, the odds low carbon subsidies in place will ever be enough to get swing producers to shift production away from RD and toward SAF are zero.[25] In short, the reason the industry's supply response has been, and is likely to remain, severely muted is because pivoting for all renewables producers save MRL, makes no economic sense. Moreover, many of the current and planned "science projects" that could make SAF production more economically feasible are by nature highly speculative and hugely capital intensive, with lead times for getting plants retrofitted and up and running (i.e., producing cash flow) typically measured in years – assuming the plants end up working in the first place. The bottom line is that new projects like that aren't likely to be viable at current interest rates[26] – and that's important because one of the primary ways SAF supply and demand will be brought into balance is through large-scale capital investment.

Again, these are intrinsically speculative projects requiring years of runway that have been beset with a variety of problems coming online historically and thus, the cost of financing them in today's high yield markets – assuming they can get financing at all – is probably in the low double digits in the absolute best case. And remember that all these planned and in-progress projects in North America are ultimately of lower quality than what MRL has today, given that they're in the Gulf Coast. In other words, they come with structurally higher transport and feedstock costs, plus a structural disadvantage in terms of yield and flexibility related to technology that requires a special minimum viable level of in-house technical expertise that is hard to acquire solely based on the fact most of the projects in place or planned today can't seem to get anything right. All that makes their economic viability much less predictable in comparison to that of a project like Great Falls. Our best guess is that most of the existing projects today wouldn't have made sense,

[25] RD has a superior incentive stack because production credits currently favor it over SAF due to RD's higher energy density. Moreover, if an RD facility is designed to maximize SAF yield, the total yield of both fuel types declines, making the product mix less valuable to the producer. See https://stillwaterassociates.com/saf-in-the-ira-era-how-do-the-incentives-stack-up/ for a more thorough analysis of the inadequacy of current SAF incentives.

[26] To be clear, given the new rules and funding and intrinsic end demand for SAF production, we expect the US IRA may partially succeed in its efforts to jumpstart volume growth in the industry with a per-gallon credit. The credits give producers confidence regarding the economic viability of projects that simply wouldn't go forward otherwise. This is clearly a step in the right direction. On the other hand, the sooner the extension of these credits comes the better – and any extension must come with enough incremental subsidies to increase the value of the SAF incentive stack (relative to RD). Otherwise, these incentives will likely fail to kickstart SAF production in meaningful quantities.

economically speaking, at current rates – i.e. renewables projects that were financed prior to last year had a cost of capital in the mid-single digits and for that reason they likely don't work in a world where risk-free rates have balanced out in the same range.

In summary, for all the above reasons and more, we think odds are high that development of new sources of supply for SAF should slow to a crawl, if not stop altogether, unless the US government issues direct subsidies sufficient to change the calculus of potential swing producers – and that means MRL should remain America's dominant SAF producer for the foreseeable future.

And that, dear partners, is a very beautiful thing, as it means MRL should have all the business it can handle at extremely advantageous terms over the time horizon of our investment.

Which brings us to another salient point any investor in Calumet today needs to understand. MRL's technological superiority comes from the state-of-the-art HEFA (Hydro-processed Esters and Fatty Acids) process in place at MRL's Great Falls facility means that MRL is the only facility in the US technologically advanced enough to be able to offer SAF at price parity to RD. As MRL Executive Vice President Bruce Fleming put it in a March 22, 2023, interview with SAF Magazine,[27] "The new catalyst system [in the Great Falls facility] has better yield performance, and it's now economic to make SAF when it didn't used to be." Fleming went on to point out that "[t]here's a huge, backed-up demand for SAF. We have the capability to offer SAF at a price parity with renewable diesel, which those with older generation technology can't. They need a premium for SAF, or they are not going to make any." For this reason, it's unlikely that swing producers of RD will pivot to SAF to fill the demand gap without new legislation and, most likely, greater government subsidies.[28]

So, as (1) a top decile (i.e., extremely low-cost, highly profitable) green energy producer (2) in a rapidly growing, structurally higher return niche industry of renewable fuels with no known substitutes (3) benefitting from significant supply bottlenecks and surging end demand, and (4) a virtually unique ability to meet that demand profitably, MRL is in our view – and, apparently, also in the view of sophisticated industry investors like Warburg Pincus – an extremely attractive business.

What's more, while assets of this quality are scarce in general, as alluded to earlier on, they are ***extraordinarily rare*** in the in the context of the renewable energy sector where the quality of cash flows varies greatly and the useful lives of most vectors like wind and solar is only 25 years. Additionally, most higher quality renewable power assets that do exist (outside of hydroelectric investments), come from projects that are heavily reliant on subsidy markets to make economic sense.

In contrast, MRL's facility in Great Falls (once fully optimized in a max-SAF scenario), is not only perpetual in nature with minimal ongoing capital requirements to sustain production levels at max utilization, but it also possesses a durable and growing moat via low-cost operations that underpin incredibly stable margins and predictable, high quality (contractually guaranteed) cash flows. Furthermore, MRL's exponentially growing earnings power isn't dependent on subsidy markets or external capital providers for its highly attractive economics and ability to geometrically grow volumes over the next several years via internally generated FCF if necessary.

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[27] https://safmagazine.com/articles/575/saf-in-the-big-sky-state

[28] For that reason alone, we hope Chairman Mawer and CEO Borgmann keep the details of Calumet's long-term contracts with Shell Aviation under wraps until after MRL is monetized. After all, until things change, producers of SAF should be able to essentially name their price. Demand for SAF is many times the available supply, and it's highly unlikely this bottleneck will get resolved over the next three to five years.

Suffice to say the attractiveness of the most capital efficient "green" energy asset in North America, operating in a nascent, rapidly growing industry characterized by significant supply bottlenecks and rapidly growing end demand speaks for itself. Consequently, we believe MRL deserves a premium valuation significantly above the 10-12x EBITDA historical transaction range of the qualitatively inferior RD assets and renewable energy assets more generally. And as we've just laid out, that contention is more than supported by the facts.

Pressure to decarbonize driving SAF demand

Since the global aviation industry's massive demand forecasts for SAF are so important to our investment thesis, it's fair to ask if those forecasts are realistic. We think they are. After all, the aviation industry represents 2-3% of worldwide carbon emissions and that share is expected to grow materially from here as air travel continues to increase globally[29] and as other industries get "greener" at a (relatively) much faster pace.

For that reason and more, we believe the political pressure on airlines and other commercial players operating in the aviation based transport industry today to cut emissions is not only intense, but this pressure is likely to only grow stronger with the fullness of time.[30] To be clear, what we are talking about here with respect to "political pressure" isn't referencing demand related to existing or future governmental subsidies or other energy mandates involuntarily enforced, but 100% voluntary demand from private corporations as it exists right now.

With that clarification in mind, consider that many airlines have already tried responding to this pressure with PR initiatives, but without much success. For example, Delta is currently getting sued in US federal court on charges of falsely billing itself as the world's first "carbon-neutral" airline, presumably based on its purchases of carbon offsets. And in Europe, the European Consumer Organization (BEUC) has accused 17 airlines of engaging in unfair commercial practices by asking customers to pay higher ticket prices for "green" tickets, with the extra cost supposedly going to finance SAF production as part of a larger effort to offset future carbon emissions. (One research group notes that Air France charges an extra *$150 per ticket* for this so called "green option.") Sounds good, except there's absolutely no evidence that the airlines actually spend this extra income on anything resembling direct investments in SAF production. The obvious takeaway is that the popular pressure to decarbonize must be truly intense if airlines would rather lie to their customers than admit they're not making much progress.

No alternatives to SAF

But wait a minute, how can we be sure that pressure on airlines to "go green" will result in them switching to SAF? Well, the simple truth is that there are no realistic alternatives to SAF, either today or on the horizon. And because no viable alternatives to SAF currently exist, it follows that the only way for the industry to begin making progress on decarbonation – forget about their "Net Zero 2050" goals; we mean *any* progress, period – is by blending ever-increasing amounts of SAF into traditional kerosene-based jet fuels.

And what about those pursuing electric batteries as replacement? Well, to be candid, ventures like that are a fool's errand given the engineering, production, and economic hurdles involved. The battery technology

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[29] For example, most estimates suggest that between 75-80% of the global population still hasn't flown on a plane.

[30] See https://abcnews.go.com/amp/Business/wireStory/climate-friendly-flight-cost-100351807

used in electric vehicles ("EV's") certainly doesn't offer a realistic option for decarbonizing the aviation industry because of factors like energy density, reliability, and the fluctuations in mass between when a plane takes off and when it lands. Simply put, batteries are generally far too heavy to power airplanes – and are likely to remain so for the foreseeable future. As Gernot Wagner, a climate scientist at Columbia University, recently quipped, "It's a lot easier to pack a heavy battery into a vehicle if you don't have to lift it off the ground."

Just ask our new Director of Research, Daniel Prather, who is also literally a former award-winning rocket scientist. (Really!) As Daniel would tell you, SAF would probably win out over alternative solutions even if the above points weren't an issue. That's because SAF, like RD, is not just a proven product, but also is chemically identical to traditional fossil-based jet fuel. That means it works perfectly as a "drop-in" replacement for that fuel.[31] Airlines or shipping and transport companies that use SAF not only can transport it via their existing distribution infrastructure but can fuel up any plane with it right now and watch it perform *as well or better* than fossil-based jet fuel.

Compare this seamless and hugely capital-efficient SAF solution to the electrification of vehicles via expensive, hard-to-source batteries made from materials sourced from parts of the world with very different geo-political interests. The cost of the shift towards an adequate EV infrastructure is reliably estimated at over a trillion dollars in the US alone. The burden in terms of cost, time, and focus required to completely rebuild the entire infrastructure of the production and transportation sector to facilitate electricity-powered aviation is so huge it's silly and borderline insane to even discuss.

Of course, SAF doesn't just win out over batteries. It also has other virtues relative to theoretical alternatives like other types of clean energy fuels. For example, ethanol, RD, and biodiesel impact food prices because they use vegetable oils (typically made from soybeans) that are also used in food products. However, MRL will increasingly use tallow (animal fat) and non-food-based oil seeds like canola and camelina as lower-cost substitutes as part of its pivot from RD to SAF production over the next 18 months. Besides sidestepping the political and other risks of using food as an input to our energy supply (which has significant unintended consequences both financially and morally around the world, on top of being in principle, totally absurd)), this change will also let MRL better control its input costs by relying on cheaper non-food-based feedstocks indigenous to Montana. After all, vegetable oils have countless uses outside of energy generation, which often directly leads to large spikes in soybean prices that crimp profitability in lockstep. The salient takeaway here is that MRL's planned mix shift in the types of non-edible feedstocks it uses means that its already massive cost advantage over its Gulf Coast peers should widen even further.

But the value add associated with the transition hardly ends there. Another obvious benefit outside of widening its moat by increasing its cost advantage on feedstock, is a more economically resilient and predictable business. This is due to alternative feedstocks like camelina or canola having little to no alternative uses compared to substitutes like vegetable oils. That means far less competition from buyers, which translates to far less volatility in the prices of its input costs driven by external factors outside of managements control. A dynamic that translates directly to less variance in margins and more stable,

[31] Interestingly, major truck operators today say that using RD as a drop-in replacement for fossil-based diesel reduces their maintenance costs because RD is cleaner and better-burning. The same should hold true for planes running on SAF.

predictable cash flows over time, as MRL's operations become less susceptible to both the inherent volatility of vegetable oil demand as well as the whims of politicians and regulators.[32]

And that's not all. Another key virtue of this larger mix shift comes from using alternative feedstocks like Camelina with much lower carbon intensity ("CI") profiles relative to SAF and RD volumes produced via higher CI vegetable oils. In other words, the transition reduces the carbon footprint of its SAF production – and that leads to a direct increase the dollar value realized on every gallon of its SAF production sold (at the margin). Why? Because the total value of the incentive stack of SAF volumes with a lower CI is more valuable in low carbon fuel markets than SAF volumes with higher CI's, all things equal.

As management recently stated, "We're in the right part of the world to run canola, while the guys on the Gulf Coast are going to run soybean oil. But those are food crops, so you're headed for food versus fuel." And, according to industry observer Susanne Retka Schill, "The airlines don't want to get near that potential controversy. Their goal is to become carbon neutral. Thus, [MRL]'s proximity to an emerging non-food oilseed crop in the northern plains – camelina – is another strategic plus."[33] Finally, it's unclear if ethanol-based solutions would even be acceptable to the airlines and other voluntary players in the aviation-based transport industry, like Amazon or UPS.

MRL is a market leader expanding its lead

For all the above reasons, existing producers like MRL supplying SAF to the aviation and larger transportation industries should essentially set the price for some time to come, resulting in an extraordinary runway to grow volumes at attractive margins for many years as the larger adoption curve kicks in and exponential growth in demand outstrips supply.

With MRL bringing all that to the table, it should be clear there isn't much more that a strategic acquirer or potential IPO investor could ask for. But what about investors considering a long position in Calumet?

Granted, it's true that SAF is a relatively new technology still on the lower slope of its adoption curve and hence the absolute level of SAF demand today remains minuscule relative to the annual demand for traditional jet fuel. On the other hand, it's equally true that SAF demand will most likely continue to vastly exceed supply for the foreseeable future. In fact, for all the reasons outlined throughout this letter we believe the odds that the structural supply/demand imbalance gets brought back into balance at any point over the next 5 years are extraordinarily low. Practically speaking, bringing the current imbalance back into equilibrium over our time horizon is close to zero. And by all accounts, management shares our point of view, and is hard at work leveraging its first mover status and leading market position in a couple of keyways important to understanding the beginning of the endgame, which we should note is right about now.

Recall that MRL is not just the low-cost producer by a country mile, it's also a dominant market leader with extraordinary leverage to the fastest-growing renewable fuel in America. Of course, this wasn't always the case. As we've discussed, after embarking on a multi-year path of converting its traditional refining assets towards the production of higher margin, non-cyclical renewable fuels, the value unlocking transformation of its green energy business has yet to be properly reflected in Calumet's financial statements despite the fact it's now operating problem-free, in line with projections as recently as last week. Consequently, the dramatic

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[32] We just witnessed this phenomenon in the EPA's recent decision not to raise its mandates for RD production based on its attempt to balance unintended consequences, in this case specifically due to concerns about how biofuels were impacting food prices.

[33] https://safmagazine.com/articles/575/saf-in-the-big-sky-state

improvements that have structurally transformed the economics of its more volatile (lower quality) refinery segment, giving way to a permanently improved, much higher quality business that's superiority can't be credibly denied by the time the company reports its Q3 figures.

That should be music to the ears of value orientated opportunistic investors like Crossroads that like to skate where the puck will be prior to the crowd catching on. Remember, with MRL's run rate EBITDA in the process of inflecting in real time from basically zero to ~$250 million per year, that step change increase will become crystal clear by the time Calumet reports next quarter. No small thing considering that MRL's incremental contribution amounts to a doubling of the parent's consolidated earnings power in steady state, a genuinely massive uplift – seemingly out of nowhere – that practically guarantees investors of any stripe will begin to take notice – and sooner rather than later. Even more so given the lack of ongoing capital requirements at MRL means the doubling in consolidated EBITDA will translate almost entirely into incremental free cash flow available to be profitably reinvested to drive growth or returned to its owners. Never mind that the quality of these dramatically more stable, highly visible cash flows means that its margins will not just be better, but increasingly guaranteed by long-term contracts where volumes come with a fixed premium to RD thanks to the mix shift towards SAF that will take place as part of its expansion plans.

So, management isn't resting on their laurels, but doing exactly what they should be to spoon feed the market of these realities as necessary as we approach Calumet's final act as a consolidated company. Of note is their commentary from last week concerning the final milestone prior to pulling the monetization ripcord at MRL is a clean quarter that will allow them to separate out its specific contribution via its own set of audited financial statements, a data point that demonstrates just how serious they are about unlocking price discovery in the near-term. At the very least, a policy like that ensures they aren't simply leaving things up to chance once the explosion in incremental FCF hits the scoreboard the next time the company reports. And candidly, going the extra mile like that is exactly what we would hope to see at this point in the story.

To sum up, reporting a clean Q3 will serve as the first of many hard catalyst for CLMT's units while setting the stage for the endgame with respect to the MRL monetization opportunity. After all, arming MRL with its own financial statements that definitively prove out everything management has always claimed about the company's "crown jewel" in renewable energy, should force the market to recognize objective economic reality and as a result, this great awakening will draw in incremental investment demand for Calumet's units on that basis alone.

But that isn't the only way that management has been preparing to maximize value creation in the near-term. Indeed, management intends to further leverage its first mover status to "strike while the iron is hot" by moving full speed ahead with Act 2 of the ongoing value unlocking transformation at MRL. While Act 1 is complete, the plan to optimize these assets by reinvesting a few hundred million into its long planned max-SAF expansion in Great Falls stands to dramatically upgrade the quality of its renewable's operations yet again. This time, by pivoting its current mix of production volumes away from mostly RD towards SAF by early 2025.

If successful, the mix shift that should soon be underway will triple SAF production volumes over the next 18 months, doubling the divisions cash flows in lockstep. That means that, when it's all said and done MRL's segment level earnings capacity should balance out around $500 million in normalized EBITDA at some point over the next few years. In fact, this is why they have already gone ahead and ordered a second reactor and begun the internal process design work necessary to fully understand the precise throughput potential and capital required to get (1) a concrete investment plan in place and (2) the sources of funding pinned down by year-end – preferably via a low-cost loan from the Department of Energy ("DOE"). After all, success on this front would enable construction of the max-SAF plant configuration to begin prior to, or right around the same time that management begins making the rounds for the roadshow associated with MRL's planned early 2024 IPO.

And if you're worried about the volatility from RD prices or honestly, anything that could disturb the apple cart here…we suspect that 100% of MRL's "Max SAF" capacity of roughly 15,000 bpd has already been contracted out to Shell Aviation, presumably at a price ensuring the segment will get its projected SAF margin *regardless of what happens to RD pricing in the spot market.* Indeed, management commentary suggests as much once the "Max SAF" scenario is fully realized 18 or so months from today. There's good reason to believe that locking in a multi-year long-term contract with Shell for the entirety of its future production capacity is Calumet' master plan. Management hinted at this in its press release[34] announcing MRL's first delivery of SAF to Shell, it noted that Shell is the logical offtake partner for Calumet to reach multiple airlines and airports from MRL's geographically advantaged plant.

In conclusion, MRL's durably low-cost operations may be the heart of its growing moat, but the combination of its superior HEFA technology and market-leading, first mover status in SAF place it in a rather envious position that should allow it to dominate a nascent, rapidly growing "green energy" niche characterized by superior economics, a complete lack of viable decarbonization alternatives, and long-term, fixed margin contracts, that in combination should all but ensure it continues to thrive whatever the future holds – both in the near term, and for many years after its planned early 2024 IPO.

As things stand on the eve of this crucial corporate event, the virtues above (and all the others discussed throughout these pages) also pretty much guarantee a veritable avalanche of investment demand from strategics and sustainability focused investors as we approach the final act of one of the more enjoyable investment sagas that we've had the pleasure of exploiting on your behalf since opening our doors almost exactly 7 years ago.

But did we mention we're getting MRL for free, given where CLMT trades currently, despite all its advantages and its massive latent optionality that should land deep in the money in only 18 months?

The Road Ahead: The Stakes

In the previous section, we looked at the transformation of MRL's Great Falls facility and how it's positioned Calumet to dominate the SAF market. Ironically, management was on the cusp of selling Great Falls in early 2021 before realizing part of the plant could be converted to renewable fuels production. As Stephan Mawer noted in a profile in Barron's:

> *By pure luck, the Great Falls facility is one of the best to arguably the best candidate for conversion into renewable diesel in North America. Montana's permitting process is quick, and the surrounding area has enormous amounts of camelina, a crop that hasn't been bid up like other renewable diesel inputs such as soybeans. The facility connects to rail lines that can quickly take the diesel to high-return markets on the West Coast and in Canada.*

Our average unit cost basis in CLMT, even after adding heavily at various points along the way, remains barely above $4. If we include option premiums earned over our holding period, our principal at risk is close to zero. Nevertheless, since CLMT trades at around $16 per unit today, the $15 per unit midpoint of the $10 to $20 fair valuation range that anchored our base case years ago turned out to be right on the money. And yet, here we are firmly maintaining, just as we did earlier on with R1, that Calumet's best days are still to

[34] https://www.prnewswire.com/news-releases/montana-renewables-begins-sustainable-aviation-fuel-deliveries-to-shell-301820679.html

come. Given the success we've had with CLMT thus far, we think it's entirely natural to wonder: What exactly are we playing for?

It's a great question. As far as the magnitude of the value unlock still to come, fair value a few years out boils down primarily to two key variables: (1) The proper monetization and associated de-levering that will come with a successful sale or IPO (and eventual spin-off) of MRL, and (2) material progress unwinding Calumet's current corporate structure as an MLP. In terms of the sequencing of those events, we suspect that once MRL is properly monetized, management will shift its focus to unwinding the MLP structure at some point before 2025.

Granted, that assumes we even get that far. While we've long assumed the natural exit for the remaining Specialty Products business once MRL was monetized would be to unwind the MLP wrapper in conjunction with its conversion to a C-Corp., followed by an acquisition via a stock-for-stock equity swap with a larger publicly traded strategic (given the GP's cost basis is zero), we're not so sure anymore. The Heritage Groups surprise decision to sell its only other publicly traded entity Heritage-Crystal Clean ("HCCI") to private equity firm J.F. Lehman a few weeks back, suggests the GP is done with owning publicly traded assets and the scrutiny that comes with that. Given its corporate philosophy and reputation for never selling, indeed, we weren't aware of any time over its long history where it has, the signal value embedded in the HCCI transaction implies everything may get wrapped up on a far quicker timeline than we expect.

Regardless, we'll lay out the math shortly, but we see no reason to bury the lede: If we're proven correct about the permanent step change in earnings power that will start flowing through CLMT's financials the next time the company reports, the true value of Calumet's units should surge from roughly $16 today to the mid-$30s in the absolute worst case. Indeed, unit prices in the $75 to $100 range looking out two-to-three years are entirely reasonable should the incredible optionality surrounding Act 2 of Calumet's ongoing transformation related to a max-SAF expansion be executed as seamlessly Act 1.

Opportunity Overview: Current Setup

As things stand in August of 2023, at least one thing can be said for sure: The absolute quality of this company's double-barreled earnings engines remains *deeply* underappreciated. Whether were discussing the switching costs and pricing power of its various Specialty Products assets, or details surrounding MRL and the structural cost advantages that place it at the top of the stack of competitively advantaged RD and SAF producers, Calumet's business segments should generate stable, high-quality cash flows in all market environments given their economically resilient business models, the stable, recurring end demand and pricing power of their products, various self-help initiatives from recent turnaround efforts, and strong ESG related tailwinds and other secular growth factors we've discussed throughout this analysis. Indeed, the best setups offer not only significant undervaluation, but also favorable trend inflections at both the individual business level and the overall industry level. In other words, they center on big micro and macro changes that are set to drive rapidly improving results while helping to unlock price discovery as old narratives fade and give way to new paradigms, but that aren't yet being properly understood or appreciated by the market.

Calumet today represents just such a setup. As we've alluded to above, its current valuation remains as completely disconnected from economic reality as it was back in 2019 when we initially got involved. MRL's pivot towards being a leading renewables platform (which began back in 2021) was successfully completed this April, coming in on time and on budget – and, crucially, running to spec in terms of projected volumes and margins per barrel. All hired contractors are offsite, and the RDU, SAF, Renewable Hydrogen, and Pre-treatment Units are all operating in line with the expectations. There were no surprises in terms of projected steady-state profitability.

So, while the exact timing of, and path to, a "Max SAF" scenario remains uncertain, the outcome of Act 1 is known as is the capabilities of the in-house engineering and technical talent at MRL that allowed it to avoid the myriad of issues that have caused other projects throughout the industry so much trouble. Based on the paper trail to date and MRL's best in class talent, the ultimate outcome of the planned expansion project seems relatively predictable, if not absolutely within management's control.

In fact, as alluded to in the previous section, MRL is on the cusp of surpassing a critical inflection point at which the fundamentals become de-risked as the remaining uncertainty concerning MRL's true economics in steady state are cleared up once and for all. Operationally speaking, as we've already mentioned, the only key milestone yet to be reached prior to the monetization of MRL is a clean quarter operating at the full $250 million run rate once the RDU and pre-treatment unit has ramped to full capacity and the rotation to more economic untreated feedstock that began in April is complete.

On both fronts, management's commentary from last week's quarterly conference call provided plenty of clues to what the future has in store. First, they mentioned the former was achieved before the start of Q3, with MRL entering the quarter ahead of schedule producing over 12k barrels per day. In terms of the latter, while management noted they were running off the last of its treated feedstock at the beginning of Q3, they qualified it by commenting that operations at MRL are tracking ahead of schedule through the end of July, before reinforcing the segments EBITDA estimate of $1.25-$1.45 per gallon, net of fixed costs. So, net of various puts and takes it appears the full earnings-related horsepower of MRL will be definitively demonstrated in Q3 according to plan. Assuming everything comes together on this front, and through July that very much appears to be the case, it will no longer be possible to credibly deny the permanent step change in the company's earnings power.

However, MRL's results when it reports next quarter are hardly the only part of the current setup that excites us. There are plenty of other catalysts that should unlock a dramatically higher unit price over the next 12 to 18 months. Recall that management's gameplan is to transform the recently converted Great Falls facility from primarily producing RD today, to the "Max SAF" scenario by the end of next year. Again, if management can successfully expand MRL's SAF production capacity to its estimated 15k bpd, Calumet's ongoing value-unlocking transformation should take one giant leap – if not for mankind – certainly for its unit holders by doubling MRL's steady state earnings capacity yet again (this time from $250 million to at least $500 million).

And then there is the Specialty Products business, which we will quickly provide an update on lest all this talk about MRL gives you the impression there isn't much else going on worth talking about at Calumet. As we tried to make clear at the beginning of this discussion, this is a poorly understood, above average business that will occasionally have some hiccups, but is generally very predictable as can be seen by the consistency of its historical financials. While all the M&A and cumulative mistakes associated with the refining and oilfield service assets and associated restructuring that's taken place masked its virtues, the stability of its gross margin per barrel sold as well as its ability to generate a few hundred million plus in annual FCF tells the real story. We would argue it also has plenty of room to grow now that it's had 3-4 years of much needed reinvestment to restore the foundation of its businesses after a decade of capital starvation lead to both its considerable FCF generating abilities getting wasted and its considerable virtues obscured.

In any case, if you're curious about what it looks like when things go wrong not related to the old guard's incompetence, the Specialty segments most recent quarter provides a great example of what that looks like. For example, the tornadoes and weather-related shutdowns that took place in Q2 due to loss of power limited production volumes for the quarter, costing the segment about $20 million on the estimated 500k barrels of lost production. While unexpected events like this are never fun, the silver lining is current management made the most of it by using the extreme weather driven downtime to pull forward maintenance and as a result, no longer expects any planned downtime through year-end. Better yet, by the time Q3 began all of Calumet's Specialty assets were running at max utilization, illustrating its investments over the last few years to improve operational resiliency and otherwise prevent and lessen the impact of external events on its business are clearly paying off. Regardless, this is hardly the type of thing one can, or should, worry about – especially when the business is in the hands of reliable operators as it is now. If anything, the main takeaway from the result of Q2 isn't the $20 million in freak weather driven losses from power outages, but how quickly the business recovered despite it all.

Drilling down a bit further we can see the Specialty Products business is just fine. In a quarter where hurricane-force winds and tornadoes knocked electrical grids offline around its plants in northwestern Louisiana,[35] SPS generated $61 million in EBITDA last quarter despite all the issues above. One interesting angle to consider going forward that highlights the opportunities to improve profitability and drive growth at SPS comes from various initiatives intended to further integrate MRL molecules into Specialty applications. Two of the latest examples include the introduction of new sustainable product lines like PenClear, an all-natural product for Penreco's beauty care line, and TitanZero, a carbon-neutral wax product. The same dynamic is ongoing at the PB subsegment as well, where brands like BioMax built on biodegradable marine solutions continue to gain momentum penetrating new industries altogether.

Here again, PB continues to demonstrate its value by putting up over $12 million in EBITDA in Q2 and exhibiting sizable growth in production volumes year over year due to its differentiated, high-performing and energy-efficient solutions across both industrial and retail related end markets. PB's brands, particularly Bel-Ray, BioMax, and TruFuel, continue to do well and with another great quarter behind it and the reversion towards more normalized margins continuing to be sustained – and applications for industrial end markets growing 35% year to date – we think any worries about the sustainability of the recovery at PB should be put to bed (the temporary rise in input costs brought about by supply chain issues caused by the pandemic are clearly behind the subsegment).

In any case, management highlighted that the growth potential from environmentally friendly Specialty Products remains a large opportunity and reiterated the growth on tap from introducing existing products into new industries and applications is much the same. While margins remain above mid-cycle averages in the SPS segment, they expect the elevated levels of profitability across the portfolio of late to remain in the $70 to $80 range (vs. $30 levels seen 3-5 years ago). This is due to the heavy investments made in recent years to optimize and permanently improve the foundation of the SPS business. At PB, with demand for its high-value applications surging, and the recovery in margins just beginning, the fact is there isn't much to worry about on the performance front. The bottom line is if we zoom out to the segments consolidated outlook, the strong fundamentals supporting both the SPS and PB subsegments should continue and management remains constructive on the overall outlook through year-end.

Again, what's not to love?

We suppose it's natural to wonder where the money will come from to fund the expansion at MRL, and what the incremental returns on this growth capex will look like given the explosion in interest rates and the seizing up of the high yield markets earlier this year. However, unlike many competitors, Calumet management has several options that should make financing expansion a non-issue:

[35] This phenomenon wasn't limited to Louisiana. The same thing happened in Kansas City, leaving ~200k homes (including my own) without power for over four days.

- The ongoing Lazard process
- A municipal bond from the state of Montana
- The $600 million low-interest rate "green" loan CLMT is expecting from the Department of Energy (DOE) at some point in the relative near-term
- Selling down a portion of their equity in MRL as part of a late-2023, early-2024 IPO

Management might choose any one of these options, or a combination of several. Recent commentary from the Q2 call suggests that the conditional approval of the low-cost DOE loan could come any day. While timing is ultimately not up to them (i.e., outside of management's control), we think recent announcements that Calumet has reached the second part of the approval process is a promising data point. And color from management that they have a weekly standing meeting with the DOE is another, suggesting to us approval could easily be a Q3 event. Regardless, we aren't concerned. And if push does come to shove, the FCF on tap from Specialty Products and MRL over the next 12 months should be more than sufficient to get the job done.

At the corporate level, management did make some incremental progress last quarter improving its balance sheet. We mention it because with the rollover of its outstanding debt and the successful issuances of unsecured notes to eliminate the secured debt in June, Calumet is finally in the driver's seat. Not the "big bang" deleveraging event we're playing for, but no longer having to be concerned with the kindness of strangers in capital markets to help it realize its near to medium-term ambitions is an indisputably great thing.

In terms of the merits of its funding goals and the larger expansion at Great Falls, our take is the math speaks for itself. Granted, the exact details of the investment plan and funding requirements are still being finalized, but we know enough to make an educated guess. If it's a couple hundred million as management expects the IRR on incremental capital deployed is objectively extraordinary. For example, assuming that "Max SAF"-related capex is about $250 million, and 85% of its 18 million bpd production (slated to be 15,000 bpd by year-end 2024, as noted above) earns an incremental $1 premium over RD per contracted gallon, we'll see an additional $250 million in incremental EBITDA (at 80% utilization). In other words, we're talking about a one-year payback, or an implied IRR of 100% for the "Max SAF" expansion.

Honestly, the math looks pretty darn good to us even if total capex for the project is twice the $250 million estimate above. We think it's telling that even if you double the required capital investment, the attractiveness of the IRR and the calculus behind making the loan don't change. Moreover, the estimates above on normalized throughput is intentionally conservative given that the true earnings power of the Great Falls facility is likely meaningfully higher based on the nameplate capacity of its outsized hydrocracker: 25,000 bpd vs. the 18,000 bpd estimate underpinning the "Max SAF" estimates above.

Interestingly, we aren't the only ones interested in what's possible in terms of production capacity at Great Falls. On the Q2 call management admitted that they still don't know what the upper bound of their RDU unit's production capacity is, as they've yet to fill the unit in fossil service, so its true capacity has never been adequately tested. The one clear takeaway we think is fair to state is the potential for throughput at MRL to creep up meaningfully over time is material. (Management has confirmed as much.)

To be clear, we don't believe running the plant at say 100% utilization is realistic, nor do we pretend to understand the technical complexities with such an intricate production process. We're simply pointing out that there's plenty of room for a "beat and raise" scenario should everything come together as we expect. Based on the July 10th operational update and further commentary from the Q2 call, this scenario already appears to be playing out: MRL is operating at 12,500 bpd, slightly above the 12,000 bpd initial forecast and we know the team at MRL has demonstrated the RDU's ability to run over 13,000 bpd recently as management told us so.

The bottom line is that approximately 18 months from now, CLMT should be generating roughly $750 million in run-rate EBITDA, a figure that could easily support a unit price three to five times today's.

Let's simply lay out a couple of scenarios here that should help crystalize the magnitude of the extraordinary upside available in Calumet's units:

Valuation: What's it worth?

We'll start by saying this valuation analysis is so rudimentary and draconian in its assumptions, it doesn't include the host of value creation avenues listed above or even come close to fair value multiples for any business unit. And yet, we still have a line of sight on almost 2-4x the current unit price.

Scenario 1	
Value Today:	
SPS + PB + SA	$315
Montana Renewables ("MRL")	$250
*- Less corporate**	$80
Normalized EBITDA	**$485**
- Blended multiple	*10x*
Less: Net Debt	*$1,711*
Less: Warburg Preferred MRL Stake	*$355*
Implied equity value	**$2,784**
Units Outstanding (m)	78.8
Intrinsic Value per Unit	**35**
Current Unit Price	$16
Implied MOC	**2**

** MRL EBITDA is net of fixed costs*

Scenario 2	
Max SAF Value:	
SPS + PB + SA	$315
Montana Renewables ("MRL")	$500
*- Less corporate**	$80
Normalized EBITDA	**$735**
- Blended multiple	*10x*
Less: Net Debt	*$1,711*
Less: Warburg Preferred MRL Stake	*$710*
Implied equity value	**$4,929**
Units Outstanding (m)	78.8
Intrinsic Value per Unit	**63**
Current Unit Price	$16
Implied MOC	**4**

** MRL EBITDA is net of fixed costs*

Should the company fully graduate from a liquidation play on a high-yield levered equity stub (as it was originally when we built our investment stake) into a de-leveraged, undeniably high-quality, rapidly-growing SAF pure play (as it is currently on the cusp of becoming) and standalone Specialty Products business, the value of what's inside Calumet's units today will very likely trade hands at prices over 4x where they do today. This assumes MRL's economics balance out in line with projections, and the larger transition to a "max SAF" scenario takes place. However, we consider both of these to be high-probability outcomes over the next two years.

Granted, with trailing 12-month EBITDA of $444 million, clearly the core Specialties Products business inclusive of the Specialty Asphalt ("SA") carve out has been overearning. But as mentioned earlier on, the SPS subsegment has a long history of consistently generating between $200-$250 million in annual free cash flow since the original management team doubled down on stupid and decided to spend over a billion dollars rolling up low-quality, competitively disadvantaged refining and oilfield service assets over a decade ago. If anything, we think FCF will grow going forward.

Add in highly conservative estimates in steady state for its PB and SA, with PB earning between $40-$50 million, and another $40-$50 million for the SA division, and at the midpoint the core Specialty Products business should churn out about $315 million in annualized EBITDA in a "normal" year with very low aggregate capital intensity after adjusting for the appropriate split to account for Warburg Pincus's ownership in MRL.

Keep in mind that each of the three subsegments that collectively account for the Specialty Product's business is characterized by low ongoing capital requirements, so most of that $315 million estimate translates to FCF excluding interest expense, which should cliff drop towards zero over the next 3 years regardless as the de-levering flywheel kicks in with MRL's IPO.

So, what's the core Specialty Products business worth? We think the low end of the historical range of 8-10x our projected $315 million in steady-state EBITDA would be conservative. And for MRL, we think an equally conservative multiple of 12-14x in an upcoming sale or IPO (based on run-rate cash flow of around $250 million over the next twelve months) would be more than fair.

To keep things simple, we'll use a blended multiple of 10x for the company's consolidated operations. Yet even if we do so, it's clear just how extremely mispriced Calumet remains: Its entire value at current prices is supported by MRL or Specialty Products alone! Using the midpoint of both valuation scenario's, we see returns of ~3x today's current share price even without a fully realized de-leveraging event where proceeds from the IPO or sale of MRL plus interim FCF aren't used for debt paydown. It's not very realistic but it highlights the magnitude between price and value at present even if we are arguably troll-ish in our conservatism.

Should we be less draconian and use assumptions in line with management's promised strategy to unlock value at Calumet, along with the successful de-leveraging of both entities over the next 2-3 years, the implied return multiplies to ~5x today's unit price. For various reasons we believe a future where debt is rapidly paid down over the next 36 months is far more likely to occur than not.

Best of all, these value creation opportunities are nearly completely agnostic to market and economic fluctuations. At current prices, Calumet is a company priced so cheaply that we don't need the market to notice its very smart/rational capital allocation policies: the stock trades at such a low multiple to normalized free cash flow that using the excess cash flow to de-lever and buy back equity generates an implied IRR over the next 3 years so high it's immodest to mention. In other words, just from buybacks, the implied annualized return if the multiple doesn't move is greater than 50% a year (it actually helps you if the multiple doesn't move).

Calumet Parting Words

Ultimately success on any of these fronts will kickstart the beginning of the endgame at Calumet – an endgame that should be one of the more profound value-unlocking transformations we've been involved with over the course of our careers. If that sounds promotional or aggressive, realize that even at the low end of the pedestrian assumptions that underpin the midpoint of our fair valuation range, we are looking at a low-risk multi-bagger in the worst case, exactly as it was in earlier days.

That's not to say there isn't plenty of wood left to chop, but since we've owned Calumet, it's undeniable that we've seen a relatively dramatic level of value enhancing change take place. Yes, past performance is no guarantee that the future will look the same. Nonetheless, if CLMT continues to execute and finally proves out the steady state earnings power of its newly christened renewables operations in Q3, that event alone should support considerable levels of new buying interest for Calumet shares – and perhaps incremental demand from Calumet itself – creating a floor for its equity right around where it currently trades (we don't think it's an accident the company has highlighted debt and equity repurchases alongside max SAF expansion as top priorities as far as capital allocation is concerned moving forward).

Should the latent value embedded in MRL via SAF expansion get unlocked over the next 18 months on top of that, all present concerns surrounding Calumet's leverage, liquidity, and corporate structure related barriers to investment rapidly fall away. No matter how we slice it, Calumet's equity is positively leveraged towards future capital flows in a genuinely profound way with continued execution like we've seen to date. If that continues, it's only a matter of time before CLMT gets swept up in the slip stream of the liquidity driven flywheel that drives markets in the present day and age.

In sum, names like R1 and Calumet should continue to outperform the overall market irrespective of macro forces resulting in a macro and economy agnostic outcome, leading Crossroads on a reversion back to its historical mean outperformance margin.

♦

While we can certainly sleep tight with our high-quality investments like RCM and CLMT, we also hedge our portfolio with a modest short allocation. Notably, we only short when we see a uniquely broken business that has a hard catalyst in the near term, or when we discover certain poorly-positioned equities that are dependent on, but misprice, a key macro variable in the context of the business cycle, with an event path having a highly skewed probability distribution to the downside.

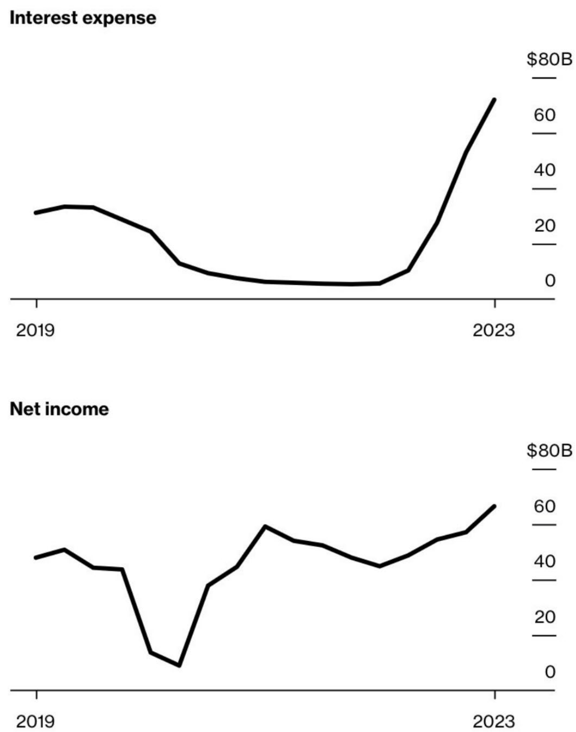
Crucially, we are not macro prognosticators, but more 'cycle aware'. And this late in the cycle, we have observed two main variables in the macro environment that should exhibit a reversion to the mean in almost any scenario going forward. As such, we've found equities levered to the dynamics and trajectories of these variables that can hedge our portfolio even if we're wrong on the progression of the business cycle given near-term catalysts that would expose their poor current risk/reward characteristics.

The first variable is the yield curve, which at present is inverted at a near-historically significant extreme as the Fed raises rates to combat inflation. Thus, once the current predicament of inflation gets solved (one way or another), the curve should start to revert to its normal upward-sloping state. And the businesses most sensitive to the shape of the curve are banking institutions.

So while the curve is inverted and the Fed is intent on keeping it that way, three things become evident: (1) depositors are incentivized to move their excess cash to treasuries or money market funds to earn a higher yield while they can, (2) banks cannot produce net positive income on newly-issued longer-duration loans while paying higher shorter-duration deposit rates, and (3) assets on banks' balance sheets from loans already issued have mark-to-market losses from the rapid rise in interest rates.

These factors then combine into a negatively-reinforcing spiral for regional banks, whose loan books are generating too little money to pay depositors higher rates and then having to fund withdrawals by their yield-seeking customers through the sale of assets that are at a loss, when typically they would be held to maturity. When a bank is levered 10 to 1, even moderate losses coupled with deposit outflows can be existential threats, as we've seen. However, many have incorrectly viewed these events each as a singular crisis, while we believe they're more of a "slow burn" driven by the rational behavior of depositors to earn a greater return on cash before a reversion to the mean when short rates will again be lower than long rates.

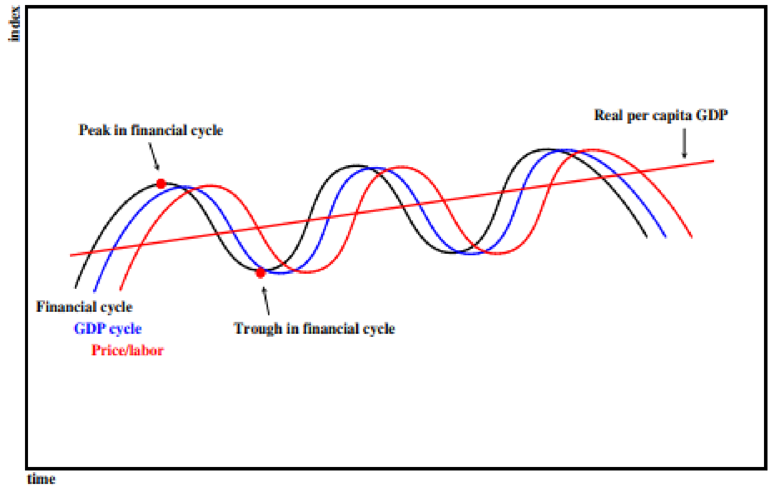
As such, banks' payments to depositors in the form of interest expense have shot up much faster than net income generated from their loans. In fact, as of the end of the first quarter of 2023, the Federal Financial Institutions Examination Council (FFIEC) estimates that banks spent more on interest than incoming average profits, shown below. This pressures smaller banks' net interest margins, since they must pay more to customers to keep their deposits in-house. Meanwhile, large institutions can still charge lower deposit rates since they are the destination of the flight to safety that occurred earlier in the year as customers moved away from smaller banks.



Source: Federal Financial Institutions Examination Council

With banks coming under increasing pressure from lower earnings, their subsequent and logical reduction in loan activity would translate to tighter financial conditions and slower future growth without the need for higher rates. As shown below and alluded to on our cover page, financial cycles lead business and price/labor cycles. Thinking with our "cycle aware" framework, we have a pausing Fed and credit creation slowing but still robust economic activity, and we believe that puts us just past the peak of the financial cycle:

Financial Cycles Lead Business Cycles and Price/Labor Cycles



Source: Hoisington Investment Management 1Q 2023 Letter

The confluence of these elements should lead to lower earnings for banks, and further downside should economic activity slow more than expected, and why we are short a basket of them as portfolio protection until the yield curve starts to revert to being upward-sloping again. Given the discourse in the market, our view is still, shockingly, in the minority with expectations of a trough in NIM by mid-year 2023.

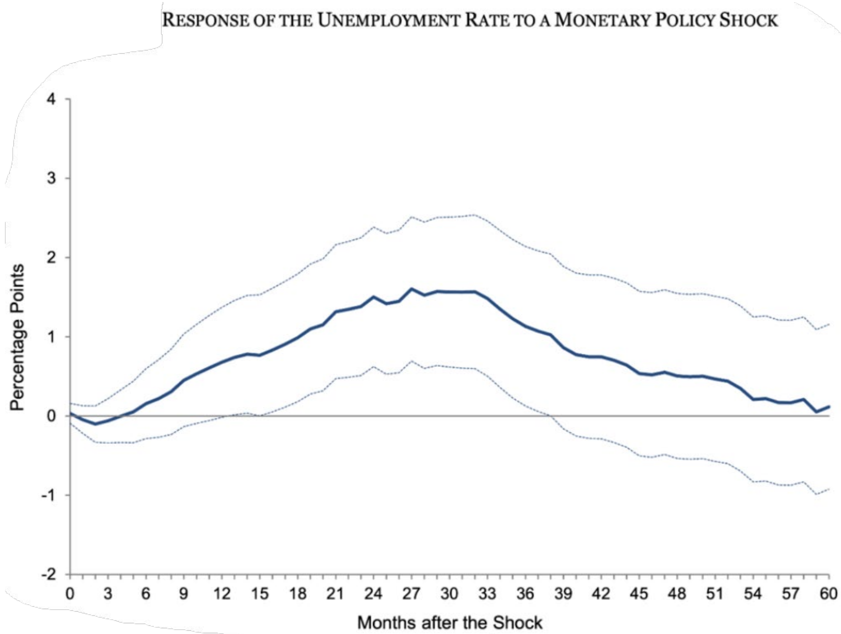
While many banks should trade on book value, we've observed a handful that trade (erroneously in our view) on earnings power given their 'franchise' value. As such, we have short a basket of these bank 'franchises'.

This brings us to the second variable we anticipate reverting to the mean, unemployment, which at 3.6% is considerably close to the all-time low of 2.5% achieved in May of 1953, and well below the mid-cycle norm of 5% the US has experienced for the last 70 years.

As addressed above, the Fed is using its tools of interest rate setting to reduce inflation, which it believes is demand-driven, and the variables on which it has said will determine its success are not solely inflation (which can rebound if not properly extinguished), but also employment data (Job Openings and Labor Turnover Survey, or JOLTS, data and quit rates).

Shown below is a useful chart from a study by Romer and Romer, two economic professors from the University of California, that shows the typical path of unemployment following a monetary policy shock. We'd remind our readers that in May 2022 the inflationary effects from the war in Ukraine, namely higher commodity and oil prices, were likely a considerable factor the Fed took into account when it increased the magnitude of its rate hikes.

If one believes this event to be a shock (who anticipates a war?), it then follows that we are around the 14- to 16-month mark on the chart below. At this point in time, we're at the lower end of the statistical bounds of the data, implying the odds are highly skewed towards unemployment increasing going forward. Most interesting is that this study shows unemployment, counterintuitively, decreases at first until the effects of the rate increases exert their pressure. This is completely consistent with what we've observed to date with unemployment at 3.6-3.7% in mid-2022 decreasing to 3.4% in April of 2023.



Source: Romer and Romer.

While this view is not contrarian, again we've seen that some stocks tied to job listings, and the churn in the labor market (quit rates) still fail to price in a modest increase in unemployment – and if they do account for it, they still fail to appreciate that the labor market typically requires a period of at least 24 months to return to its previous level. There will most likely be no "hockey stick" recovery in a typical labor market correction, despite sell-side consensus modeling otherwise.

Taking that into consideration, we are short a basket of names that are overearning from tight labor market conditions, and who would be negatively impacted from weakening or normalization in that market.

♦

In conclusion, while we wrote this letter mainly to shed some light on how we're handling the recent market cycle of aversion, dispersion, and reversion, we also want to thank you, our partners, for your support. It's hard to express how much gratitude we have for your faith in us. We're proud to say that we haven't received a single panicked email or phone call since the grinding year of 2022 started. Even in the summer of 2022, one of the worst seasons for the S&P since the sovereign debt crisis in 2011 – and the worst for the NASDAQ since December 2018 – we didn't hear a word of concern from any of you. That's a testament to the quality of our asset base (you!) and your trust in us, as stewards of your hard-earned capital. We will always strive to be worthy of it.

In fact, one thing we will simply never get tired of repeating is that your trust is easily our most important competitive advantage. It gives us the freedom to look years into the future, rather than just a few months or quarters, confident that you see volatility not as risk, but as opportunity. It naturally follows that without like-minded partners ready to let us capitalize on short-term dislocations, all our efforts would, quite literally, be in vain. After all, long-term risk-adjusted outperformance is forged in the fire of difficult markets – where conviction, supported by exhaustive analysis and a deep and healthy respect for all that can go wrong, makes all the difference. That difference wouldn't be possible absent partners like you.

Last year, we declined about 23%, with a few of our bigger positions (RCM, CLMT and BFIT especially, down 60% in 4Q alone) taking quite the beating. The irony is, apart from Nintendo, our most attractive investments sold off the most. The chance to begin deploying our cash position in big chunks of RCM and CLMT in the single digits, or BFIT in the low 20's, are just a few examples of the power of the trust spoken about above. At any rate, in keeping with the spirit of this letter, we have seen dispersion start to return as we type here in early-August, and with that a reversion in our performance. We're happy to report that the fund is up around 20% net year-to-date. We'd ask you to trust us now when we say we've barely even gotten started, and the best is most definitely still to come.

With that context, we'd again like to highlight our long-term orientation, we know everyone likes to discuss recent performance, and we're happy to report great news on that front, we much prefer our track record over a handful of years. As such, we're incredibly proud of our 20.6% annualized IRR since inception (7 years ago), beating our benchmarks the Russell 2000 Value (IWN), and Russell Microcap (IWC) by double digits.

Performance: Return vs. Indices (%)*

	YTD	3 Year *(Annualized)*	5 Year *(Annualized)*	Since Inception *(Annualized)*	Since Inception *(Cumulative)*	Gross Relative Outperformance *(Annualized)*
Crossroads (Gross)	**19.8**	**14.3**	**19.3**	**20.6**	**281.9**	**-**
Crossroads (Net)	19.8	11.8	15.7	16.3	195.5	-
Russell 2000 Value (IWN)	7.5	10.3	2.9	8.1	74.5	**12.5**
Russell Microcap (IWC)	10.1	17.2	4.5	8.4	78.1	**12.2**
S&P 500	19.5	12.0	10.3	11.5	118.6	**9.1**

Performance is net of 1.5% management fee and 20% incentive fee. Please refer to the disclaimer on the reverse for important disclosures regarding performance information.

With that in mind, if you've been thinking about increasing your investment with us, we think now is a particularly good time to do so. This is driven by our view that the market has created an opportunity set unrivaled since our inception. And we're not just making this call from the sidelines either. The team at Crossroads, and myself as Founder, have not just put our net worth in the Fund, but also our personal and professional reputations. That means two things: First, if it turns out we're wrong about the medium- to long-term setup, we hope our partners take solace in the fact that we'll feel it the most. Second, we're not investing to keep up with some arbitrary index or to outperform over short periods. We're trying to maximize our long-term, risk-adjusted, after-tax, net-of-fees returns over 5- to 10-year periods and beyond.

In closing, while we do see opportunity in market downturns like 2022's, we'd like to reassure you that we do our best to pick longs that ultimately go up. Up is good. We like up. (The same is true with our shorts, just the other way around.) However, we also realize that our picks, both long and short, are unlikely to march steadily upwards (or downwards) from the moment we buy (sell) them. In fact, it's just as likely, if not more so, that the exact opposite will happen. The market in the long term may be a weighing machine, but in the short term, it can and does get things wrong. We hope we've shown how that can happen in this letter.

While we can't do anything about the macroeconomy, global politics, market pullbacks, or the investor sentiment that drives them, we *can* prepare by continuing to focus our attention on owning (or shorting) a carefully-curated collection of grossly mispriced, highly asymmetric, often event-driven securities that, taken together, should prove more than capable of weathering any storm. Unlike Judge Smails' fragile and ill-fated "Flying Wasp," the Crossroads ship is built to last.

Again, as always, thank you for your support. Please contact us with any questions as they come.

With our best regards,

Ryan O'Connor
Founder and Portfolio Manager
Crossroads Capital, LLC

CROSSROADS CAPITAL LLC

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