Long Cast
ADVISERS LLC

Dear Friends:

For the 4Q19 quarter, cumulative returns on accounts managed by Long Cast Advisers declined 1%, net of applicable fees. This was below the baseline market indices. Returns for separate accounts managed by LCA ranged from -4% to +2% for the quarter.

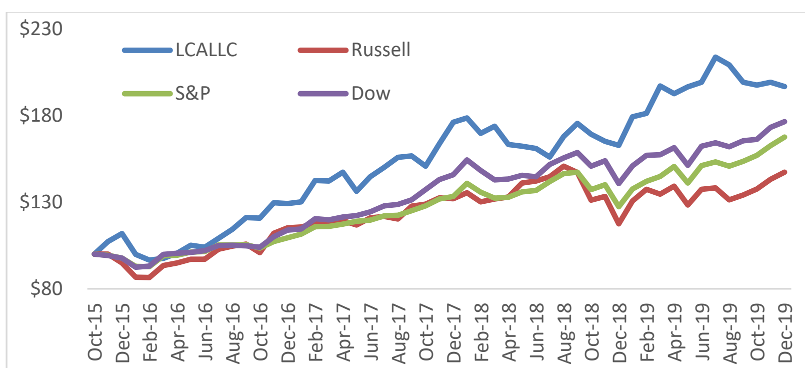
For the full year 2019, accounts managed by LCA increased 21% net of applicable fees, below the baseline market indices. Returns for separate accounts managed by LCA ranged from -3% to +26% for the year (median 19%). The wide range in returns was driven primarily by the timing of new client accounts.

Since inception through quarter end 4Q19, LCA has returned a cumulative 97% net of fees, or 18% CAGR, ahead of the baseline market indices. *Past performance is no guarantee of future results.*

Because our portfolio is comprised of just a handful of typically small "off the beaten path" businesses that we tend to own for long periods, it is expected that returns will vary considerably from the baseline. As a reminder, LCA will not invest in companies exposed to the hydrocarbon or defense industries, a small effort to align capital growth, business ownership and personal ethics.

PERFORMANCE / PORTFOLIO HOLDINGS

	Long Cast	R2000	S&P	Dow
	Percentage Change			
2015 (2-mos)	12%	-5%	-2%	-2%
2016	16%	21%	12%	17%
2017	36%	15%	22%	28%
2018	-8%	-11%	-4%	-3%
1Q19	21%	15%	14%	12%
2Q19	1%	2%	4%	3%
3Q19	0%	-2%	2%	2%
4Q19	-1%	10%	9%	7%
2019	21%	25%	31%	25%
Cumulative chg	97%	47%	68%	76%
Count	50	50	50	50
CAGR	18%	10%	13%	15%
LTM	21%	25%	31%	25%



At year end, **INS**, **QRHC** and **CTEK** remained our three largest holdings. Returns for the full year were largely driven by growth in the former offset by declines in the latter combined with the effect of new money coming under management *after* INS had its substantial "run" but *before* CTEK had its substantial collapse.

Thus, new clients had all the negative consequences of one of our worst performers but little of the positive benefits of what was our best performer, a dynamic that is (hopefully) a function of short-term results. (I am reminded here of something my tax professor in business school was fond of saying: "Many of you will go into the investment world, which is a 'what-have-you-done-for-me-lately' business. Always remember, the key word is … lately.")

INS continues to benefit from professional services / customization work for its large un-named-but-everyone-knows-it's-the-Apple-Card client. To quote from their last conf call: "For 2020, we see continued growth, but not at the pace we had for the full year 2019 over 2018. But we expect to grow and see the 2020 year as the one to catch our breath, while hardening our infrastructure to line up for higher growth in the future years."

I think this comment infers limited *new* customer onboarding until 2021 as the current large client absorbs manpower and labor capacity for the foreseeable future. Any problems this generates for short term investors would be a benefit to long term investors.

QRHC's slow and steady growth over the last few years in GP dollars and the swing to EBITDA profitability is impressive but the lack of recent topline growth off of easy comparisons is a concern. I've long thought that this company, sitting between a hauler and a customer, could provide valuable solutions to both parties as a platform for a critical logistics juncture if only they would upgrade their technology, but I am awaking to the reality that the company might not see itself as broadly as a platform solution the way I do. It's disappointing but it's more important to be honest than hopeful.

Investors can still win if the company can generate topline growth off of easy comps and one can see how the trend towards ESG reporting provides a tailwind to sales. But if they can't grow and they can't grasp the bigger opportunity a platform offers, than this isn't going to generate the multiple returns I'd initially anticipated and in the worst case, may end up a value trap.

In November, **CTEK** acquired Backbone, a small ($3.5M annual sales) provider of security and privacy consulting. The acquisition indicated to me that CTEK will likely try to acquire its way to growth. Given that shift, I think a more noteworthy event in the quarter was the 13G filed by Horton Capital Partners, important not least because I like them but because of their prior success with *amicable* activism.

At ReproMed (now Koru, which we do not own) they gently and patiently nudged out a founder(!!) in order to realize substantial value for a company whose decidedly low-tech plastic box and spring has become an essential built-in component for certain at-home infusion therapies.

At Safeguard Scientific (**SFE**, which we do own), Horton patiently pushed the Board to dramatically cut costs and facilitated the now ongoing wind down of legacy investments. These investments have at reasonable and recent comparable valuations +$300M in takeout value while the enterprise value of the entire company is $200M.

With this as a backdrop, I think Horton can add to advocacy efforts other shareholders have pursued and help amicably nudge CTEK towards improvements it sorely needs in operations, governance and capital allocation. While the MPS sale and the new CEO Caleb Barlow were positive steps, these actions exposed inadequacies that fall at the Board's feet. The opportunity path would be widened by adding Board members with M&A expertise, with large pubco growth experience and by "ABS" (addition by subtraction).

The stock is trading at under 1.5x totals sales and if we just include the recurring revenue and relationship driven managed services business, it's trading at under 3x segment sales. This is cheap.

There are reasons for the low valuation. It's possible that turnover in the sales force leads to short term customer churn. It has only $4M net cash post Backbone acquisition and is still unprofitable. It's not growing vs tough comps on the lumpy professional services part of the business. And historical financials are complicated by the MPS sale, which makes comparisons hard to comprehend (as humorously demonstrated on this video by Focused Compounding).

So why are we still involved? I have observed in prior cycles (off the top of my head: fiber optic cable layers, office networking, Y2K and Sarbanes Oxley) how elevated demand can drive substantial growth and margin expansion for outsourced professional services. I see those ingredients here as well and expect them to reward the patient investor.

Long Cast Advisers newest large position, **Perma Fix (PESI)** drove the bulk of performance for the quarter. The company has a lot of attributes I find attractive and various tailwinds to support growth. It is easy to understand and has a long operating history accessible for analysis. This history reveals a company long mismanaged by its founder / operator that split the Chairman / CEO role in 2014 and then brought on its first outside CEO in 2017 who is effectuating a turnaround that is gaining traction.

Concurrently, PESI's primary customers (DOE, DOD cleanup sites, et al) are spending money and re-letting contracts after a long lull, including potentially large contracts on which PESI is rumored to be a named sub-contractor.

Finally, large legacy contractors like Fluor and AECOM are selling / have sold their managed services businesses to private equity, who in turn I think are mostly attracted to the outsourced IT programs. This could create potential disruptions for themselves and opportunities for smaller companies like PESI, especially given its newly installed but experienced management team.

PESI operates in the nuclear waste remediation business through two segments.

The Treatment segment (62% of TTM revenue) is an asset heavy operator of low level and mixed low level radioactive waste facilities in Tennessee and Washington and a liquid waste facility in Florida. (Can go here and search by site ID for RCRA information or the links below for the company's self reported information.)

Tennessee. Diversified Scientific Services (DSSI). Site ID: TND982109142
Washington. Perma Fix Northwest (PFNW). Site ID: WAR000010355
Florida. Perma Fix of Florida (PFF). Site ID: FLD980711071

Broadly speaking, Treatment is a capacity utilization business where volume growth offers operating leverage and non-linear margin expansion once fixed costs are scaled. Historical financials understate the true earnings power of this segment for two reasons: 1) TTM results are negatively impacted by closure costs for a facility that is now closed. Excluding those costs, which are one time in nature, proforma margins are in the +30% range. 2) PESI has never operated a strong Services component but now that one is growing, it can feed additional volume to treatment facilities, where incremental margins are +70%. In short, I think the earnings trajectory in Treatment may shift positively.

The Services segment (38% of TTM revenue) is a variable cost model. It's essentially boots on the ground in Tyvek suits with picks and shovels plus engineering expertise, et al. This segment is benefitting from the aforementioned turn-around under CEO Mark Duff, plus from a tailwind of additional customer spending and competitor disruptions and the importantly. The growth in services has the multiplier effect of increasing waste volume to Treatment.

An interesting part of the Services turnaround in my mind is that the Mr Duff actually once ran and grew this exact business. A look at old filings and self reported biographies indicates that in the mid-2000's until 2010 he was President of a company called "Safety and Ecology" where he grew revenues from $50M to $80M. He was running it when it was sold in 2008 to what appears a fairly schlocky public rollup called Homeland Security. He was gone however by 2011 when SEC was sold to PESI, which failed to sustain its growth (ie drove it into the ground).

After SEC, Duff was a project manager at the Paducah Gas Diffusion site, first for LATA-Kentucky and then for the Shaw Group / CBI JV that took over the site when that contract changed hands. Now he's back at the original SEC and two years into a turnaround that is taking shape.

At current prices the company is valued at ~$100M EV. It trades at 1.5x TTM revenues, 6.5x TTM gross profit and 20x pro-forma EBITDA (after adding back one-time closure costs). This looks expensive, especially given AECOM sold their managed services division for 12x EBITDA. Some of the multiple is driven by rumours of the large contract I mentioned earlier. If they win it, it's revolutionary for the company but even if they don't, the increased spending will lift all boats in the space.

Furthermore, if we apply 12x EBITDA to just the Services segment, this implies the Treatment business trades for 1.6x sales and that's hard to fathom. PESI's Treatment business is one of three named contractors on DOE contracts to handle low level waste. The others are Energy Source and Waste Control. Those two tried to merge in 2015 a deal valued at 8x sales that deal was blocked on anti-trust grounds. I'm pretty sure 8x is *not* the right sales multiple for PESI's treatment but in an environment like we have today, with increased volumes concurrent with high barriers to entry, it is likely worth more than the multiple inferred by comparative valuations on the Services business.

Historical figures are only good as a baseline and investors will make money on future results. What can this company look like in an environment with rising spending, competitor dislocations and a management team that for the first time has Services experience? I think for the long term shareholder, it offers a wide success pathway and ample opportunity for returns even though current multiples don't screen for value.

CONCLUDING THOUGHTS: A BRIEF BUSINESS UPDATE

In 2019, Long Cast Advisers grew the number of managed accounts by 40% and the amount of fee paying AUM by 70%. As of this writing, we are a hairbreadth under $5M with additional committed capital available as I find new ideas. It's not a lot but it's all moving in the right direction.

I've taken an incremental approach to this so that I can learn as I go while limiting the impact of inevitable mistakes. My +10 years as a sell side analyst serves its experience as a fundamental analyst but there is so much more to running an investment management firm. Four years in, I understand the business side better, I understand portfolio management better, and I have better systems in place for managing a growing client base. I’m still improving.

In the background of all this is of course is an epic bull market, inflated by artificially low interest rates, temporarily low taxes and an epidemic of pushing debt and other burdens to the next generation to resolve. Who knows how long these imbalances will remain; to me it increasingly resembles a potlatch.

Regardless, I will continue to nurture our capital and focus on businesses that I think offer long term growth opportunities and differentiated returns in order to grow a business around the core competencies of research and portfolio management as opposed to asset aggregation.

If you know other like-minded and patient investors who would appreciate working with me, please let me know so we can arrange an introduction. As always, I appreciate your entrusting me with your capital and the responsibility of being its steward. If you have any comments or questions, please don’t hesitate to write.

Sincerely / Avi
January 2020
Brooklyn, NY