Q4 2018 Investor Letter | *January 25, 2019*

Dear Investor,

Results for the partial and year ended December 31, 2018 appear below with comparable results for the S&P 500.

Bonsai Partners Historical Returns Summary

	Since Inception
Bonsai Gross Return	**-17.9%**
S&P 500 Return	**-10.4%**

Performance data shown represents past performance. Past performance is not indicative of future results. The period October 22, 2018, to April 30, 2021, presents time-weighted returns of a representative Bonsai Partners, LLC ("Bonsai") managed account with the same strategy and risk profile as Bonsai Partners Fund, LP, (the "Fund") which launched on May 1, 2021. Results from May 1, 2021, reflect the time-weighted returns of Class A shares of the Fund.

Gross returns from October 2018 to April 2021 include transaction and commission fees. Gross returns from May 2021 to the present include transaction and commission fees and fund operating expenses, such as administrative and audit fees but do not include management or performance fees. Net returns reflect the gross returns (as described) reduced by a 1.0% management fee and a 10.0% performance fee above a 6.0% cumulative compounding hurdle.

All performance figures are calculated internally by Bonsai Partners and are therefore estimated, unaudited, and subject to adjustment. The investment return and principal value of an investment with the Fund will fluctuate so that an investment, when redeemed, may be worth more or less than its original cost. Actual performance for a particular investor may be lower or higher than quoted performance due to different fee structures, share classes, beginning periods, capital additions or withdrawals, or individual compliance related mandates. Please refer to important additional disclosures at the end of this letter.

Performance Update

In late October 2018, Bonsai Partners officially opened its doors. While I was enthusiastic to get started, the first “bear market” in nearly ten years was there waiting for us.

Although we were fortunate to maintain over 50% of the portfolio in cash during this volatile period, we underperformed. These results are mainly attributable to our largest and first investment made in a company called Aspen Aerogels.

2131 Palomar Airport Road, Suite 205
Carlsbad CA, 92011

andrew@bonsaipartners.com
www.bonsaipartners.com

Although Aspen shares significantly declined in value in the fourth quarter, I remain constructive on our investment and the opportunity that lies ahead for the business. I outline my thinking on Aspen below.

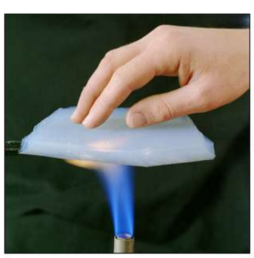
Although I am disappointed by this first quarterly read-out, I recognize that my goal isn't to beat the market every quarter; it's to provide outsized returns over a multi-year horizon. This two-month check-in is only a first stop on the much longer trip that we are on. I look forward to earning your trust over the coming years.

It's truly an honor and a privilege to work with you as a partner. I'm deeply grateful and humbled to be working with people that I admire and respect. Thank you for putting your trust in me to manage and grow your savings alongside my own. My promise to you is that I will do everything in my power to never compromise my integrity along the way, and work as hard as humanly possible to protect and grow what you have carefully saved.

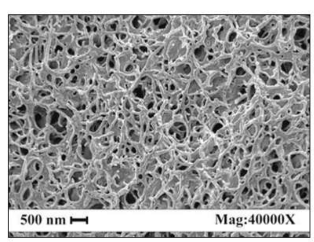
Investment Review: Aspen Aerogels (NYSE:ASPN)

Aspen Aerogels represents Bonsai's first and largest investment to date. Although the company is small and not well known, Aspen is the market leader in a revolutionary material called aerogel. Think of an aerogel like a sponge; a solid material comprised of many small chambers of air. Unlike a sponge, however, aerogels are made of millions of tiny nanopores, so that in terms of density, they are almost entirely air.

The millions of little air pockets inside of an aerogel offers a unique value proposition: **aerogels are the best solid insulators on earth**.

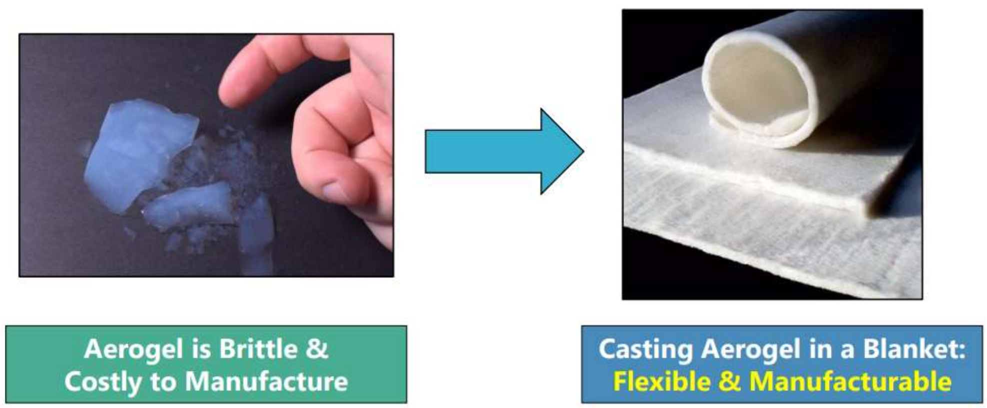


Aerogel is the Best Thermal Insulator in the World



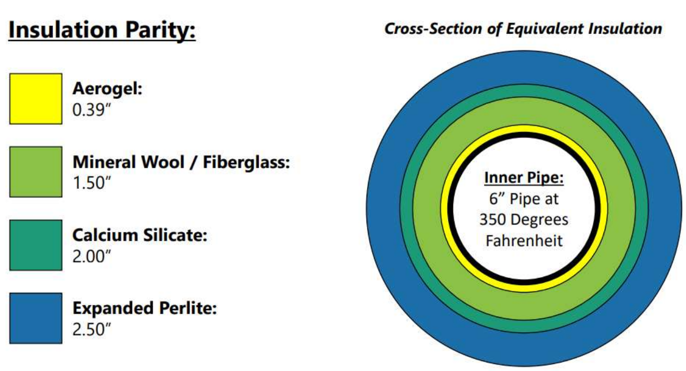
Aerogel's Nanoporous Structure is Excellent for Insulation

Although materials scientists first discovered aerogel around 1930, they weren't able to commercialize the technology because aerogels are fragile and hard to make. Nearly 70 years later, Aspen emerged by creating a useable form of aerogel. Aspen's breakthrough came from inventing an aerogel composite by casting an aerogel within a fibrous blanket. These 'aerogel blankets' have the same insulative properties of aerogel, but they are also flexible and easier to manufacture. Further, aerogel blankets are more similar to traditional insulation since they can be rolled and cut by installers.



Aspen owns the core intellectual property behind aerogel blankets which has allowed them to control this market. To date, Aspen has sold over $800 million of aerogel insulation.

Aerogel is special for a simple reason: it's the best performing insulation on earth. Put another way, aerogel conserves more energy, requires 75-90% less physical material than traditional insulation, is easier to install, and offers better durability.



The total global insulation market is large (roughly $52.3 billion per year), yet Aspen's revenues sit at approximately $110 million. This implies that aerogels have a 0.3% insulation market share. In a world of increasing energy efficiency requirements, it's hard to see a future with less aerogel in it.

Further, Aspen's technology has been validated by multiple leading companies. For example, Aspen's hot insulation product: *Pyrogel*, was created alongside ExxonMobil, while their cold insulation product: *Cryogel*, was developed with Technip, the largest subsea oil & gas pipeline contractor. Finally, Aspen's building materials product: *Spaceloft* A2, is exclusively sold in partnership with BASF, the largest chemicals company in the world and a leader in materials science.

Since aerogels cost more than traditional insulation, they are typically used where other insulation materials fall short. Aerogel blankets found its first major niche within the energy insulation market, i.e. petrochemical plants and pipelines. In these industries, space and energy efficiency are at a premium, making aerogels quite useful. Over the past decade, Aspen's sales have increased significantly, with an average annual growth of approximately 20% per year. Although they have grown quickly, they haven't entered the building insulation market in earnest yet, which remains the lion's share of the insulation industry.

Aspen's shares remain quite cheap. In my opinion, it's rare to find a business trading below its net asset value that also has a world-class technology and a long runway to grow. At the time of writing, Aspen's market capitalization sits at approximately $65 million. In 2019, the company expects to generate a small amount of "adjusted EBITDA," and by 2021 I expect them to generate $20-$30m of true operating cash flow. By this math, Aspen is available to investors today at roughly 2-3x operating cash flow.

On the surface, Aspen doesn't look cheap because it isn't profitable today. But, given that most of their expenses are fixed costs and they are currently at their break-even point, they will start generating a lot of cash as their end markets continue to recover and grow. Incremental revenue for Aspen currently flows through at approximately a 40% EBITDA margin. If investors value the business at a modest ~6-8x operating cash flow, this represents a 200-400% return. Separately, as I've mentioned earlier, I believe the underlying assets at Aspen are worth at least it's current market capitalization ($65 million) if the company is forced to sell itself. Aspen's East Providence plant cost over $150 million to build, and their intellectual property is backed by over $100 million spent on research and development.

While the future looks bright for Aspen, the company was a significant detractor of value for our portfolio over the past two months. Although we accumulated a position at what I believe to be an attractive price, during these past two months the quoted market value of Aspen's shares dramatically declined. Aspen shares went as far as reaching a low price of $1.61 per share in December, down from ~$4.00 per share a couple months earlier. This happened for a number of reasons:

First, Aspen's third quarter results came in below expectations, and they guided to a slightly weaker fourth quarter. These results caused Aspen to burn more of their cash reserves than expected, and to cover this shortfall, the company tried to raise equity to bolster their balance sheet. The stock was already trading at all-time-lows, and this potential dilution was too much to bear for some existing shareholders, who rushed for the exit. Aspen is very thinly traded, and when you add into this equation the December market volatility and a decline in oil prices, the end result was a microcap stock in free fall, all while the business really hadn't changed that much. Frankly, although their fourth quarter results are expected to be lackluster, management indicated that 2019 will be strong, with at least 20% revenue growth, all while their project pipeline for 2020 & 2021 continues to firm up.

Despite the panic in Aspen's shares this quarter, we didn't sell any of our position, regardless of how hard it was to watch the stock go down day-after-day for seemingly little reason. As the first major investment I made for our portfolio, this was a baptism by fire. Looking back, the error I made wasn't in making the investment in the first place, but in how I sized it. I should have been adding on the way down, but by that time I had already fully sized the position. That was my error, and I don't intend to repeat it.

As of writing, Aspen's stock has rebounded from its lows by over 70% but still remains below our cost basis. We remain invested in Aspen shares for the reasons outlined above: 1) Aspen has a world-class technology, 2) they have a long runway

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to grow, 3) they trade at or below liquidation value, and 4) they are likely to generate significant cash flow relative to its current market capitalization.

What Does Bonsai Partners Stand For?

I want to take a minute now to explain what I am trying to do differently at Bonsai Partners.

By some estimates, there are over 10,000 investment funds that exist today, and in all likelihood, there will be fewer in the future. The world doesn't need another fund manager, yet I still decided to launch Bonsai Partners this past October. I couldn't find the fund that I wanted to work for, so I decided to create it.

I believe there are multiple things that need to change within the investment management industry, from the way managers are paid, to how investment research is done. In this letter, I'm focusing on this last point: how research is typically done, in an attempt to explain what I do differently.

The Difference Between Perception and Reality

In the years I've spent investing, I have never come across a company where my initial impressions accurately reflected the way the company really was. After a deeper look, the facts usually told a different story. Gaps often exist between appearances and reality, and investors who see these differences can exploit them to invest in businesses at attractive prices.

The truth doesn't want to be found, but it's usually hiding in plain sight. The investment process I use to uncover the truth is called **investigative investing**.

Let me start with a quick story. I used to work at a large hedge fund, and one day, I was tasked to research a company focused on selling satellite imagery to the U.S. government. Think Google Earth, but with constantly updated images of the world. I started my analysis by doing the same research that most other analysts do: I read the annual reports, listened to the earnings calls, spoke with management, etc. All signs indicated this company had a strong business and a lot of opportunity ahead. In other words, at the right price, it was a compelling investment.

I'm skeptical by nature, and I believe it's my job to test and prove out what I believe to be true, and not just accept perception as reality. I decided to fly to Springfield, VA to attend a satellite imagery forum held by the National Geospatial-Intelligence Agency (NGA). This agency was this company's key customer at approximately ~70% of their revenues each year. While this forum was completely open to the public, I was the only investor there. This was a multi-billion dollar company, yet no other investors showed up, or more likely, they didn't know it was happening.

Either way, at this meeting, the manager at the NGA who directs purchases of satellite imagery shared a very different perspective. Looking back at my notes now, he said: **"I do not need images, stop sending them to me. You keep them. I need insights."** He went on to explain in detail that they would be stepping back from buying more and more satellite images like in the past. This was in stark contrast to what I had learned earlier, and it painted a very different picture of the company.

Insights like these in the research process change everything, but they aren't easy to come by. I tell this story not because it's unique (I have others like it), but because it shows how far the truth can be from the materials that most investors rely on to make decisions. Few go these lengths to figure out what the truth is.

The satellite company ended up selling itself in desperation nearly a year later.

The Art of Investigative Investing

There's a big difference between knowing a business, and deeply understanding it. **Unfortunately, the tools and resources that most public market investors use today aren't good enough to deeply understand any company.**

The information given to us by management is just one perspective, and often times it is not a complete or accurate depiction of reality. Let me be clear, annual reports, historical financials, and management commentary are all useful to learn about a business, but they cannot be the basis for making an investment decision.

If a company has a “secret sauce,” you better believe they aren’t publishing it in their annual report for their competition to see. Similarly, if they face struggles, they will do their best to spin it positively or hide that fact entirely, so they won’t look weak to their investors. The net result is a ***version*** of the truth that is an echo of what the business actually is. It takes a lot of other perspectives to deeply understand what’s going on.

The investigative research process uncovers two forms of valuable insight for us: 1) identifying businesses that are better than they appear (valuable investment ideas), and 2) identifying businesses that are hiding their material weaknesses (preventing investment mistakes).

By definition, information that’s valuable is hard to access. Knowing where to look and how to uncover this information creates a more complete (but not perfect) version of the truth. This valuable information is typically locked-away in the brains of former employees, customers and competitors. It sits inside textbooks, court records, background checks, old newspaper articles, cold calls, unique data-sets, etc.

Unfortunately, there is no formula or algorithm to follow to get the truth, instead, it requires an understanding of what matters and an instinct to dig deeper when the story doesn’t add up. Much like a tracker of wildlife, there are clues and artifacts left behind by a business that will lead you down certain paths. Most of the time those trails are dead ends, but if you walk down enough of them and turn over enough rocks, you’ll gather sufficient evidence to validate or refute what you believe to be true.

Sometimes this happens in what I call a “breakthrough moment.” Unfortunately, you can’t know in advance when these breakthrough moments will happen, or whether they exist at all for a given company. That’s what makes this process challenging and undesirable to do. In addition to having the know-how to find the right information, it’s time-consuming and it can be uncomfortable. Perhaps this is why few go these lengths, and why the payoff can be so large when you uncover valuable insights. I've seen it over and over again in my prior investing role.

My edge in this system is that I love doing it. I'm not deterred by these barriers; in fact, they are my competitive moat. **I'm willing to go where others won't go and do what others won't do.**

In investigative investing, the reward for me is the activity itself. If I wasn't allowed to be an investor, I'd probably be an investigative journalist, a detective, or really just anything that involves uncovering the truth and understanding why things are the way they are.

In the end, the output of investigative research is deep insight into companies and why they operate the way they do. Insight allows you to see value others cannot, and these insights can transform a stock that appears to be expensive at first glance into one that's quite cheap.

Scientists use the scientific method to test their hypotheses through an unbiased and rigorous research process. Shouldn't investors test their hypotheses through an unbiased and rigorous research process as well?

Investigative investing is my attempt to replicate the scientific method within an investment setting. The goal is to gather unbiased, complete, and accurate information to deeply understand a company for what it is, not what I want it to be, or what the company wants me to believe. I'm betting my career on the premise that by doing this work, we will generate outsized returns.

Investment Pipeline and Closing Thoughts

Although the recent market volatility was painful, it provides opportunities for us to invest at attractive prices. What excites me today is that our pipeline of ideas has grown significantly over the past few months. I look forward to investing alongside you in high-quality companies informed by deep investigative research. I will update you on our progress as we continue to build the portfolio in the pursuit of compounding our savings.

If you have any questions or comments, don't hesitate to reach out to me.

Fondly,

Andrew

Andrew Rosenblum
andrew@bonsaipartners.com
(858) 367-5854

Bonsai Partners

Disclaimer:

Bonsai Partners, LLC ("Bonsai") is the investment manager of Bonsai Partners Fund, LP (the "Fund").

This letter has been updated from its original version. Disclaimers were revised to reflect current standards and clarifications for the intended audience. Certain visual elements, formatting and brand identifiers have been refreshed to align with our current branding. These changes do not alter the core message of the original letter.

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The S&P 500 Total Return index is a basket of 500 large U.S. stocks, weighted by market capitalization, and is the most widely followed index representing the U.S. stock market. The S&P Total Return Index includes the reinvestment of dividends. Benchmarks and financial indices are shown for illustrative purposes only. They provide general market data that serves as a point of reference to compare the performance of other securities that make up a particular market. Such benchmarks and indices are not actively managed and do not reflect the expenses associated with managing an actual portfolio, the cost of investing in the instruments that comprise it, or other fees. No representation is made that any benchmark or index is an appropriate measure for comparison.

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