Beyond Quant InvestTraining Interview with Jason Bond, Boole Microcap Fund – July 2018

Welcome my fellow Value Investors! I am pleased to resume the Interviews with the Investing Elite Series. We are pleased to interview Jason Bond, Founder and CIO of the Boole Microcap Fund, today. Jason is based in Seattle, USA.

1. Nitiin: Hi Jason. Nice to have you in the "Interviews with the Investing Elite" Series! Could you please highlight your professional background?

Jason: Hi Nitiin. Thanks for having me. I had a goal of playing in the NBA, but eventually I had too many injuries. I had a lot of fun playing in college and then in Belgium for two years.

My first job was as an analyst at a strategy consulting firm in Seattle. It wasn't the right job for me, but I did learn about business and accounting for a year.

Soon thereafter, I discovered the excellent book, *Buffett: The Making of an American Capitalist*, by Roger Lowenstein. I was immediately captivated by Warren Buffett and value investing.

For graduate school, I attended the University of Pennsylvania to study economics. I did my master's thesis on the work of Daniel Kahneman and Amos Tversky.

After graduate school, I worked at Tortoise Investment Management. They had a conservative investment philosophy and they didn't do much stock picking. But the people were great. Around this time, I attended the Value Investing Congress twice and the Berkshire Hathaway annual meetings in 2006 and 2007.

A few years later, I launched JFB Capital, a registered investment advisor. Then I taught several classes on investing at Seattle University. Finally, I launched the Boole Microcap Fund.

2. Nitiin: So, teaching seems to be common to both of us, I guess! Coming to my question, Jason, reading the book *Buffett: The Making of an American Capitalist* by Roger Lowenstein seems to have led to a great career leap for you — into the tumultuous world of investing. Can you describe the journey in brief?

Jason: Yes, sure. After reading Lowenstein's great biography of Buffett, I was struck by the idea that with patience, discipline, and rationality, you could consistently find undervalued stocks and you could beat the market while taking less risk. **The lower the price relative to probable intrinsic value, the lower the risk and the greater the upside.** Of course, this is the opposite of what modern finance teaches, namely, that the only way to get more upside is to take greater risk.

I also realized that markets are not fully efficient, again contrary to the modern finance orthodoxy. Part of the motivation for going to graduate school was that I wanted to learn more about why so many economists believe that the markets are highly efficient and that you can only beat them by luck.

As mentioned, I did my master's thesis on the research of Kahneman and Tversky. They are psychologists who performed decades of experiments involving people making decisions under uncertainty. **These experiments — which are repeatable — demonstrate that many people are *not* fully rational when making decisions under uncertainty.**

While at Penn, I had the good fortune of being in the Wharton Investment Management Club. I quickly realized how fun and interesting value investing is but also that I knew very little and had much to learn.

As noted, I worked at Tortoise Investment Management. Living in White Plains, New York, made it easy to attend the inaugural Value Investing Congress in New York City in the fall of 2005.

After that, I managed JFB Capital for four years. Then I taught several courses on investing. Since 2015, I have run the Boole Microcap Fund.

3. Nitiin: Very interesting, Jason. If most of my hedge fund manager interviewees have one thing in common, it's a diverse background and interests. Well, you seem to be no exception, Jason. As an undergraduate, you majored in philosophy, and took courses in Greek, Latin, and English literature. You had NBA aspirations too. Did all this somehow help you shape up as a better person? Did all this non-business learning, before you decided to go in for Economics, help?

Jason: That's a very interesting question. It's hard to say. But my studies — especially science, and the history and philosophy of science — have given me a sense of perspective. It's amazing how much progress has been made in science and technology.

But it's even more amazing how little we know. Science is probably less than 5% complete. Most of the biggest scientific and technological breakthroughs will likely take place in the future. Science and technology will create vast amounts of new wealth. And eventually every person will be much better off.

In terms of perspective, if there's one lesson from the history of science that I learned, it's that **no matter how certain anything may seem, everything is revisable**. The goal of science is to predict the future based on the past. As a part of that endeavor, anything — even the laws of math and logic — can be revised. Nothing is automatically true, come what may, since everything is related and everything is aimed at predicting future experience as simply and accurately as possible.

For example (I found these two examples interesting), 1+1 does not always equal 2. If you're traveling one direction going the speed of light and you measure the velocity of a light beam coming towards you in the opposite direction, you'd expect it to be traveling twice the speed of light relative to you. But instead you would still observe the light beam as traveling the speed of light.

Another example is that the law of the excluded middle in logic doesn't apply to quantum mechanics. Einstein objected to this because it means fundamental reality may be inherently statistical rather than deterministic. You probably heard Einstein's famous remark, "God does not play dice." However, quantum mechanics is amazingly accurate. Random quantum fluctuations may have created everything. On the other hand, an even more fundamental theory may come along that is deterministic rather than statistical.

4. Nitiin: Alright, Jason. You seem to have got your timing just right, when you launched **JFB** Capital in 2009 — right after the financial meltdown. And you did quite well till 2011, it seems. How were the early years of the fund?

Jason: I got lucky with the timing in early 2009. I had put 40% of client accounts in cash, which I then invested in early March 2009. I knew — from having studied Buffett and other top value investors — that you should try to buy at the point of maximum pessimism. However, getting lucky with market timing in 2009 contributed to a huge mistake in 2011-2012, when I foolishly tried a form of market timing again.

So, up until 2011, things were pretty good — they were best in 2009. I was reading around that time about some investors who had done very well in 2008 because they were net short. Some of the reading I did included Russell Napier, Andrew Smithers, John Hussman, and Jeremy Grantham. There was an argument made by these and other folks, based on a century of evidence, that the U.S. was still in a secular bear market, which meant that the S&P 500 Index would fall below fair value (~1,100) towards 800 or so. This argument, which I thought was virtually irrefutable, turned out to be dramatically wrong. Because our accounts were aggressively short, we blew up.

This was a terrible mistake on my part. It's going to take me a long time to make things right.

5. Nitiin: And I am certain you will make things right, and then some. Why did you choose to name your fund after George Boole, the famous mathematician?

Jason: So, Boolean algebra is the branch of algebra in which the values of the variables are the truth values **true** and **false**, denoted 1 and 0. All modern programming languages, of course, are based on Boolean algebra.

Since the Boole Microcap Fund will ultimately be run entirely by a form of AI (artificial intelligence), "Boole" seemed to be the right name.

Something's that interesting about AI: Just as AI beat the best humans in chess, then later in *Jeopardy!* and then later in Go, eventually AI will be better than the best human investor. It's inevitable. Only a matter of time.

There will probably be a transition period during which AI and humans work together in investing. To some extent, that's already happening at firms like Renaissance Technologies and Bridgewater Associates. Consider freestyle chess as an example, where computers and humans together are stronger than any computer on its own. Over time, AI will become far better than the best humans in a wide variety of areas including investing, at least in my view.

6. Nitiin: Okay. Jason, could you please discuss your investing process broadly?

Jason: **We focus on microcap stocks** — stocks with a market capitalization between $10 mn and $300 mn. Each stock is ranked first for cheapness according to five metrics:
• EV/EBIT — enterprise value to earnings before interest and taxes
• P/E — price to earnings
• P/B — price to book
• P/CF — price to cash flow
• P/S — price to sales

Each measure is equally weighted in our quantitative model. In *What Works on Wall Street*, 4th edition, James P. O'Shaughnessy found that using these five metrics together produced the best performance from 1964 to 2009. Moreover, using five metrics (instead of just one or two) tends to smooth out the results.

The next step in our quantitative process is to rank each stock using the Piotroski F-Score. A high F-Score indicates improving fundamentals. This factor carries more weight in our model than each individual measure of cheapness.

Then each stock is ranked based on **low debt levels**, **high insider ownership**, and **high dividend yield**. These factors carry less weight than the five measures of cheapness mentioned above. But they're still important.

After we have isolated the top 100-200 candidates using this quantitative screening process, we then examine the financial statements of each company, looking for non-recurring items, hidden liabilities, bad accounting, and fraud. We re-rank stocks on every measure using the updated data.

At the bottom of the process we build the portfolio. There are roughly 10-20 positions in the portfolio. The size of each position is determined by its rank. Typically, the largest position is 15-20% (at cost), while the average position is 8-10% (at cost).

7. Nitiin: Alright. Just a side question based on your response. You mentioned market cap between $10mn and $300mn. Suppose there were to be a stock which you felt was a promising one, with you know, a $15mn-$20mn market capitalization. How much stake do you typically consider taking (in such a stock), you know because it's such a small cap and buying up even 1% might spoil the (average buying) price for you?

Jason: That's a great question, Nitiin. A great deal of care must be taken in establishing the positions, because as you know there's so much illiquidity, especially among the tiniest micro caps, that if you're not very patient, you can drag the price up too far. It does depend on the stock, of course, but many of the stocks are quite illiquid, especially the tiniest ones. So, we'll try to establish the position carefully, over the course of a couple of weeks if that's necessary — it hasn't always been.

8. Nitiin: Alright, thanks. Coming to my next question, how easy or difficult was it, to apply the principles of value investing, to your actual investments, over the years? Are there any unique methods or strategies you developed that you would like to highlight?

Jason: Another good question, Nitiin. Each investor is different, of course. It took me almost a decade to learn that **a quantitative deep value investing strategy focused on micro caps is by far the best approach for me**. It suits my personality. I learned that market timing, short selling, and macro forecasting are usually a waste of time and money, especially if you compare it to investing in microcap stocks. If you look only at micro caps — whether using a quantitative approach or examining each company one at a time — you can do much better than the S&P 500 Index over the long term.

Many top investors, including Warren Buffett and Peter Lynch, got the highest returns of their careers from investing in microcap stocks. That's why Buffett has always maintained that you can do best by concentrating on micro caps.

9. Nitiin: Jason, I notice quite a bias towards Energy and related sectors, in your fund portfolio with stocks like ESV, ADEC, TNK, HOS. Could you please elaborate on this?

Jason: Sure, I saw an interview of value investor Robert Robotti about a decade ago. He mentioned **Atwood Oceanics** as one of his favorite investments. I ended up studying energy companies for about one year. So, then a few years ago, as you know, energy prices collapsed and many energy-related companies got quite cheap. Atwood was coming up near the top or at the top of our quantitative screen on several different runs. Soon, Atwood was our largest position. Last year, Ensco plc. acquired Atwood. The fund continues to hold Ensco.

I would say that even among micro caps, there do not seem to be many cheap stocks today (mid-2018). However, **some energy-related stocks including Ensco, in my view, are likely to increase at least 200-300% over the next few years**. **Since we hold positions for 3 to 5 years, and shorter-term volatility is irrelevant, the current portfolio is heavily focused on energy-related opportunities.**

Just to give you a bit of background on that: **We assume that, based on long-term supply and demand, WTI oil prices over the next 3 to 5 years are likely to be in a range of $65 to $85 a barrel.** If that's true, then Ensco and some of the other energy-related stocks will probably do quite well.

Even if for some reason oil prices stay below $65 for the next 5 years, Ensco is still likely to be a decent investment because of *its solid financial position, broad customer base, high-quality rig fleet, ultra-safe operations, and industry-leading customer satisfaction ratings*.

Also note: Energy-related companies have outperformed the broad market over time. Moreover, they have a very low correlation with the broad market when you look at 5-year (and longer) periods. The U.S. stock market, as you know, appears rather high overall. But some energy-related stocks — because they are quite undervalued — can still do well over the next 3 to 5 years, even if the broad stock market is flat or worse.

One last thing: **Energy-related companies have done much better than the broad stock market in inflationary environments.**

10. Nitiin: That makes sense, I guess, Jason. And oil is a great contrarian play and as we've all observed, oil prices don't remain depressed for long. I guess your thesis is going to work out just the way you anticipated. Could you please discuss your thesis on Ensco a little bit?

Jason: So, just to sum up again — based on the long-term supply and demand for oil, WTI is likely to be in the range of $65 to $85 over the next 3 to 5 years. Also, **because oil producers prefer drillers that are reliable and that have strong financial positions, Ensco should continue to win a disproportionate share of the offshore oil drilling business going forward** — as it did last year (in 2017). Ensco is probably worth at least 100-150% of book value (which is about $20 a share). That implies about a 200-300% return.

Of course, oil prices are unpredictable, as you know, especially over a year or two. There could always be a recession or a bear market, either of which could see a temporary drop in oil prices. But even if WTI were to drop below $65 and stay there for years (or longer), Ensco would still be a survivor, in my view. Even in that case, an investor could make maybe about 50%. So, there's excellent downside protection, combined with attractive upside potential, in my view.

11. Nitiin: Sure, that make sense. What are the key lessons you've learned from your professional setbacks, Jason?

Jason: Great question. I think **there are three key lessons** — there might be a bit of overlap here**.**

(1) "Forecasting is unreliable."

In 2011-2012, I read some persuasive arguments that the U.S. stock market was still in what's called a secular bear market. Secular bear markets historically have only ended with the CAPE (cyclically adjusted P/E ratio) approaching single digits. This meant that the S&P 500 Index would decline towards 800 or so.

But Ben Graham has explained that forecasting is unreliable because the economy and the stock market evolve and change over time. In recent years, as you know, because central bankers printed trillions of dollars and kept interest rates near zero (or even below zero in some cases), and perhaps also (to a much lesser degree) because large tech companies with high ROE are much more important in the U.S. economy, the S&P 500 Index went up over 150% from 2011, rather than declining 30% or more.

You had mentioned this as a possible question. I was thinking about how to answer it. I'd like to include a few of my favorite quotes on forecasting if you don't mind:

Ben Graham: "*If I have noticed anything over these sixty years on Wall Street, it is that people do not succeed in forecasting what's going to happen to the stock market.*"

Warren Buffett: "*Charlie and I never have an opinion on the market because it wouldn't be any good and it might interfere with the opinions we have that are good.*"

Seth Klarman: "*In reality, no one knows what the market will do; trying to predict it is a waste of time and investing based upon that prediction is a speculative undertaking.*"

Finally, Henry Singleton, the great capital allocator: "*I don't believe all this nonsense about market timing. Just buy very good value and when the market is ready that value will be recognized.*"

(2) I think the second lesson, which is pretty similar to the first one, though slightly different is: **"Macro predictions are also unreliable."**

This is just a brief point, but there was an argument made by some that shorting the Japanese yen was the "trade of the decade." This idea was presented as a "can't lose" investment because of the stratospheric debt levels of the Japanese government, combined with the shrinking population in Japan. However, the investment hasn't worked. And it may never work. Moreover, perhaps one day it will work, but if it takes 15 or more years, you could do much better just by sticking with value investing, especially focused on inefficient areas like micro caps.

(3) "A deep value strategy focused on micro caps can produce some of the highest long-term returns."

As noted, many of the best investors got the highest returns of their careers when they invested primarily in microcap stocks. As you know, Nitiin, **because so few professional investors ever consider micro caps, there is much greater inefficiency here than there is for small caps, mid-caps, or large-caps.**

12. Nitiin: Sure. What are the key differentiators of the Boole Microcap Fund, which set it apart from other microcap funds in the market place?

Jason: Four things set the Boole Microcap Fund apart:

- It's quantitative.
- It's deep value.
- It's focused on the best 10-20 ideas.
- It has low fees.

And I would just add that I think, using this formulaic approach over time, the fund should outpace the Russell Microcap Index by at least 2% a year (net) and the S&P 500 Index by at least 5% a year (net).

13. Nitiin: Okay, so your differentiators make excellent sense. You have a policy of concentrated holdings focusing on deep value. And of course, it's quantitative and you're charging low fees to the investors. Great! You maintain that "some of the best ideas involve companies with high debt". But Jason, debt does aggravate investing risks substantially. Could you please comment on this?

Jason: You're right, Nitiin. Some investors specialize in equity stubs. But outside of that, I agree with you that value investors should avoid companies with high debt. This is a simple rule that Buffett and Munger have used. Highly indebted companies too often run into trouble.

That said, **I do agree with Seth Klarman that occasionally it can make sense to invest in a low-priced, highly indebted company *if the odds of survival and the potential upside are great enough*.** I'd argue that **Hornbeck Offshore Services**, Inc. (NYSE: HOS) – which we own – is in that category.

14. Nitiin: Can you describe a couple of your microcap success stories and failures? In your view, which is the single biggest risk factor when investing in micro caps?

Jason: Yes, sure. When we first bought **Caledonia Mining (NYSE: CMCL)**, a gold miner, it had substantial cash, no debt, and it was trading at a very low P/E. The stock is up about 170% since then, in the last couple of years.

Today the P/E is still low at 8. And it still has substantial cash and low debt. **Also, I agree with John Maynard Keynes that — if possible — having at least one or two negatively correlated positions makes sense.** Keynes even mentions a gold miner as an example of that.

FreightCar America, Inc. (NASDAQ: RAIL) is a manufacturer of freight cars. It's a cyclical stock. **New leadership has done an excellent job diversifying from just coal cars to a broad array of freight car types.** They've also created material savings and they've significantly improved manufacturing processes. The company looks great — it continues to have over $120 mn in cash and no debt.

We basically broke even on the RAIL investment. And we've exited even though I think there's a good chance the stock will go up at least 50% over the next few years. The only thing is that if it takes three years, 50% is not necessarily that great, at least compared to some of our other investments. So, just because a company is at a reasonable multiple and is well-managed, and has lots of cash and no debt, doesn't necessarily mean that it's a good investment compared to your current and future opportunity set. Of course, the bar's often higher for micro caps because you can find those tiny little companies at a P/E of 2 or 3.

To your question regarding the biggest risk factor: If you run a portfolio of microcap stocks, especially if it's concentrated, of course, you must be sure that management is able and trustworthy. In too many cases, untrustworthy management can really screw things up.

15. Nitiin: Yes, I agree with that, and just to talk of the railroads, I'd looked at CSX a couple of years back and I guess it has given good returns. So, I believe that if the company is great, if the management is above average or great, usually the stock would give some positive surprises to investors. So, your target of 50% in 3 years might be achieved much sooner, I guess.

Jason: Ah. You're saying good or great management can add a lot of value and the stock can do better than you initially expect?

Nitiin: Yeah, absolutely. So, market respects companies you know, with good businesses and good management. So, typically the good companies give positive surprises to investors.

Jason: Yes. Exactly right. I agree with you, Nitiin.

16. Nitiin: Do you think the sellside or the independent boutiques produce adequate and reliable research on micro caps? Or in the absence of the same, does a sizable information arbitrage continue to exist within the microcap space?

Jason: That's a good question. Many value investors got the highest returns of their careers from micro caps. But **the same inefficient pricing in micro caps seems to persist to this day.** That's simply because, as you know, **the vast majority of professional investors never even consider micro caps.** Also, related to that, **many microcap stocks have no analyst coverage**, while others are covered by only one or two analysts.

In terms of research on micro caps, in my experience, valueinvestorsclub.com and manualofideas.com are often excellent resources. And seekingalpha.com is sometimes good, too.

17. Nitiin: Alright. Jason, your fund did quite well in 2016, handsomely beating the Russell Microcap and the S&P 500. Could you please describe the reasons behind the outperformance? And what went wrong in 2017, and how is the fund holding up in 2018 so far? With crude oil prices recovering, do you expect a sharp recovery in your portfolio holdings and fund performance in 2018?

Jason: Good questions. The good performance in 2016 and the poor performance in 2017 were largely due to the **statistical noise** of a large position in **Atwood Oceanics** (now **Ensco**, after the acquisition). We won't know if Ensco is a good investment for another few years. But if the stock returns to 100-150% of book value, which I think is very likely, then the performance of the Boole Fund will benefit significantly over the next few years.

18. Nitiin: Sure. What would be your advice to newbies out there, who wish to set up new hedge funds?

Jason: You have to be passionate about investing to do well. Continuous improvement is vital. But it's also important to get as much experience as you can before launching your own fund. Even John Templeton and Walter Schloss— both investing greats — struggled by far the most during their first decade investing professionally. So, why not try to get about a decade of experience before launching your own fund? I know that it took me nearly a decade to discover a strategy that works.

19. Nitiin: And here's my last question for the day, Jason. What would be your advice to fresh grads, who seek to work with hedge funds?

Jason: **Perhaps the best way to get a job at a hedge fund that uses value investing is to do a series of write-ups on your best investment ideas**. It may take awhile to get the hang of it, but once you learn to do a high-quality write-up, eventually — with perseverance — you should be able to get a job. Even Buffett took this approach when seeking a job working for Ben Graham.

Nitiin: Alright, thanks that makes sense too. So, thanks Jason. This really adds a lot to my interview series in that you bring a lot of different and fresh perspective that you've been so nice to share with my audience. I'm sure everybody who listens to this interview podcast will be better off after they are through with (listening to) the interview. So, thanks again. Thanks for being with us today and wish you good luck at the Boole Microcap Fund. Have a nice day, Jason.

Jason: Nitiin, thank you very much for the interview. You had some great questions, and I really enjoyed speaking with you today. Thank you.