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Graham & Doddsville

An investment newsletter from the students of Columbia Business School

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INVESTMENT MANAGEMENT
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Issue XXXI

Fall 2017



Howard Marks

Oaktree Capital Management

Since the formation of Oaktree in 1995, Mr. Marks has been responsible for ensuring the firm's adherence to its core investment philosophy; communicating closely with clients concerning products and strategies; and contributing his experience to big-picture decisions relating to investments and corporate direction. From 1985 until 1995, Mr. Marks led the groups at The TCW Group, Inc. that were responsible for investments in distressed debt, high yield bonds, and convertible securities. He was also Chief Investment Officer for

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Paul Sonkin '95 (left) & Paul Johnson

Pitch the Perfect Investment

Paul D. Sonkin is an analyst and portfolio manager at GAMCO Investors/Gabelli Funds. He is currently a co-Portfolio Manager of the TETON Westwood Mighty Mites Fund, a value fund which primarily invests in micro-cap equity securities. Prior to joining GAMCO in 2013, Sonkin was for 14 years the portfolio manager of The Hummingbird Value Fund and the Tarsier Nanocap Value Fund. He holds an

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Jeremy Weisstub (left) & Damian Creber '16

Aryeh Capital Management

Jeremy Weisstub is the Portfolio Manager & Managing Partner at the soon-to-launch, Toronto-based Aryeh Capital Management. Prior to founding Aryeh, Mr. Weisstub was an Analyst at Greenlight Capital, a Principal at Redwood Capital and an Analyst at Perry Capital. He began his career in the private equity group at Oak Hill Capital and in M&A at The Blackstone Group. Mr. Weisstub holds an M.B.A. (Arjay Miller Scholar) from Stanford Graduate School of Business and a Bachelor of Arts in Economics (summa cum laude with Distinction) from Yale University.

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Welcome to Graham & Doddsville



Meredith Trivedi, the Heilbrunn Center Director. Meredith skillfully leads the Center, cultivating strong relationships with some of the world's most experienced value investors, and creating numerous learning opportunities for students interested in value investing. The classes sponsored by the Heilbrunn Center are among the most heavily demanded and highly rated classes at Columbia Business School.



Professor Bruce Greenwald, the Faculty Co-Director of the Heilbrunn Center. The Center sponsors the Value Investing Program, a rigorous academic curriculum for particularly committed students that is taught by some of the industry's best practitioners.

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We are pleased to bring you the 31st edition of *Graham & Doddsville*. This student-led investment publication of Columbia Business School (CBS) is co-sponsored by the Heilbrunn Center for Graham & Dodd Investing and the Columbia Student Investment Management Association (CSIMA).

Since our Spring 2017 issue, the Heilbrunn Center hosted the seventh annual "From Graham to Buffett and Beyond" Omaha Dinner. This event is held on the eve of the Berkshire Hathaway shareholder meeting and features a panel of renowned speakers.

In this issue, we were fortunate to speak with five investors who provide a range of frameworks and investment styles. All of these investors focus on understanding downside risk, developing a differentiating view, and studying history. Additionally, each investor has a strong passion for teaching and the learning process.

We caught up with **Howard**

Marks, the founder and Chairman of Oaktree Capital Management, and discussed developments in the investment management industry, especially the rise of passive investing. If passive and quantitative strategies proliferate, what will price discovery and "second-level" thinking look like? Howard also opines on separating oneself from the herd and investing in emerging markets.

Paul Sonkin '95 of GAMCO Investors and **Paul Johnson** of Nicusa Investment Advisors are excited about their new book, *Pitch the Perfect Investment: The Essential Guide to Winning on Wall Street*. They share their inspiration for writing the book and why pitching is such an integral part of the investment process. The authors describe the four essential questions every pitch should address. They also offer their thoughts on the evolving use of data and specialization.

Jeremy Weisstub and **Damian Creber '16** of Ar-yeh Capital discuss the launch

of their fund in Toronto, and the evolution of each of their investment styles. They provide their views on cycles, and how to take advantage of them. They talk about determining when to dive deeper into an idea versus when to move on to another opportunity, and explain why they dove deep into a business called ServiceMaster Global Holdings (SERV).

Finally, we continue to bring you pitches from current students at CBS. In this issue, Madina Baikadamova '18, Sowan Cha '18, Jean Cui '18, and Claudine Fernandez '18 share their idea, Spirit Aero-systems (SPR), which they pitched at the MBA Women in Investing (WIN) conference organized by the Cornell SC Johnson College of Business.

As always, we thank our interviewees for contributing their time and insights not only to us, but to the investment community as a whole. We thank you for reading.

- G&Dsville Editors



Mario Gabelli '67 and Professor Tano Santos, Co-Director of the Heilbrunn Center for Graham and Dodd Investing, at the 2017 Omaha dinner



Meredith Trivedi with Professor Bruce Greenwald

“From Graham to Buffett and Beyond” Omaha Dinner 2017



The fun starts right at registration




Mario Gabelli '67 mingling with other investors in Omaha



Mario Gabelli '67, Paul Hilal '92, and David Samra '93



Cheryl Einhorn enjoying the panel

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Panelists conversing with Tano Santos

2017 Value Investing Program Welcome Reception



Alexander Burnes '18, Aniket Nikumb '18, Kevin Nichols '18, Gustavo Campanha '18, and Adam Schloss '18




Jade Lau '18, Eunice Lee '18, and Claire Jin '19



Tano Santos, Juliana Bogoricin '15, and Chad Tappendorf '18



A group of second-year students posing with a few alumni

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Current and former students from the Cooper/Luft section of Applied Value Investing posing with the class Stanley Cup

SAVE THE DATE

21st annual Columbia Student Investment Management Association Conference

January 26, 2018

A full-day event featuring some of the most well-known investors in the industry, including keynote speakers:

Joel Greenblatt of Gotham Asset Management

Paul Hilal '92 of Mantle Ridge, LP

Jody Jonsson of Capital Group

Seth Klarman of Baupost Group

Jamie Zimmerman of Litespeed Partners

Presented by:

The Columbia Student Investment Management Association

and

The Heilbrunn Center for Graham & Dodd Investing

Visit our website for updates: <http://www.csima.info>

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Oaktree Capital Management



Howard Marks, CFA

Domestic Fixed Income at TCW. Previously, Mr. Marks was with Citicorp Investment Management for 16 years, where from 1978 to 1985 he was Vice President and Senior Portfolio Manager in charge of convertible and high yield securities. Between 1969 and 1978, he was an Equity Research Analyst and, subsequently, Citicorp's Director of Research. Mr. Marks holds a B.S.Ec. degree cum laude from the Wharton School of the University of Pennsylvania with a major in finance and an M.B.A. in accounting and marketing from the Booth School of Business at the University of Chicago, where he received the George Hay Brown Prize. He is a CFA® charterholder. Mr. Marks is a member of the Investment Committees of the Metropolitan Museum of Art and the Edmund J. Safra Foundation; a Trustee of the Metropolitan Museum; Chairman of the Board of Trustees of the Royal Drawing School; and an Emeritus Trustee of the University of Pennsylvania (where from 2000 to 2010 he chaired the Investment Board).

Graham & Doddsville (G&D): You last spoke to *Graham & Doddsville* for the Fall 2009 issue during a more stressful time for markets. How has Oaktree changed since 2009, and what do you think you've learned since then?

Howard Marks (HM): I hope we haven't changed much. The foundation of our

investment philosophy and business principles is holding up, so I don't think there's a need for change. We're trying to roll with what the market gives us. We have no alternative. We've probably grown in assets since then by maybe \$60 billion and we're at about \$100 billion today. We have some new products. I think we have evolved, but I hope we have not changed. We hired a CEO three years ago. When he arrived, he sent a memo to the staff saying that he was not there to change Oaktree, only to make it better, and I hope that's what we've done.

G&D: Equities are one area you've expanded in since 2009, especially the value equity strategy. You've said before that the stock market is a little more efficient than other areas you've historically been in. Has your thinking about equities evolved?

HM: No, but my previous comment about efficiency pertains primarily to what I would call mainstream equities. The process that produces efficiency in those mainstream stocks starts with the fact that a lot of people are looking at them. If you can find some equities, either a sector or a country, where not many people are looking, then the assumption of efficiency could go out the window.

I wouldn't say we've done a lot more in equities. We now have maybe less than \$5 billion in equities out of the total \$100 billion, so it's not a major transformation. If you go back eight years ago, we already had emerging market and Japanese equities. Value equities is only

a few hundred million dollars, so I don't think its addition is a transformation.

In 1978, when I left the research department of Citicorp they asked me, "What do you want to do next?" I said, "I'll do anything except spend the rest of my life choosing between Merck and Lilly." I stand by that comment. It's not the fact that if something is an equity that makes it efficient; it's the fact that it's well-known, well-followed, and understood. If we can find exceptions to that, we can find superior opportunities for risk adjustment and returns.

G&D: A lot of active equity managers are now worrying about investor's move to passive investing. What are your thoughts on this debate?

HM: I arrived at the University of Chicago for graduate school 50 years ago next month. I was taught about the efficient market hypothesis and my reaction then was that it made sense. Why should something be cheap, and people look at it, study it, and understand it, and it stays cheap? It doesn't make any sense. Efficiency makes much more sense than that. It took eight years after that for Jack Bogle to start his index fund, and it took 45 years for passive investing to get to 20% of all equity mutual funds.

Yes, active managers have gone through a tough time. They've been losing assets, and passive has been gaining assets. But the one thing I know about investment markets is that there's no such thing as a permanent good idea. The definition of a good idea

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changes as the market changes, as prices change. There have been factors about the market that made actives perform badly for the last dozen years, but that doesn't mean it's going to be that way forever. If people take their money out of active management, then active managers would fire all their analysts, and then the market would not stay efficient. Then the necessary condition is satisfied for active to work. The point is, I don't think this move is permanent, I think it's rotational.

Now, having said that, over the last 50 years, from time to time, people put too much faith in investment managers. They gave them too much money to manage and they paid them too much to do it. I believe the average mutual fund, which has high fees and expenses, didn't earn them, on average. Doesn't make any sense; now, people are catching on.

One of the astute things I was taught is that on average, the average investor does average before fees, and below average after fees. Why should the average investor, or investment manager, be highly paid? Doesn't make sense. That idea took 40 years to sink in but has been responsible for the recent exodus from active. That's not to say that there can't be exceptional managers, and that they can't be worth it. I think one of these days we'll head that way again.

G&D: You're suggesting that some of the move to passive is cyclical. Do you have a sense of where we would be in that cycle?

HM: There's no way to know. There's no way to know how much of the active money has

"...the one thing I know about investment markets is that there's no such thing as a permanent good idea...."

to go to passive before the things I'm talking about happen. Today, 37% of the equity mutual fund assets are passive. I would think if it got to 60% or 70%, that would change things. I could be wrong.

G&D: Along with the movement to passive, there has been pricing pressure for actively managed strategies. Do you think that some of that pressure will make its way into other asset classes?

HM: The general principle that people should have to add value to be highly paid should be applicable to everything. Passive fund management is a low-value-added strategy with low fees. It makes sense. The thing that doesn't make sense is low-value-added strategies with high fees. If another strategy, let's say private equity, has high-value-add, then it can command high fees.

So it would be an oversimplification to say all the fees in investment management are coming down. It's only for the ones that don't earn it. Why is so much money flowing out of the hedge fund industry? Why is it so hard to start a hedge fund these days,

and amass money for a new hedge fund? The answer is that the compensation has been unfair on average, and people have caught on. I wrote a memo about hedge funds in 2004, and I said that when I first heard about hedge funds, which is probably about 1974, there were 10 hedge funds run by 10 geniuses. When I wrote that memo in 2004, there were 8,000 hedge funds, and I doubted they were run by 8,000 geniuses. They shouldn't all be paid like geniuses. That's the bottom line. None of this stuff is hard, only being a superior investor is hard.

G&D: Do you think the fee structure needs to change in accordance with some of these pressures?

HM: On equities, I don't think the structure has to change, perhaps just the absolute level. I mean, you could move to incentive compensation for equity management, although that's a little harder for things like mutual funds where individual investors put in money. Right now people are putting large amounts into private equity hoping it will work. If it works, they'll probably keep their fee structure. If not, there might be a call for change.

Hedge funds may have to change their structure. Five years from now, people may write memos saying, "Isn't it crazy that people got to keep 20% of the profits in the good years, and they didn't have to give it back in the bad years, and they got remunerated every year, and there was no hurdle rate?" The fund made 5% and the manager got 20% of it. That level may not hold

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up as having been reasonable.

Hedge funds went from being a cottage industry to a big industry around 2003-04, because they did well in 2001-02. Too many people were protected by the pricing. Too many people got 2 and 20, in my opinion. I think there's going to be a washing out of that. However, in that memo in 2004, what I said was: "I think in the coming years, the average hedge fund will make 5% or 6%, and eventually people will get tired of paying 2 and 20 to make 5% or 6%." Guess what? Barron's did an article saying that over the next 10 years, the average return on hedge funds was 5.2%. It took a long time for people to realize that they were not getting what they were paying for.

G&D: What is it about mutual funds that don't allow them to have incentive fees?

HM: It's complex. Number one, I don't know if the SEC permits it for mutual funds. Number two, I think it would be challenging to compute the incentive fee every day, when retail investors go in and out.

G&D: Could you talk about how Oaktree structures its many strategies?

HM: Each strategy has its own process. The people who run the various strategies have generally been here a very long time, and they have the complete confidence of me and my partners. We do not have an overview committee. In some firms, every investment must come to the investment committee. We don't have that. It's decentralized, and we

let the people who know the strategies best make the decisions. We provide a lot of guidance as how to behave vis-à-vis the macro, and what philosophy and approach to adapt. But the portfolio decisions are decentralized.

G&D: Has going public changed Oaktree?

HM: The only change I could point to is that we've had to hire a bunch of people to handle the administrative burden. In terms of the operation of the firm, I don't think there's any change. We're still investing the same way, we're still employing the same philosophy. What I was concerned about when we went public was that the clients would worry about how we deal with the interests of the unit holders versus the interests of the clients. Would we have a conflict of interest? We got asked that a lot, and I felt very strongly, and I still do, that there is no big conflict of interest.

We're a fiduciary for our clients. We have to put their interests first. If we put their interests first every day, then we will succeed in the long run, and maximize the value of the units. If we put the interests of the unit holders first, and try to maximize our profits in the short run, then our work on behalf of the clients will go to hell, and we'll minimize the value of our units. To me there's no conflict: clients first.

G&D: Do you have a view on other publicly traded asset managers?

HM: The main difference is

that many of the others have done merger transactions that have significantly changed their profile. I don't know why they did these mergers. If they did them for good client-centered business reasons, then that's fine. If they did them to please Wall Street and make the stock go up, I don't think that's as good. I can't make a judgment about what they did, because I don't know their motivations.

G&D: You've written a lot over the years about market psychology. Any new thoughts these days?

HM: There's a chapter in my book, *The Most Important Thing*, that says that the most important thing is knowing where we stand. I start the chapter by saying, "As to the macro, including the level of the market, we never know where we're going, but we sure as hell ought to know where we are." It's not so hard to know where we are; the question is where we're going.

I advocate a two-pronged approach. First, you look at valuations—price-earnings ratios, yields, yield spreads, transaction multiples, cap rates in real estate—and you ask "are they high or low relative to history and relative to interest rates?" You gauge the appropriateness of valuations. That's entirely quantitative. Then, there's the qualitative. How are people behaving? Are people euphoric or depressed? Are they skeptical or unquestioning? If a new fund comes out, is it oversubscribed overnight, or does it go begging? All these kinds of things. What are they saying on TV? What are the

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newspapers saying? Take the temperature of the market.

Look at the behavior around us, that's the key. Warren Buffett says, "The less prudence with which others conduct their affairs, the greater the prudence with which we must conduct our own affairs." In other words, when other people are carefree, we should be worried. When other people are panicked, we should turn aggressive. As an analyst, if you could only ask one question about pricing, I think it should be how much optimism is incorporated in the price. When there's a lot of optimism in the price, number one there's not too much further to go, and number two, there's a lot of air that can leave the balloon if the optimism is disappointed. If there's no optimism, then all the surprises will be on the upside. You can't have less than zero optimism, so we try to figure that out.

By the time this *Graham & Doddsville* issue comes out, I'll have put out a new memo which talks about my views on the state of the market. I think there's a lot of credulousness, and not much risk aversion, and I think that's a cause for concern. The memo is entitled "There They Go Again . . . Again." It talks about what's going on today—stock market valuations are high, VIX is at the lowest reading in history, and the FANGs are adored. The market leaders are being sucked up by ETFs in a kind of virtuous circle, where they go up in price, which makes people buy them, which makes them go up in price, which makes people buy them. High

yield bonds are at their lowest yields in history, emerging market debt is yielding still less, private equity is raising the most money ever, Softbank is raising a \$100 billion fund for technology investments. Each of those things suggests a hot market, where people are happy to trust the future. All of them together should be something that people pay attention to. You can't argue that things are languishing cheap today, you have to adjust your behavior.

"When there's a lot of optimism in the price, number one there's not too much further to go, and number two, there's a lot of air that can leave the balloon."

Remember what Mark Twain said, "History does not repeat, but it does rhyme." Things are never the same from cycle to cycle in terms of the details. The things you look at today are different than the things you looked at 20 years ago. Twenty years ago, there was no CNBC and no Internet. The things you look at change, and you have to stay current, but the process, the goal, and the principles of trying to take the temperature of the market doesn't change. I'll have a book out next year about cycles, and that's most of what the book will be about, trying to understand where we are in the cycle.

G&D: Speaking of cycles, a lot of investors today haven't gone through a bear market. What would you recommend to these investors?

HM: There's no lesson like experience. You can read about it, and you can talk to old timers, but there's nothing like living through it. The most important lessons in investing are learned in the tough times. I started in 1968, and we came across tough times right away, and I learned a lot of very valuable lessons. You can read, and there are a lot of books. For example, I read *A Short History of Financial Euphoria*, by John Kenneth Galbraith, and that was very, very helpful. It talks about the excesses of psychology.

G&D: There's a lot of capital in passive strategies, which are driven to some degree by computers. Do you think that changes how the market handles risk?

HM: Because every dollar that goes into a truly passive fund is invested on autopilot, the fund must buy the stocks that satisfy its criteria, and that's without regard to value. That suggests to me that prices can go farther in diverging from value before they get corrected. Think about what would happen if 95% of the money went into index ETFs or index funds. Who would be setting prices? There's something called price discovery, and it's done by thoughtful buyers and sellers. The price of a security in the marketplace is set by buyers and sellers coming together, and seeing if they can find a place to transact where the buyer thinks it has good upside, and the seller thinks it

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Tripp Blum '08 (left) and Kevin Oro-Hahn '10 at the 2017 Value Investing Reception

doesn't. Who provides that function if all the buying are on autopilot? People put their money in index funds, with the presumption that they're minimizing error, but how much of your money do you want to have managed in a fund where nobody's thinking about the price of the stocks or the weightings within the portfolio?

The thing about investing is that the efficient market hypothesis says that price equals value. Active management is about the assumption that price sometimes deviates from value, finding those deviations, and then taking advantage of them. It seems to me that the fewer the people who are looking at value, the higher the likelihood that price can diverge from value. But that's just a hypothesis.

G&D: With the age of the quant, should a value investor change anything about first-level, second-level, or even third-level thinking?

HM: Artificial intelligence is probably a threat to all of us. We just don't know how. I believe great investing is as much art form as science, and I don't know if a computer can be taught to paint a Rembrandt, but maybe it can. A computer beat the greatest chess player. We were told that Go, the Asian game, is not scientific, and that unique intuition prevents a computer from succeeding at Go—but now computers beat the best Go players. It seems clear to me that a computer could probably be programmed to beat the average investor. Can it outperform the best investor

with a golden intuition or gut? I don't know, but we'll see.

What would happen, though, if there were a thousand investors in the world, and they all used the same screen? Then prices would be set, since every seller and every buyer is guided by the same screen; that means prices would be set the way the screen says it should be. That means the goal would be to find the things that the screen hasn't thought of. That's what second-level thinking would be here: thinking different from the herd, and better.

If the whole herd is directed by a screen, you've got to find something that the screen hasn't thought of. I believe that will always be possible, because one important thing to remember is that the actions of investors change the market. When all the investors use a given screen, that fact will change the market, meaning things the screen hasn't thought of determine attractiveness.

Other aspects that the screen has not been set up to look for will become the determinants of success. It's all kind of circular, and kind of zen. I exaggerate by saying everything that's important about investing is counterintuitive, and everything that's obvious is wrong. The question is, can a computer, a spreadsheet, a model, a screen, be taught to make counterintuitive judgements? I don't know. Can a computer, or AI, figure out which companies will be best managed and which new technologies will succeed? We'll see.

G&D: Do you think investing timeframes have materially changed as a result of the information age?

HM: Well, I don't know if it's because of the information age. I think a lot of it is because of the pressure on investors for performance. We used to think about holding stocks for five years, and at the end of the year, it took a week or two before the bookkeepers figured out what your rate of return was for the year. I may be exaggerating, but then it became a matter of an hour, then it became a matter of a minute. Today, everybody has their performance every second in real time, and in one of the biggest mistakes that took place in this process, the clients decided to put a lot of emphasis on short-term performance. It tells you nothing. In fact, if you put a manager on probation because he had a bad quarter, if he sells the stocks that are down and buys the stocks that are up, you have forced him into a poor decision. But it has happened, and now everybody wants to know how you did last quarter. Nobody says, "how did you do in the last ten years?" which is what matters. Every manager and every approach has times when he, she, or it is out of favor.

In theory, an investor who skillfully changes his approach and keeps up with the demands of the market—if that person existed—could do well all the time. Very few people, if any, satisfy that criteria. Most great investors stick to an approach through thick and thin, and yet every approach goes out of favor

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sometimes, which means that every investor has periods in the dog house. To be a great investor, you must have an approach, and you have to stick to it, despite the times when it's not working. If the clients look at the performance every six months, three months, month, week, then it becomes harder for the

“There’s no lesson like experience. You can read about it...but there’s nothing like living through it. The most important lessons in investing are learned in the tough times.”

manager who wants to keep the account to stick to his approach. Instead you start buying the things that have gone up—we call that chasing. You sell the things that have gone down—we call that puking. That can't be the right formula.

Most investment management clients give more money to the manager who's been doing well. Very few have a program of giving more money to the manager who's been doing poorly. That's what you should do, though, because that's how you buy the things that are out of favor. Obviously, you have to separate the ones that are good at their job but may be out of favor from the ones that are just bad at their job. That's not easy either.

None of this stuff is easy. The

greatest quote in my book is from Charlie Munger, who said, “None of this is meant to be easy, and anybody who thinks it's easy is stupid.” All this stuff is really complex. It's easy to talk about, but it's hard to implement. How do you tell the ones who are good but unlucky, from the ones that are bad? It's not easy. It takes judgment. That's why I believe that this whole thing can never be completely computerized, because I think exceptional investment success requires judgment, and I don't know if AI can be taught to make those judgments.

G&D: Do you have any advice for folks that have trouble not being able to step back from the noise, especially in an environment where there is so much scrutiny on short-term performance?

HM: Number one, every investment manager who manages money for other people must spend a lot of time on client education, and you have to explain to them the error of putting pressure on managers and acting in response to short-term performance. You must convince them to figure out who the good ones are. Stay with the good ones, get rid of the bad ones, and put more money with good managers who are down. That's counterintuitive and hard to do. It means resisting emotions, and it requires a certain degree of stalwartness, which many people don't have.

G&D: Is there an investing strategy or industry that is looking very attractive to you right now?

HM: Well, nothing's very attractive. Some things are less unattractive than others. In the whole world, it's hard to find what we call a beta market, that is an open, public, scale market that represents a bargain. What's cheaper than others? Non-prime real estate is cheaper than prime real estate. I think that private debt is cheaper than public debt. Emerging markets are probably cheaper than the developed world. I think that Japan's cheaper than the United States.

G&D: How do you look at emerging markets these days?

HM: I go to India for a day or two, and I come home and everybody says, “What do you think about India?” This is hard stuff, and anybody who thinks they can go to a country and after two days have a superior insight into its future is nutty. When I was in equity research in the 1970s, I started to develop a very jaundiced view of plant visits. You go to a factory, and the CEO walks you around. Is a clean plant better than a dirty one? Is a pretty one better than an ugly one? I think these are not the things that matter, and the things that matter can't be assessed by some visit and looking at physical things most of the time.

G&D: But you were recently in India. Did you develop a view?

HM: I have a thought on India, I have a bias. I think it has potential. It has a lot of people, it has a high birth rate, which is very important for creating GDP growth. It has a lot of unmet needs, it has a lot of

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people who would like to get into the middle class. I believe it has a work ethic. When I see the poorest of the poor, they're impeccably groomed. That impresses me. That suggests standards, aspirations. Of course, India is famous for corruption and bureaucracy. Those are the negatives, but the question is can the former overcome the latter? I believe so. I hope so.

Indian equities have gone up, but everything in the world has gone up. I think Indian equities are at full multiples, but that's true everywhere. We may be at similar multiples in the United States. I would ask you 20 years from now, which will have had higher growth, the U.S. or India? If India has higher growth, which I would bet it would, and can avoid the occasional crisis that tend to befall emerging markets, then my guess is that investors in India will have done well.

When people ask me about this stuff, especially about China, what I tell them is Europe and Japan are senior citizens, past their prime. The U.S. is a mature adult, still good, but its best decades are behind it. The emerging markets, China, probably India, are adolescents. If you've ever had an adolescent in your house, as I have, you know that it's chaotic, volatile and tempestuous. What did my daughter's dean call it? "A hormone meteor shower."

The point is the adolescent's future is ahead of it. My gut tells me that the outlook for China and India is positive. I certainly would not hold myself out as an expert, that's just a hunch. We have

projections, and opinions, and intuition, and hunches. I always say that to deal with the future, you need two things. Most people think you need one thing: a view of what's going to happen. But I think you really need two things: a view of what's going to happen, and a view of the probability that you're right. We should accept the fact that some of our opinions have a higher probability of being right than others.

I wouldn't bet a lot of my money on my positive opinion on India, but I'd bet some. I'm no expert on predicting the future of nations. I haven't done it much in my life. As I said in my memo, *Expert Opinion*, what happens is if you make a few good investments, and if you exhibit some intelligence, then people start asking your opinion about all kinds of things you know nothing about.

G&D: [There is one last opinion we want to ask of you—what would your advice be to an MBA student trying to enter investment management today?](#)

HM: I think that investment management is fascinating, because it's not easy; it's challenging. In *Fooled by Randomness*, Nassim Taleb talks about the difference between investing and dentistry. There's no randomness in dentistry, and if you do the same things to fill a tooth, you'll be successful every time.

That's not true of investing. First of all, there's no magic formula. There are no physical laws at work. Number two,

there's a lot of randomness. Those things make it interesting. It's an intellectual puzzle with partial information. The process is messy and imprecise. To me, that's fascinating. You can have guidelines developed over a career, but they sure don't work every day. I love it for that reason.

I think your classmates should pursue investing if they'll love it. That's why you should do it. The main reason you shouldn't do it is to make a lot of money, because number one, money isn't everything. Number two, I predict the investment management business is not going to remain as remunerative for everyone as it has been in the last 35 years.

My favorite quote comes from a British author named Christopher Morley, "There's only one success: to be able to live your life your way." I believe you shouldn't let society determine what your way is, and you shouldn't let money determine what your way is. If the proposition of investment management is interesting to someone, then they should do it, because they'll have a great deal of fun. Not everybody has the intuition you need to be successful, to be a great second-level thinker. Warren Buffett says he tap dances to work every day. But not everybody's Warren Buffett.

This business isn't a lot of fun when you're not successful, but it sure is when you are.

G&D: [Thank you for your time.](#)

Spirit Aerosystems (NYSE: SPR) - Long 2016 Women In Investing (WIN) Conference



Madina Baikadamova '18

Madina is a 2nd year student at CBS. Previously, Madina worked at Verno Capital as an equity research analyst in Moscow, Russia. In summer 2017, Madina interned at Brandes Investment Partners.



Sowan Cha '18

Sowan is a 2nd year student at CBS. Previously, she was a Senior Financial Analyst at Vince and an Investment Banking Analyst at Citi. In summer 2017, Sowan interned at Evercore ISI.



Jean Cui '18

Jean is a 2nd year student at CBS. Previously, she worked as a consultant at McKinsey & Company, in internal strategy and analytics at zulily, and as a Pre-MBA investment intern at T. Rowe Price. In summer 2017, Jean interned at BlackRock (Active Equities).



Claudine Fernandez '18

Claudine is a 2nd year student at CBS. Previously, she worked as a Strategy and Corporate Development Analyst at Voya Financial and as an Investment Banking Analyst at RBC. In summer 2017, she interned as an Equity Research Associate at Jefferies.

Recommendation

We are long on Spirit Aerosystems (SPR) with an end of 2017 price target of \$72, offering 31% upside from 11/11/2016's price of \$55.02 and an attractive upside/downside ratio of 1.4x. We believe there are 1) favorable industry dynamics and reliable backlog demand, 2) high customer captivity protected by high barriers to entry and switching costs in the industry, and 3) growing profitability from maturing 787 and A350XWB programs. All of these advantages are driven by Spirit's immense cultural transformation.

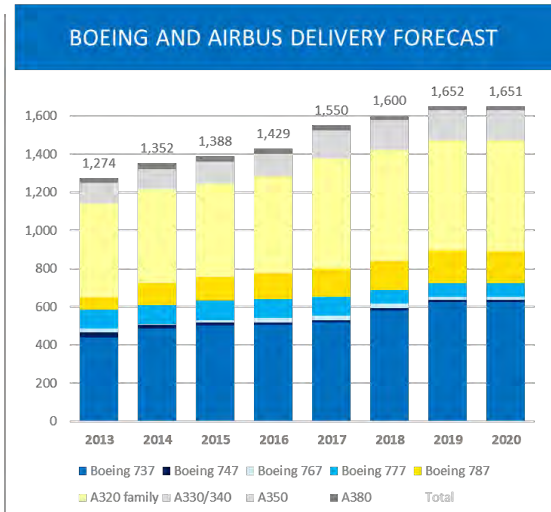
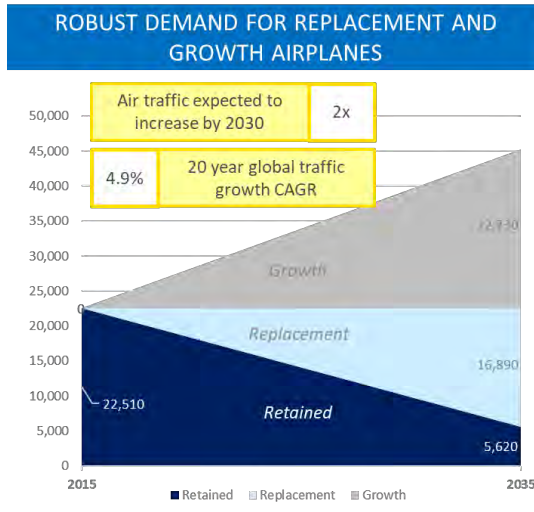
Business Description

Spirit Aerosystems is a leading independent manufacturer of commercial aerostructures for OEMs. Aerostructures are typically major components of airframes and include the fuselage, nacelle, wing flaps, and slats. Spirit has long-term, exclusive contracts with Boeing that cover every Boeing commercial aircraft currently in production. Last year, Boeing accounted for 84% of Spirit's total revenue while Airbus accounted for 12%.

Investment Thesis

1) Favorable industry dynamics and reliable backlog demand

Spirit is operating in a market backed by favorable industry dynamics and reliable backlog demand. Global air traffic is expected to grow at a 4.9% CAGR through 2035 and projected to double by 2030.



As of December 2015, Boeing and Airbus' combined backlog totaled \$47B. Net fleet demand is expected to double from 22K aircraft by 2035. Additionally, 17K current aircraft will need to be replaced by 2035, increasing SPR's potential market. That implies visibility of deliveries of 10+ years for Airbus and 8+ years for Boeing at current production rates.

Demand for civil aircraft remains solid (the International Air Transport Association sees ~5% CAGR) driven by above average traffic growth and increased airline demand for new aircraft. Airline backlog cancellation rates and deferral activity have remained within historical averages and below peak cancellation rates of 10% seen during the 2008 financial crisis.

2) High customer captivity protected by high barriers to entry & switching costs in the industry

In addition to strong guaranteed demand from backlog, Spirit enjoys high customer captivity. The company has supply contracts for most of its products for the full lifespan of an aircraft program. Spirit is also currently the exclusive supplier under many of its contracts with Boeing and Airbus.

****Editor's note: SPR originally presented in November 2016 at a share price of \$55.72 with a target of \$72, representing 31% upside****

Share price	\$55.02	52 Week High	\$55.02
Dil. Shares O/S	127	52 Week Low	\$40.50
Market Cap	\$6,988	Dividend Yield	0.73%
Plus: Debt	\$1,097	Shares Short	8.07
Less: Cash	-\$670	Short Interest	6.64%
Enterprise Value	\$7,414		

Spirit Aerosystems (SPR) - Long (Continued from previous page)

Spirit has invested heavily in developing customized manufacturing capabilities for both clients and specific programs. Spirit's substantial PP&E balance—the replacement value of its buildings and equipment has been valued at \$6.9B—acts as a strong barrier to entry as other firms cannot replicate Spirit's capabilities without significant investment costs.

Effectively, Spirit's clients have no true or easy substitute for Spirit's products.

3) Growing profitability from maturing 787 and A350XWB programs

Spirit's margins will expand due to economies of scale in its currently unprofitable maturing programs. For example, Spirit's largest maturing program, the Boeing 787, will have 8% gross margin by 2017 and 10% gross margin by 2018 as compared to a current gross margin of 0%. As with the mature programs, the significant backlog for the maturing programs helps secure future revenues.

4) Immense cultural transformation

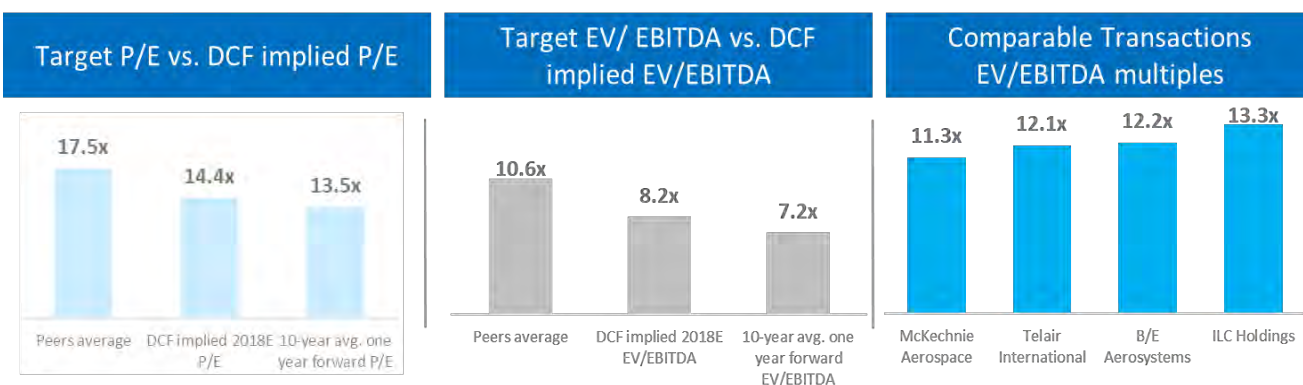
Over the past 10 years, the company has evolved from a subdivision of Boeing to an independent company and from a price-taking cost center to a negotiating cost controller. Primary research reveals that former CEO Larry Lawson made bold investments in human capital to attract and retain top talent and to drive employees to strive for excellence. This cultural shift resulted in optimized supply chain management through more aggressive negotiation with suppliers. It also emphasized a focus on innovation in the engineering department, leading to the development of efficient, industry-leading manufacturing processes and a subsequent competitive advantage in cost. New CEO (and former COO) Tom Gentile, who previously held a succession of leadership roles at GE, will continue to drive Spirit's cultural transformation and long-term growth.

Valuation

Both DCF and multiples analysis show that Spirit Aerosystems is undervalued while bear/base/bull analyses reveal an appealing risk/reward. Our base case price target of \$72 offers ~31% upside. In the DCF base case, we assume:

- EBITDA margin expansion from 15.7% in 2015 to 16.6% in 2018 mostly driven by 787 program gross margin improvement from 0% to 10%. Consensus EBITDA margin is under 16%.
- 2015-2021E operating profit CAGR of 4.4% before reaching terminal growth of 1.5%.
- Improved future inventory management due to maturing 787 & A350XWB programs.
- 2015-2018E net income CAGR of 6% compared to consensus CAGR of 3.4%.

Our DCF bear and bull cases imply share prices of \$43 (22% downside) and \$85 (55% upside), respectively.



In our multiples analysis, we use the 10-year historical average as our assumption for one-year forward P/E (13.5x) and EV/EBITDA (7.2x) multiples and derive end of 2017 target prices of \$67.40 and \$62.60, respectively. Our base case DCF valuation implies 14.4x one year forward P/E and 8.2x one year forward EV/EBITDA. We believe the DCF method reflects recent structural changes which justify target multiples 7% and 14% higher than historical averages. Our DCF method projections are still on the conservative side—recent acquisitions in the sector involved far higher EV/EBITDA multiples.

Key Risks and Mitigants

1) High customer concentration: Spirit is the exclusive supplier for most of its programs and the industry has high barriers to entry and high switching costs, mitigating the risk from high customer concentration. **2) Execution of new and maturing programs:** Spirit has a conservative number of maturing programs, with two key maturing programs only one year away from generating positive cash flows. Additionally, Spirit has over 85 years of industry expertise with an emphasis on innovation in product development and manufacturing. **3) Cyclicity and sensitivity to commercial airline profitability:** Spirit's contracts with Boeing and Airbus are long-term arrangements. 78% of Spirit's backlog is either pre-production or has been in production for less than 15 years and will be not affected by short-term cyclicity. Furthermore, historical backlog cancellations have been minimal even in times of financial crisis. **4) Rising pricing pressure from key clients as competition escalates:** Spirit's strong management team, negotiating power, and proprietary manufacturing processes, combined with the lack of direct substitutes for Spirit's products, protects the company from rising pricing pressure.

Pitch the Perfect Investment

(Continued from page 1)



Paul Sonkin '95

MBA from Columbia Business School and a BA in Economics from Adelphi University. For 16 years, Sonkin was an adjunct professor at Columbia Business School, where he taught courses on security analysis and value investing. For over 10 years, he was a member of the Executive Advisory Board of The Heilbrunn Center for Graham & Dodd Investing at Columbia Business School. Sonkin has extensive corporate governance experience having sat on six public company boards and is the co-author of *Value Investing: From Graham to Buffett and Beyond* (2001).



Paul Johnson

Paul Johnson has been an investment professional for more than 35 years and currently runs Nicusa Investment Advisors. Previously, he was a top-ranked sell-side analyst, a hedge-fund manager, and an investment banker. As a portfolio manager, he invested in virtually all sectors of the economy and has participated in more than 50 venture capital investments during his career. Johnson has taught 40 semester-long graduate business school courses on securities analysis and value investing to more than 2,000 students at Columbia Business School and the Gabelli School of Business, Fordham University. He received the Commitment to Excellence award in both 2016 and 2017 from the graduating class of Columbia Business

School's Executive MBA program as well as the 2017 Columbia Business School's Dean's Prize for Teaching Excellence. He received the Gabelli School of Business graduate-level Dean's Award for Faculty Excellence in 2017. Johnson was a contributing annotator to *The Most Important Thing Illuminated*, by Howard Marks, co-author of the history of value investing in *Columbia Business School: A Century of Ideas*, and co-author of *The Gorilla Game, Picking Winners in High Technology*. He has an MBA in Finance from the Executive Program at the Wharton School of the University of Pennsylvania and a BA in Economics from the University of California, Berkeley.

Due to increasing frustration from not having a good book to assign to their students, they co-authored *Pitch the Perfect Investment*. In their book, which was released by John Wiley & Co. in September, they give the reader the tools to decipher a portfolio manager's schema. These tools will help in selecting a security to pitch that captures the audience's attention, in determining whether a genuine mispricing exists, and in showing how to generate a true "edge."

Graham & Doddsville (G&D): How did you two first meet and come up with the idea for a book?

Paul Johnson (PJ): We've known each other for a long time. We met in 1994; Paul was my student, then he was my Teaching Assistant for a while, before he started teaching his own class in 1996. Then in 1997, we co-taught the Value Investing class during Bruce Greenwald's sabbatical. We've been personal and professional friends for more than 20 years. We started the collaboration on the book four years ago, at the Heilbrunn Center's Graham & Dodd Breakfast in fact. After that breakfast, we were just chatting and catching up, and Paul said he was writing a book. I responded, "Yeah, I've always wanted to write a book, but I know it will take too much time and energy." I then asked, "What is the name of your book?" And he said, "The Perfect Pitch."

I thought that was funny, because I had always wanted to write a book called, "The Perfect Investment." Paul suggested that we should work together, which I initially thought was a crazy idea. However, we started emailing back-and-forth that morning, after we returned to our offices, and quickly discovered that our two books were opposite sides of the same coin. Before long, we had agreed to write *Pitch the Perfect Investment*, which we decided would be a combination of our two books. Although I didn't fully understand what Paul meant when he first said that the pitch "is the architecture" of the research process, I learned to appreciate his insight over time while working on the book. Paul argued that if you can't pitch the idea successfully, then you

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Pitch the Perfect Investment



haven't done the proper research on the idea and if you get the pitch right, everything else falls into place. I believed at the time we started working together that the goal was to find the perfect investment and the "pitch" would take care of itself. I have come to realize that Paul's view is correct and my view was incomplete.

A lot of people think of pitching as persuasion or selling. But in our view, pitching is making a convincing case why the market is wrong and you are right. We don't think of the pitch as selling, rather, the pitch is the opportunity to explain your recommendation in a way that the PM understands the opportunity and wants to adopt the idea. The pitch is the culmination of your research process.

G&D: Most investment books are targeted at seasoned practitioners. Why did you choose younger analysts as your primary demographic?

PJ: Early on, Paul said to me, "Since we both teach MBAs, why don't we write a book for them? There is no book for the college or MBA student, or recent college or MBA graduate, and it's desperately needed." We felt that college and MBA students are similar. Although the MBA student usually has more experience, they have similar challenges in acquiring the necessary skills to be successful in the business.

And, we both taught our investing classes at Columbia by piecing together an eclectic collection of articles, chapters from books, journal articles

and random newspaper clippings. However, there never was a single source that addressed the topics we wanted to cover in class. Paul and I decided to write a book for that audience because nothing existed to fill the gap.

Paul Sonkin (PS): As Paul said, one of our motivations was that we didn't really have a

"My thought was always, why do my students have to make the same mistakes I made?...Why not learn from the mistakes I and others have made."

good book to assign to our students. We also tried to avoid targeting the practitioner as our primary audience for the book because practitioners think they already know everything. We didn't want to get into a debate with them about how much they already knew, or thought they knew. We still think that every practitioner will learn a lot by reading the book, but they are not our primary target audience.

Rather, our target is the college or MBA student that is pitching a stock for a job interview, a stock pitch competition, or a student-run investment fund, or the analyst that just graduated from college or business school who is new to the job. These are our primary audiences. There's

no training on Wall Street, so most young analysts are just thrown into a situation where they don't know which end is up. We wrote our book to be a survival guide. It addresses 80% of what they need to know, in a single, distilled volume.

The MBA student looks a lot like the college student with, as Paul said, perhaps a little bit more experience. But I think a large percentage of people that go get their MBAs are career-switchers. Their needs are similar to the college student. And this book gives them everything they need to survive and thrive on Wall Street.

PJ: I've been teaching at Columbia for 25 years. My thought was always, why do my students have to make the same mistakes I made? Why does every one of them need to reinvent the wheel as they start their career? Why not learn from the mistakes I and others have made. Everyone will make your own mistakes—that, I promise you. But why should everyone have to re-learn basic lessons? This is ridiculous. Besides, Wall Street has become more competitive and the stakes are much higher now to develop the necessary skills more quickly. My approach to teaching has always been to bring people up to speed as quickly as possible. Then let them leverage what they learned in school to be successful in business.

PS: During my 16 years teaching at Columbia, my approach was the same. In my class, I tried to simulate the real world—pitching a stock to

(Continued on page 17)

Pitch the Perfect Investment

a portfolio manager—as much as possible. We wrestled with a lot of difficult investing concepts, trying to pin them to the ground in the process of writing this book. We don't feel our book is the definitive treatise on the subject, rather, we are just trying to move the ball down the court. We're just trying to advance the discussion and contribute to the investment community's understanding of these critical issues.

G&D: Both of you focus a lot on small-cap stocks. Is that one reason why you were able to collaborate successfully on a book?

PS: What works about our collaboration is that first off, we both have a lot of working knowledge of the domain. But we're very complimentary because I'm all over the place in the way I think about the issues. With my gift of attention deficit disorder, I came up with all these crazy ideas and examples, and then Paul and I worked together to distill them down.

PJ: Paul will come up with, say, 10 crazy ideas, two of which are like, “Wow, that's the craziest thing I've ever heard—we can't write *that*” and those would get kicked away pretty quickly. Four or five of them were a creative take on something that's conventional, which often changed our view on a specific topic, many of which are embedded into the book's core principles. And two or three of the 10 ideas would blow me out of the water. I often said in our discussion, “Can you repeat that? I am taking notes as fast as possible.” I recognized early

in our collaboration that Paul has this unique and wonderful ability to see stuff very differently than I do, and differently than most people do.

Paul's job was to come up with crazy ideas and my job was help filter out the best ones. I urged Paul not to self-edit. Don't ever say, “This idea is too crazy to share with PJ.” I told him regularly, “I want you to tell me everything that comes into your mind on these topics. I want your unique perspective on these issues. Let me filter.” That became our partnership.

“We feel strongly that all investors need a better understanding of the difference between the two concepts [risk and uncertainty].”

The fact that we've known each other for a long time and were trained in a similar way probably helped, but I think our shared passion fueled our collaboration. Certainly, our mutual respect, natural chemistry and all those things help the relationship, but at the end of the day, it's a collaboration focused on trying to figure this stuff out, working to make it clear, and writing it to share with other people.

I always thought I was a visual thinker, but Paul is that on steroids. There were countless times he'd get up in the morning and email me a chart

he had created to explain an insight or new perspective he had overnight. I would look at what he sent me and say “Paul, that idea alone is worth the price of the book.” He usually responded, “Oh you like it?” And I would respond, “It doesn't matter whether I like it, the visual explanation is awesome. The chart is going into the book.”

We both gravitated toward small and microcap stocks because that's where we thought we had an edge. In that way, we are similar. We both grew up in that universe and our approach to the asset class is similar. We agree that it would be fun to be able to figure out what Google is worth, but you would be competing with 500 other analysts and portfolio managers who are each trying to figure it out. We both concluded that all those investors are probably really smart and are formidable competition.

As a result, we both tried to find situations to analyze with fewer smart people to compete with. We both got into small caps because that sector of the market was the least efficient. However, other investors figured that out and, unfortunately, even that part of the market has become fiercely competitive.

G&D: What are the theoretical concepts about investing you discuss in the book?

PS: (laughing) What concepts don't we discuss in the book?

PJ: One of my favorites is our discussion of risk and

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Pitch the Perfect Investment

uncertainty in Chapter 9. We feel strongly that all investors need a better understanding of the difference between the two concepts.

For example, if I gave you a lottery ticket, it is uncertain whether you'll win. I think that is clear to most people. However, is there any risk? I gave you the lottery ticket for free, so there is no risk. Now what if you bought the lottery ticket with your own money? Now there is uncertainty *and* risk: the uncertainty of winning and the risk of potentially losing the money you spent on the ticket. There may be a lot of uncertainty, but there is no risk without committing capital. Although this is a simple example, it demonstrates that risk and uncertainty are not the same thing. Uncertainty is usually what everyone talks about when they discuss the different possible future outcomes or scenarios, although they often mislabel uncertainty as risk.

There's uncertainty in the future, but risk only exists if someone commits capital and is only the part of uncertainty that could potentially cause harm to the investor. We feel that this distinction is an important subtlety for all investors to appreciate. As we show in the book, uncertainty and price is what determines risk. There are a lot of situations that are highly uncertain, and the uncertainty spectrum may be quite large, but if the price is low, then there may be little to no risk.

PS: One of the cases we discuss in the book involves Herbalife bonds. It was a situation where there was a lot

of uncertainty, but not a lot of risk.

PJ: Lehman bonds after their bankruptcy filing is another example. Lehman bonds were trading at eight cents. A couple of really smart investors did the analysis and concluded that

“First, you have to think about whom you’re pitching to. Portfolio managers are busy and there’s better than a 50/50 chance that they have attention deficit disorder. You need an idea that is going to capture and hold their attention very quickly.”

although there was a lot of uncertainty as to what would be the final outcome for the bond holders, the worst case in their estimate was 22 cents. They couldn't come up with a scenario where they got less than 22 cents. But they had no idea when the bonds would be redeemed, so they didn't know their expected return. In the end, the bonds were redeemed for 41 cents. There was a lot of uncertainty, but limited risk, and a terrific return in the end. Those investors were rewarded for understanding the difference between risk and uncertainty.

G&D: Before we discuss the

perfect pitch, why do you think the pitch is so central to this industry?

PS: If you want to go into investment management, you're going to have to go on a job interview. I don't think there's any other way you can get the job. And the portfolio manager doesn't really know how to conduct an interview, so they'll look at your resume and ask some basic questions to break the ice. And then, when they have run out of patience, they'll ask what they really want to know, "What's your best idea?"

PJ: Every interview is ultimately a stock pitch. We wrote the book with the goal of showing the student or recent graduate how to come to the interview with an investment idea that will get the portfolio manager to say, "I'm going to end the interview here so that I can start working on this idea *now*." Perhaps this goal is too ambitious, but that is what we want the student thinking every time they prepare for a job interview. They need to understand that their pitch needs to be so persuasive that the manager wants to end the meeting early to pounce on the idea.

PS: For the book, we felt it was critical to reverse engineer the manager's cognitive process. We thought, "Okay, what would be the elements of an idea that would motivate the PM to clear his or her desk?" First, you have to think about whom you're pitching to. Portfolio managers are busy and there's better than a 50/50 chance that they have attention deficit disorder.

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Pitch the Perfect Investment

You need an idea that is going to capture and hold their attention very quickly. We thought, “What response are you trying to elicit from the portfolio manager? What is the best possible outcome other than he just hires you on the spot?” In our research for the book, we spent a lot of time thinking about the entire process—from the first time the portfolio manager lays eyes on you until he decides to put the idea in his portfolio.

PJ: We also think that stock pitch competitions have lost their way, at least the ones we have attended. For many of them, the competition has become an exercise in showing the judges how much work you’ve done and how many slides you can put in your presentation, rather than finding a compelling investment idea. I think the judges have also been trained to look for the person who did the most work and has the best slides, as opposed to the most interesting investment opportunity.

G&D: What does this book bring to the table that is different from all the other value-investing books out there?

PS: In addition to teaching my own classes at Columbia, I also graded papers for Bruce Greenwald’s Value Investing class for six years. During those six years, I attended most of the lectures from the super-investors Bruce invited to speak in class. In addition,

I’ve read the same books as everyone else. I formulated my investment strategy on the ideas from those investors that

resonated with me the most. We wanted to write a book that explains the behavior of these great investors.

PJ: That’s why writing the book took so long.

PS: If you look at some of these super-investors, like Michael Price, Warren Buffett, Seth Klarman, Mario Gabelli or Walter Schloss, all these guys have different, yet successful approaches to investing. Nonetheless, our framework explains exactly what they are doing. We think our model provides a lens to show how they gain an investment edge.

PJ: It is important to emphasize that the world has changed a lot in the past 40 years. For instance, investing has gotten significantly more competitive, which we talk a lot about in the book. And we argue that unless you have a good roadmap, you’re going to have problems.

PS: The other challenge with these investors is that while they have so much expertise, most of their knowledge has become tacit and they have trouble communicating it effectively.

PJ: Would you want to take a basketball lesson from Michael Jordan? You’d might want to *play* basketball with Michael Jordan, but you probably don’t want a lesson from him. And you probably don’t want a tennis lesson from Roger Federer. These individuals are great performers, but they are probably lousy teachers. They’re fantastic at what they do, but we have found that they cannot explain their craft very well. The legendary

investors who speak in the Value Investing class are the same way. What we tried to do was distill their knowledge and processes into a generic framework that one can understand and learn from. And we think we achieved that goal.

G&D: What are the big mistakes that young people make when they pitch stocks?

PJ: A couple of things. Number one is overconfidence, which is a little tricky because you need to be confident in this business.

PS: We have heard countless students say, “I know the value of the company. In fact, I know the company better than the analysts following it because I’ve worked on it nonstop for an entire two weeks!” We were both judges at a stock pitch competition earlier this year. We were sitting next to each other during the presentations and whispering back and forth about how awful the pitches were. We were shocked at how bad they were.

The biggest mistake we see is that students spend 90% of their time figuring out what they believe is the intrinsic value of the company. Maybe 95% of the time. And they say, “Okay, I think the stock is worth \$50, it’s trading at \$42, therefore it’s a buy.” They spend 95% of their time explaining why it’s worth \$50, but don’t address why it’s trading at \$42. They do not explain what the market is missing. They don’t explain why the mispricing exists.

Pitch the Perfect Investment



Kenneth Chan '18, Kevin Nichols '18, Aniket Nikumb '18 and Jacob Doyle '18 at the 2017 Value Investing Reception

PJ: One of the key messages in our book is that if you inverted the time allocation and spend 90% of your time explaining what the market is missing and why the stock is mispriced, rather than 90% of your time trying to justify your valuation, we believe that the portfolio manager will listen intently and, might, in fact, clear his desk to eagerly research your stock. If you start your pitch by saying, “The stock’s trading at \$42 because investors believe X, Y, and Z are true. I’ve done a bunch a work to know why X, Y, and Z are *not* true and here is why consensus expectations are wrong,” the portfolio manager is going to give you his full attention. You then need to walk through why X, Y and Z are not true. If you take that approach, the portfolio manager is going to get highly interested in your recommendation and they’re going to say to themselves, “If he’s right, this stock’s going to \$50.” Now the focus is figuring out why you’re right and why the market is wrong.

In the book, we explain how every pitch must answer four questions, two of which I highlighted in the example above.

PS: The first question the portfolio manager subconsciously asks himself is, “How much can I make?”

PJ: If it’s trading at \$42, explain to the portfolio manager why you think it’s \$50. That gets him excited. That gets his greed going.

PS: Then the second question is, “How much can I lose?”

PJ: And you better address

that because that is the investment’s risk.

PS: Then the third question is, “Why is it trading at \$42?”

“The biggest mistake we see is that students spend 90% of their time figuring out what they believe is the intrinsic value of the company....They do not explain what the market is missing.”

PJ: You need to explain to the portfolio manager what the market has interpreted incorrectly—what the market is missing. You’re a young kid, you’re brand new to the business. You’ve figured out the stock is worth \$50 but the rest of the market thinks it’s worth \$42? Why? How have you been able to figure this out, but the market hasn’t? You need to answer this question fully or the portfolio manager will assume your estimate of intrinsic value is wrong and the market is probably right. If that’s the case, he will quickly lose interest in the name—and in you.

PS: Then the fourth question is, “How’s the market going to figure it out so the stock reprices?”

We use Michael Steinhart’s framework of variant perception to address these

four questions. A variant perspective means you have a view that is different from the consensus and you are right. The farther away your view is from the consensus, the bigger the price difference is going to be and the greater the opportunity, but the harder it is to prove that you are right. To emphasize the point: to have a variant perspective means that you have a view that is different from the consensus and you are right. You need both to be true.

PJ: Howard Marks states this well in his book, *The Most Important Thing*, when he says, “A forecast only has value if it’s different than consensus. But it has to be right.” The key to making money in the stock market is to be both different from the consensus and to be right. Both are hard. Being different than consensus is never easy, but being right is more important.

G&D: How do you think about a catalyst closing the gap between the analyst’s variant perception and the market’s view?

PJ: People throw the word “catalyst” around all the time, but we struggled with the definition for four or five months. We kept asking, “What *exactly* is a catalyst?” I think we finally figured it out: a catalyst is any event that starts to get the consensus to realize that the current set of expectations is wrong and begins to move expectations toward your non-consensus point of view. The fourth question can be rephrased as, “what’s the catalyst?” We think there are different types of catalysts. Time can be a

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catalyst, which we call a “soft catalyst.” Or there could be a specific event or announcement, which we call a “hard catalyst.”

Most pitches don’t spend much time on questions three and four. I like to use a retailer, such as The Gap, as an example. Let’s say that the big issue for the company is that as they get near the end of the season, they write everything down because they can’t get the merchandise right and their profitability always disappoints investors as a result. That’s been the issue for years and is what everyone is worried about this year. But, I was walking through one of their stores and thought the merchandise actually looked pretty good. I started calling store managers around the country, and, sure enough, they said, “No, this is the best season we’ve ever had.”

You can highlight this information in an interview or a stock pitch. You lead with “I talked to 23 store managers across the country and they said this is the best season they’ve had in years and the markdowns are going to be dramatically lower than they’ve ever been before.” I have a variant perspective and I have information other people don’t have. It takes two minutes to tell that story.

PS: Between the two of us, we’ve listened to thousands and thousands of stock pitches over our careers. We’ve heard stock pitches from students in class, during stock pitch competitions, from sell-side analysts, CEOs, and corporate Investor Relations. We’ve gone to conferences where we’ll

listen to 10 pitches a day from companies. Gabelli is having their aircraft supplier conference tomorrow. There will be 12 companies there. That’s 12 stock pitches. Most won’t resonate with me, but one or two may. I always ask myself, “Okay, what gives me the warm fuzzies?” And then I try to reverse engineer what led to that feeling I had. That is what we’ve done in the book: reverse engineered the portfolio manager’s cognitive process.

G&D: What part does market efficiency play in your process of repricing?

PS: In our book, we start with the work of Eugene Fama and conclude that for a stock to be efficiently priced information needs to be adequately disseminated, processed absent any systematic bias, and then incorporated into the stock price. An error in any of those three areas can produce a mispricing. You can have an edge or advantage *only* if it addresses one of the three steps in the process. You either have an informational advantage, an analytical advantage, or a cost or trading advantage. There’s no fourth advantage.

PJ: We discuss market efficiency at length in the book because it explains the three reasons the stock could be mispriced.

PS: You could have a piece of information that no one else has, and you’ve obtained it in a legal way so it’s OK to trade on it. That’s a pure information advantage—you know something the market does not know. Then there’s a cost

or trading advantage, which means that you can transact in a security where others can’t or won’t. When Warren Buffett bought Goldman Sachs preferred shares during the 2008 financial crisis, he was the only one offered that deal. He had a structural cost advantage and generated alpha from it. For him, the security was mispriced.

How do you get an analytical advantage? An analytical advantage is where you look at the exact same data set available to everyone else but you see something that other people don’t see. That’s your variant perception. And that’s where behavioral finance comes into it. If everybody’s fixating on one piece of information and ignoring other information in the public domain that you find important, there could be a mispricing. We devote a significant section of the book to these principles: market efficiency, behavioral finance, and gaining an edge.

G&D: Do you think the markets for large-cap U.S. stocks today are much more efficient than it used to be 10 years ago? If so, what would your book have been like if you had written it then?

PJ: I think the market has become much more efficient. As an example, think about the World Series of Poker. The problem you have in poker these days is that just about all the rules have been worked out. The pros have simulated the game on computers and determined the optimal strategy. The great poker players have written books and given you all the tricks. If I

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decide I want to become a great poker player, I can read the important books on strategy and then play 1,000 hands a day online. The process of becoming an expert has become simpler and faster. As a result, the game has become a paradox of skill: anybody who's not highly proficient has been chased away. Only the greats are left playing the game. There are no more fish for the sharks to feed on—they are gone. As a result, it is sharks feeding on sharks.

It's the same in investing. I am shocked at how much more efficient the markets have become in the last 10 years. Everybody talks about the fact that it has become very hard to generate alpha. You've seen some great investors leave the business. They are closing shop because they don't want to compete against other sharks. That's the biggest change in 10 years.

I think the second biggest change is alternative data sets. Now there are sophisticated programs that scrape the web, monitor social media, and generate alternative information like credit card "exhaust," which is secondary or meta data, and satellite imagery. Alternative data has come a long way in the last 10 years and smart investors are using these unstructured data sets to get an edge.

Also, information is now released on the web to everyone at the same time. You even have services like Capital IQ and others that will build your financial models for you. When I was a young analyst, there was an advantage

to building better models. That skill no longer gives you an edge.

PS: Let's say you're an analyst following Best Buy, Home Depot or some other big

“You can have an edge or advantage only if it addresses one of the three steps in the process. You either have an information advantage, an analytical advantage, or a cost or trading advantage. There's no fourth advantage.”

retailer. Ten years ago, RS Metrics didn't exist—but they do now. RS Metrics flies satellites over retailer parking lots on a daily basis and takes pictures. Then they have computer programs that count the number of cars in the parking lot and compare the results against other satellite photos that they've taken a week before, a month before, a quarter before, a year before. They can tell traffic patterns from that analysis. If you are analyzing Home Depot's stock and you don't have that information, you're at a huge disadvantage.

It's the same thing with expert networks. When expert networks came out, the investors who could afford to spend \$100,000 per industry

vertical on these services had an advantage. Then, when all the big guys had it, you needed it as the ante to stay in the game. Now, if you don't have it, you're at a disadvantage.

PJ: We believe that information gathering has become very sophisticated. As for an analytical advantage, you're competing against very smart, well-trained and highly motivated investors and analysts. And, it is now very inexpensive to trade. Everything has advanced in the last 10 years and the three ways an investor can get an edge have weakened substantially.

PS: Another issue is the US "listings gap." In 1996, there were about 8,000 companies trading on organized exchanges in the U.S. Based on GDP, that number should be 10,000 today. The actual number of listed companies is only 4,000. One of the reasons the market has become more efficient is that you have a lot of smart investors, with access to the latest technology, chasing fewer and fewer names with more and more money.

G&D: Given this, where should practitioners and students focus?

PJ: If you're young and starting out in the business, you should focus on trying to develop an informational advantage. Since you have the time and energy, dig, dig, dig. Call as many potential sources of information that you can find and keep thinking of new sources to contact. Be creative about what kind of information is important to uncover. For instance, young analysts

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understand the power of social media. See if you can use it to gain an edge. Then, as you get more experience, work to expand your analytical skills so you can develop a more accurate variant perspective. I think that's the natural evolution in the business. When you're young, be very creative on your information sources and then as you get older, develop a more insightful analytical process.

For the practitioner, you need to be able to take raw information and couple it with sophisticated analytics. Only then will you have developed a powerful skill set. You also need to understand what is your variant perspective for any investment that interests you, which changes the questions you need to ask and the type of information you need to gather in order to get an edge. I think that's the key to investing.

G&D: How do you apply these theories to private equity and international markets?

PJ: Let's separate the two questions because I think the answers are different. In non-public markets, I think there's enormous alpha to be generated at the management level. Not the management of money, but the management of companies and people.

If you look at corporate governance and how companies are managed you will find that there's an enormous amount of inefficiency. Governance in the U.S. is a joke and many CEOs do not have the necessary experience to manage their

companies effectively. I think that private ownership is growing because of the ability to control that piece of the governance problem. Fixing the agency problem is truly one of the last vestiges of alpha generation. It's very possible that in the future we will see only two types of public companies: the mega companies and the "living dead" companies. Every other company will have been bought by private equity. I worry about the gutting of U.S. public markets; the listings gap that Paul referred to may only get worse.

International investing is tricky. Many countries have proper disclosure rules, but the financial numbers the companies disclose are fake. Therefore, there can be a huge opportunity to obtain an informational advantage in trying to verify a company's actual economic performance against the financial results they report. I think gaining an informational advantage can potentially be a very big advantage outside the U.S. That said, you had better be on the ground, speak the language, understand the political environment and read the local newspapers—you need to be a native to compete effectively.

There's a lot in our book that's relevant for both private equity and venture capital. Certainly, pitching in private equity or venture capital is very similar to the public markets. Stock prices are given in the public markets; therefore, you need to figure out if the crowd is wrong. In the private market, it's the price you're willing to pay and how you are going to

create shareholder value over time. That's the only real difference between the two markets.

PS: I recently had lunch with the chairman of a public company. He had just bought a private business at 6x EBITDA. There was a strategic buyer that was willing to pay 10x. So, why did the owners of the company sell to him for 6x when they could have sold to the strategic buyer for 10x? It was because the two founders were in their 90s and had 180 families who were dependent on their company, since they were the biggest employer in the town. The purchaser had to sign something as part of the deal saying that he would keep the employees on for a certain number of years. That part of the deal wasn't disclosed, but that's an example where the buyer who paid 6x had a structural cost advantage over the strategic buyer in a private market.

PJ: A friend of mine in the venture capital world, who read an early draft of our book, said young analysts in venture capital have the same problem with pitching that public stock analysts have. It's a slightly different pitch as there is usually an auction price instead of a market price. He said if you substitute those pieces however, it's the same challenge. In the end, whether it is a VC investment or a stock, the goal is to understand what the portfolio manager wants, what they look for in an investment, and how they determine value. Whether it's venture capital or private equity, the pitching parts matched perfectly.

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G&D: Often, when listening to a pitch, it can be hard to separate a person's charisma and confidence from the quality of their idea. If I am an analyst, how do I compete with someone who has that charisma? Do you address that in the book?

PS: As we discuss in Chapter 12 of the book, there are the factors of credibility, capability, and likeability that the portfolio manager is subconsciously assessing when sizing up an analyst and their idea.

PJ: Someone who is very charismatic is very likable, as we humans tend to gravitate towards people like that. Someone who's very confident comes across as very capable. We tend to like that as well. So, if you're competing against someone who has more charm than you, I would say just focus on the four questions and you'll blow everybody away.

PS: Proper stock selection and a true variant perspective beats charisma every time. In fact, as we all know, many of the most successful portfolio managers lack even basic social skills.

G&D: Except for your book, what are your favorite investment books?

PJ: Howard Marks' book, *The Most Important Thing Illuminated* is very good.

G&D: Are you saying that because you annotated it?

PJ: As I've said many times, I wish I had written that book. That is, until this book. Marks is great when he talks about

market efficiency, second-level thinking and risk. I think our risk discussion is better, but we got to write it after he did. I think Joel Greenblatt's books are a great way to think about value creation and buying compounders cheap. Ben Graham's *Intelligent Investor*, or at least some of the chapters, are worth reading.

PS: Especially chapters 8 and

“The process of becoming an expert [in poker] has become simpler and faster.... Only the greats are left playing the game. There are no more fish for the sharks to feed on—they are gone. As a result, it is sharks feeding on sharks.... It's the same in investing.”

20. Well, chapter 1 also.

PS: Michael Shearn's book, *The Investment Checklist*, is also very good. But as we mentioned, the reason we wrote this book is that there was no single book to recommend. When asked the same question in the past, we would have to recommend a chapter here, a chapter there, or perhaps some journal articles, but we could not recommend a single book, or frankly, a whole book. Another book I think would be

good for students to read is *Peak*, by Anders Ericsson. It's about how to build expertise. The way to survive in this business is to build up domain-specific knowledge. And the only way to really become an expert is to live, breathe, and eat the stuff for a long time.

PJ: Deliberate practice, like “Jiro Dreams of Sushi.”

G&D: The Netflix documentary about the sushi chef in Tokyo?

PJ: Yes, I was watching it this week and love how Jiro talks about his strategy for success. He's been making sushi for 65 years and is considered the best sushi chef in the world, yet says he tries to get a little bit better every day. That's pretty impressive.

PS: The concept of deliberate practice is critical to understand. Watching soccer games for 20 years will not make you a good soccer player. And not even playing soccer for 20 years will make you a good soccer player. Deliberate practice, which Ericsson talks about, is how you become good. Really focusing on what you're doing and constantly pushing yourself just beyond your capabilities and then getting direct feedback from an expert coach is the way that you build up expertise and improve over time.

PJ: I'll teach my 40th and 41st semester-long course at Columbia Business School this academic year. I've been teaching for 25 years, but I spent 50 hours this summer re-doing most of the material in the course. And that's crazy

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because this class has been ranked as one of the top courses in the Executive MBA Program for the past few years. But I wasn't happy with it. That's why I watch Jiro. He's been doing it for 65 years; I've only been doing it for 25.

PS: Bruce Greenwald is starting to talk about the importance of specialization, and it's a shame that he's going to be retiring because I think that if this were 20 years ago, he could explore and develop the concept of specialization even more. In a market which is extremely efficient and getting even more efficient every day, I think that specialization is going to be very, very important. And the only way to get specialization is by living, breathing, and eating whatever domain you're in.

G&D: When you think about people our age specializing in investing, what ways would you push them to specialize? Is it in a market cap, is it in a style of investing?

PS: No, I think it needs to be industry specialization. We will discuss how one becomes an expert in the next book we will write, which will probably come out in four years.

PJ: They might not be able to wait that long for the answer.

PS: I think in order to perceive *mispricing cues* you have to really understand what's going on in a specific industry—you have to be an expert in that industry. The caveat is that you need to pick the right industry—one that's going to be around in 40 years.

PJ: Then there's the argument to be made that you should go into the industry that no one else wants to go into. Think about the sector usually classified as Technology, Media & Telecom. Everybody wants to do TMT. I convinced my son to do something else because TMT is so crowded. He did and he's delighted because he's one of the few people in the industry he's currently specializing in. It's a tricky balance between what everybody else is doing and your natural interest. I've always been interested in basic industrial companies and health care services, but I'm really a tech guy. I have been following that industry for 30 years. I like reading about it, it's fun, it's interesting. I argue with people in the industry, I have an opinion.

As the market becomes more efficient, you have to specialize. There are probably not going to be any generalists left. Specialization is the rule in most industries. No pilot is an expert at flying every kind of airplane and no doctor is an expert in every kind of surgery. There's always some specialization.

PS: You want to go where no one else is because that's where you're going to find inefficiencies. If you go into a career fair and there's one table that everyone's at and another table that's empty, you want to head towards the empty table—it might be empty for a very good reason but that should be your search strategy.

PJ: A former student of mine is a senior specialist in the maritime industry and he

wanted to go do something else. I said to him, "You're nuts. You have a pole position. You're the highest-ranking person of your generation in the industry. Stay where you are." We spent four or five months talking about his options and he decided that he wants to remain the senior person in that industry. And I think he'll be able to pull that off.

G&D: When you talk about specialization, does pattern recognition help in other industries? If you've seen something play out in one industry as a specialist are you more likely to spot it in another?

PS: "Pattern recognition" is a term that gets thrown around a lot, but we think about it very differently.

PJ: Paul and I believe that there is value in developing a skill in recognizing patterns across industries. What we are working on as part of the next book is the notion of "story scripts." It's the idea that we've seen these events before in another industry or at a different company, and we noticed a pattern but the real concept is much more nuanced than simple pattern matching.

There are some hedge funds here in New York that go through the mental exercise of looking back at industries and scenarios in the 1970s and '80s. They ask how one industry in the 1970s unfolded and why it unfolded that way. Next, they look at another industry in the '80s and ask the same questions. Then they ask, "How do they compare?" They're trying to find meta

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patterns or what we call “story lines” that repeat and then apply those insights to the present day.

G&D: What other advice would you share with students?

PJ: I would specialize early, just so I have a differentiation. Then I’d start to build the skill set around that specialization. I would then start to read outside the domain and try to expand my knowledge base. For instance, if you study healthcare, you’re going to end up either going into healthcare technology, because that’s a piece of it, or into healthcare services. After that you might venture into biotech.

However, if you do financial services, you’re not going to do biotech and financial services. That would be a weird skill set, it’s too far apart. You do one area and then broaden out your expertise to an adjacent area. I think energy is going to be a fascinating industry in the future. If you have a good understanding of the energy industry that’s fine, but renewables are ultimately going to have to be a larger part of that industry ecosystem.

PS: I told my son when he went to college that, “If I were a freshman in college, there are two domains that I would become an expert in.” Dermatology and chemistry. I would figure out a way to remove tattoos painlessly. Because I think if you can figure that out and patent it, you could be looking at a multibillion-dollar industry.

G&D: Ha. You are predicting that tattoos will soon go out of favor?

PJ: We have never seen anything like the “inked” fad today.

More seriously, people ask, “What skill set should I learn if I want to become successful?” I say, “Learn how to manage people.” My friends from business school that have had really interesting careers are the ones that learned to be great managers. People want to work for them. There is a real shortage of people who know how to effectively manage people. I told my son, “Learn how to manage people and you will have won the world, particularly with your generation, because people just don't want to manage others.” You can take this expertise, possibly get equity in the business, and help drive value. If you really want to get rich, to me, that's where the inefficiency is today: managing people.

PS: The other thing is that you have to be creative. Creativity is defined as coming up with a product or idea that is novel and has value. If you just create novel stuff or come up with novel ideas that don’t have value, it doesn't go anywhere. Creativity on Wall Street is variant perception—having a novel view that is different from the consensus and then being right.

G&D: Thank you both for your time, it’s been a pleasure.

Aryeh Capital Management

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Jeremy Weisstub



Damian Creber '16

Damian Creber is the Head of Research & Co-Managing Partner at Aryeh Capital Management. Mr. Creber was most recently a Senior Analyst at Owl Creek Asset Management. Prior to that, he was in the private equity group at Onex Partners and in the Leveraged Finance Group at RBC Capital Markets. Mr. Creber holds an MBA (Dean's Honors and Distinction) from Columbia Business School, a Bachelor of Commerce from the University of Toronto, and is a CFA Charterholder.

Graham & Doddsville (G&D): Can you tell us how you got to this point in your careers, and what inspired you to launch Aryeh Capital?

Jeremy Weisstub (JW): Above all, Damian and I are at this point because we had the good fortune of having great mentors. We apprenticed under extraordinary talents at our previous firms and we absorbed what made them successful investors and leaders.

My background is Canadian—I was born and raised in Toronto. My interest in the markets and in economics came early, inspired by my grandfather who was with the Bank of Canada. I decided to work for a stock brokerage for a year between high school and college to test my interest, and it stuck. I studied economics at Yale and then joined Blackstone in 1998, when it was still a boutique firm. Blackstone exuded a culture of excellence that was unmatched, and I learned a

tremendous amount about professionalism and preparation. I took that to my next role in private equity at Oak Hill Capital, where I learned about depth of diligence.

My public-markets career began in 2005 when I joined Perry Capital after earning my MBA at Stanford. At Perry, I learned about probabilistic thinking as well as how to be opportunistic across the capital structure. When I moved to Redwood Capital, I was able to augment my experience in distressed investing by training under one of the great distressed investors, Jonathan Kolatch, who instilled in me the confidence to know how to take advantage of large market dislocations. At Redwood, I was also given a platform to develop and fundraise for a targeted fund, the Redwood Loan Opportunity Fund.

My most recent experience was with Greenlight Capital, where I worked with David Einhorn for over six years. Learning from David pushed my knowledge of the equities business to the next level, and we had a great run together, with particular success in out-of-favor situations such as CIT Group, Delphi, General Motors, and Sprint.

Damian Creber (DC): Like Jeremy, I was born and raised in Canada. I studied business at the University of Toronto and then started my career in investment banking at RBC Capital Markets, where I focused mainly on the credit business, before moving to Onex to work in private equity. Columbia Business

School and its renowned Value Investing Program brought me to New York, where I was fortunate to connect with and work for Jeffrey Altman at Owl Creek.

Similar to Jeremy, each stop in my career has been a formidable learning experience. Onex taught me the importance of a world-class investment process and the power of strong culture and retaining good talent. At Owl Creek, I observed Jeff's remarkable ability to get to the heart of an idea, pull out the relevant information, and understand the path forward, regardless of whether that idea is in equity or credit, long or short. Jeff has a tremendous track record and I believe he is unique in the way that he has trafficked across the capital structure with great success over a long period of time.

JW: Aryeh Capital was inspired by a long-standing dream to build an investment firm of my own in Toronto. With all the experience I had picked up, it was time, and when I met Damian, I knew I had found a partner who shared my vision. As we got to know each other, it became clear to me that Damian was a truly special talent, and was someone I wanted to build my business alongside.

G&D: How exactly did you two meet?

JW: There aren't many Canadians in the New York hedge fund community, so we all tend to know each other. I had a sense that Damian was someone who could be a real partner, a sounding board for all investments, and provide

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incredible leverage to the investment process. Damian is truly all of that and much more.

DC: For me, the desire to build my own firm was equally strong and meeting Jeremy confirmed that. His experience is a true complement to mine and we are able to play off each other's strengths well.

G&D: Why Toronto? What about establishing your firm there differentiates you?

JW: The first advantage is reflected in our capital base. We have deep roots in Canada and with that has come a circle of business people who have known us, and grown to trust us, over many years. Our anchor investor is a well-respected Canadian businessman who has committed \$75 million for seven years. We built upon that and have secured sponsorship from over 30 investment professionals in both Canada and the New York hedge fund community. Currently, we have raised over \$125 million—with an average duration of over five years—before beginning a formal marketing process. This is a huge vote of confidence for us as we launch Aryeh.

The second advantage is that Toronto is removed from the noise. The geographic distance supports our ability to build an independent mindset, which is critical to investing.

The third is value for money. In Toronto, we are able to operate a firm with top-tier talent and infrastructure for half the cost of doing so in New York. This cost

advantage, combined with the capital base we have already raised, means the business is fully funded for the next seven years without the need to raise any additional capital. That

“...Toronto is removed from the noise. The geographic distance supports our ability to build an independent mindset, which is critical to investing.”

stability out of the gate allows us to invest all capital as if it's our own. We can capitalize on volatility in ways that few others can.

DC: The other thing I would add, as it relates to being based in Toronto, is that Canada gives us enormous recruiting advantages. We are able to attract both world-class professionals in Canada who are interested in moving to the public markets, for whom the options are otherwise limited, as well as expatriates in New York or elsewhere who want to come home but have few choices.

G&D: What else differentiates you?

JW: We have spent a tremendous amount of time thinking through this, and feel very strongly that our competitive advantage is not one single thing but rather a unique combination of things. In addition to the advantages related to Canada, there are five other elements that we

feel set Aryeh apart.

First, our judgment and experience—investment success comes with sound judgment, and I'm certainly proud of my record as an investor. At the same time, there have been plenty of mistakes that I've learned from and those have also made me better and stronger over time. Second, we believe the duration of our capital will allow us to exploit time arbitrage in a way that few investment firms can.

Third, we have specific expertise in distressed debt stemming from having worked with some of the greatest distressed investors. While we think that the current credit opportunity set is not particularly robust, when the opportunity arrives in the credit cycle, we expect to act on it aggressively. We are prepared, and will not be capturing that opportunity set reactively but rather with our best foot forward.

Fourth, concentration—we will only invest when we have high conviction, and our portfolio will consist of 15 core longs. We strongly believe that concentration delivers outstanding performance over time. Lastly, our capped fund size puts us in a position to be nimbler as it relates to both equities and credit.

G&D: It's rare in this environment for startup funds to get as much capital as you have, for the length of time that you have, on Day 1. What about your philosophy or strategy stood out to your investors?

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JW: I think, first and foremost, it was about trust. Our anchor investor is a long-standing relationship—somebody who has enormous comfort with both my character and my ability as an investor. For other folks who have committed before our formal marketing effort has begun, I think it is a function of longstanding relationships as well as an appreciation for the drive and set-up of our team. We are positioned to take advantage of opportunities across the market cycle given our experience in both equities and distressed credit.

G&D: Do you plan to focus your portfolio on Canadian ideas?

JW: No. Our portfolio will be concentrated and comprised of primarily U.S. securities.

To take that up to a higher level, the ideas that make it into our portfolio boil down to two questions: Is a situation dislocated or misunderstood? And is it analyzable? Fundamentally, we're looking for good businesses that have been discarded or are misunderstood for one reason or another. Within credit, we're much more focused on dislocation—situations in which we think there's technical pressure temporarily mispricing something in the market.

That said, our industry backgrounds and experiences are critical to understanding an investment scenario, and if we can't analyze it, then we won't invest in it. We just will not be able to develop a highly differentiated view in some sectors, such as biotech or a

specialty technology business, even after months of diligence. Those go in the “too hard” bucket and we move on.

G&D: What about the short side?

DC: We view shorting as a core part of the portfolio. We think it should only be done in a situation where you're actually generating dollar returns for your partners, not

“...the ideas that make it into our portfolio boil down to two questions: Is a situation dislocated or misunderstood? And is it analyzable?”

as just a hedge on your long performance.

Our short ideas typically fall into three different buckets: The first, structural shorts, as you would imagine, are your standard broken business models—we think there are segments of U.S. retail that are in this bucket today. Second, cyclical shorts, is where you see the market confuse a cyclical upswing for a secular change. And the third bucket is credit-driven shorts where we either feel the credit or equity market is missing some idiosyncrasy associated with the credit on a levered name. One example includes equity investors occasionally ignoring important information on balance sheets; another is shorting unsecured bonds trading at par for businesses that have real challenges.

JW: We anticipate putting on up to 20 shorts, although in smaller sizes than our longs. A large short for us would be 2% of the book, whereas a large long would be 10%.

Taking all these together, we plan to construct our portfolio by taking a bottoms-up view of investments, calibrated to the opportunity set. And by that, I mean two things. First, we think about our net exposures over a market cycle and plan to position our portfolio accordingly in that context. Second, our exposure to equities and credit will range based on the opportunities we see. As an example, right now, our net exposures would be more conservative, and the portfolio would be more heavily weighted towards stocks; however, as the credit cycle turns, we would expect to be more heavily weighted towards distressed credit.

G&D: How are you building up the team?

JW: Two junior analysts, both Canadian, have already joined Aryeh. Our investment team of four is a good size for an organization with a portfolio of 15 core longs. We are modeling ourselves after a very select group of investment firms that have had long-term success with a high-caliber, but reasonably small, team. Similar to those organizations, we want to keep it simple. The team will likely grow modestly over time, but it will never be a large organization.

DC: We deliberated about the right people to fill these roles, and in particular needed to find investment analysts who understood that our process is

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modeled after private equity, which tends to be different from how most people approach public markets. Our process demands a significant amount of time to research ideas, and that depth of research we believe is unique. Having the right people for this kind of process, who also exhibit intellectual horsepower, work ethic, curiosity, passion, and judgment, was an important mixture for us. We feel very fortunate to have found that.

G&D: How will you divide responsibilities among the team?

JW: The team works very collaboratively; however, I am the sole Portfolio Manager of Aryeh. Damian is the Head of Research. All investments are going to be discussed as a group. And since we are a small team working in close touch day-to-day, it is a very cohesive process.

DC: The investment process is designed to achieve certain goals. The first is that we want to try to get to a “kill” decision very quickly. Second, if we do end up getting to a “yes” through the process, we should have enormous conviction in those ideas. And so, while the investment team consists of four people, we plan to work in pairs as we go through the research process on an individual idea. We divide the process into three phases that we reference as “a day,” “a week,” and “a month” internally.

The first phase of looking at an idea involves “a day” of work, which is designed to ensure that we’re spending time on

the right ideas that could meet our two core questions of either being misunderstood or dislocated, and being analyzable. The second phase, which is about “a week” of work, is meant to deepen our conviction. This is where we dive deep into the business, the industry, the numbers, and where we’re constantly asking ourselves the same questions, but with a more substantial degree of rigor. And the third phase, which can take up to “a month” of work, is where we do the largest portion of our primary research, which includes visiting the company and its facilities, calling customers, suppliers, attending industry conferences, and working with the management team to dive below the deepest layer of the financials.

In each phase, we write a detailed memo that goes out to the entire team, which effectively gives the entire team all the relevant information to analyze the idea. Everybody is encouraged and expected to weigh in.

JW: We then sum all that work we’ve done into quantitative criteria for our portfolio, which is how we determine sizing. Though I can’t share those criteria here, because we view them as a core part of our intellectual property, it’s safe to say that we think they reflect the most important characteristics of any investment. We layer these quantitatively onto our research process.

G&D: You mentioned the quantitative model you use for sizing. Have you used something like that in the past?

JW: Neither of us have used the exact model we are incorporating today at Aryeh—we blended our worlds in this sizing model. Some of the elements are ones that you would expect to see from any investment process. The core of our risk-management philosophy revolves around downside protection, and so as we think about how to size any investment, the first and foremost consideration for both of us is framing our downside. Our largest investments will always be our lowest-risk investments.

G&D: How do you generate ideas?

DC: As mentioned, first and foremost we focus on securities that we understand to be dislocated or are ripe for potential misunderstanding. Drilling down from there, we naturally gravitate towards ideas that come from existing knowledge gleaned from prior investments or industries we know. For example, both Jeremy and I have spent many years trafficking across global industries, with Jeremy spending much of his career in industrials, real estate, and financials, while I spent chunks in each of industrials, consumer, and healthcare. So, we have good familiarity with businesses in those industries, and when a stock is down 20% on one day, we know if that can be interesting to us.

We also do quantitative screening that can surface some interesting situations, particularly smaller-cap names that we haven’t looked at before. Historically, we have both worked at larger firms

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Jonah Stowe '10 (left) and Ben Mellman '09 at the 2017 Value Investing Reception

with greater liquidity constraints.

JW: On the credit side, it's important to be ready when dislocations present themselves so we are on the lookout for situations that have the potential to be future large restructurings. Often, there are companies that you know run the risk of getting into trouble in the coming weeks or months. In those instances, the securities that are relevant to potential investment may not look cheap yet—they may still be closer to par than 50 cents on the dollar—but you want to be ready to buy on the way down. You want to be ready to step in when there are a lot of folks looking for liquidity. Once the wave of selling is absorbed, it's typically much less liquid on the way back up. In building a position, you often want to be there on the way down.

G&D: Given the small, cohesive team, do you have any tactics to avoid groupthink once you're involved in an idea?

DC: Yes, we have designed precautions into the investment process to address exactly this. The pair that is not the lead on a specific investment will be involved during the memo process and they are encouraged and expected to have real push-back. We incorporate check-ins with the pair that is not going deep into the research on a specific idea in order to keep us on track as a team.

We've further enhanced this concept by compensating the team on firm-wide performance and asking every

member of the team to invest their own capital into the fund. We are entirely aligned with our investors.

G&D: You mentioned you often pick stocks that are "misunderstood." Can you clarify? Isn't almost all investing capitalizing on someone else's misunderstanding of a story or situation?

JW: Yes, you could say that even a growth stock is a form of misunderstood security. But the way we mean it, and the way we've succeeded with misunderstood securities,

"The investment process is designed to achieve certain goals.

The first is that we want to try to get to a 'kill' decision very quickly."

involves controversy over what the business really is and how the path forward looks for that business.

DC: Misunderstandings—or controversy—can evolve from many areas such as spinoffs or multi-segment businesses where people are overly focused on one segment and miss the forest for the trees. Complexity or news events or change, whether it's management change or capital allocation change, also tend to drive misunderstandings. The market, for the most part, thinks linearly in these instances but businesses tend to move nonlinearly, and that creates our hunting ground.

We really like misunderstood situations where we're able to buy a quality asset at a discount, and where we have real comfort in the quality of the business. In these cases, we get two things: We get an immediate re-rating when the bear case or bull case falls away as the controversy is resolved. Second, the underlying value of the dollar that we bought at 50 cents is now growing, so the business is inherently getting cheaper every day on an intrinsic-value basis.

The reason we're attracted to misunderstood or dislocated quality is that, if we're wrong in our analysis of the dollar, and it's only 80 cents, the 80 cents is growing. This is one of the biggest lessons I've personally learned in terms of mitigating downside risk. That's why situations where the dollar has dislocated to 50 cents, but where the underlying business is still truly growing, are our Holy Grail.

G&D: What are some other investing lessons from your careers?

JW: One of the key lessons that I learned was from the financial crisis, through which I learned to appreciate the enormous opportunity cost of illiquidity during periods of market stress. One common way to reach for yield is to accept increased illiquidity for the sake of getting a little bit of incremental return. The issue is that illiquid credit can cost you enormous upside from an opportunity cost perspective—because it's critically important to be able to migrate to the best opportunities when markets are the cheapest. For

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the same reason, cash provides the ultimate form of optionality.

Another lesson is that, when companies run into trouble, talking to management teams can hurt you. Typically, we are very fundamental, private-equity-style investors who like to speak to management teams. But in those circumstances when there's a lot of uncertainty around a business, speaking to a management team typically results in one of two things: Either they're going to tell you a story that is overly optimistic or they will have no answer. Neither scenario is helpful to our process.

G&D: What happens if you're a major holder of a company and that stock tanks because of some perceived trouble? If the management team proactively reached out to you and other investors, would you stick to your philosophy of not talking to them, regardless of what they had to say?

JW: In that scenario, when a business is in trouble, you have to recognize the likelihood of misinformation and approach management's ideas with caution.

G&D: What is an idea that you think embodies your type of investing?

DC: We are currently very excited by a business called ServiceMaster Global Holdings (SERV). It's a reasonably complex company, whose stock got dislocated in the middle of last year—and dislocations, as we talked about, pique our interest.

ServiceMaster is a collection of three somewhat disparate businesses. The first is Terminix, a high-quality termite and pest-control company that is the market leader in the space, which represents 55% of EBITDA. The second is American Home Shield (AHS), the market leader in home warranties, which represents 35% of EBITDA. And the final bit, which is 10% of EBITDA, is a franchise business that does

“One of the key lessons that I learned was from the financial crisis... the enormous opportunity cost of illiquidity during periods of market stress.”

everything from residential and commercial cleaning, to natural disaster restoration, to home inspections and furniture repair.

JW: We generally like complexity because it often scares off other investors. When Damian introduced me to SERV, we were both attracted to three main factors—the complexity, the combination of very high-quality assets, and a stock price that had fallen from slightly over \$40 to \$32 in the span of a few months. All three of ServiceMaster's businesses have market-leading positions, high margins, and limited cyclicity, yet the market hadn't given these qualities much credit. It was also

appealing because it had many of the elements of investments with which I have had success in the past—a dislocation, followed by a clear misunderstanding, all of which takes time to resolve itself in the marketplace.

DC: The dislocation occurred because Terminix had shown decelerating organic growth over a few quarters, and there were some very vocal bears suggesting the business had been broken by prior private-equity owners in a way that it could never recover. We came to the conclusion that not only did the Terminix bear case not have substantial merit, but also that all the bears were missing the truly amazing business that is American Home Shield.

The research process involved spending countless hours speaking to former employees, competitors, suppliers, customers, and management. We concluded that Terminix had stubbed its toe around certain operational issues but that none of these were structural and all of them were in the process of being fixed. This is a business that is in a market that is growing 4-5% a year organically, and has the ability to tack on very accretive M&A. It just needed a little love to get back to this growth rate.

More interesting, however, was AHS. AHS is a well-moated business. Its strong competitive advantage is its scale, allowing it to source effectively from its suppliers. It has grown revenue 10% a year, as home warranties have continued to penetrate the market of homeowners, and has very attractive incremental

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margins. All of these factors rolled up to where we could see ServiceMaster growing free cash flow per share by 15-20% per year for at least a handful of years, and at the time SERV was trading at a 7.5% FCF yield. We have a bias for attractive cash flow yields, and certainly attractive cash flow yields that grow each day.

Almost a year later, the shares stand at about \$47—a nice run from \$32 last summer. But we think there's substantially more left to this story, particularly as we've seen Terminix organic growth re-accelerate and AHS growth hold.

The most interesting piece of the story from here is that management has decided to separate AHS and Terminix by spinning off AHS in order to unlock value for shareholders. The spinoff is expected later in 2018 and we think that's the next catalyst for the business to continue to unlock value for shareholders. We think the stock is worth \$60 today based on conservative sum-of-the-parts math.

G&D: Why exactly did Terminix decelerate and why was that a misunderstanding?

DC: Terminix had decelerated for two reasons. The first relates to the type of product that they were using to treat termite infestations. Historically, you've treated for termites by walking around a home, digging a bunch of holes, and pouring in a liquid. The liquid is not toxic, but people have discomfort with it and there's no recourse if a customer cancels the ongoing maintenance fee—you can't take the liquid out of the

ground. A few years ago, the market started to shift towards what people call termite "bait." This bait involves installing what looks like a sprinkler in your lawn, where you put poisoned termite food, which the termites eat and die. All the competitors had shifted to this product, but Terminix was not sure about its efficacy for some time, and so it continued to offer liquid instead of bait and this caused a slowdown in gross customer adds.

The second reason was that the company had a technician retention challenge after changing the compensation plan, causing some customer satisfaction issues. It was clear from the research that these two reasons were being addressed and that Terminix wasn't permanently broken, but had just fallen down for a period.

G&D: What distinguishes Terminix from competitors?

DC: There are two large players in the market, Terminix and Rollins, that together account for approximately 60% of the termite control market and 35% of the pest control market. The remainder of the market includes small mom-and-pop operators. Rollins and Terminix have limited advantages against each other, but have massive moats compared to the mom-and-pops. The first moat is lower procurement costs on the termite and pest treatments. The second moat, and perhaps the most powerful advantage, is their network density, which matters because adding more customers to a driver's

existing route results in additional revenue yet almost no incremental costs. The third moat is the ability to stand behind and guarantee the product—that if you were treated, but the termites still caused damage, you would be reimbursed for the repairs. Mom-and-pops cannot afford to take that risk.

G&D: What's the moat for AHS?

DC: AHS is 40% of the home insurance market, and it has effectively no competitors. The competitors that do exist are typically either very local, small guys, or subsidiaries of the title insurance companies. On AHS, the moat is distinctly its scale. Their size allows them to negotiate lower rates with contractors and pass that along to customers.

Say you have a home warranty for which you pay a \$575 fee per year, and then you pay a small deductible if you have a claim. AHS takes care of everything—it sends contractors to your house, if something has to be repaired they repair it, or if it needs to be replaced they replace it. AHS uses the scale to guarantee contractors a minimum amount of work, and that allows AHS to negotiate much lower rates from these contractors where no one else can compete effectively. AHS then shares these savings with the customer so the customer both saves from using this product and has the peace-of-mind knowing they are covered.

G&D: Why aren't the large financial institutions bigger in this business?

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DC: This is a business that requires a reasonable amount of logistics to organize. You effectively have to have a network of many thousands of contractors, and many thousands of customers. We're now at a point where AHS has created the famous Bezos "fly-wheel": the only reason you can offer the warranty at the price you do is that you've negotiated much lower costs with the contractors by guaranteeing them work. If you don't have scale, you can't guarantee them work, you can't get lower costs, and you can't offer the price that you do.

G&D: How did these three businesses end up under the same roof at SERV?

DC: The original business was actually the franchise business going back to 1947 as a moth-proofing company founded by Marion Wade. Over time, ServiceMaster bought up a bunch of different businesses, including Terminix, some of which made sense together but mostly it was just a holding company for services businesses. Clayton, Dubilier & Rice (CD&R) took the whole company private in 2006, at which point the largest segment within ServiceMaster was TruGreen, a lawn care business. The TruGreen business was very cyclical—it was effectively a luxury to have someone come over and mow a lawn—so that unit got hit hard when the business cycle turned in 2009. CD&R then carved out TruGreen, and took the remaining business public, and that's how you ended up with the SERV portfolio that you've got today.

G&D: Fast forward to today, are there advantages for SERV in owning all three of the businesses? Perhaps in the logistics needs for both Terminix and AHS?

DC: No. The businesses are run almost entirely distinctly. The contractors at AHS are not employees, they are independent contractors. AHS sends them to a job, but

"[American Home Shield] has created the famous Bezos 'fly-wheel'.... If you don't have scale, you can't guarantee [contractors] work, you can't get lower costs, and you can't offer the price that you do."

contractors are responsible for the actual logistics. At Terminix, the people who show up to fight termites are employees, and SERV handles the logistics. There is theoretically some cross-sell opportunity over time, but we haven't really seen that happen, and we think that's why management recently decided these businesses made more sense as separate entities.

G&D: Hurricanes have been particularly punishing in the U.S. this season. How would that affect SERV's franchise segments, including ServiceMaster's disaster restoration business? And how

do you think the market thinks about such events for the overall business?

DC: That's a great question, and I think this relates to some of the misunderstanding with SERV. Every time you speak to an investor, they know about Terminix, sometimes they know about AHS, but rarely has anyone spent time on the franchise business. This is an extremely high-quality business, with recurring revenue and high margins, and impressive growth. Last year, the fires in western Canada were a big driver for this business, as the hurricanes will likely be this year. These aren't big dollars, but it is a very profitable segment that people just aren't focused on.

G&D: What's Terminix's pricing power like?

DC: These are recurring revenue businesses. For example, imagine turning off your pest control services as a restaurant in downtown Manhattan—it's just not an option. So the businesses have real pricing power. It is a relatively low-cost product but one with an extremely high cost of failure, and such businesses can exhibit pricing power. SERV has taken somewhere between low and mid-single digit percentage price increases per year for a very long time, but they've been smart in that they've never gouged their customers.

G&D: Are you concerned about the debt?

DC: Right now, SERV has ~4x leverage, which some people may balk at. But it's all long-term debt, as the company

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recently refinanced, shifting to 75% fixed rate and moving the maturities beyond 2022. This capital structure makes us feel comfortable, but we also think all debt/EBITDA metrics aren't created equal. ServiceMaster has monster cash conversion due to very limited capital requirements and a negative working capital model such that there are really no concerns for us about the company's ability to service debt.

JW: I would add that debt can really cause you pain in cyclical businesses but ServiceMaster has almost no cyclical. Perhaps the best way to illustrate this is to tell you that both AHS and Terminix grew in 2009. Leverage is a real risk as it relates to businesses of cyclical, especially if you have covenants, but ServiceMaster's portfolio doesn't exhibit those characteristics. We think the market misunderstands the risk from the company's optically high leverage and that's another reason we're attracted to the opportunity.

G&D: What could derail the story?

DC: One risk is that Terminix stubs its toe again around organic growth. People may then say that this business is perpetually stubbing its toe, and then it will always receive a discount to where it should theoretically trade.

JW: The second risk involves Terminix's M&A. This segment has so far allocated capital very attractively for ServiceMaster, as it bought out small players for under 5x pro-forma EBITDA. Today, however, a

competitor in Europe has been more aggressive around M&A and is paying higher and higher prices for those businesses. We don't think that this will break the thesis, but it could certainly make the 15-17% FCF growth a little bit lower if it remains true for an extended period.

G&D: What are your holding periods in general for such investments, on both equities and credit?

JW: We expect our average period to be two to three years. In some cases it could be much longer—and there are some situations that may resolve much sooner—but we're certainly not aiming for high turnover. We're making investments with what we hope are good companies that we hope to be invested in for some time.

Credit and equities can sometimes have similar features, in that there are various phases to the investment—and each has the potential to create real value. If you invest in a credit restructuring, the first phase has maximum uncertainty, when there's effectively a food fight as everyone figures out who's getting what. Just the clarity that comes with that resolution can be a catalyst. The second phase is the company issuing new securities—either plain equity or a combination of equity and debt—as those securities are distributed and valued separately in a market with often more liquidity, we see another leg of value creation. That takes some time as well. The last phase, which can take

months or years, is that “seasoning” that you see as the company comes out of reorganization. Sometimes it takes a while for a situation to properly re-rate as the enhanced business quality from a restructuring is underappreciated until a new set of buyers warms up to a story. Delphi came out of a bankruptcy at \$20 a share in 2011; it's at nearly \$100 today. If you look at how Delphi unfolded, there was value created for investors through every part of its restructuring and post-reorganization.

With ServiceMaster, we see a similar pattern. This equity story started with a dislocated security that was out of favor and cheap. As we began to really understand the business, it has now migrated into what we might think of as a more event-driven opportunity, with the coming spinoff. That leg of our investment thesis hasn't yet played out.

G&D: What advice would you give MBA students interested in investment management?

DC: Though this sounds a little cliché, we both think it's very important to work for a firm and with someone with whom you truly click. This industry is one where you can be successful in many different ways, but success only comes from being in an environment that resonates with you. Find the type of investing you like to do, and work for someone who sees the world the same way you do.

JW: My best piece of advice is to think of CBS and the Value Investing Program as only the beginning of your investing

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education. The investment business is one of lifelong learning and requires passion, so it is important to figure out a way to get better every single day.

G&D: Thank you.



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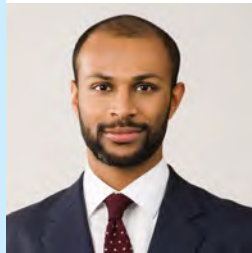
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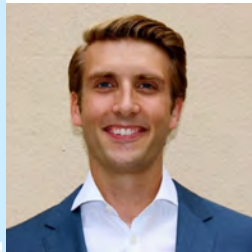
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