Columbia Business School
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Graham & Doddsville

An investment newsletter from the students of Columbia Business School

Issue XXIII — Winter 2015

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Bill Ackman — The Creative Side of Investing

Bill Ackman

Bill Ackman is the CEO and Portfolio Manager of Pershing Square Capital Management L.P., a concentrated research-intensive fundamental value investor with approximately $19 billion in assets under management. Prior to forming Pershing Square, Mr. Ackman co-founded Gotham Partners Management, an investment fund that managed public and private equity hedge fund portfolios. Mr. Ackman began his career in real estate investment banking at Ackman Brothers & Singer. Mr. Ackman received an MBA from

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Corsair Capital — Investing on Change

Jay Petschek

Steve Major '94

Jay Petschek and Steve Major '94 are the co-portfolio managers of Corsair Capital Management, a value-oriented, event-driven, long/short equity investment firm with $1.4 billion in assets under management. The firm's strategy focuses on small to mid-cap companies predominantly in the US and Canada going through strategic and/or structural change with impending catalysts. Corsair Capital Partners, L.P., the firm's flagship fund, was founded in

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Andrew Wellington — Working Hard to Find Easy Investments

Andrew Wellington

Andrew Wellington co-founded Lyrical Asset Management (LAM), a New York-based boutique investment management firm, where he serves as the firm's Chief Investment Officer and Managing Partner. Lyrical began investing client capital at the start of 2009. Over the six years ended December 31, 2014, LAM's U.S. Value Equity-EQ strategy returned 323.7%, net of fees, more than doubling the S&P 500 total return of 159.4%.

Mr. Wellington has been involved with active portfolio management for almost twenty years. He was a founding member of Pzena Investment Management, where he was the original equity research analyst, and later

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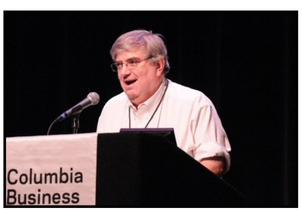
Welcome to *Graham & Doddsville*

Louisa Serene Schneider '06, the Heilbrunn Center Director. Louisa 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 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.

Heilbrunn Center for Graham & Dodd INVESTING

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It is our pleasure to bring you the 23rd 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).

In this issue, we are fortunate to present four investors from three firms representing different investing approaches, but each reflecting the common underlying tenets of value investing.

Bill Ackman recounts his early influencers as an investor, describes the traits he values in a CEO, and discusses recent investments, including Herbalife, Allergan, and Zoetis. Mr. Ackman also sheds light on the culture of Pershing Square Capital.

Jay Petschek and Steve Major '94, co-PMs of Corsair Capital, share examples where Corsair's approach led to variant perceptions in key investments. Mr. Petschek and Mr. Major '94 also discuss the importance of investing in companies whose management team's interests are aligned with shareholders.

Andrew Wellington, founder of Lyrical Asset Management discusses his approach to portfolio construction, and shares insight into several investments which convey his thought process as an investor.

This issue also highlights photos from the 24th Annual Graham & Dodd Breakfast, held on October 24th, 2014 at the Pierre Hotel in New York. This Breakfast brings together alumni, students, scholars, and practitioners for a forum on current insights and approaches to investing. This year's featured panelists included Bruce Berkowitz of Fairholme Capital, Mario Gabelli '67 of Gamco Investors, Jonathan Salinas '08 of Plymouth Lane Capital, and Professor Bruce Greenwald of Columbia Business School.

We are proud to announce multiple strong showings from CBS teams during the Fall's cross-MBA stock pitch competitions, with 1st place finishes at the Darden @ Virginia Investing Challenge and the UNC Alpha Challenge, and a 2nd place finish at the Michigan Stock Pitch Competition. The teams' respective pitches can be found on pages 37-42.

Lastly, we are proud to once again highlight pitches from four CBS Applied Value Investing students selected as the finalists for the 2015 Amici Capital Prize Competition to be held in February. Formerly known as the Moon Lee Prize, the Amici Capital Prize is given in memoriam of Alex Porter, Founder and Managing Member of Amici Capital, and Moon Lee, a dedicated value investor with Porter Orlin, LLC and friend of the Amici Capital team.

This year's finalists include fellow classmates: Kirill Aleksandrov '15 - First Solar (FSLR), Short; Harry Garcia '15 - JetBlue Airways (JBLU), Long; Luke Tashie '15- Schibsted Media Group (SCH: NO), Long; and Brian Waterhouse '15 - CDK Global (CDK), Long. Summaries of these pitches can be found on pages 29-36.

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

- G&Dsville Editors

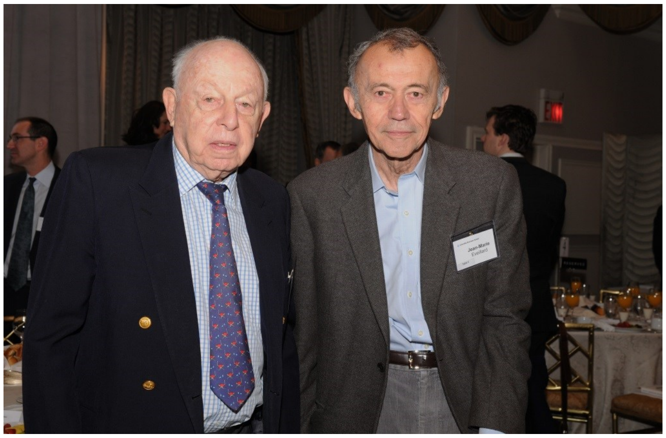
Professor Bruce Greenwald and Louisa Serene Schneider '06 at the October, 2014 Graham & Dodd Breakfast.

Jon Salinas '08, Founder and Managing Member of Plymouth Lane Capital, served as a panelist during this year's Graham & Dodd Breakfast.

24th Annual Graham & Dodd Breakfast—
October 24, 2014 at The Pierre Hotel

Panelists included Professor Bruce Greenwald, Mario Gabelli '67, Bruce Berkowitz, and Jon Salinas '08.

Tom Russo of Gardner Russo & Gardner speaking with Dean Glenn Hubbard.



Henry Arnhold with Jean-Marie Eveillard of First Eagle.

The panelists speaking with Dean Hubbard.

Bill Ackman

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Bill Ackman

Harvard Business School and a Bachelor of Arts magna cum laude from Harvard College.

Graham & Doddsville (G&D): If we were to go back to the period before launching Gotham, how did you get your start in investing?

Bill Ackman (BA): I started investing in business school. A friend recommended that I read Ben Graham's *The Intelligent Investor* and it resonated with me. I decided to go to Harvard Business School and learn how to become an investor.

I got to HBS and unfortunately there were no classes really focused on investing. The first year is a set program – it didn't have much in the way of choice. I thought the best way to learn is by doing, so I started investing on my own. I found that it fit with what I like to do. The first stock I bought went up. I think if it had gone down I would have become a real estate developer or something. Then, six months later, I roped in a classmate, David Berkowitz, who was in my section – it was a little lonely going back to the dorm room on my own to do this kind of thing. The two of us started looking at investments together toward the end of my first year and the beginning of my second year. At a certain point in time, I said, "What if we did this as a real business?" I figured the worst case, if we failed, is we'd have a lot of very good experiences. And if we're successful, great.

G&D: Did you have any mentors back then?

BA: I had very few actual mentors in this business because I didn't really know anyone. I bought Seth Klarman's book, *Margin of Safety*, which was published my first year of business school. I called him up and said, "Hey, I'm a business school student and bought a copy of your book." He said, "You bought a copy of my book?!" I don't think many people had done that.

"...if you can find a great business, and if you can switch out a mediocre management team for a great one, you can create a lot of value. That was an evolution over 22 years."

In a sense, he was a mentor because he had graduated from Harvard Business School ten years earlier and started a hedge fund right out of school. That's what made it seem possible. I don't know if he was a mentor *per se* – a mentor is someone you have more interaction with, but he was certainly someone that I looked up to. Of course, Buffett was a mentor in a sense. He didn't know me. You can still learn a lot from people without ever meeting them.

G&D: There have been a number of analysts at Pershing Square that have gone on to great success. How do you think about mentorship within Pershing and about developing your team on the investment side over time?

BA: I don't think we have any particular programmatic way to develop people. The Goldman Sachs' of the world have real training programs. At Pershing, people on the investment team side are pretty good investment analysts by the time they get here. They've already spent three or four years training at investment banks and private equity firms. Some may even have finance experience from their undergraduate programs.

The rest is just working as part of a ten-person team. Our analysts work very closely with me and other members of the team. We learn from each other; not just the older people teaching the younger people, but the younger people teaching the older people. It just sort of happens. We learn new things every day.

G&D: How would you describe the evolution of your investing philosophy from Gotham to Pershing Square?

BA: Gotham was not set up to be an activist hedge fund – it just sort of happened. I don't remember the moment we decided to intervene in a company. There were a couple of different cases where it seemed obvious what should happen. The basic evolution was this: Version 1.0 was classic value investing, which entailed investing in statistically cheap securities. Version 2.0 was recognizing the difference between businesses of different quality. I think over time we developed more of an

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Bill Ackman

appreciation for the value of a quality business. Version 3.0 was understanding the impact of activism. More recently, Version 4.0 is understanding that if you can find a great business, and if you can switch out a mediocre management team for a great one, you can create a lot of value. That was an evolution over 22 years.

G&D: You manage a concentrated portfolio and there are some inherent risks to that. Broadly speaking, how do you think about constructing the portfolio today and how has that changed over time?

BA: I'm a big believer in concentration. But it's not just analysis that protects you, it's the nature of the things you invest in. If you invest in super high quality, durable, simple, predictable, free cash flow generating businesses, that should protect you as well.

If you pay a fair to cheap price for businesses of that quality, I think it's hard to lose a lot of money. The key is you have to be a good analyst in order to determine whether it truly is a great business. You have to really understand what the moats are. You have to understand the risk of technological entrants – the two guys in a California garage working on the next new thing. Buffett would always write about the newspaper business being one of the great businesses, but print has been disintermediated as a result of changes in technology. So we're concentrated, but we try to invest in businesses where it's very hard to lose money, particularly at the price we pay.

We size things based on how much we think we can make versus how much we think we can lose. We'll probably be willing to lose 5-6% of our capital in any one investment. With Fannie (FNMA) and Freddie (FMCC), you have highly leveraged companies where the government is effectively taking 100% of the profits forever. There's legal risk and political risk, and an enormous of amount of uncertainty. We could realistically lose our entire investment. That's a 2-2.5% position at today's market price.

"We look at management the same way we judge people we want to hire for Pershing Square. We're looking for character, intelligence, and energy, but we're also looking for relevant experience."

In our other investments, it is very hard to lose money. We like to own businesses with dominant competitive positions, such as railroads, industrial gases, and specialty pharmaceuticals. Some of our investments also benefit from undermanaged operations or reported earnings that understate true economic earnings. When we pay a fair price for those situations, we can make it a significant position.

The biggest investment we ever made was Allergan (AGN), which, at cost, was approximately 27% of our capital. There we were partnering with a strategic acquirer and it had an immediate catalyst to unlock value. It was a very high quality business. We felt it was hard for us to lose a lot of money, so the position could be quite large. Could we lose 20% of our capital? Sure, it was possible, but very unlikely. So in some sense, we think about losing 20% on 27% as risking 5-6% of our capital.

G&D: You mentioned companies failing to achieve their true earnings potential as possible opportunities. How do you evaluate management teams and what metrics do you consider?

BA: We look at management the same way we judge people we want to hire for Pershing Square. We're looking for character, intelligence, and energy, but we're also looking for relevant experience. If you look at Seifi Ghasemi at Air Products (APD), he knows the industrial gas business very well. He spent nearly 20 years with The BOC Group and spent the last 13 years at specialty chemical company Rockwood Holdings (ROC). So he had both disciplines – the qualitative characteristics and the experience. He had been a public company CEO for a meaningful period of time. It was very easy to support him as CEO of the company.

We helped recruit Hunter Harrison to Canadian Pacific

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Bill Ackman

Professor Tano Santos listening to the panelists at the 2014 Graham & Dodd Breakfast.

Railway (CP). He had turned around two other railroads including a Canadian competitor. If you meet him, you'll understand his leadership qualities. It's easy if you're backing someone who's already done it before. It's more difficult when you are taking someone who has not been successful before and betting on their success.

G&D: Do you have examples of bringing in successful CEOs who did not previously have relevant experience?

BA: We focus on candidates with previous experience. You can meaningfully reduce the risk if you can find someone who's done it before. We have an affection for older CEOs in some sense. With both Seifi and Hunter, they have 50 years of experience. Someone at that stage of their career that has been successful is not really driven by financial considerations. It's more about legacy and the fun they have. That's why we think old CEOs are best.

G&D: Why hasn't Pershing invested in more businesses outside the US? Certainly there are legal considerations from an activist perspective, but even among the passive holdings, there does not appear to have been many purely international focused businesses in the portfolio.

BA: Passive investments have been placeholders until we find the next activist investment. They've also been a way for us to have more liquid investments in case we get redemptions from investors. As our capital base has become more permanent with the launch of a public entity and a fair amount of internal capital, we're devoting effectively all of our resources to active investments. If you're going to be active in a situation, it's very helpful to have it be geographically proximate, operating in the same language, under the same law, where you're well known and you know the players.

"We've yet to hear one fact from investors that own the stock or any bull case that caused us to think Herbalife was a stock you should buy as opposed to one you should sell."

With a strategy where we're doing two things a year, maybe three, we don't need to go outside the U.S. or Canada. We would be open to something international at some point, but it would have to be extremely compelling. We feel like we've got plenty of things to do here.

G&D: Let's talk about a couple of ideas. One that people love to ask you about is Herbalife (HLF). Do you think the return has been worth it relative to the amount of time and effort you've had to expend on this investment?

BA: Probably not. If Carl Icahn had not come in and bought 17 million shares of stock, this would have played out very differently. What made this go a slightly different direction than we had expected was Carl went first in a big way, and that attracted a lot of other participants who viewed this as a trading opportunity to make money on a short squeeze.

I don't think it affected the ultimate outcome, and I think we'll make more money as a result, so maybe we were compensated for the extra time by being able to buy a bigger notional short position. We bought a lot of put options in the stock in the $70s and $80s that we could not have economically purchased when we first established the position.

G&D: I'm sure you've heard an opposing thesis from any number of smart investors. Is there any compelling piece of evidence that has made you question your conclusions on HLF?

BA: No. We've yet to hear one fact from investors that own the stock or any bull case that caused us to think Herbalife (HLF) was a stock you should buy as opposed to one you should sell. The quality of work done by the people that own this stock is really poor. If they continue to own it, they will lose 100% of their investment. 13-Fs are coming out on Monday for this name *(Editors' Note: this interview was conducted in November 2014)*. I will be amazed. I'm always looking forward to find out who bought it. There seems to be a

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new victim each quarter. Statistically, it screens really cheap. It's trading at 7-8x earnings. That sounds cheap, but it's based on projected earnings. We think earnings projections are going to come down meaningfully and they've already begun to. Ultimately, we think earnings will go negative.

G&D: Do you have a set process to keep yourself intellectually honest in terms of assessing the counterview to what your thesis is?

BA: We're always open to a contrary point of view, particularly if it's someone who's smart with a good record that's on the other side of something we own or something we're short. We want to hear it and we're going to listen to it. With Valeant (VRX), there are some well-known short sellers, Jim Chanos in particular. I don't know if he's still involved, but he was publicly short the stock. I wanted to hear all of his arguments. I called him, and he was very charitable in sharing them. I appreciated him doing that.

One of the best ways to get confidence in an idea is to find a smart person who has the opposing view and listen to all of their arguments. If they have a case that you haven't considered, then you should get out. But they can also help give you more conviction. If what I've heard are the best arguments that can be made against being short Herbalife, then I want to be short more.

G&D: Why do you think it's been so difficult for the market to wrap their head around your Herbalife thesis?

BA: Why was Bernie Madoff in business for 37 years? I don't know, it seems so obvious. Herbalife's been around for 34 years. It's on the New York Stock Exchange. It has a market cap of $8 billion. Yet if you go to L.A. and ask people about Herbalife, they go, "Oh, that pyramid scheme?" They've had that thought for 20 years. I think the company has done a very good job at creating the perception of legitimacy by surrounding themselves with legitimate people. Madeleine Albright is a consultant to the company. They have a Nobel Laureate on their scientific advisory board. They brought on the former surgeon general in the last year. They sponsor soccer stars, such as David Beckham, and the L.A. Galaxy. It's a brilliant scheme.

"We're always open to a contrary point of view, particularly if it's someone who's smart with a good record that's on the other side of something we own or something we're short. We want to hear it and we're going to listen to it."

Also, the general public is just not interested or comfortable with short selling. Most Americans find it a fancy thing that you don't do at home. They think there must be something shady about it.

G&D: You mentioned you only invested in two new positions this year. Can you tell us about an idea that you spent a lot of time on, but ultimately decided to pass?

BA: We did a lot of work on McGraw-Hill (MHFI) a few years ago. It is a conglomerate with several businesses and products. One of them is the S&P franchise, which we think is one of the best businesses in the world. Capital IQ is another McGraw-Hill product that we use and like. It's a great and valuable asset. The company on the whole looked undervalued and interesting.

Ultimately, we couldn't get comfortable with the potential liability associated with being in the bond rating business. We had a pretty negative view on how the ratings agencies had managed the crisis. We had big short positions in bond insurers that had AAA ratings. I met with the ratings agencies many times to try to convince them that their ratings were just ridiculous to no avail.

We felt that MHFI had real liability and the potential losses they may face from litigation were unknowable considering the amount of bonds that were purchased and the amount of money that was lost relying on those ratings. With our strategy, we must be willing to put 15-20% of capital into a particular idea. We can't invest in a security where it is possible that you wake up tomorrow and it's worth 50% or 80% less than what you

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Bill Ackman

paid. So that was something we passed on even though we thought it was unlikely that there would be a claim that wipes out the value of the company.

We saw this as different from Fannie (FNMA) and Freddie (FMCC) because we thought MHFI was a potential double, while we think we can make 25x our money in Fannie and Freddie. A small investment in Fannie and Freddie can still be very material in terms of profits for the firm, yet if something happens and we lose our entire investment, we won't really notice. For MHFI to be a meaningful contributor, it would have to be a big investment.

G&D: Buffett uses the concept of owner earnings. Are there any particular metrics you find helpful?

BA: I think the job of the security analyst is to take the reported GAAP earnings of a business and translate them into what Buffett calls owner earnings. I call them economic earnings. The next step is to assess and understand the durability of those earnings. Fundamentally, what you're looking for is how much cash the business can generate on a recurring basis over a very long period of time. That's what we do. GAAP accounting is an imprecise, imperfect language that works for very simple businesses. For a widget company that grows 10% a year, GAAP earnings are really good at approximating economic earnings. For Valeant Pharmaceuticals (VRX), for example, a company that's been very acquisitive, GAAP accounting is not a very good way to think about that business.

G&D: One area that's been difficult for Pershing in the past has been retail. What has made that sector so difficult relative to some of your other areas of focus?

"Fundamentally what you're looking for is how much cash the business can generate on a recurring basis over a very long period of time. That's what we do."

BA: I think retail has become much more difficult. A big part of that is Jeff Bezos and Amazon (AMZN), a large company that does nearly $75 billion in revenue growing faster than 25% annually. They are reinvesting 100%, maybe more, of their profits to improve the customer experience, expand their reach, and so on. I think it's an incredibly formidable competitor that gets stronger every year. When you grow at those rates, that revenue is coming from somewhere. He's got a better mousetrap. He's got the support from his investors to invest a huge amount of capital in the business. That's a very difficult competitor for the retail industry.

Aside from that, there is a story with respect to each of our failed retail investments. And there are retail investments where we made a lot of money – Sears (SHLD) in 2004, Sears Canada (SCC), and food retail businesses would be examples. But I think retail is a very difficult business, particularly fashion retail. That's a tough category.

G&D: Are there other industries that you'd say are too challenging?

BA: We have generally avoided technology as well as commodity-sensitive businesses. With commodity businesses, it's very difficult to predict the future price of the commodity – this year being a good example. If you asked people at the beginning of the year, I don't know how many would say that WTI would be below $76. So we avoid a few sectors, but we try to stay open-minded. For example, healthcare was something I would have put on that list a year ago. Right now, we have two healthcare investments comprising 40% of the portfolio. In every sector there are businesses that can meet our standard, but most won't, and that's why we haven't spent a lot of time looking in some of these areas.

G&D: Would you be willing to share your thesis on Zoetis (ZTS) and what the playbook is going to be there?

BA: I think it's a great business. It has a dominant position as the largest company in animal health. There are very good trends supporting the growth of the company. Rising income levels and increasing demand for

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Bill Ackman

William von Mueffling '95 of Cantillon Capital Management speaks with Columbia Business School Senior Associate Dean Lisa Yeh at the 2014 Graham & Dodd Breakfast.

protein in people's diets benefit the company. The companion animal health segment of their business should also benefit from rising incomes. With more affluent cultures, people have more pets, but also care for them more. It meets our standard for a high quality business. It's also a spinoff, which can create interesting opportunities. I don't think we are ready for comment beyond that.

G&D: How do you typically source ideas? Is there one method in particular that's had a lot of success?

BA: Interestingly, Allergan (AGN) and Air Products (APD) were brought to us. That's a good way to get ideas. We have a reputation for being a good, proactive investor. Canadian Pacific (CP) came from an unhappy CP shareholder. Air Products came from a happy CP shareholder who made a lot of money with us and said, "Hey, this is the other dog in my portfolio, maybe you can help." Allergan came to us through Valeant because they were looking for someone who could help increase the probability of their success.

We're looking for big things. Today we have $19 billion in capital. We want to put 10% or more in an investment so we prefer companies with market caps above $25 or even $50 billion. We are looking for high business quality and opportunities to make the business much more valuable. Some of our sourcing comes from reading the newspaper and just looking for companies that meet that very simple model. Where is there a super high quality business you can buy for a discount where there's an opportunity for optimization?

G&D: Many respected investors have publicly praised your investment creativity. It seems to be one of the defining qualities of Pershing Square. How do you cultivate that creativity? Is there a way for someone to develop that ability?

"What's required is that you have a basic understanding of what's right, what's legal, and what's possible, and not limit the universe to things that no one else has done before."

BA: Someone once pointed out that almost everything we've done has been unprecedented. We shorted a company and announced to the entire world that it is a pyramid scheme. With General Growth Properties (GGP), we bought 25% of the equity of a company on the brink of bankruptcy, convinced them to file for bankruptcy, and helped them restructure. We started a company from scratch with Howard Hughes (HHC). That was a collection of assets we spun out of GGP and replaced the management team. We've had two successful investments in SPACs during a period in which these vehicles were out of favor in the investment community. Our Allergan activist campaign was somewhat unprecedented as well.

I don't think it's as much creativity as it is a willingness to consider opportunities that are unconventional and outside the box. What's required is that you have to have a basic understanding of what's right, what's legal, and what's possible, and not limit the universe to things that no one else has done before.

We are absolutely going to consider things that haven't been done before. We don't need a precedent. We're just interested in things that create value and we're going to look at them objectively. To execute the strategy, you have to be willing to do things without caring what other people think. You need thick skin. In this strategy, not everyone's beloved, particularly on the activist short side. You're not going to make many friends in that business except for the first person who took your advice and got out.

G&D: Given that we're in this "golden age of activism," there are lots of investors and capital focused on activism. Have you found it more difficult to find ideas to add to your portfolio as a result?

BA: No. First of all, it depends on what you count. In terms of dedicated activist funds, there is something like $150 billion. That's a still a small number in the context of the size of the market. We are one of the largest at $19 billion. We are

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Bill Ackman

also one of the most concentrated activists. A combination of concentration and scale means we're doing very big investments and these are very big companies. Every company we've invested in, we were the first activist who bought a stake.

Generally this is fertile ground. I would say there's more activism happening in small and mid-cap companies, so I don't think it has affected us. I do think companies are trying to fix themselves before an activist shows up, and that's a threat. As businesses become better managed and boards of directors replace weak CEOs, there's less for us to do.

G&D: You mentioned some of the benefits of having permanent capital on your ability to do more activism on the long side. Are you going to spend less time on shorts as that shift continues?

BA: After the MBIA (MBI) short where we made our thesis public, I was asked by our investors if we were going to do this again. I told them it was going to be a long time before I did another one of these big public shorts. It was five years between MBIA and Herbalife (HLF). Although, if this in fact goes to zero, perhaps all we need to do the next time is just say, "We're short company XYZ" and it will go straight to zero and we won't even have to make a presentation. We hope it works that way.

Short selling is inherently less rewarding. We like shorting credit as opposed to shorting equities. If we could find a big leveraged company that had a lot of CDS outstanding, I would be much more inclined to do that than having to borrow stock to go short and risk the stock price rising.

G&D: What are you trying to accomplish with the creation of Pershing Square Holdings (PSH)?

"I do think companies are trying to fix themselves before an activist shows up...as businesses become better managed and boards of directors replace weak CEOs, there's less for us to do"

BA: In 1957, Buffett formed the Buffett Partnership. Eleven years later, after buying control of Berkshire Hathaway (BRK), he gave investors a choice of cash if they wanted to exit the partnership, or stock if they wanted to merge their shares into Berkshire Hathaway. Buffett gave up the advantage of $100 million and the right to collect 25% of the profits. He left that to be CEO for $100,000 a year with a public textile company which I think had a market cap of $30-$40 million.

Why would he do that? I think the answer is that if you are a control-oriented investor, you recognize that the stability of your capital base has a huge impact on your returns over time. The Buffett Partnership had no corporate level tax. At Berkshire Hathaway he had to work for $100,000 a year with no stock options, and pay corporate level tax. This tells me that he viewed the permanency of the capital base as much more material than these other features.

That's basically what inspired us to create a public entity. We didn't want to pay corporate level tax so we didn't want to merge with a corporation. While PSH is structured as an offshore closed-end fund, we think of it like an investment holding company. We have these subsidiary companies which we have a lot of influence over. We're often on the board of directors and we own them for years. We add one or two new businesses each year. Our goal is to compound at a high rate of return over a long period of time. This is different from Berkshire Hathaway. Buffett is not an activist anymore. His past investments with Dempster Mill Manufacturing and Sanborn Maps had an activist bent though.

The key for us was how do we get to permanent capital in a way that's investor-friendly so we can do it in scale? We have what I think is a closed-end fund with the biggest market value – it's $6.6 billion. Why did we do that instead of reinsurance? Because I don't know anything about reinsurance, and I didn't want to mix investment risk with property casualty risk. It's too complicated.

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Bill Ackman

G&D: From an investor perspective, when they invest in a public entity, they're paying lower fees, they have more liquidity. Do you think PSH will impact the hedge fund part of Pershing Square?

BA: Most of our investors in the hedge fund part of Pershing Square don't invest in publicly traded things. I think it's good for everyone that we welcome investors in whatever form they want to invest.

G&D: You must have an incredibly busy schedule. How do you allocate your time?

BA: Not as well as I should. It's the single biggest thing I need to work on. I have a tough time saying no. I need to say no more. It's hard for me.

G&D: What about allocation of time within investments – what portion of your time is spent generating ideas versus analyzing companies versus engaging in activism?

BA: It depends. This year I spent a lot of my time on Allergan (AGN), the IPO of Pershing Square Holdings (PSH), and a little bit of time on Zoetis (ZTS). But we've got a very capable team focused on a few major things.

It's much more of a team approach and strategy than a typical investment firm. Usually you have a back office and an investment team. At Pershing, we are totally integrated in everything we do – public presentations, legal analysis, compliance, and so on.

G&D: In terms of putting together Pershing Square, what would you say are the key values for the firm? What do you look for in the people you have as part of your team?

BA: We are very, very careful about who we bring on to the team. I call our culture a functional family culture. This is a very high quality, very smart, capable, motivated team. For the most part, we all like each other, which is unusual in a business context.

"At many hedge funds, people are idea junkies. It's the idea of the week. That's why private equity tends to be a better background for us."

I interview everyone – every person who works at the reception desk, who cleans the offices, who works on the investment team. I think I'm a pretty good judge of character. What we're looking for are fundamentally good human beings, people that you want to spend your day with, because you're going to. That is a key success factor. It depends on the role in terms of what we're looking for, but we like hard working, honest, smart people who are fun to spend time with.

We have very little turnover at Pershing Square, even at the reception desk.

G&D: You mentioned some of the larger private equity firms as being places where you look for talent. Do you have a preference for people who have looked at businesses on the private side?

BA: This year we've made two investments – Allergan at beginning of the year and Zoetis at the end of year. That's a very different pace of investment when compared with your typical long-only hedge fund or mutual fund firm. We have to find people who are comfortable spending a lot of time researching and analyzing, looking for the one thing out of many that's going to be interesting.

At many hedge funds, people are idea junkies. It's the idea of the week. That's why private equity tends to be a better background for us. A private equity investor might spend a whole year working on a deal and if they are not the high bidder, they don't get it. Whereas here, you might spend a lot of time working on something, but if we want to make the investment, we can. We have to pay the market price, but we don't have to be the high bidder *per se*.

For a person with a private equity background, it's a very easy transition. We've never really hired anyone from a hedge fund. Effectively, our approach is private equity without buying control.

G&D: You've been extraordinarily generous to Columbia Business School over a long period of time. Why is philanthropy important to you?

BA: One of my colleagues, Paul Hilal, got us involved at Columbia and came up with

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Bill Ackman

Bruce Berkowitz of Fairholme Capital with Michael Schmerin.

this idea of an investment class that's become Applied Security Analysis and the Pershing Square Challenge. But I would say Columbia is on the smaller side in terms of what we've done philanthropically.

We've given away more than $250 million over the last six years. What's interesting is I've come to believe that I can make a much greater contribution in my for-profit life than my not-for-profit life. I'm working to figure out how to get a higher return on investments in the not-for-profit activity.

G&D: How have you decided which areas to get involved in philanthropically?

BA: We're trying to address problems. I think there are lots of different ways to do that. My first choice is to find a for-profit solution. There are some problems that do not appear to have for-profit solutions, or at least someone hasn't thought of one yet, and then we help fund not-for-profit solutions to these problems.

In terms of things we get involved with, usually it's driven more by the person running it. There are lots of important problems – it's very hard to rank them. Criminal justice reform is something we're interested in. We're also interested in economic development and education. We've done some things for New York City on the cultural side. We helped start something at Harvard called Foundations for Human Behavior, which is basically behavioral economics integrated with psychology and biology. We have a pretty broad, eclectic range of philanthropic endeavors. There's not an overarching strategic plan. We're experimenting.

G&D: Before we close, do you have any advice for students who are interested in potentially starting their own fund or going into investment management after they graduate?

BA: You should only work with someone that you like, trust, and admire. You should be smart about who you choose to work for.

In terms of starting something right out of business school, it's something that I did a long time ago. I was fortunate to be able to have a 2.0 – Gotham in some ways was a training ground for Pershing Square. I think I was much more successful at Pershing Square because of the experience I had at Gotham. You can have that kind of experience working for someone else. It wasn't really my nature to go work for someone else which is why I didn't do it, but you can learn a lot that way. I wouldn't worry very much about how much money you make. I'd worry much less about compensation than I would about what you can learn.

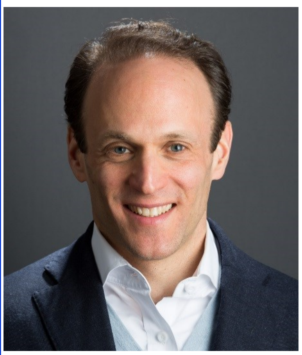
I also think that in order to be a great investor, it's very helpful to understand business and how to run a business. I think it's a really interesting time because it's so easy to start a business today, relatively speaking. Start up costs are much lower due to the ease of access to the Amazon Cloud and other development resources. I think I would be starting a company today as opposed to managing money. You can always manage money. In fact, if you do well in whatever you do, you're going to have to manage your money anyway. It's good to learn the skills. I think we have enough people in the investment business. We want some more start-ups.

G&D: Thank you for taking the time to sit down with us.

Jay Petschek & Steve Major ’94

(Continued from page 1)

Jay Petschek



Steve Major ’94

1991 and has yielded an annualized net return of 14% since inception.

Graham & Doddsville (G&D): How did you first become interested in investing?

Jay Petschek (JP): My dad was an investment banker and we talked stocks constantly when I was growing up. I’ve also always been good with numbers and liked games and puzzles where you have to guess an outcome based on partial information. Investing is similar, only this “puzzle” is based on financial data. You’re trying to estimate, with only a company’s past financial information, how well it can perform in the future. You have to invest on what isn’t fully appreciated and isn't fully understood. That’s how you get an edge.

Steve Major ’94 (SM): I worked as an investment banking analyst at Goldman Sachs after college. But I ended up realizing that investment banking wasn’t where my passion was. In those days, there was no internet, so Goldman would distribute on a daily basis printed copies of the firm’s equity research. I found myself really excited every morning to come into work and read equity research reports that were left in my inbox bin – a plastic, rectangular, black, physical tray; not a Microsoft Outlook inbox. Company analysis and stock valuation ignited a spark inside me. After banking, I went to Columbia Business School and took classes on leveraged buyouts, investing, and stock-picking with Bill Comfort, Paul Johnson, and Jim Rodgers. That's where it all came together.

G&D: Who were some of your earliest influences? Were there any early career experiences that were important to your development as an investor?

JP: My dad was my earliest influence. He always approached the world from a quantitative perspective. He taught us the binary system at a young age and joked that there are 10 types of people in the world – those who understand the binary system and those who don’t. I developed a similar quantitative sharpness as my father, and that has helped me throughout my career.

“I’ve also always been good with numbers and liked games and puzzles where you have to guess an outcome based on partial information. Investing is similar, only this “puzzle” is based on financial data.”

I later attended the Sloan School at MIT to get an MBA in finance and investing. Robert Merton, the famed Nobel Prize winner, one day told our class that he would buy 10% of our future income for $50,000. Of course, we were all students trying to figure out how we'd pay for dinner that night, so to hear that we're worth half a million dollars was sort of a novel concept. That day we learned that you're not worth what your bank account says you’re worth, you’re worth your future earnings potential.

Another professor I had was Fischer Black. He taught us about his options model, but the real takeaway for me was the importance of change. Future volatility can be very different than past volatility, especially when an unexpected event occurs. If you just used historical volatility, you would get the wrong value of an option. He helped us understand the potential valuation discrepancies and investment opportunities that can arise when change has occurred.

SM: While I was at Columbia, I worked as a summer intern at Millennium and fell in love with spin-offs, value investing, and situations with companies going through change and transition. I ended up at Oppenheimer where I wrote research on post-reorg equities. But my good fortune really started when I met Jay in 1996 at Ladenburg Thalmann. Who would have known that Jay and I would quickly become investing soul mates and close friends. We shared a common philosophy and approach to valuing spin-offs, companies coming out of bankruptcy, multi-divisional companies, and companies with a change in corporate activity. At the age of 28, I was given the incredible opportunity to manage money on my own, and that was unusual. Jay and I became partners over time and the rest is history.

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Jay Petschek & Steve Major '94

G&D: How have those experiences shaped Corsair's approach to investing?

JP: Corsair has a philosophy of long-term investing in good businesses at discounted valuations. Good businesses will increase in value over time. Time is working for you. This is what has allowed us to act as real investors – our average holding period for a core position is two years and almost all of our gains since 1991 have been long-term in nature and tax efficient for our investors. Likewise, we want to short bad businesses when they're fully priced because their values degrade over time. It's a very simple concept: own good businesses at really good prices and sell bad businesses at full prices. What's a really good business to us? A business with recurring revenue, a good moat, high returns on invested capital, and a management team that is focused on working for the shareholder.

We believe you can find opportunities when these companies are going through change and transition. When a company goes through a major acquisition, spin-off, privatization, new product introduction, new regulation, post-bankruptcy, new management, or a recapitalization of the balance sheet, future results could be much better than past results. The opportunity presents itself when the market does not recognize this inflection point of change and/or does not reflect that future financials will be materially better or worse as a result of this transition.

G&D: What else are you typically looking for?

JP: We also want a signal from the management team that they care about their stock price and believe their business is undervalued. We look for insider buying, companies initiating or increasing a dividend, stock buybacks, and new employment agreements with a heavy emphasis on stock compensation. Those are a few of the things that signal that management believes in the business and will, at least going forward, care about their stock price. When we see those factors intersect – a company with a really good business going through change, with an undervalued stock price, and signals by management that they care about their stock price – we look for an opportunity to invest. On the short side, we look for the opposite signals – bad businesses where management seems interested in getting out.

"What's a really good business to us? A business with recurring revenue, a good moat, high returns on invested capital, and a management team that is focused on working for the shareholder."

G&D: Has that been the philosophy since day one, or are there parts of it that have evolved over the last 20+ years?

That's always been the underlying philosophy. The guiding principles we laid out in our January 1991 initial letter have remained consistent. One, increase our capital at a rate comfortably ahead of inflation and the effect of taxes. Two, take prudent risks while maintaining a diversified portfolio. And three, good investment ideas are hard to find and deserve the time to work out. I will say that, while not in our original guiding principles, a management team we are comfortable being partners with has proven to be critical.

We also like to try to keep in mind that it's not where the stock has been, it's where the stock is going. One of the early examples of this for me was Cott Corporation (COTT) in the early 1990's. Considering purchasing the stock at $18 per share was psychologically difficult as it had risen from a price of $3 in less than a year. But over the next two years, the stock went to around $350 when adjusted for stock splits. We emphasize that even though the initial human reaction is to feel like you've already missed out on a big move, the key is where we think the stock is going from here.

G&D: In working together, how is your decision process structured? For example, what would you do if there's any disagreement on an investment?

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Jay Petschek & Steve Major '94

SM: We have a very strong discipline in place at the firm. It's not about Jay. It's not about me. It's about the Corsair philosophy and methodology, rooted in three principles: finding a good business with strong cash flows, a solid balance sheet, and a winning management team with a proven track record of creating shareholder value. We may disagree around the edges on relative quality or on how big a position should be, but it's rare that we disagree on whether a particular stock should be in the portfolio.

To help our process we use a rating model to evaluate and standardize the potential quality of an idea. Our Corsair Rating Model uses a combination of 1) our probability-adjusted expected return and 2) a quantitative score to reflect qualitative factors. As far as modeling is concerned, we want to determine what we think the company is worth today, what it could be worth on the upside if management executes its business plan, and what the downside could be if the company stumbles. On the qualitative side, we focus on four questions: How good is the business overall? How is the balance sheet? Is it a good management team? What is our conviction level? The overall goal in using the Corsair Rating Model is to score how good the risk/reward is for an individual stock. When a company hits our screen – because it's executing an acquisition, spinoff, restructuring, or any other corporate action – we typically outline why this company looks different through our lens versus the market's lens (i.e., what is the market missing?).

If the company passes our quality test and we think it is materially undervalued, we take our research to the next level and try to meet with or speak to management to gain more conviction. In the end, it's a question of whether a stock has low risk and really good reward.

"We also want a signal from the management team that they care about their stock price and believe their business is undervalued."

G&D: What was the original impetus for starting Corsair?

JP: After working in the corporate finance department of Bankers Trust following business school, I realized that I wanted to do something more directly stock related and I had an opportunity to join Ladenburg Thalmann & Co, which was a small investment banking firm akin to a smaller-sized Bear Stearns back then. You could do a little bit of everything there, so I learned everything from being a retail stock broker to corporate finance, and I ended up running their investment management and research departments.

In 1988, I joined a group with some friends to buy a 24.9% position in a company called Tri-State Motor Transit of Delaware, a specialty trucking company which we thought was highly undervalued. Tri-State owned a lot of real estate that we thought was valuable, and management was doing nothing to optimize the business. We actually formed a hostile bid and ended up losing a very close proxy contest. Ultimately, because we were still pressuring the management team, they sold themselves in a leveraged buyout. We made a great return but I realized that I didn't like hostile investing. I decided to form Corsair Capital Partners in January 1991 while still at Ladenburg with money from friends and family. The idea was that we wouldn't put all our eggs in one basket like the Tri-State Motor deal – we'd spread them around. It would be the same core philosophy of looking for a company that was undervalued and was going through a transition, but I also wanted management teams that would work for me instead of against me. So it started with this one-off situation, but we've been fortunate to grow it over the last 24 years.

G&D: Would you be willing to walk us through an example of your investment process?

JP: The Shaw Group (SHAW) is a good example. While covering one sub-contractor working on the clean-up of the BP oil spill, we came across Shaw, a company that had a $2 billion market cap and more than $1 billion unencumbered cash on the balance sheet that

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Jay Petschek & Steve Major '94

Erin Bellissimo of Aravt Global with Jon Salinas '08 of Plymouth Lane Capital.

was the lead contractor on that project. It had a nuclear power plant maintenance business and was building two new nuclear reactors in the U.S., so the Fukushima plant disaster in Japan had been weighing on the stock in 2011.

There was a reason why we saw it and others didn't. It screened terribly on Bloomberg due to complicated financials and investors were afraid of owning anything nuclear related but there were several misconceptions we could identify. Bears argued that the Fukushima disaster would slow the development of nuclear power globally. Instead, we saw a plant maintenance business, with 50% market share in the U.S., which would stand to benefit from potentially tighter industry regulation. Investors also seemed to be worried that Shaw was taking write-downs on two construction projects which were nearing completion. Our approach focused on pro forma earnings once those two bad projects rolled off.

Another misunderstanding about the company related to its balance sheet. Due to a JV with Toshiba in a nuclear technology company, Shaw had to consolidate $1.6 billion of debt on its balance sheet. This debt, however, was non-recourse and the entire investment could be put back to Toshiba at Shaw's request. So when you adjusted for that noise, the company actually had over $1 billion in unencumbered cash and no debt. Then there still was the question of management. As we did our digging, we saw that the CEO, Jim Bernhard, had started Shaw as a small fabrication business in 1986 and grew it into a diversified Engineering & Construction company with $6 billion in revenue. He seemed like a guy who did an amazing job in building a business.

"A proven record of success is critical. If someone's been successful before, that's a very good indicator of a management team you want to partner with the next time."

Furthermore, Shaw's management put their money where their mouth was, buying back $500 million of stock in the aftermath of the tsunami and announcing another $500 million program later in 2011 as the stock slumped. They clearly believed in the value of the business. The stock traded for $25 per share, and, for the next year or so, despite several positive developments, the stock faded down to as low as $20. We only saw the company announce good news over this time and still the stock traded lower.

G&D: Did you add to your position?

JP: Our conviction allowed us to average down. You better know your stocks well to avoid getting shaken out. We do not have an automatic stop-loss rule. A lot of firms do. If your thesis is intact, we think that's actually an opportunity to average down. I think if you're a trading oriented firm, it probably does make sense to cover and move on. Everyone has to be true to their own discipline. It is not fun to average down, unless it ultimately works out. Fortunately for us, we woke up in late July 2012 and Chicago Bridge & Iron (CBI) made a bid for the company at a very nice premium.

G&D: What have you learned over time about identifying good management teams?

JP: A proven record of success is critical. If someone's been successful before, that's a very good indicator of a management team you want to partner with the next time. And there are two reasons for that. One, he's successful, and, two, the shareholders did well. We love to find managers like Jim Reid-Anderson of Six Flags (SIX), who was very successful in turning around Dade Behring. When he came out of retirement to take over Six Flags, we immediately wanted to hear why. He laid out plans as to what he thought was achievable. Given his past accomplishments and reasonable plan, we invested as Six Flags was coming out of bankruptcy and did very well. A proven track record at the CEO level means a lot to us.

G&D: Do you always meet with CEOs or are there cases where the track-record alone is enough?

JP: In almost all cases, we've

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Jay Petschek & Steve Major '94

met with, or at least spoken to, management before making an investment a core position. We can read transcripts and take a small initial position, what we call a "farm team" position. However, in order to establish a name as a core holding, we want to speak to management.

In the case of a John Malone and Greg Maffei type of management team, we know the track record they've put together and can read the transcripts. Their success is already well-known and they typically outline their thinking, so we might not need to have the one-on-one to hear it. But for the overwhelming majority of our portfolio, we meet with and try to get to know management well.

G&D: One of the key tenets of the Corsair philosophy is clearly management and shareholder alignment. Are there other situations you could discuss that highlight your focus on good stewards of capital?

SM: You always have to look at the empirical data and fundamentals of a business to increase the probability of being right. But we also ask ourselves: what has this CEO done in the past? Is he personally buying stock in the open market? What is he doing with the cash? Has he created value and sold a business or is he just an empire builder who doesn't care about shareholders very much? That's all important.

With Clearwater Paper (CLW), which was spun off a few years ago, we liked the private label tissue business and the stock was cheap, but management was investing in what appeared to be very low ROI projects and M&A. So we passed. However, we came back to it because our screens showed a new CEO and CFO had joined. We took another look at the company and identified change. We saw a new slide in their investor presentation about how undervalued the stock was. It seemed like some sort of new religion might be taking hold.

"But we also ask ourselves: what has this CEO done in the past? Is he personally buying stock in the open market? What is he doing with the cash? Has he created value and sold a business or is he just an empire builder who doesn't care about shareholders very much?"

At that point, you had new capacity ramping up, excess legacy costs being stripped out, and EBITDA rising – it looked like an inflection point in earnings power. Then we saw the company add two new board members, including Kevin Hunt, who was the CEO of Ralcorp (RAH) and a protégé of Bill Stiritz, one of the great value creators of our day. Now we're thinking this could potentially lead to another catalyst. Two weeks later CLW announced an accelerated share repurchase program. Since then, in about two years, CLW has bought back more than 20% of the company on a market cap basis. CLW is a perfect example of a business we always liked but couldn't get involved with under previous management. Once we spoke to the new CEO and CFO, we gained conviction that value would be created.

Another example of this is Orora (ORA AU), a classic spin-off from a much larger company in Australia called Amcor (AMC AU). Orora was one tenth the size of Amcor and shareholders wanted to own the big packaging conglomerate, not the much smaller Orora. When we approached the stock, it had just spun off with a market cap of approximately $1.4 billion, yet there was no U.S. analyst coverage and large shareholders in Australia were punting it. We saw a company that was number one or two in its markets, with stable cash flow, a manageable balance sheet, and a management team with a track record of creating shareholder value. Orora CEO Nigel Garrard arrived to Amcor in 2009 after being CEO of another publicly traded company in Australia which he sold to a strategic buyer. Garrard tripled the value of the company in his four years as CEO – he is a winner.

We saw other signals, too. There was a big cost cutting program that we thought

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Jay Petschek & Steve Major '94

would change the earnings complexion as a standalone company. And we saw insider buying of the stock in the open market immediately following the spinoff. The CEO bought over $1 million worth of stock and another director was also buying stock. Besides trading at single-digit multiple of pro forma free cash flow and with a management team that wants to create shareholder value, they're paying out 70% of their earnings in dividends. We think they understand capital allocation and will do the right thing. When you think of the premise of spin-offs, it's the creation of value – that's why we look at spin-offs. And ORA is another prime example of management having a history of creating value with a credible plan to unlock more in the future.

Investing can be a humbling business, and it's important to have the insight that you're going to make mistakes. Fortunately, over our 24 years, we've had many more ORA's and CLW's than we've had material negative performers. Choosing great management teams is a key ingredient to hitting at a high batting average.

G&D: Building on your investment framework, are there ways that you think you've really differentiated your process or sourcing methodology versus other special situations investors?

SM: There are a lot of people looking at the companies that we're evaluating, but it's a question of how you look at something. More competition actually might even help us by potentially creating more dislocation. Nobody has the same lens. Everybody has his or her own biases and ways of looking at data. Maybe everybody has the same screens, but it's really the lens, the philosophy and the ability to see something that the market doesn't see.

"We need catalysts and we need to make money for investors every year. But you also need to have patience across a portfolio of ideas with catalysts."

The "Corsair Lens" allows us to focus on what we think is important when the market is focused on other factors. The "Corsair Lens" picks up on signals that others might not appreciate. We understand what the market sees, but we're able to look past it. I'm thinking of Republic Airways (RJET) as an example. The stock's been in the $13-$14 range, and the market sees a management team that previously made a bad acquisition in Frontier Airlines, a potential pilot shortage, and the recent struggles of competitors in the industry. We see a management team that restructured Frontier Airlines to profitability and sold it from a position of strength to Indigo Partners. What remains is the core business – a fixed fee operator of short flights for United Airlines, American Airlines, and Delta, that has been in business for 40 years and has never had a quarterly loss. After purchasing Frontier in 2009, RJET posted losses from the rising price of oil and the market underappreciated the steady, profitable fixed-fee operation. All you had to do was get rid of Frontier and refocus on the fixed fee business, with its long term contracts and stable cash flow.

Today, the market sees a leveraged balance sheet from debt associated with the jets. We actually see unrestricted cash of approximately $4 per share on a $13-$14 stock with a business that will generate more than $2.50 per share of cash earnings in 2015. With the new business that they'll be taking on over the next couple of years for United Airlines and the business they've been ramping for American Airlines more recently, you can get to over $3.50 per share of cash earnings in 2017. Put a 10x multiple on that and you can have a $35 stock. The market just doesn't see it yet because it is focused on RJET's labor situation with its pilots. We have watched management execute very well for three years and are confident they will reach a deal with the newly elected union leadership over the next 6-12 months. CEO Bryan Bedford is also an innovator, thinking several steps ahead of the competition. We expect him to creatively separate RJET's profitable large jet business from its breakeven small jets business (50 seats or less).

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These two overhangs should be lifted over the next year and the market will then be able to focus on $3.50 per share in pro forma cash earnings power. RJET stock has done notably well since being a $5 stock in 2011, but we believe it is a better buy today as earnings are quickly ramping and management has proven its ability to execute. We're looking for these types of low risk opportunities, where our lens can detect asymmetric risk/reward.

G&D: A key challenge of investing is getting the timing right. With Republic, you outlined a few catalysts. What is your level of patience if these catalysts don't turn out?

SM: We need catalysts because we need to make money for our investors every year. But we also need to have patience across a portfolio of ideas with catalysts. Some will happen earlier than we think, others later. Sometimes the market is very stubborn and that is why discipline is so important. It's also why our Corsair Rating Model is so valuable. As much as we love a business or a management team, it's important to be disciplined and ask: do we want to own it here? Perhaps we really love it 10%-20% lower, so we should be patient. Entry price is crucial. RJET is a good example of entry points, patience, and the need for margin of safety. We entered the stock in 2011, when the sell-side was focused on losses at Frontier and could neither recognize the value of the fixed-fee segment nor what we thought was a great fundamental environment for the company, as peers consolidated through mergers and bankruptcies. We had conviction and enough margin of safety to be patient and ride out a bumpy road – it paid off. As management executed, earnings power tripled and the stock reacted positively. We believe it's a better buy today than it was three years ago.

"There is a tremendous amount of luck in this business, being in the right place and at the right time. Having said that, it is definitely a case of the harder you work, the luckier you get."

G&D: How does Corsair compare potential opportunities and think about sizing?

JP: From a portfolio construction point of view, we balance four factors into position size. One is risk versus reward. Two is risk by itself. Three is correlation with other names in the portfolio. Four is liquidity in the name. The riskier the name, the less we will invest overall. Again, these are qualitative judgments, but if the company is highly leveraged and it is not very liquid, obviously you can lose a lot even if you only assume small changes to the value of the company. Good management, good balance sheet, and good business model – these allow you to take bigger positions.

Typically, we hold roughly 25 core positions in our portfolio. Through this diversification with very manageable position sizes and no leverage, we believe our investors are protected. Basically, the margin of safety we look for in every stock we invest in is the same margin of safety all of our investors have with their investment in Corsair. In fact, we're actually able to buy stocks when other funds are being forced to unwind or de-lever positions. With many hedge funds, even though they might be hedged or have low net exposures, the problem is that their gross exposures are quite high. They're certainly over 100%, and that's what forces them in difficult situations to retreat and bring it down.

G&D: Do you also take into account concentration by strategy type when looking at new investments? For instance, would you care if all the positions in the portfolio were spin-offs or bankruptcies?

JP: We don't worry about where the idea came from, so to speak. We do care about what business they're in. If it happens that we have three, five, or ten ideas that were post-bankruptcy, or were spin-offs, or privatizations, that's okay – we really care more about whether or not the underlying businesses are correlated.

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G&D: Some of these investments you've discussed have a macro component to them. How much does the macro picture influence your thought process and ideas over time?

JP: We're definitely bottom-up stock pickers. Ideas, as we said, come through change and management signaling. Having said that, we're cognizant of what's going on in the world, and we react to macro events as opposed to projecting them. If there is a change in the world, for example natural gas plummets from $10/Mcf to $2, we're going to look at whom that helps and whom that hurts. We won't make the investment bet that natural gas is going to go from $10 to $2, but once it's happened, one could argue the world has changed and, if the forward curve says gas stays at $2 for many years, a company like LyondellBasell (LYB) may really benefit.

G&D: Part of the reason we ask is that we had noticed your investor letters often start with a discussion of the macro.

JP: Our letters include some macro thoughts just because that's how we started doing it historically in order to give our investors – mostly friends and family – a sense of the macro environment. In the beginning, we gave very little information on the names we owned and didn't give out performance numbers monthly. Over time, we grew, and different investors have different requirements. Now we have monthly reporting.

But investors also want to get a flavor of what you really own and hear more about the thesis. That's both good and bad. It definitely helps them understand the type of ideas we invest in. It also shows that Corsair doesn't own the market, but that we have some idiosyncratic names. The downside is that it focuses investors on those names day-to-day or week-to-week, and that shorter-term thinking is not real investing. We are in it for the long-term.

G&D: Before we end, do you have any final words of advice for our readers?

JP: There is a tremendous amount of luck in this business, being in the right place and at the right time. Having said that, it is definitely a case of the harder you work, the luckier you get. It's not an original thought, but I truly believe that. You make your own luck.

SM: Tommy Lasorda said, "The difference between the impossible and possible lies in a man's determination." You have to work hard and have lots of grit. You also have to make good judgment calls and use your common sense. This was instilled in me by my parents, who, as Holocaust survivors, immigrated to this country in 1956 without any money or any knowledge of the English language. To me, it's not about how smart you are – it's really what choices and judgment calls you're making. As J.K. Rowling wrote, "It is our choices, Harry, that show what we truly are… far more than our abilities." But you also have to be aggressive when you are presented with an opportunity. Think out of the box, have conviction in your views, have the confidence to take risk and take ownership of your decisions – own it. Taking risk is the only way to getting lots of reward. As a mentor of mine loves to point out, not taking risk is actually taking lots of risk. But, always understand your downside before you focus on your upside. Remember, upside is seductive. There is no such thing as a free lunch.

By sticking to your knitting, staying disciplined, taking prudent risk and not using leverage, you can position yourself to make investment decisions based on good judgment. At the end of the day, good judgment plus working hard is a winning formula.

G&D: Thanks to you both for taking the time to talk with us.

Andrew Wellington

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became a principal and portfolio manager. He then went on to Neuberger Berman where he became the sole portfolio manager for their institutional mid-cap value product, growing it from $1 billion to $3.3 billion in AUM, and earning a five-star Morningstar rating. He was also a managing director at New Mountain Capital, where he played a key role in establishing and managing the $1.2 billion New Mountain Vantage Fund, a value-oriented, long-only, activist hedge fund. Early in his career, Mr. Wellington worked as a management consultant at Booz Allen & Hamilton and First Manhattan Consulting Group. Mr. Wellington graduated summa cum laude from the University of Pennsylvania's Management & Technology Program, earning both a Bachelor of Science from the Wharton School and a Bachelor of Science from the School of Engineering.

Graham & Doddsville (G&D): Tell us about your background prior to Lyrical.

Andrew Wellington (AW): I graduated from the University of Pennsylvania's Management and Technology Program in 1990 and first started my career in management consulting. Investment management wasn't even on my radar at that point. It was a different world back then – hedge funds were rare and nobody was watching CNBC yet. I spent five years in management consulting before I started to look more seriously at investment management.

In late 1995, I met Rich Pzena, who had just left Sanford Bernstein where he ran their domestic equity portfolio. He was starting his own firm, Pzena Investment Management, and I joined Rich as his research analyst. Rich's business partner in that venture was Joel Greenblatt. I worked with them for over five years. I couldn't ask for two better people to learn value investing from.

"There are no style points in investing. We don't get extra percentage points for making money on a stock that's really difficult to understand. If you make a huge return on a really simple stock, that still counts."

The firm had a great deal of success both in terms of investment performance and fundraising. It grew from basically nothing to over $1 billion around the five-year mark. Toward the end of my time at Pzena, I was promoted to be a portfolio manager and a principal, but I still wanted more autonomy to make my own decisions. I left in early 2001 to join Neuberger Berman. It was a co-portfolio manager role with Bob Gendelman in their institutional mid-cap value fund. I was co-PM in 2002, and then I became the sole PM in 2003 when Bob left to start his own hedge fund.

G&D: What is your investment philosophy and has it changed over time?

AW: Throughout the almost 20 years I've been investing, the style and philosophy has always been similar. First and foremost, there is a focus on value. I am a deep value investor. By deep value, I mean I look for the companies that are trading at the biggest discounts to intrinsic value that I can find. The bigger the discount to intrinsic value, the bigger the return you generate when you're right. No matter how great a business is, no matter how well you know it, if it's not undervalued, you can't make a superior return investing in it.

Then there are two things I've settled on that improve the odds of success – quality and analyzability.

The emphasis on quality is the Joel Greenblatt influence rubbing off. Amongst the cheapest stocks, I only want to invest in those that are also fundamentally good businesses. Good businesses have flexible costs, stable sources of demand, rich margins that provide more of a gap between cost and revenues. When things go wrong, a lot of times you don't even notice because good businesses are able to offset it. On the other hand, when little things go wrong with a bad business, it tends to result in disproportionately big problems.

Analyzability is important because the simpler the business

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is, the more transparent it is, the smaller the problems it's facing, the easier it is to accurately determine future earnings. If you get the future earnings right, you get the investment right.

There are no style points in investing. We don't get extra percentage points for making money on a stock that's really difficult to understand. If you make a huge return on a really simple stock, that still counts.

Our process is to first sift through the statistically cheapest stocks, just on the numbers. We find that most of those stocks are either not very good businesses or they're complex. But there are exceptions, usually a handful of stocks, that don't have any major problems and aren't very complicated that we can go research and analyze in more detail. If you have a small, concentrated portfolio, you can fill it with just these exceptions. Because they don't have major problems and because they are good businesses, you can get a high percentage of them right.

One metric we track is our batting average – how often we get something right. For us to be "right," the stock has to outperform the market. We're able to track this because we don't do any trading around positions. 65% of the investments we've made at Lyrical have outperformed the market over their life. This is a fairly high batting average, but it is not because we are much better analysts than everyone else. Rather, we have a high batting average because we invest in stocks that are relatively easier to get right.

When we see businesses that are difficult to get right, we skip them and keep looking. As I like to explain it, we work really hard to find the easiest investments.

G&D: How would you describe your research process? What do you focus on?

"When we see businesses that are difficult to get right, we skip them and keep looking. As I like to explain it, we work really hard to find the easiest investments."

AW: Our research and analysis is really about immersing ourselves into the history of a company – seeing how it performed quarter after quarter after quarter, looking at what past long-term objectives were and how they were realized or not realized, and examining what caused the under or outperformance. Then, you can build a deep qualitative understanding of the business. You see how that matches up with the financials so you can make a quantitative forecast of future earnings.

Modeling is an element of what we do. To value a business, we need to estimate its future earnings and so we need a model. But a model is simply a tool. The critical part is using the correct assumptions. If you get the sales growth right and you get the margins right, you're almost all the way there. You don't need to build a complicated model. A complicated model with the wrong margin assumption is not going to do you any good.

G&D: What is your process for replacing a stock in the portfolio?

AW: At a high-level, this is how our process works. First, we start with a valuation screen on the top 1,000 US listed stocks. That screen is where we generate all our investment ideas.

We pick one company at a time from our screen to research, analyze, and investigate, and typically spend about a month on it. At the end of the research process, we will come to a conclusion on quality, analyzability, and valuation of the stock. If it meets all our criteria, then it goes onto our bench. Through this process, we end up with a handful of stocks on our bench.

We're always looking at what are the best names on our bench versus what's already in the portfolio. When we think the portfolio would be materially better by replacing a name, we make the switch. It has to be overwhelmingly better, hit-yourself-over-the-head kind of better. Replacing a 30% upside stock to buy one with 40% upside just doesn't make that much of a difference on a 3% position.

We employ a "one-in, one-out" philosophy and keep the number of names in the portfolio constant, which enforces a certain discipline in our process. So what typically happens

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is we patiently wait until one of our stocks appreciates and approaches fair value. Normally, we look to replace a stock when it has 5-10% upside to fair value. But we will replace it before then if the new opportunity is significantly better.

We also sell if we ever lose conviction in the fundamental thesis. There's no room in a concentrated portfolio for stocks you don't really believe in.

G&D: How did you determine that 33 is the optimal number of holdings? Buffett's famous quote is that no one gets rich off their sixth-best idea. Have you considered more concentration?

AW: Well, the sixth-best idea we've owned is Jarden Corp (JAH). We've made 827% on that, which goes to show you can do ok on your sixth-best idea. But to address the question, the 33 comes from a few things. An academic statistical study shows that when you get to the 30s, you've captured almost all the benefits of diversification. So there is definitely a risk mitigation benefit of 33 versus six or eight.

I also believe our returns are higher with 33 stocks than they would be with six or eight. This gets into the psychological and behavioral aspect of investing. Let's play a game. We'll flip a coin and if it's heads, you win $500, but if it's tails you owe $100. That a 5:1 payoff on a 50/50 bet. I would hope everyone knows that's a good bet. Now let's make one change. Heads you win $5 million, tails you lose $1 million. It's the same risk/reward but the size of the bet is huge now, and you start to focus more on the 50% chance you lose $1 million and you probably don't take the bet.

There are fantastic risk/reward opportunities that you are willing to do at 3% of your portfolio that you might be unwilling to do at 10%. When a position gets that big, you look for perfection and there's no such thing. You become overly sensitive to the downside, remote as it may be. And for every unit of downside you eliminate, you tend to sacrifice multiple units of upside and, over the long the run, end up with lower returns.

"There are fantastic risk/reward opportunities that you are willing to do at 3% of your portfolio that you might be unwilling to do at 10%. When a position gets that big, you look for perfection and there's no such thing."

A key driver of success in value investing, besides making judgments about businesses, is to realize that nothing's perfect. There are risks with everything. You need to be able to tolerate uncertainties and potential downside.

With 3% positions, I can be completely analytical and dispassionate about everything. We make better decisions because we're able to stay unemotional about them and that leads to better risk/reward in the portfolio.

G&D: On a related topic, why is every position a 3% weight? Why not adjust position sizing based on conviction?

AW: I don't have equal conviction, but I've learned that my conviction does not add value.

I did not start out with the idea of running an equal-weighted portfolio. I looked back at the three and a half year period I managed a fund at Neuberger Berman. Over that period of time, I outperformed the U.S. equity markets by about 1000 basis points per year. I went back and analyzed what my performance would have been if I had equally weighted my portfolio, thinking that the analysis would show how much extra alpha I created with my judgments about conviction weights. Instead, I discovered that my weighting decisions had cost me 70 basis points per year.

Since that original analysis, we have expanded it to look at all mutual fund managers. What we found was that we're not the only ones that don't add any value with conviction weighting. Contrary to conventional wisdom, most funds would generate higher returns by simply equal weighting their portfolio.

G&D: How actively do you trade in your portfolio?

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Bruce Berkowitz of Fairholme Capital addressing a question from the audience during the 2014 Graham & Dodd Breakfast panel.

AW: Our turnover is around 17% per year, which implies a six-year average holding period. Some stocks we've held for as a little as a year. There have been a lot of stocks we've held for six years and counting. The bigger the discount to intrinsic value, the more patient you can be. If the upside in your investment is only 5%-10%, you better realize that gain quickly. But if you're upside is 60%+ and it takes you five years instead of two or three, that's okay because that's still a substantial amount of outperformance per year.

We've realized it's impossible to determine how long it will take for a stock to work. We might be able to estimate what the earnings will be but you have no idea how long it might take the market to recognize those earnings.

Goodyear Tire (GT) is an interesting example. Over the six years we've owned it, GT is up 370%. That's 210 percentage points better than the market. Yet it's still at 9x earnings. They've done a great job growing earnings and reported record margins but it's still cheap because the market is slow to accept that this level of profitability is sustainable. It's been a great investment in part because of how cheap it was in the past and also their fundamental success in improving profitability.

The tougher ones are where you expect the company to improve but there are bumps along the way. Part of what separates great investors from less good ones is the ability to sift through the noise and figure out if the company will ever get things right.

We don't trade around positions. When our stocks aren't doing well, we don't add more. When they are doing well, we don't trim them back. The only trades we do in our process are when we sell a position in its entirety and replace it with a new position at full weight. It's contrary to the way every other manager I know in the business operates but we have tested both methods and found our way actually performs better.

"The only trades we do in our process are when we sell a position in its entirety and replace it with a new position at full weight. It's contrary to the way every other manager I know in the business operates..."

G&D: What valuation methodology do you rely on?

AW: One fundamental law in economics is that the value of a business is the present value of its future earnings. But in the real world, there are all kinds of problems with the traditional DCF formula, including figuring out terminal growth rates, discount rates, etc. We take that same concept but apply it in a more practical framework.

Our approach is to value companies on their five-year forward normalized earnings. The multiple we use comes from the history of the market. While we know the market has historically been valued at about 15.5x one-year forward earnings, our analysis of historical valuations suggests the market is valued at about 9x five-year normalized forward earnings. Sometimes the market is at 10x like it is today. In other periods, such as in 2008 or 2009, the market could be below 6x. But the market has always reverted back towards 9x over time.

We don't use different multiples for different businesses or industries because we hope to capture everything that might make one company or industry better than another in the future earnings number. There's elegance to the framework that allows us to compare different companies from different industries with different stories and still have one absolute valuation paradigm.

G&D: How do you assess the quality of management?

AW: In terms of management skill and running a business, what I've learned over the years is it's really hard to tell how good management is. Some businesses you can tell they're great because you can see how much better their business is performing relative to peers. We look for a high level of competence. If we were to grade management, we would want to grade them with an 'A' or a 'B'. We wouldn't want to own a company where we would give them a 'C'. In some businesses, there are more capital allocation decisions to be made. You want to be able to rate those management teams an 'A'. We

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own AerCap (AER), an aircraft leasing company, for example. I would not want to own an aircraft leasing company with 'B' management. Fortunately, I think AerCap's management is an 'A+'.

One major factor we analyze is capital allocation. If the company generates a lot of free cash flow and the management team proceeds to waste it, that free cash flow has no value to investors. Capital allocation doesn't have to be perfect or optimal. I just don't want to see it wasted.

Acquisitions are the biggest way a company can blow itself up. When companies do acquisitions, you want to make sure that they're buying at an attractive price and realizing synergies. Otherwise you'd like to see the excess cash eventually returned to shareholders.

Our preference is for companies to employ cash for stock buybacks because we believe every stock we own is undervalued. A dividend distribution may not be optimal, but it's hardly a bad thing, so we don't get too worked up over that. If they want to leave some cash on the balance sheet for strategic options or for safety, that might be sub-optimal but I don't have a problem with that either.

G&D: Do you also look at businesses or industries that reach potential inflection points? For example, a situation where significant capacity came out of an industry?

AW: We look for quality, analyzable businesses at significant discounts to intrinsic value. Sometimes a company is undervalued because there is an inflection point and the future is expected to be much better than the past, but those are rare exceptions. Most of our stocks are undervalued because they are benignly neglected by the market. There is nothing going on today that is different than what was occurring last year or the year before, but because of random ups and downs in the market or through earnings growth outpacing price appreciation, the stock has become undervalued.

"We are short companies that are significantly overvalued and yet they're very simple and easy to analyze but are often overlooked by traditional short-sellers because there's no catalyst."

We do own a few stocks which are beneficiaries of consolidation, such as Avis (CAR), Hertz (HTZ), and Western Digital (WDC). Consolidation is one element of the thesis, but consolidation by itself isn't enough to make the investment attractive. We own them because they are quality, analyzable businesses at significant discounts to intrinsic value. The airline industry is benefitting from consolidation but we will not be investing in any airlines.

It's really interesting to compare the differences between the car rental and the airline business because they have very similar sources of demand. The biggest driver of demand for car rental is deplanements. People go on airplanes and when they land, they rent cars. But these two business are structurally very different. One business we love, the other business we won't touch. Even with the benefits of consolidation, airlines are still not a good business to us because the cost structure is fixed. If your business earns only a 10% margin, and there's a 10% fall in demand with most of your costs being fixed, you can get a 100% fall in earnings.

Contrast that with car rental. In the car rental business, 70% of costs are variable. They're able to right-size their business. They don't need the economy or demand to return. They could shrink to current levels of demand over a few quarters and get back to profitability. That's a much better business structurally. It's a much more robust business to the ups and downs of what can happen in the future. You can afford to take more risk because the resiliency and flexibility of the business is risk-mitigating.

G&D: You recently launched a long/short fund. What was the rationale for doing so?

AW: My business partner, Jeff Keswin, co-founded Greenlight Capital. He has substantial experience in the long/short world so even though we de-

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cided to initially focus on long-only at Lyrical, we thought there might eventually be an opportunity to manage a long/short fund as well. Betting on ourselves, we started our long/short fund in early 2013, initially with just internal capital.

We're doing shorts because we believe we can be as good on the short side as we've been on the long side. If I didn't think we could be, I wouldn't be interested in diluting our reputation or degree of success. We really believe that we have a differentiated approach to shorting.

What's driven our success on the long side is looking for significant misvaluations in businesses where we have a high probability of getting the future earnings right. That's exactly what we look for on the short side as well. We're not short accounting frauds. We're not short businesses we think are going to disappear. We are short companies that are significantly overvalued and yet are very simple and easy to analyze but are often overlooked by traditional short sellers because there's no catalyst.

We believe we can be relatively accurate at estimating future earnings power and reliably identifying stocks that are significantly overvalued.

Many people think you have to short bad businesses. In some cases, we're short great businesses. These stocks often have high multiples for long periods of time. If a great business is worth $100 a share but the stock is at $150, that's a good short. It doesn't have to go to zero to be a good short.

We aren't short stocks such as Tesla (TSLA) and Netflix (NFLX) because I don't know what they're going to earn in five years. Those are new business models. No matter how expensive they are today, no matter how likely they are to be overvalued, if I don't know with a high degree of certainty what their future earnings will be, then that's not a very good investment for us.

"We aren't short stocks such as Tesla and Netflix because I don't know what they're going to earn in five years...if I don't know with a high degree of certainty what their future earnings will be, then that's not a very good investment for us."

For the first six months, we shorted ETFs as a placeholder until we could build a portfolio of single-stock shorts. We have been running single-stock shorts now for 18 months. It's working exceptionally well. In fact, over that 18-month period, our batting average on the short side is 75%, compared to 68% on the long side.

G&D: Lyrical has a smaller investment staff relative to many other funds. Why is that beneficial versus employing a larger team with coverage on specific sectors or industries?

AW: When you only buy, on average, five stocks a year, how many people do you need? That's less than one every two months. I have a lot of titles at the firm, but my main job at Lyrical is Junior Analyst. If I pick the right stocks, everything else at Lyrical is easy.

I think part of our edge comes from the fact that I, along with my co-portfolio manager Caroline Ritter, bring a lot of experience to analyzing businesses.

On the margin, we make better decisions because we're the ones listening to every earnings call. We're the ones going through the financials and seeing it all first-hand as opposed to having junior staff do that, and then processing what they have.

G&D: Would you be willing to walk us through a current idea?

AW: It's interesting that the second-best stock we've ever owned is AerCap (AER) and it still shows up as one of the cheapest stocks in our portfolio today. Even though it has appreciated 1,200% since we first bought it, AER trades at 7.9x this year's earnings. When we first got involved in January 2009, AER was priced around $3 a share and had $2 a share of earnings. You don't need a very sophisticated screen to identify stocks at 1.5x earnings.

AER is in the business of renting commercial airplanes to airlines around the world. If

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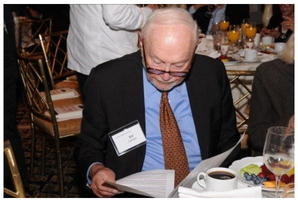

A Graham & Dodd Breakfast attendee looks over the morning's agenda.

you looked at airlines in the U.S. in 2008, you'd have a pretty negative view of businesses that rent airplanes to airlines. There are a lot of things wrong with that view though. First, airlines in America aren't the same thing as airlines around the world. There are different trends in different regions. They are very healthy and growing in the Middle East and in Asia. Also, airlines around the world are often supported by their governments, so they don't have the same financial stress.

While it sounds risky to rent an airplane to an airline, when you look at the business and the history of it, you see that losses are really minimal. With AER, what matters most is not if an airline goes bankrupt, but do they have the right planes, those in demand by most airlines? If you own a 757 that people aren't really flying anymore, and it is repossessed, it's going to be hard to find someone else to buy it. If it's a modern, fuel-efficient 737 or A320 that everybody around the world uses and where there is a production backlog today, there is much less risk to the collateral. If AER's customers go bankrupt, it can repossess the airplane and easily find someone else who wants to rent it. AER's business was nowhere near as credit-sensitive as one might think, but back in 2008, it was priced that way.

AER earned $2.63 last year, and this year they're projected to earn $4.95. That big jump was because year they acquired ILFC in December of last year from AIG and the deal was incredibly accretive. While the stock is up, it was cheap before the deal and the earnings power increased so much that, on a prospective P/E basis, the stock still is incredibly cheap. It hasn't been a good performer in 2014 even though they've executed on the integration of ILFC exceptionally well.

"If AER's customers go bankrupt, it can repossess the airplane and easily find someone else who wants to rent it. AER's business was nowhere near as credit-sensitive as one might think, but back in 2008, it was priced that way."

G&D: You mentioned Goodyear Tire (GT) earlier in our conversation. What makes it a good business?

AW: GT has not always been a great business. It used to be a lousy business that we would have never touched before.

The company used to make low-end commodity tires and high value performance tires. Asian imports killed the low-end part of the business. With factories and unionized labor, it took GT the better part of the first decade of the 2000's to exit that business. The whole US tire industry shut down the low-end business and the related plants. That takes a lot of time and accounting charges – you can't just do that overnight.

Along the way there were disappointments. In 2007, synthetic rubber prices spiked with oil. They were able to pass through the costs but it took several quarters. They were finally ready to start making good profits in 2008 but then the global recession hit. With 80% of their tire sales being replacement, and only 20% to OEMs, the recession shouldn't have had as big of an impact on the business. But OEM car production fell by 50%, enough to lower capacity utilization at their factories and hurt their overhead cost absorption. GT did some more restructuring, and earnings started coming back.

I think people got frustrated with GT and moved on to other things. I passed over it on the screens a number of times. The truth was obscured by lots of noise. Investors just had to peel it back and sift through it. When you did, you saw a company that was positioned to do very well. They previously had peak earnings in 2007 of $1.66. They were supposed to make $3 a share this year, record earnings, record margins, and while the stock is up to $28, it's trading at a modest valuation of just over 9x earnings.

There's a lot of institutional memory in stock valuation. Most of the time it's right, but you can find exceptions. In our view, there's nothing wrong with Goodyear. It's cheap because of an outdated view of what the business is. Today,

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it's a good business and still significantly undervalued.

G&D: Is there a short you would be willing to discuss?

AW: We are short Coca-Cola (KO). Coke's a great company. They make a great product. But Coke trades at about 20x earnings. They've grown their earnings at only 5% a year for the last five years and they're not expected to grow that much faster over the next five years. Why does Coke have a 20x multiple? Because Coke used to be worth 20x and investors have become anchored to that multiple despite fundamentals.

If you go back to the late '90s, Coke was a global growth powerhouse. They produced double digit EPS growth year after year and penetrated emerging markets. But now, they have reached a certain maturity level. We are also starting to see some cracks in the business. Consumers don't like carbonated soft drinks as much anymore and you're seeing that category shrink.

We feel we can reasonably estimate the future earnings of a company like Coke. Margins are stable. Sales growth is pretty stable. Not a lot of catalysts that can dramatically move the earnings of a company of that size and scale and scope.

Coke is getting credit for continued high performance, but if things don't go that well, there's much more downside. It's been a very profitable short over the past 18 months for us. It has underperformed the market by 16% at this point.

Another successful short for us has been Whole Foods (WFM), a similar story to Coke. We expected them to continue to perform at the high level they had been performing but even if they did that, they were significantly overvalued. And now we may be seeing a negative inflection in the business with increased competition nipping away at their position. They still might be the best organic foods market, but their competitors are selling more organic foods and at lower prices.

The stock is already down a lot but now the company is earnings less than we initially estimated. We believe it has further downside and still looks like a really attractive short here despite the fact that we think it's a great company.

The vast majority of the names we are short, I'd be happy to be long if they were at a significantly lower valuation. Anything we're long, if it were at a significantly higher valuation, I'd probably be happy to be short. The difference in valuation is everything.

Interestingly, while we are long value, we are not short growth. The businesses in our short book don't grow any faster than those our long book. They have high multiples because they grew really fast a long time ago. There's a certain stickiness to multiples. We see that with Goodyear too. It still has to shake off that reputation of its past and continue to perform. On the flip side, you also see it with Coke. Multiples are slow to adjust. Over subsequent years, as the earnings come through, eventually the market catches on, and the multiples adjust to the right level.

G&D: Thank you for taking the time to speak with us.

Kirill Aleksandrov '15

Kirill is a second-year MBA student at Columbia Business School. Prior to CBS, Kirill was an associate at PennantPark Investment Advisers, a credit fund focused on mezzanine debt investments.

First Solar (NASDAQ: FSLR) - Short
Finalist—2015 Amici Capital Prize

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Recommendation

Sell First Solar (FSLR). The company is overearning due to legacy projects in its pipeline and elevated near-term demand resulting from the pending expiration of the solar investment tax credit (ITC). Declining pricing, increasing competition, and weak project volumes will result in significantly lower revenue and earnings vs. consensus forecasts.

Capital Structure	
Share Price (1/15/15)	$40.2
Shares Out. (mm)	101
Market Cap. ($ bn)	4,073
+ Debt	218
- Cash & Equiv.	(1,115)
Enterprise Value	3,176
Current Valuation	
Consensus 2015 EBIT	5.7x
Consensus 2015 EPS	9.2x

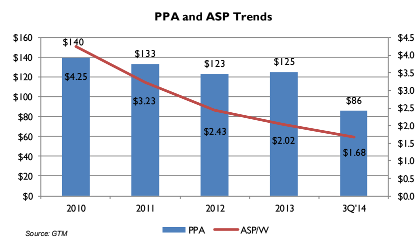
Business Description

FSLR manufactures solar modules (10% sales) and acts as a project developer for utility-scale solar projects (90% sales). FSLR provides engineering, procurement, and construction services (EPC) for solar asset owners and also develops and holds solar projects on balance sheet to be ultimately sold to customers.

Investment Thesis

1) The full extent of price declines in the utility-scale solar industry is obscured by revenue recognition on legacy projects that were signed at significantly higher prices than FSLR will be able to realize in the future.

- FSLR recognizes revenue on a percentage of completion basis on EPC projects and upon sale for projects held on balance sheet. The Company is currently recognizing revenue on multiple large projects (Topaz, Desert Sunlight) that were negotiated in 2011-2012 in a significantly higher pricing environment.
- Power purchasing agreement (PPA) prices have fallen from $140/MWh in 2010 to $86/MWh in 2014 (-39%), with some PPAs signed below $50/MWh in 2014. Lower PPA prices decrease the present value of a solar asset's earnings and reduce the price that FSLR can realize on projects.



- Declining PPA prices and increasing competition have caused ASP/w to fall from $4.25 in 2010 to $1.68 in 2014 (-60%), with pricing as low as $1.50 on some projects in 2014. FSLR's projects signed in 2014 were priced at ~$1.94/w. FSLR's average recognized 2014 ASP/w is ~$3.42 vs. $2.48 implied pricing for remaining MWs in its backlog as per company's own filings. A build-out of FSLR backlog by project implies blended pricing of $2.44/w and $2.20/w for 2015 and 2016, or a 29% and 10% decrease in pricing, respectively, vs. 2014. 2017 pricing is likely to experience a steep decline as legacy projects run out and new projects are signed at prices closer to (and likely below) current levels.
- The significant fall in ASP/w means that FSLR will need to book higher MW volumes simply to maintain its current levels of revenue.

2) The U.S. utility-scale market is saturated and will not be able to sustain the volumes that FSLR needs to maintain the current level of earnings.

- The step-down of ITC from 30% to 10% in 2017 has pulled forward a significant amount of demand, as a project needs to be completed and connected to the grid by 2017 to receive the ITC. Installed utility-scale solar capacity will double vs. 2013 in the next 2 years as 13.5GW of current project backlog will come online.
- Demand is driven by state renewable portfolio standards (RPS), and states with significant RPS have already contracted the majority of MW needed to meet them. California accounts for 62% of planned and existing solar capacity. The three main CA utilities have contracted the majority of solar capacity needed to meet RPS by 2020, with only 1.3GW of additional capacity required through 2020 (or only 220 MW/year).
- None of the three major U.S. developers – FSLR, Sunpower, or SunEdison – have project backlog beyond 2016. New PPAs signed in CA and NV are for 2019 power delivery, showing that utilities only need to fill out a small amount of remaining back-end compliance demand.
- ITC expiration acts as a major demand headwind, as project costs will increase by 20%.
- Increasing competition for fewer projects is driving some developers to sign PPAs at uneconomic levels ($30-40/MWh signed in latest Duke Energy RFP) or build projects without PPAs (FSLR's Barilla, TX project).

3) Increasing competition will make it difficult for FSLR to compensate for a slowing U.S. business by expanding overseas and management is overstating FSLR's ability to compete internationally.

- International projects account for only 10% of FSLR's current pipeline. Project development is a local business, requiring knowledge of local politics, permitting, and regulations (the reason why foreign developers have not been able to penetrate the U.S.).

First Solar (FSLR) - Short (Continued from previous page)

- 17 of top 20 module suppliers already have in-house project developers, including Chinese (Trina, Yingli, Jinko, ET Solar) and Japanese (Panasonic, Sharp) competitors, which effectively shuts FSLR out of the 2 largest international solar markets. Chinese, Japanese, and U.S. module manufactures are also competing with FSLR in India, Australia, and South America. Pricing and margins in these regions are quickly converging to U.S. levels.

4) **3rd-party modules business is unprofitable and unlikely to mitigate project shortfall.**

- FSLR's module gross margins averaged 6% from 2012-2014, and operating margins were -14% over the same period. Modules are commoditized and manufacturers lack pricing power. Due to competition, FSLR module sales outside its own projects were only 12% and 10% of total revenue in 2013 and 2014, respectively.
- FSLR's thin-film technology lacks a cost advantage vs. competitors, barring a significant increase in silicone prices, and lower module efficiency makes FSLR panels more expensive on a BoS basis.
- Lack of industry capex discipline means that increases in demand are met with significantly higher capacity expansions. FSLR is expanding capacity by 46% in 2015 with 77% capacity utilization as of Q3'14. Most large players (both U.S. and foreign) are expanding 2015 capacity in spite of low utilization.

5) ***Potential margin compression as prices fall and project lead-times shorten can act as an additional catalyst.***

- Project margins have fallen from 36% in 2013 to 27% in 3Q'14. Margins are likely to fall further due to increasing competition and expiration of ITC, as the loss of 20% ITC by customers should put further pressure on pricing.
- Costs have historically fallen slower than prices (-58% module pricing vs. -18% cost in 2010-2013). Module pricing is already low and balance of systems (BoS) costs are difficult to decrease due to labor and shipping as significant components.
- Transition to smaller projects due to limited demand and difficulty of finding suitable locations creates less project lead time and less opportunity to take advantage of cost declines during the life of a project.

Valuation

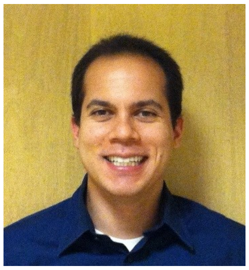
Given that project volumes will peak in 2015 and will then begin to normalize, I believe that a price target based on an average of earnings over the next 3 years (2015-2017) is the most appropriate way to value FSLR. My $30 price target, which represents a downside of ~25%, is based on a blend of EBIT (8x) and EPS (12x) multiples (historical average multiples over the last 3 years). The value of the operating business is ~$13 per share, with the remaining value consisting of average cash/share of ~$17. Given FSLR's volatile WC needs and potential for WC to remain trapped in projects held on balance sheet for longer than anticipated, cash/share may be significantly lower, which represents potential additional downside. Note that 2017 generously assumes recognition of 800MW of project revenue while FSLR currently has no 2017 backlog.

Base case assumptions:

	2014	2015	2016	2017
Project MW Recognized	933	1,646	1,177	800
Avg. Price/W	$3.42	$2.44	$2.20	$1.40
3rd-party MW Recognized	276	281	287	293
Avg. Price/W	$0.68	$0.65	$0.60	$0.55
Systems Gross Margin	28%	25%	25%	25%
Modules Gross Margin	6%	6%	6%	6%
Annual SG&A Reduction	-2%	-4%	-3%	-3%
Tax Rate	11%	15%	15%	15%

	EBIT	EPS
3Y Average	149.4	1.2
Multiple	8.0x	12.0x
EV	1,195	
Net Avg. Cash	1,764	1,764
Equity Value	2,960	3,288
Shares	104	104
Price/share (Ops.)	$11.55	$14.72
Cash/share	$17.04	$17.04
Total price/share	$28.59	$31.77

	2012	2013	2014	2015	2016	2017
Systems Revenue	3,043	2,928	3,200	4,011	2,588	1,120
3rd-party Modules Revenue	325	381	188	183	172	161
Total Revenue	3,369	3,309	3,388	4,194	2,760	1,281
% Growth	*21.8%*	*(1.8%)*	*2.4%*	*23.8%*	*(34.2%)*	*(53.6%)*
COGS	2,516	2,446	2,676	3,391	2,239	1,050
Gross Profit	853	863	712	803	521	231
% Margin	*25.3%*	*26.1%*	*21.0%*	*19.1%*	*18.9%*	*18.0%*
SG&A	421	407	398	382	369	356
% Sales	*12.5%*	*12.3%*	*11.7%*	*9.1%*	*13.4%*	*27.8%*
EBIT	431	455	314	421	153	(125)
% Margin	*12.8%*	*13.8%*	*9.3%*	*10.0%*	*5.5%*	*(9.8%)*
EPS	($1.11)	$3.75	$2.81	$3.71	$1.51	($0.88)
Diluted Shares Out.	87	94	102	102	104	105
FCF	383	690	47	229	282	(85)



Harry Garcia '15

Harry is a second-year MBA student at Columbia Business School. Prior to CBS, Harry worked as an internal strategy consultant at NBCUniversal. Prior to that, Harry founded a real estate investment company and spent four years as a buy-side equity analyst at Palisades Investment Partners.

Over the past summer, Harry interned as an equity analyst at the Growth Equity group at Morgan Stanley Investment Management. After graduation, he plans to work in investment management.

JetBlue Airways Corporation (NASDAQ: JBLU) - Long Finalist—2015 Amici Capital Prize

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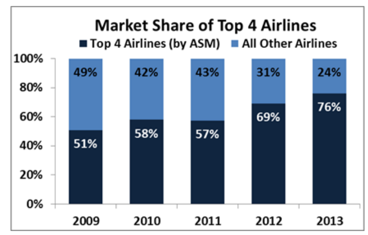
Price (12/10/14)	$15.15
Daily $ Vol (mm)	$116
Market Capitalization	$5,187
Debt	2,802
Cash	742
Capitalized Op Leases	868
Enterprise Value	$8,115
P/FY2 - 2016	8.6
P/FY3 - 2017	6.7

Summary:
Over the past three years, JetBlue's ROIC has fallen short of management targets and has lagged the ROIC of competitor airlines by several hundred basis points. In the last two months, JetBlue has signaled it is becoming more shareholder-focused by selecting a new CEO (Robin Hayes) and announcing initiatives to drive $450 million in pre-tax earnings ($0.79 EPS) which will improve ROIC by 300+ bps. These actions have driven the stock price up 60% from a low of $9.41 in early October to its current price of $15. However, I believe that the stock still has significant upside. My key insights to JetBlue reflect my bullish thesis:

1) The initiatives announced at analyst day are low-hanging fruit and results will exceed management guidance
2) JetBlue can implement overbooking to increase its load factor by 100-300 bps
3) Robin Hayes is the right CEO to improve ROIC at JetBlue

I believe that *the first two factors could drive an additional $190 - $350 million of operating income. Overall, JetBlue will expand ROIC by 700+bps*. At 8x 2017 adjusted EBIT, JetBlue would be worth $26 per share – 64% upside to its current price of $15.15 (12/10/14).



Setting the Stage:

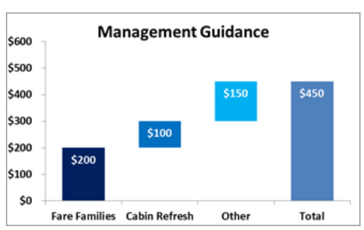
- JetBlue is the 5th largest airline in the United States and, even though JetBlue is only 20-30% of the size of the big-four airlines, it is a major player where it operates. JetBlue is a low cost carrier but has positioned itself on the high-end of the service the spectrum by providing premium amenities and customer service.
- Several trends have driven airline profitability over the last 5 years. 1) Mergers have consolidated the industry. The combined market share of the top four carriers increased from 51% in 2009 to 76% in 2013. 2) System capacity has fallen since its peak in 2007. 3) Fewer players and lower capacity has led to stronger pricing. These trends are reflected in the total operating income for the airline industry – a $583 million loss in 2009 to $10 billion profit in 2013.

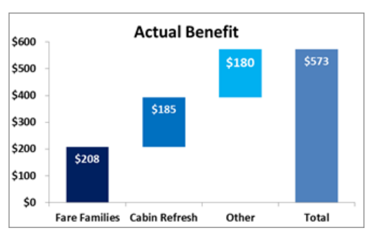
Key Insights:

1) The initiatives announced are low hanging fruit and results will exceed management guidance

In mid-November, JetBlue outlined three initiatives (Fare Families, Cabin Refresh and Other) to achieve an additional $450 million of pre-tax operating income by 2018 ($0.79 EPS) and add at least 300 bps to ROIC by 2017. I believe management was abundantly conservative. *JetBlue will exceed its objectives by at least $100 million*.

Fare Families: JetBlue will price tickets based on the bundling of services and features. At the cheapest level of service, JetBlue will charge first checked bag fees which are currently free. Execution will be easy (systems already installed) and the impact is predictable (many historical examples). I model additional operating income of $208 million and $222 million in my base and bull scenarios, respectively.





Cabin Refresh: JetBlue will increase seat density on its A320s (65% of its fleet) by decreasing seat thickness and pitch. The total number seats on the A320 will increase from 150 to 165 and will increase JetBlue's available seat miles (ASM) by 7.2%. Management expects at least a $100 million run rate of incremental operating earnings. *This is the biggest opportunity to exceed guidance*. Even with the conservative assumption that the new seats yield 62% of the revenue of other seats, the initiative would add $232 million of additional revenue per year. After accounting for additional costs, JetBlue would earn $185 million of operating income from seat densification.

Other Initiatives: This includes six initiatives that management expects to earn $150 million in operating income by 2018 ($0.27 EPS). Management's guidance appears abundantly conservative considering that three of the six (Even More, TrueBlue, Mint) will conservatively generate $155 million. Even More will generate $68 million of incremental operating income with 2% annual price increases. TrueBlue will generate $60 million according to contracts that management is currently finalizing. Mint will earn $26 million with no expansion. This leaves us with a free option on the other three initiatives (Wi-Fi and ancillary product sales) which could yield $30-40+ million.

JetBlue Airways (JBLU) - Long (Continued from previous page)

2) JetBlue can implement overbooking to increase its load factor by 100-300 bps

- Load factor is an airline's version of operating leverage – there is low incremental cost but high margin incremental revenue for every additional seat filled. *JetBlue is an outlier in the airline industry because it does not overbook flights.* This is great customer service but JetBlue loses every time a customer cancels an itinerary and JetBlue is unable to fill the seat. I believe JetBlue can improve its load factor significantly by implementing an overbooking policy. In my base model, I assume load factor increases 170 bps ($136 million operating income; $0.24 EPS); in my bull model, I assume load factor increases 260 bps ($208 million operating income; $0.37 EPS). *Importantly, the market expects load factor to remain flat or increase only slightly*.
- Interviews with several industry contacts (including high-level industry executives and former JetBlue executives) indicated that JetBlue can improve load factors by 100—300 bps by overbooking. If JetBlue improved its load factor to the industry average, it would increase load factor by 120 bps ($96 million operating income; $0.18 EPS). This is reflected in my base case scenario. In my bull scenario, load factors increase 200 bps ($160 million; $0.30 EPS). This is the type of initiative that JetBlue would implement behind the scenes (i.e. not highlight it at an analyst day). Importantly, the market is not discussing the potential of overbooking. Airlines have overbooking down to a science so the downside to would be minimal. Industry-wide, only 9 out of every million customers are "bumped" from flights.

3) Robin Hayes is the right CEO to improve ROIC at JetBlue

- Hayes has an excellent track record. Before joining JetBlue in 2008, Hayes spent 19 years at British Airways where he ran the Americas segment. Interviews with industry contacts and executives that worked with Hayes were extremely positive across the board. A former JetBlue executive who worked closely with Hayes says, "[Robin] has delivered very strong financial results… Robin has been instrumental in driving profitability at JetBlue." An executive who worked with both Hayes and his predecessor extensively says, "Hayes is the right CEO. He has demonstrated this with all the things he's led. I am very bullish and confident in his ability to lead JetBlue."
- JetBlue is at an inflection point. *JetBlue is transitioning from an airline focused on capacity growth to an airline focused on returns*. Other airlines reached this inflection point several years ago and were able to improve ROIC substantially (300 – 900+ bps). JetBlue is at that point now. Hayes recently announced that JetBlue will be deferring the delivery of 18 aircraft over the next four years. This reduces the number of new aircraft over the next four years by 32% and reduces capital expenditures by $0.9 – 1.0 billion – freeing up cash equal to 20% of JetBlue's market capitalization. Furthermore, In 2013, JetBlue adopted a new long-term performance-based incentive program based on two items: cost per available seat mile (weighted 50%) and ROIC (weighted 50%).

Valuation

- JetBlue currently trades at 9.2x enterprise value to forward adjusted EBIT (2015). If we apply an 8.0x multiple on forward adjusted EBIT (the industry average is 8.3x), it implies JetBlue will worth $26.42 per share (74% upside) in 2016 (8x FY17 adj. EBIT). At my target price of $26.42 in 2016, JetBlue would be trading at 11.8x forward earnings.
- ROIC will grow from 8.5% in 2015 to 15.0% in 2018. ROIC will exceed management's guidance of 10%+ in 2017 by about 290 bps.
- In my bull scenario, load factors reach all-time highs without pricing concessions. At 8x EV/Forward 2017 adj. EBIT, JetBlue would be worth $29 per share in 2016 (94% upside). In my bear scenario, load factors drop and ancillary fees are

OPERATING MODEL - BASE	2009	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E
($ mm except as noted)										
Passenger revenue	2,934	3,412	4,080	4,550	4,971	5,402	6,042	6,920	7,693	8,416
Other revenue	358	367	424	432	470	473	508	555	601	640
Total revenue	3,292	3,779	4,504	4,982	5,441	5,875	6,550	7,475	8,294	9,056
Operating expenses										
Aircraft fuel and related taxes	945	1,115	1,664	1,806	1,899	1,919	1,999	2,257	2,433	2,588
Salaries, wages and benefits	776	891	947	1,044	1,135	1,281	1,434	1,607	1,827	2,049
Landing fees and other rents	213	228	245	277	305	326	354	378	405	431
Depreciation and amortization	228	220	233	258	290	320	352	385	417	453
Aircraft rent	126	126	135	130	128	124	123	125	127	128
Sales and marketing	151	179	199	204	223	247	275	314	348	380
Maintenance materials and repairs	149	172	227	338	432	413	458	499	538	577
Other operating expenses	419	515	532	549	601	694	735	765	800	830
Total costs and expenses	3,007	3,446	4,182	4,606	5,013	5,323	5,729	6,331	6,896	7,437
Operating income	285	333	322	376	428	552	822	1,145	1,398	1,619
Operating margin	*8.7%*	*8.8%*	*7.1%*	*7.5%*	*7.9%*	*9.4%*	*12.5%*	*15.3%*	*16.9%*	*17.9%*
Total other income (expense)	(181)	(172)	(177)	(167)	(149)	103	(137)	(132)	(111)	(84)
EBT	104	161	145	209	279	655	685	1,013	1,287	1,535
Taxes	43	64	59	81	111	219	272	403	512	611
Tax rate	*41.3%*	*39.8%*	*40.7%*	*38.8%*	*39.8%*	*33.4%*	*39.8%*	*39.8%*	*39.8%*	*39.8%*
Net income	61	97	86	128	168	436	412	610	775	924
Normalized EPS - fully diluted S/O	**$0.18**	**$0.33**	**$0.26**	**$0.34**	**$0.48**	**$0.73**	**$1.20**	**$1.77**	**$2.25**	**$2.68**
Weighted avg dil shares outstanding	332.1	346.6	346.5	344.1	343.4	343.4	343.7	344.4	344.9	345.4
ROIC (traditional)	**3.6%**	**4.3%**	**4.1%**	**4.8%**	**5.2%**	**6.9%**	**8.5%**	**11.3%**	**13.4%**	**15.0%**
ROIC (JetBlue method)	**3.8%**	**4.3%**	**4.1%**	**4.7%**	**5.3%**	**5.8%**	**8.4%**	**11.0%**	**12.9%**	**14.3%**
Free cash flow	**52**	**274**	**134**	**156**	**143**	**(117)**	**102**	**440**	**558**	**723**

Luke Tashie ’15

Luke is a second-year MBA student in Columbia Business School’s Value Investing Program and the recipient of the Heilbrunn Fellowship. While at Columbia Business School, he has worked at Luxor Capital, Arbiter Partners, Sunriver Capital and MSD Capital (London) on long/short and special situations investments across a broad range of sectors.

He and his team were finalists at the 2014 Pershing Square Challenge where they pitched a stub trade investment for a long position in Naspers (NPN: SJ).

Prior to school, Luke was an investment banking analyst at Wells Fargo Securities, a long/short and merger arbitrage analyst at Farallon Capital, and raised a private equity fund where he purchased, acquired and operated two small businesses. Luke holds a BS in Accounting from the University of Alabama and an MS in Finance from Boston College.

Schibsted Media Group (SCH: NO) - Long Finalist—2015 Amici Capital Prize

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Thesis

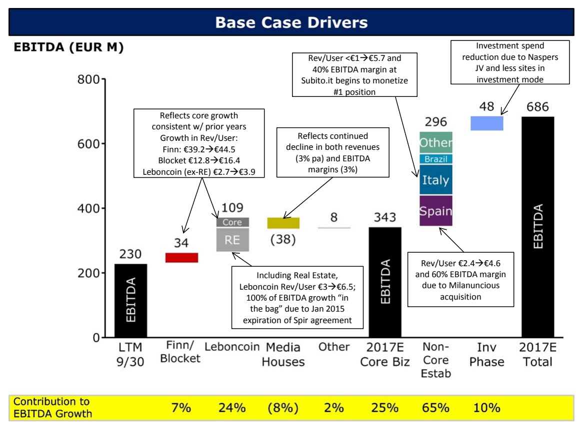
Schibsted (SCH: NO) is a 175 year old media company based in Oslo, Norway that is in the midst of a transformation into the premier online classifieds operator in 20+ countries. Despite its undisputed classifieds dominance in both Norway and Sweden, Schibsted is getting little credit for its long run potential for high margin (60%+), double digit revenue growth in its online classifieds businesses in the six countries in which it has already begun monetizing and 20+ countries in which it is likely to attain similar outcomes. Its property in France (Leboncoin, or “LBC”) is expected to be worth 80% of the company’s current market cap by 2017. With increased disclosure of the economic potential of its classified assets, visibility of Schibsted’s shift from “investment mode” to “monetization mode” and as the story simplifies to a pure play online classified business, I expect 40%+ annual EBITDA growth and shares to re-rate to trade in-line with its classified peers, resulting in a double over the next 2-3 years.

Current Share Price	482	NOK	52.80	EUR
FD Shares (m)	107			
Market Cap (bn)	51,746	NOK	5,668	EUR
Less: Cash	(831)	NOK	(91)	EUR
Add: Debt	2,508	NOK	275	EUR
Enterprise Value	53,423	NOK	5,852	EUR

	LTM	2017E			
EUR (m)	9/30/14	Downside	Base	Upside	Upside +
Revenue	1,635	1,741	2,313	2,892	3,525
EBITDA	213	258	682	999	1,252
EBITDA Margin	13%	15%	29%	35%	36%
Total Return to 12/31/16		(24%)	99%	213%	339%
IRR through 12/31/16		(13%)	40%	75%	107%
EV/EBITDA	27x	23x	9x	6x	5x

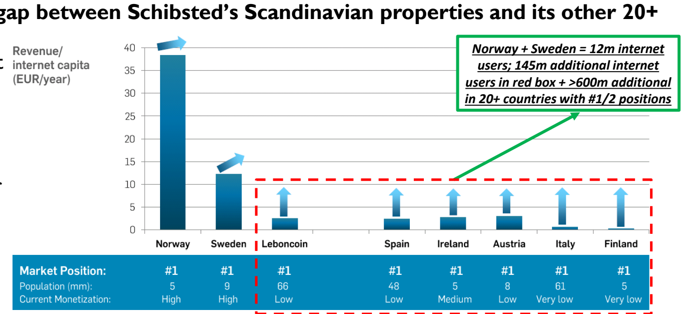
Thesis Points

1) **Schibsted’s #1 position in print and online media in Norway and Sweden is stabilizing, yet at ~4% of 2017 EV, is now immaterial, thus mitigating risk of further decline**: The company has the leading digital newspapers & tabloids in both Norway and Sweden, generating 10-15% EBITDA margins. Schibsted is quickly transitioning from an offline media business to an online business with 55% of rev and 64% of EBITDA now online, up from a 30%/45% split in 2011.



2) **Schibsted’s dominant online classified properties in Norway and Sweden are phenomenal businesses and are prototypes for its leading sites in 30+ additional countries:** Online classifieds are a winner-take all business with the top site in a country or vertical generating 60%+ pre-tax margins, >100% of market profits and the ability to grow revenues 10%+ indefinitely via price increases and user growth (due to inelastic demand). The key categories for online classifieds include Generalist (i.e. Craigslist), Auto, Real Estate and Jobs. Once a site becomes the clear leader (2-3x its peers or 40-50% share), network effects take over and the value of the network grows exponentially. Today, Finn and Blocket (Schibsted’s dominant Scandinavian online classified properties) generate €38 and €13 in rev/internet user, respectively, a combined €273m TTM revenues, ~50% EBITDA margins and are growing high single digits. I estimate Finn and Blocket to be worth ~40% of Schibsted’s current EV by 12/31/16.

3) **There is an extreme monetization gap between Schibsted’s Scandinavian properties and its other 20+ dominant sites:** Schibsted’s properties in Norway and Sweden are monetizing at levels significantly higher than its other 30+ #1/2 sites due to dominance across all four major verticals in Norway and Finn and Blocket having established their #1 position 7-10 years prior, allowing for many years of price increases in inelastic markets. Schibsted has generated €131m in TTM EBITDA in Scandinavia, yet the population of the countries of the other six sites in the table is 14x that of Norway + Sweden.



4) **As Schibsted’s property in France (Leboncoin) approaches monetization levels achieved by Blocket, it will be worth 80% of Schibsted’s current value:** LBC has 70% EBITDA margins, a 50% revenue CAGR since 2010, the #1 position in all four key verticals, and ranks behind only Google and Facebook in terms of display advertising in France (note that Blocket only dominates two verticals). Schibsted has indicated now that LBC is the clear winner in France, it will focus on significantly driving monetization. I estimate LBC’s real estate TAM alone to be ~€400-500m [26,000 agents x €1,300/month], with 60% spent online today.

Schibsted Media Group (SCH: NO) - Long (Continued from previous page)

(and migrating upwards a few % annually). Further, LBC's real estate vertical has been under-earning in France and will accelerate rapidly in 2015/2016 due to the expiration of the legacy "Spir" agreement at the end of 2014. It is estimated that this venture generates ~€50m in revenue (versus #2 site Seloger's €125m), of which LBC only receives €10-15m despite driving 80%+ of the traffic due to the poor economics to LBC of the original deal when it was a small player. Beginning in 2015, LBC should start to see a revenue lift of €40-50m as it can earn 80-90% of the economics versus the 15-20% today. Given LBC's traffic is larger and growing faster than #2 Seloger, a similar €125m run rate in 2015 for real estate alone should prove to be an easy target. Further, I estimate LBC's Auto TAM to be ~€450m: 5.5mm used cars sold annually in France at $10k; $100/car (1% take-rate) = ~€450m TAM.

5) **Schibsted's "Core five" classified properties in 2017, (Norway, Sweden, France, Spain & Italy) are estimated to be worth €10-13bn, or 70%-120% greater than Schibsted's valuation today:** while Schibsted does not break out financial details on sites in France, Spain or Italy, I have conservatively modeled France by vertical and arrive at a 2017 rev/internet user of €6.5, or ~40% of that achieved by Blocket. Although Blocket is more mature, it is only dominant in two verticals versus LBC's four, emphasizing the conservatism in these estimates. I have thus used €6.5 rev/user as the proxy for revenue potential for Spain and Italy, and then adjusted this figure by GDP/capita to arrive at similarly conservative estimates.

	2017e	EV/EBITDA			Enterprise Value		
Eur (m)	EBITDA	Low	Mid	High	Low	Mid	High
Norway	96	12x	14x	16x	1,152	1,344	1,536
Sweden	72	12x	14x	16x	870	1,014	1,159
France	287	14x	16x	18x	4,024	4,599	5,174
Spain	137	14x	16x	18x	1,917	2,191	2,464
Italy	133	14x	16x	18x	1,858	2,124	2,389
Total	**726**	**14x**	**16x**	**18x**	**9,821**	**11,272**	**12,723**
Current Schibsted Enterprise Value					*5,852*	*5,852*	*5,852*
"Core 5" as % of Current Schibsted EV					**168%**	**193%**	**217%**

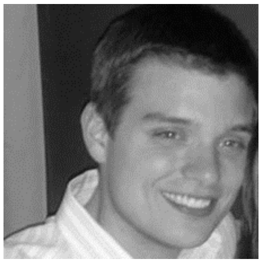
6) **Schibsted's "Other Non-Core Established" sites in Brazil, Ireland, Finland, Austria, Thailand, Indonesia, Bangladesh and Malaysia are likely to contribute at least 15% of Base Case EBITDA Growth; and this ignores the optionality of the 20+ other dominant sites covering ~770m internet users by 2017.**

7) **The JV with Naspers announced on 11/13/14 was a game changer:** Schibsted and Naspers are the leading players in online classifieds, with either ranking #1 in most countries with little geographic overlap, but both had been investing heavily to win the Brazilian market in past years. To the market's delight (+34% stock move on the announcement), Schibsted created a global online classifieds JV with Naspers, immediately ending capital-intensive marketing wars across these markets, in particular Brazil, where Schibsted was investing more than €100mm per year. Additionally, Schibsted has now ensured dominant competitive positions in huge and attractive markets. Brazil is a market of 200mm people (20x Sweden) where Schibsted's "Blocket" generates €100mm+ in annual revenue.

8) **Avito (Russia's now dominant classified site) merged with the #2 and #3 sites and is a good case study for future Schibsted monetization:** Avito was crowned the winner in Russian classifieds in May 2013 when it merged with the #2 and 3 sites. Prior to the transaction, Avito was generating rev/internet user of ~€1 and a negative EBITDA margin; now 1.5 years after the deal, Avito is generating 4x the revenue and has dramatically reduced its investment spend, resulting in Q314 EBITDA margins of 65%. This is clear evidence that the moment a winning site is crowned, revenues grow rapidly, marketing spend is cut, and EBITDA margins expand dramatically.

				LTM	2017E			
EURm	**2011**	**2012**	**2013**	**9/30/2014**	**Downside**	**Base**	**Upside**	**Upside +**
Revenue								
Total Classifieds	412	494	506	546	835	1,236	1,816	2,449
Total Media Houses	1,306	1,358	1,199	1,188	906	1,076	1,076	1,076
Other	134	148	103	31	0	0	0	0
Total Revenues	**1,852**	**2,001**	**1,808**	**1,765**	**1,741**	**2,313**	**2,892**	**3,525**
Growth y/y					*CAGR 9/30/14 through 12/31/17*			
Classifieds		20%	2%		14%	29%	45%	59%
Media Houses		4%	(12%)		(8%)	(3%)	(3%)	(3%)
Total	5.1%	8%	(10%)		(1%)	14%	27%	40%
EBITDA								
Total Classifieds	135	149	102	156	321	636	953	1,206
Total Classifieds ex-Investments		*221*	*221*	*229*	*371*	*661*	*978*	*1,231*
Total Media House	186	163	147	133	0	94	94	94
Total Other/HQ/Eliim	(39)	(35)	(51)	(59)	(63)	(48)	(48)	(48)
Total EBITDA	**281**	**277**	**198**	**230**	**258**	**682**	**999**	**1,252**
CapEx	(24)	(25)	(37)	(74)	(52)	(69)	(72)	(88)
EBITDA Margins								
Total Classifieds	33%	30%	20%	29%	38%	51%	52%	49%
Total Classifieds ex-Investments		45%	44%	42%	44%	53%	54%	50%
Total Media House	14%	12%	12%	11%	0%	9%	9%	9%
Total EBITDA	15%	14%	11%	13%	15%	29%	35%	36%
Adj. EPS (Euros)	**1.82**	**1.78**	**1.14**	**1.10**	**1.46**	**4.34**	**6.56**	**8.24**
Current Valuation Multiples								
EV/Revenue				3.3x	3.4x	2.5x	2.0x	1.7x
EV/EBITDA				**25.5x**	**22.7x**	**8.6x**	**5.9x**	**4.7x**
EV/(EBITDA plus non-capitalized investment spend)				**19.4x**	**19.0x**	**8.3x**	**5.7x**	**4.6x**
EV/(EBITDA-CapEx)				**37.6x**	**28.5x**	**9.6x**	**6.3x**	**5.0x**
P/E				**48.0x**	**36.3x**	**12.2x**	**8.1x**	**6.4x**

Consensus (EURm)	**2017E**	**Base Case vs. Cons**
Revenue	**2,052**	**1.1x**
EBITDA	**414**	**1.6x**
Adj. EPS (Euros)	**1.26**	**3.5x**



Brian Waterhouse '15

Brian is a second-year MBA student in Columbia Business School's Value Investing Program, Co-President of the Columbia Student Investment Management Association, and a member of the winning team for the 2014 Pershing Square Challenge.

Brian worked at Blue Ridge Capital during the summer and plans to return there after graduation. Prior to CBS, Brian was an Associate at Millennium Technology Value Partners.

CDK Global (NASDAQ: CDK) - Long Finalist—2015 Amici Capital Prize

Brian Waterhouse
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Thesis

CDK Global was spun-out from ADP in September 2014 and exhibits classic spin dynamics. The company is significantly under-earning its nearest competitor, Reynolds & Reynolds (REY), with EBITDA margins of 21% vs. REY at 52%, but its true profitability is being masked by a bloated cost structure. Going forward, CDK's stock will be driven by three main factors: 1) topline growth driven by secular tailwinds from underinvestment / increased shift of spend toward digital marketing, 2) significant margin expansion, and 3) substantial FCF generation that can be used to repurchase stock. Using a 17x forward FCF multiple on 2018E FY (6/30) FCF and adding expected dividends, I derive a $65 price target, or 61% upside from current price (21% IRR).

CDK Global	
(USD, except for per share data)	
Share Price (12/19/14)	$40.29
FD Shares Outstanding	157
Market Capitalization	**6,322**
Less: Cash	-355
Plus: Debt	1,000
Enterprise Value	**6,967**
52 Week Range	$25.00 - $42.12
% of 52-Week High	96%

Business

- CDK provides information technology and digital marketing/advertising solutions to the automotive retail industry. It is the operating system that runs auto dealerships (pre-sales advertising, sales, financing, parts supply, insurance, and repair/maintenance of vehicles). The company serves over 26,000 retail locations and auto OEMs in approximately 100 countries.
- CDK earns money by selling software (currently via licenses) to dealerships on a 3-5 year term (with annual pricing escalators). They also sell dealers equipment (servers, etc), web services (marketing, web site management), and volume-based products (like financing requests or VIN registration). CDK will make money as long as the dealer is open and has upside optionality from increasing car sales.
- CDK operates in an oligopoly market with CDK having 40%market share and private competitor REY at 30% market share, and the balance made up of a handful of smaller competitors.

Summary Financials

Projected Fiscal Years Ending June 30th

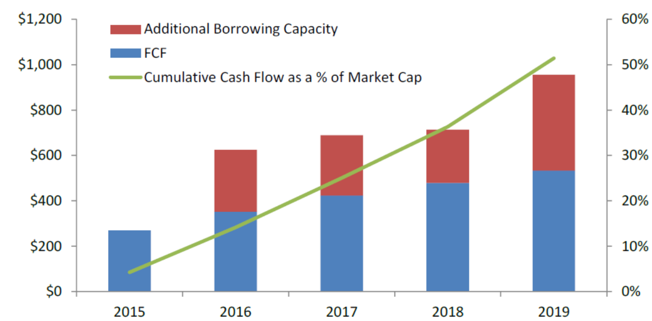
	2012	2013	2014	2015	2016	2017	2018	2019
Revenue	1,696	1,839	1,974	2,125	2,290	2,459	2,643	2,830
y / y growth		*8%*	*7%*	*8%*	*8%*	*7%*	*7%*	*7%*
EBIT	251	314	343	394	540	657	781	887
Margin	*15%*	*17%*	*17%*	*19%*	*24%*	*27%*	*30%*	*31%*
y / y growth		*25%*	*9%*	*15%*	*37%*	*22%*	*19%*	*14%*
Net Income	161	199	227	232	307	373	445	499
y / y growth		24%	14%	2%	33%	21%	19%	12%
Adj EPS - BPW	1.00	1.24	1.42	1.48	2.09	2.72	3.47	4.28
y / y growth		24%	*14%*	*4%*	*42%*	*30%*	*27%*	*23%*
Consensus EPS				N/A	N/A	N/A	N/A	N/A
Variance to Consensus				***N/A***	***N/A***	***N/A***	***N/A***	***N/A***
FCF / Share	1.17	1.37	1.26	1.71	2.39	3.09	3.73	4.58
y / y growth		*17%*	*-8%*	*36%*	*40%*	*29%*	*21%*	*23%*
FCF % of NI	*116%*	*110%*	*89%*	*116%*	*114%*	*113%*	*108%*	*107%*
EV / EBIT				17.7x	12.9x	10.6x	8.9x	7.8x
P / E - BW - Base Case				27.3x	19.3x	14.8x	11.6x	9.4x
P / E Consensus				N/A	N/A	N/A	N/A	N/A
FCF Yield				4%	6%	8%	9%	11%
ROIC				13%	17%	20%	23%	26%

Thesis Points

- CDK will see solid topline growth, as the recession resulted in underinvestment in dealer information services systems. N. American new vehicle sales have normalized and increased dealer profitability enables them to reinvest in their businesses. This is badly needed (some systems are still DOS based) and CDK will benefit as the industry transitions from analog to digital. In addition, N. America dealer consolidation should drive more dealers to switch over to enterprise-grade solutions like CDK (CDK already has 7 of the 10 largest US dealers). Digital marketing will also gain in importance as dealer allocation of advertising spend to digital media lags consumer shopping behavior and preferences. By 2017, eMarketer forecasts that US digital automotive ad spend will reach $9.3 billion, representing a 15.7% CAGR from 2013 spend. Lastly, there will be an EM growth opportunity as auto sales in China grow faster than most Western markets.
- This is a remarkably resilient business - during the economic downturn, CDK's N. America organic revenue declined by 4% between FY09 and FY10, while US car sales volumes declined 21% from CY08 to CY09 and 760 dealerships closed (3.6% decline nationally).
- CDK's margin opportunity is significant. It has 2x the employees of REY and is clearly overstaffed. REY was taken private in 2006, at which time it had a similar margin structure to CDK today. REY was able to boost its EBITDA margins to over 50% (nearly 60% at peak) by turning over a relatively expensive workforce ($110,000/year average salary) and cutting other costs. Diligence checks with industry experts suggest there is no reason why REY and CDK should have different margins and that CDK has a lot of fat to cut. CDK's management indicated as much in its first conference call, saying they can increase margins without too much effort and targeting at least 100bps of margins expansion annually. A 10% reduction in headcount at $100,000/year would boost EBIT margins by 5% and save CDK $90 million or $0.57/share annually. Headcount will likely be cut more and salaries are likely higher, implying even greater potential savings.
- CDK is currently underpricing its competitors. Industry sources have hinted to pricing as being as much as 20% below REY which is clearly impacting margins and unneeded given REY's poor reputation in the dealer community for service and technology.

CDK Global (CDK) - Long (Continued from previous page)

- The company is also under-earning in its Digital Marketing business - CDK's 7% EBIT margin is far below digital marketing businesses like Conversant (formerly ValueClick) in the 30% range.
- CDK generates higher FCF than net income due to relatively low capex requirements (~2-3% of sales) and high D&A (they are amortizing intangibles associated with past acquisitions and their investment in software upgrades). The business should generate over $200 million of FCF in FY 2015, growing to the $500 million range by 2018, and may have additional cash available for shareholder return from potential leverage increases. My model assumes debt/EBITDA is capped at 2x (per management's initial target, but well below REY's 8x) which creates room for an additional $1 billion of debt that could be used to repurchase shares. I assume 60% of annual FCF is used to fund repurchases (at prices that increase 10% annually). The company already has a $0.48/share annual dividend.



- CDK is run by a group of ADP veterans, with CEO Steven Anenen (61 years old) a 39 year veteran of ADP, serving as president of ADP dealer services since 2004. CDK's executives are incentivized against a wide range of criteria -revenue growth, EBIT growth, divisional financial performance (that includes client retention and sales targets), and strategic objectives (that include market share increases, new product introductions, and leadership pipeline). The executives team's options have exercise prices of $40.28 to $79.31, all above the current stock price, and 52% of the CEO's target compensation mix is weighted toward long-term incentive comp. The management team, and the CEO in particular, have a lot of skin in the game here.

Valuation

- At the current price of $40.29 (12/19/14), the market is not giving CDK any credit for realistic margin expansion or topline growth. REY clearly laid out the playbook when they increased margins from 20% to 52% shortly after the LBO. All of my primary diligence leads me to believe that CDK will be able to increase margins to at least 30%, and 40% more realistically.
- The market seems to be only currently pricing in that CDK will improve margins to the low 20%s, a level which can be achieved with minimal headcount reduction. If CDK grows at the midrange of management's guidance and makes minimal EBIT margin improvements (still at a substantial margin differential to REY), that alone justifies the current price. This also assumes no buybacks and no increase in dividends. My model assumes CDK will rapidly expand margins as they cut costs and increase prices. Additionally, they will be able to modestly grow topline revenue.
- At present, CDK trades at 11x 2018 FYE FCF, which is absurdly low for this high-quality of a business. As management executes and jumps over the one-foot hurdles ahead of it, CDK will rapidly grow earnings and FCF, allowing it to repurchase substantial amounts of stock (36% of the current market cap by 2018 FYE by my estimates).
- CDK will earn $3.73 in 2018 FCF and should be able to trade at 17x FCF. Adding cumulative dividends over that time results in a $65 price target, or 61% upside the most recent price. A DCF model results in a similar conclusion.
- CDK has further upside optionality from a potential SaaS conversion over time (discussions with industry professionals and dealers lead me to believe this will happen in the future, albeit not likely anytime soon). The math below illustrates how an eventual SaaS conversion will boost CDK's topline and should also result in higher margins.

CDK Transition from License to SaaS

($ in thousands)	Average Life of Contract					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
(1) License	$200					$200
(2) Maintenance	$50	$52	$53	$55	$56	$265
Growth		*3.0%*	*3.0%*	*3.0%*	*3.0%*	
License Model	$250	$52	$53	$55	$56	$465
Deferred License	$70	$72	$74	$76	$79	$372
Growth		*3.0%*	*3.0%*	*3.0%*	*3.0%*	
Maintenance	$50	$52	$53	$55	$56	$265
Growth		*3.0%*	*3.0%*	*3.0%*	*3.0%*	
(3) Subscription Model	$120	$124	$127	$131	$135	$637
Absolute Change %	-52.0%	140.0%	140.0%	140.0%	140.0%	36.9%

Notes:
(1) Assumes $200k upfront license fee for 1 dealership
(2) $50k annual maintenance increasing at 3% annually
(3) SaaS model changes to $10k monthly from ~ $4k

License NPV	$350.43
Subscription NPV	$423.64
% Accretion	*20.89%*
Discount Rate	*15%*

Brendan Dawson '16

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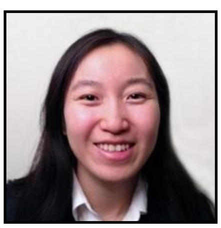
Aaron Purcell '16

Aaron is a first-year MBA student at Columbia Business School. Prior to CBS, Aaron worked in private equity at Riverside Partners after spending two years in Citigroup's technology investment banking group.



Sisy Wang '16

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SolarCity (NASDAQ: SCTY) - Short
1st Place—Darden @ Virginia Investing Challenge

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SCTY - Capitalization Table

Price	*11/13/14	$	50.84
FDS			96.0
Market Cap		**$**	**4,881**
Cash			(733)
Debt & Minority Interest			1,851
TEV		**$**	**5,998**
Consensus '15 EPS		$	(5.09)
Consensus '15 EBIT		$	(469)

Thesis

SCTY is a market leader in the large and growing solar energy installation industry, but current valuation ignores major business risks to long-term sustainability. We believe SCTY has limited differentiation on a brand or customer experience basis as well as no demonstrated cost advantage vs industry peers. In addition, the ITC stepdown and potential net energy metering regulation present legitimate threats to industry profitability and the value proposition to customers. Wall Street's focus on market size and revenue growth rates instead of competitive position, a mistake made in 2007 with solar panel manufacturers, has driven valuations to levels that leave limited room for upside surprise. We have a price target of $39 over the next 18 months, suggesting 25% downside from current levels.

Business Model & Background

- SCTY designs, installs, and sells/leases solar energy systems to residential, commercial, and government customers.
- SCTY has grown to become the largest residential solar energy provider by offering solutions to customers with $0 upfront cost, with consumers expecting to save 10-20% off their existing electricity costs. SCTY provides solar equipment and installation free of charge, with customers signing 20 year contracts that typically include 2% annual price escalators. SCTY owns the system and maintenance/monitoring are included in the contract for free.

	Bull Case	Mgmt Guide	Haircut	Our Base	Our Bear
Contracted	$1.21	$1.21		$1.21	$1.21
Renewal	$0.51	$0.51	(70%)	$0.15	$0.05
Retained Value / Watt	$1.72	$1.72		$1.36	$1.26
x Watts	1,267	1,267		1,267	1,267
Contracted	$1,539	$1,539		$1,535	$1,535
Renewal	640	640		191	64
Current Retained Value	$2,179	$2,179	(21%)	$1,727	$1,599
2015					
Retained Value / Watt	$1.72	$1.40		$1.25	$1.13
Watts	1,052	1,052		1,052	1,052
Retained Value	$1,809	$1,473		$1,317	$1,193
PV (@12%)	$1,616	$1,315	(11%)	$1,176	$1,065
2016					
Retained Value / Watt	$1.72	$1.40	(28%)	$1.23	$1.00
Watts	1,841	1,841		1,841	1,841
Retained Value	$3,167	$2,577		$2,267	$1,848
PV (@12%)	$2,524	$2,055	(12%)	$1,807	$1,473
Terminal					
Retained Value / Watt	$1.0	$1.12	(36%)	$0.64	$0.37
Watts	15,844	15,844		15,844	15,844
Retained Value	$15,844	$17,734	(43%)	$10,081	$5,936
PV (@12%)	$1,840	$421		$239	$141
Enterprise Value	$8,158	$5,970	(17%)	$4,949	$4,278
Fair Value (Market Cap)	**$7,078**	**$4,788**	(19%)	**$3,869**	**$3,198**
FDSO	92.3	92.3		100.0	100.0
Price Target	**$76.7**	**$51.9**	**(25%)**	**$38.7**	**$32.0**
% Downside				**(25.4%)**	**(38.3%)**

Thesis Points:

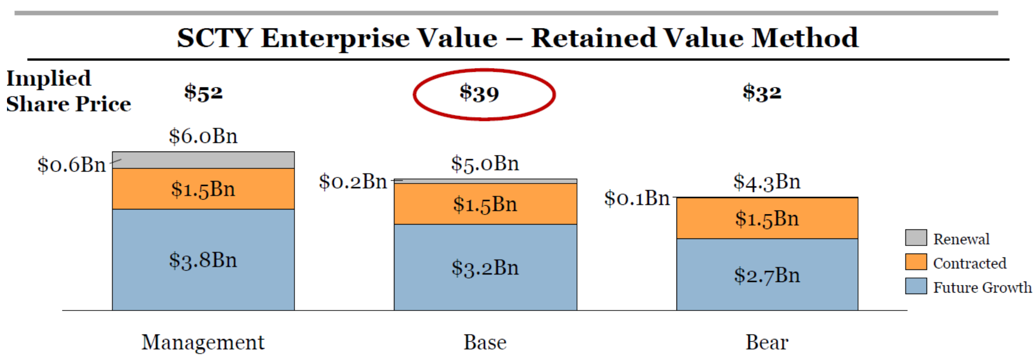
- While the bulls point to a scale and vertical integration advantage, our review of an NREL industry whitepaper suggests SCTY has no cost advantage, with a total install cost for SCTY of $2.82 (installation cost-per-watt of $2.49 + G&A cost-per-watt of $0.33) vs. the industry average of $2.83 (installation cost-per-watt of $2.56 and G&A cost-per-watt of $0.27). Additionally, the opportunity for further cost structure reductions appears questionable - the company was able to reduce its annual cost-per-watt by 16% from 2012-2014, but guidance suggests this will slow to just under 5% from 2015-2017.
- We believe the playing field in residential installation is being leveled via the emergence of new point of sale loan products. SCTY's pioneering use of the PPA/lease model solved a key pain point as traditional lenders weren't comfortable with solar as collateral and homeowners didn't want to pay $30k+ for a system. Additionally, the PPA/lease model required tax equity financing to monetize the ITC credit and MACRS depreciation. Given the complexity and limited availability of tax equity capital, only the most sophisticated installers could offer no money down options. However, because of partnerships with financial institutions like Admirals Bank, EnerBank USA, and Sungage Financial, the long-tail of 3000+ installers are now able to offer no-money down solutions, becoming more powerful at the customer's kitchen table and eroding SolarCity's advantage.
- Our research and analysis in several of SCTY's major markets suggests that SCTY's customer experience and brand are not superior to those of local and national competitors.
- We also see sophisticated players increasingly moving into this space, with several residential solar installation acquisitions in 2013 and 2014. SunRun, the largest financing platform in solar, recently pursued vertical integration via an acquisition of installation partner REC Solar, the 8th largest installer. NRG, a power company that has been vocal about the threat of solar to the utility business model, acquired Roof Diagnostics Company, the 7th largest residential installer. And Centrica's US subsidiary, Direct Energy, acquired Astrum Solar, giving Astrum access to 6 million of Direct Energy's existing paying customer relationships.
  The ITC step-down from 30% to 10% in 2017 will further worsen uncompelling unit economics. A top-10 installer we spoke with suggested that the after-tax unlevered returns for residential deals are generally in the single digit to 10% range today and that if the ITC reduction were to happen tomorrow, it would be crippling for the industry. While SCTY is more optimistic, SCTY's "healthy profit" level of $1 NPV per watt would still be 42% lower than current levels.

SolarCity (SCTY) - Short (Continued from previous page)

- Net Energy Metering ("NEM") is the practice of crediting residential solar customers with their excess power generation and has effectively been a subsidy for residential solar customers in two ways: 1) the utility is effectively being forced to buy at retail electricity prices, and 2) all power generation sources except solar pay transmission charges. As a result, the net-metered customer does not share equally in the overhead costs associated with the grid or other services provided by the utility, a result that produces a very substantial "cross-subsidy" funded by all other utility customers who must pay proportionately more in rates. The regulatory response toward NEM has been limited so far, but interviews suggests potential regulation is a significant downside risk as solar adoption increases.
- We see SCTY's recent acquisition of Silevo, a start-up solar panel producer, as a potential risk. At the time of the acquisition, Silevo had only 35MW of production capacity in a pilot facility in Hangzhou. Some industry experts suggested its cell-level efficiencies are "not impressive" and the key drivers of their cost advantage "can easily be replicated". SolarCity intends to scale Silevo production to 1GW within 2 years, but there are only a handful of companies in the world with 1GW production capacity. Bulls claim the acquisition is low risk due to the limited purchase price, we would note that SCTY has committed to a $5 billion investment in this business over the next 10 years.
- Finally, we would note that the current framing of SCTY makes us question whether history is about to repeat itself. A focus on growth at the expense of competitive dynamics with panel manufactures in late 2007 resulted in massive overvaluation with companies like First Solar, Yingli, Trina Solar, and SunPower.

Valuation

- We believe management guidance for Retained Value / Watt is too aggressive. Their guidance assumes 90% renewal rates at 90% of the 20 year forward PPA price, continued. We think 90% renewal is only possible at 60% of the price given system cost declines and solar escalators can be above utility cost growth.
- We assume lower revenue escalators and continued elevated sales & marketing spend given industry competition.



Blue Sky

- Even using aggressive assumptions, we can only justify a stock price that is 77% of the current price
- Key assumptions include: 1) 40% revenue CAGR over the next 11 years, 2) OPM expanding to 16% over time, 3) 14x exit EBIT multiple

	2010	2011	2012	2013	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	CAGR
Revenue	$32	$60	$127	$164	$235	$568	$1,198	$1,677	$2,265	$2,944	$3,680	$4,416	$5,299	$6,359	$7,630	$9,157	39.5%
y/y		84%	113%	29%	43%	142%	111%	40%	35%	30%	25%	20%	20%	20%	20%	20%	
COGS	$30	$47	$99	$124	$144	$189	$300	$420	$567	$738	$922	$1,106	$1,328	$1,593	$1,912	$2,294	
Gross Profit	$2	$12	$27	$39	$91	$379	$898	$1,257	$1,697	$2,206	$2,758	$3,309	$3,971	$4,766	$5,719	$6,862	
GM	7%	21%	22%	24%	39%	67%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	
Sales & Marketing	$22	$42	$69	$97	$232	$481	$776	$1,047	$1,362	$1,702	$2,042	$2,349	$2,701	$3,106	$3,572	$4,108	
% of Sales	69%	71%	55%	59%	99%	85%	65%	62%	60%	58%	56%	53%	51%	49%	47%	45%	
y/y		87%	65%	40%	138%	108%	61%	35%	30%	25%	20%	15%	15%	15%	15%	15%	
Other opex	$19	$32	$49	$91	$183	$237	$356	$463	$579	$694	$799	$879	$966	$1,063	$1,169	$1,286	
% of Sales	59%	53%	39%	56%	78%	42%	30%	28%	26%	24%	22%	20%	18%	17%	15%	14%	
y/y		65%	55%	86%	100%	30%	50%	30%	25%	20%	15%	10%	10%	10%	10%	10%	
Operating Profit	**($39)**	**($61)**	**($91)**	**($149)**	**($323)**	**($339)**	**($234)**	**($253)**	**($243)**	**($190)**	**($83)**	**$82**	**$304**	**$596**	**$977**	**$1,468**	
OPM	(121%)	(103%)	(72%)	(91%)	**(138%)**	(60%)	(20%)	(15%)	(11%)	(6%)	(2%)	2%	6%	9%	13%	**16%**	
Shares O/S					100.0	103.0	106.0	109.2	112.5	115.9	119.3	122.9	126.6	130.4	134.3	138.4	

EBIT multiple	**14.0x**
TEV in 2025	$20,556
Debt in 2025	$4,405
Equity in 2025	$16,151
Price per share in 2025	$117
PV of Price/share (10%)	**$40**
Discount to today's price	**(23.1%)**
IRR	**8.4%**

Cardtronics Inc. (CATM) — Short
1st Place — Alpha Challenge @ UNC Kenan-Flagler

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Thesis

CATM is the world's largest non-bank operator of ATM machines. CATM participates in the secularly declining paper currency market, continues to generate diminishing returns on capital, and has a deteriorating core business. However, acquisitions and changes in accounting estimates have created the perception of an ever-growing business that Wall Street has supported with a string of buy recommendations. In addition, CATM faces an existential threat as their largest contract—representing ~45% of EBITDA—is under attack. We have a price target of $20 over the next 18 months, suggesting ~50% downside from current levels.

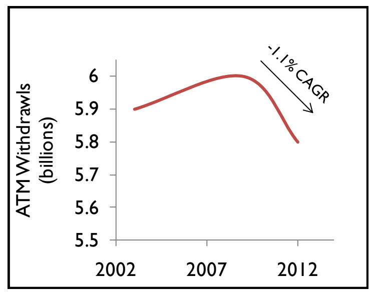
Shares Outstanding (mm)	44.5
Share Price (Nov. 14, 2014)	$37.39
Market Capitalization	$1,665
plus: debt outstanding	598
less: cash	(141)
Enterprise Value	$2,122

Business Model & Background

- CATM installs, operates, and services ATM machines in retail locations across the US, UK, Canada, Mexico, and Germany.
- CATM traditionally generates revenue through a combination of surcharge fees (paid by customers) and interchange fees (paid by financial institutions).

Thesis Points:

- **ATM Usage Is In Secular Decline.** As we move towards a paperless economy, ATM usage has begun to decline. Since 2009, ATM usage has declined 1.1% per year and is accelerating to the downside. However, management has indicated that they expect same-store-growth to increase at 3-5% annually, despite almost-zero same store transaction growth over the past few years.



- **Declining Organic Business.** Over the past four years, CATM has seen returns on capital shrink meaningfully. Today, CATM is barely earning above a return above a standard cost-of-capital, yet is framing their business as "growing double-digits". Incremental returns on invested capital have been below 5% for two of the past three years and negative in 2013, illustrating that CATM is unable to find attractive places to deploy capital. In addition, CATM's organic revenue has declined meaningfully over the past few years as revenue per transaction has fallen more than 20% since 2010 .

	2010	2011	2012	2013
Reported EBIT	$70	$83	$97	$110
less: incremental D&A	(5)	(9)	(10)	(26)
Fundamental EBIT	$64	$74	$87	$84
Invested Capital	$379	$612	$691	$846
ROIC (with acquisitions)	17.0%	12.1%	12.5%	10.0%
Incremental ROIC		4.2%	15.8%	(1.6%)

- **Acquisitions / Accounting Games Are Masking Decline.** Despite a rotting core business, CATM has shown ~15% annual revenue growth and ~25% annual earnings growth through a combination of acquisitions and changes to accounting estimates. These acquisitions have not been creating shareholder value; however, as ROICs have consistently degraded under this strategy. In addition, CATM has adjusted the useful life estimates on its equipment in order to reduce depreciation expense.

	2008	2009	2010	2011	2012	2013
Depreciation Expense	$38	$37	$40	$46	$59	$66
Gross PP&E	231	253	291	362	460	632
Implied Average Life	6.0	6.5	6.8	7.2	7.0	8.3

- **Declining Interest Rates Have Inflated Operating Income.** For the machines that CATM owns, CATM is responsible for providing 'vault cash' (stocking the ATMs with cash). This cash is borrowed at a spread above LIBOR from large banks. CATM has benefitted meaningfully from the compression in interest rates; however, this benefit is a double-edged sword and CATM is likely to see a significant compression in profitability as interest rates increase.

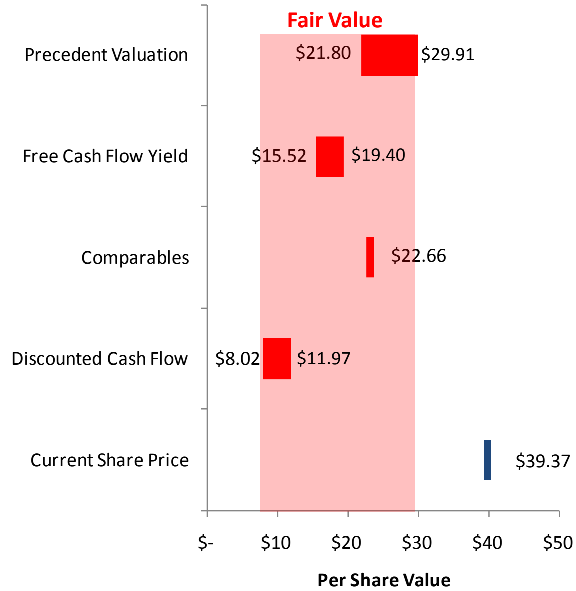
	2010	2011	2012	2013
Vault Cash	$1,132	$1,703	$2,210	$2,744
Vault Rental Expense	37	41	49	50
Effective Rate	3.2%	2.4%	2.2%	1.8%

Cardtronics (CATM) — Short (Continued from previous page)

- **CATM's Largest Contract Is Under Attack.** CATM's largest customer, 7-Eleven, represents 24% of revenues and 45% CATM's EBITDA, respectively. However, after considering CATM's depreciation and interest expense, the 7-Eleven contract represents 100% of Cardtronics' earnings. 7-Eleven is owned by Seven & I Holdings, which also owns 45% of Seven Bank. Seven Bank operates all ATMs in 7-Eleven's Japanese locations and has publicly stated that it plans to expand in the US. Seven Bank acquired FCT, a California-based ATM operator in October 2012, and the US ATM business of Global Axcess in August 2013. The combination of Seven Bank's acquisitions, coupled with the relationship between 7-Eleven and Seven Bank, positions Cardtronics to either lose or receive less favorable economics on the 7-Eleven contract. The 7-Eleven contract expires in June of 2017.

Valuation

- CATM currently trades at a 4% cash flow yield, 9x LTM EBITDA, and 35x our view of normalized earnings.
- Our analysis suggests that Cardtronics' shares have downside potential of 40% to 80% over the next twelve to eighteen months.
- The main catalyst for decline will be the loss or reduced economics associated with the 7-Eleven contract, which we believe will be concluded well in advance of the June 2017 roll-off.
- In addition, we believe the core business will continue to accelerate to the downside and investors will see the declines start to bleed through the M&A-masked figures.
- We believe the potential upside in the shares (or downside to the short) is in the range of 15% to 20% over the same period, implying a 3:1 short-term upside-to-downside associated with our recommendation.



Key Risks

- **Continued M&A.** Management has done an excellent job of showing the Street growth in both the top-line and bottom-line by making acquisitions with balance-sheet cash or incremental debt. To the extent that management is able to continue to make acquisitions, it may continue to mask declines in the core business, although we believe that universe of attractive M&A opportunities is much smaller than a few years ago.
- **7-Eleven Contract.** While we view the odds of Cardtronics winning the 7-Eleven contract as extremely unlikely (and, even if that unlikely event occurs, we believe the economics will be substantially reduced), we do acknowledge that small-probability events can cripple a short thesis. Having spoken to members of the investment community, we believe the potential overhang in the stock today is ~10-15%, which we believe is the short-term upside associated with this risk.

Timing

Consistent with all short investments, we view timing as very important, especially given the biggest catalyst (the loss or economic adjustment of the 7-Eleven contract) will not occur until 2017. However, given (i) the continued deterioration of the core business, (ii) the increased overhang that will likely develop in the stock as 2017 approaches, (iii) the current extreme valuation of the business, and (iv) the potential reduction in the actionable M&A universe, we believe investors should consider engaging at these levels.

	Historicals				Forecast				
	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of ATMs	36,970	52,886	62,760	80,594	80,594	80,594	80,594	80,594	80,594
Transactions Per ATM	11.2	9.8	11.2	10.7	10.6	10.5	10.4	10.3	10.1
Number of Transactions	413,780	516,564	704,809	860,062	851,461	842,947	834,517	826,172	817,910
Revenue Per Transaction	$1.29	$1.21	$1.11	$1.02	$1.02	$1.02	$1.02	$1.02	$1.02
Revenue	$532	$625	$780	$876	$868	$859	$850	$842	$834
% growth		17.4%	25.0%	12.3%	(1.0%)	(1.0%)	(1.0%)	(1.0%)	(1.0%)
COGS	$360	$420	$536	$587	$587	$587	$588	$589	$590
Gross Profit	$172	$205	$244	$290	$281	$272	$263	$253	$244
SG&A	44	56	65	84	84	84	84	84	85
EBITDA	$128	$149	$180	$206	$197	$188	$178	$169	$159
% margin	24.0%	23.8%	23.0%	23.5%	22.7%	21.8%	21.0%	20.1%	19.1%

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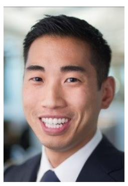

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Progressive Waste Solutions Ltd. (NYSE, TSE: BIN) - Long
2nd Place — Ross Investment Competition (University of Michigan)

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Recommendation

Buy Progressive Waste Solutions (NYSE, TSX:BIN) equity with a three-year base case share price of $46. This represents ~55% upside from the current share price. The investment thesis has three main points:

1) New management team brings a focus on enhancing ROIC from 4.7% in 2012 to a targeted 8-10% through profitability improvements and disciplined use of capital.
2) Favorable changes in industry dynamics including a rational pricing environment, recovery in waste volumes and continued industry consolidation
3) Improvements in free cash flow generation enable attractive options for capital allocation including increased dividends, share buy-backs and accretive add-on acquisitions

Trading Overview		
Stock Price (1/9/2015)		$29.67
Dil. Sh. Out. (mm)		114.7
Equity Value		**$3,404**
Less: Cash		30
Plus: Debt		1,465
Enterprise Value		**$4,899**
Current Valuation (Consensus)		
	2014E	2015P
EV / EBITDA	**9.4x**	**8.8x**
EV / FCF	**21.9x**	**22.3x**
Price / EPS	**22.9x**	**22.0x**
2017 Price Target		
2017 Price Target		**$46**
% Price Upside		**55%**
Fwd EV / EBITDA-CapEx		13.8x
Fwd EV / EBITDA		8.9x
Fwd Price / EPS		24.1x

Business Description

Progressive is North America's 3rd largest provider of non-hazardous solid waste collection, recycling and landfill disposal services for commercial, industrial and residential customers in Canada, the U.S. South and U.S. North East. The company operates 120 collection operations supported by 31 landfills, 72 transfer stations and 47 material recovery facilities. Key competitors include Waste Management (WM), Republic Services (RSG) and Waste Connections (WCN).

The company has grown rapidly over the past decade through acquisitions (revenue of $190 million in 2004 vs. $2 billion in 2013) under its ex-CEO/founder. In 2012 and 2013, the company made changes to its CEO, COO, CFO and EVP of Strategy and Business Development positions.

Progressive's margins vary amongst its three operating regions. The company operates with EBITDA margin of 36% in Canada, which is a highly consolidated market where Progressive and Waste Management command market share of ~75%. Progressive operates with EBITDA margin of 25% in the US South and 21% in the US North East, which is a fragmented and competitive region.

Investment Thesis

1) New management team brings focus on ROIC improvement in a historically poorly-managed business.

As a result of rapid growth through acquisitions in the past, Progressive has historically operated with ROIC that has lagged its competitors (4.7% in 2012 compared to 9-10% at WM and RSG). The new management team seeks to enhance ROIC to a targeted 8-10% through profitability improvements and disciplined use of capital.

Vertical integration of collection, transfer and landfill services enables Progressive to benefit from improvements in its internalization ratio, or the percentage of waste volume tipped at its landfills from its collection operations. Internalization allows the avoidance of third-party disposal fees, a steady supply of waste and greater pricing power with third-party collections companies. By increasing route density in markets where Progressive also offers landfill services, the company can strengthen the internalization and margin profile of its existing operations. Progressive's internalization stands at 45% today compared to 68% at WM and RSG.

Management has been executing on its strategy of optimizing pricing and volume arrangements in its US operations. In the North East, recent lower volumes reflect management's focus on reducing non-profitable collection volume to drive higher margins. EBITDA margins in the North East improved to 21% in 3Q13 from 16% in 1Q14.

Other capital improvement initiatives include extending the life of its trucks through better/preemptive maintenance to decrease replacement capex, use of CNG-fueled trucks to decrease fuel costs, use of automated trucks to decrease employee injuries, and improvement of route productivity to decrease the number of trucks needed.

2) Change in industry dynamics brings various tailwinds for both pricing and volume.

Prior to 2012, WM was known for price aggression (notably underbidding RSG for a large contract with Home Depot), depressing prices in the industry. Following a restructuring in 2012, WM has begun to pursue a strategy of raising prices and cutting costs, a marked change from previous share-maximizing behavior. In 4Q13, WM's pricing on existing volumes increased 4% while volumes declined 2.2%, despite increasing volumes for other public competitors. WM is currently guiding for price increases of 2-2.5% in 2015 which should benefit Progressive as well.

Residential, commercial and industrial waste volumes are expected to increase at CAGRs of ~1% in the US and Canada as household formation, commercial and industrial activity recover and recycling/diversion levels have moderated.

Progressive Waste Solutions (BIN) - Long (Continued from previous page)

The number of landfills in the US has declined significantly over the past 30 years (~8,000 landfills in 1988 to ~2,000 in 2014), driven by increasing costs and regulations (enhanced engineering requirements to reduce environmental footprint, stringent procedures to manage odor, etc.). This trend has encouraged larger, regional landfills while preventing new entrants and challenging smaller landfills. Tipping fees have steadily increased, benefitting large, vertically integrated players such as Progressive, and driving consolidation of stand-alone collection companies who find rising tipping fees increasingly challenging for their economics.

3) Improving free cash flow generation enables attractive options for capital allocation

Capex has been elevated (13.5% of revenue in 2013) due to a number of discretionary infrastructure projects that amounted to ~$80 million of investment from 2012-2Q14. Post-completion, total capex is expected to be 10% of revenue going forward. Expected replacement capex was revised from 10% of revenue to 8%, attributed to capital spending discipline and pre-emptive servicing of trucks to extend useful life.

Progressive announced in its 3Q14 earnings call that it expects its go-forward effective tax rate to be 25% compared to 35-40% in prior years due to changes in its internal financing structure and its Canadian domiciling.

Progressive has shown a willingness to return capital through dividends (25% of FCF generated from 2011-2013, 1.9% dividend yield) and share buy-backs ($135 million in 2011 and 2012). Progressive will generate $1 billion in free cash flow over the next three years compared to its current market cap of $3.4 billion, and will likely be able to increase the amount of capital returned to shareholders.

Tuck-in acquisitions can be particularly accretive for Progressive. M&A has been discussed by both WM and RSG, who are able to acquire collection companies for 6-7x pre-synergy EBITDA or 4-5x post-synergy EBITDA. Progressive has circled $600 million in revenue at 25% pre-synergy margins for acquisition over the next 5 years. Assuming Progressive can find targets at similar economics, ROIC on such acquisitions should be higher (~10%) than current overall ROIC. Its tax rate advantage (WM and RSG have higher tax rates of 35%) should give it an advantage against other acquirers as well.

Valuation

Our base case target price of $46 is based on a 13.8x forward multiple of 2018P EBITDA-CapEx of $490 million. An EV/(EBITDA-CapEx) multiple best reflects the earnings power of the company as margins expand and capex declines. We believe using an average peer (WM, RSG, WCN) multiple of 13.8x is justified as we forecast the company's EBITDA margins to move closer to that of its peers (31-32%). Progressive currently trades at a 15x forward EBITDA-CapEx multiple as it has over the past couple of years.

($ in millions)	Base Case	Bear Case	Bull Case
Forward EV/(EBITDA-CapEx)	13.8x	12.4x	13.8x
2018P EBITDA	$757	$524	$875
2018P CapEx	267	221	291
2018 EBITDA - CapEx	490	304	583
2017 Enterprise Value	$6,773	$3,764	$8,061
Less: 2017 Debt	2,005	1,511	2,266
Plus: 2017 Cash	606	423	540
Implied Market Capitalization	$5,374	$2,676	$6,335
Dil. Shares Outstanding	115	115	115
Implied Price per Share	**$46.84**	**$23.32**	**$55.21**
Current price	$29.67	$29.67	$29.67
Upside (%)	**57.9%**	**(21.4)%**	**86.1%**

Financials ($US M)	2012A	2013A	2014E	2015P	2016P	2017P	2018P	2019P	'14-'19 CAGR
Revenue	$1,896.7	$2,026.0	$2,000.0	$2,160.4	$2,325.6	$2,495.9	$2,671.3	$2,851.9	7.4%
% growth		*6.8%*	*(1.3%)*	*8.0%*	*7.6%*	*7.3%*	*7.0%*	*6.8%*	
EBITDA	$511.3	$521.6	$503.6	$560.3	$623.6	$689.1	$757.1	$813.0	10.1%
% margin	*27.0%*	*25.7%*	*25.2%*	*25.9%*	*26.8%*	*27.6%*	*28.3%*	*28.5%*	
FCF[1]	$181.8	$282.7	$262.0	$290.9	$328.5	$367.5	$408.0	$439.1	10.9%
% growth		*55.5%*	*(7.3%)*	*11.1%*	*12.9%*	*11.9%*	*11.0%*	*7.6%*	
EPS	$0.81	$1.02	$1.17	$1.25	$1.46	$1.68	$1.91	$2.07	12.1%
% growth		*25.8%*	*14.1%*	*6.9%*	*17.0%*	*15.1%*	*13.7%*	*8.2%*	
ROIC[2]	4.7%	5.5%	6.8%	6.9%	7.7%	8.6%	9.5%	10.1%	

(1) Cash flow from operations - maintenance capex

(2) NOPAT / (Net Debt + Equity)

Key Risks

- EBITDA margins don't improve as expected due to lower price increases and increased competition
- Internalization stays significantly below competitors' levels
- Capex requirements are higher than expected
- Tuck-in acquisitions may not be available or accretive

Get Involved:

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***Graham & Doddsville* Editors 2014-2015**

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