



Columbia Business School
AT THE VERY CENTER OF BUSINESS™

Graham & Doddsville

An investment newsletter from the students of Columbia Business School

Inside this issue:

2019 Pershing Square Challenge	p. 3
"From Graham to Buffett and Beyond" Omaha Dinner	p. 4
L.A. Alumni Event	p. 4
Value Investing Welcome Reception	p. 4
Paul Moroz	p. 6
CBS Students' Investment Ideas	p. 16
Mohnish Pabrai	p. 22
Ellen Carr	p. 30
Matthew Peterson	p. 42

Editors:

Frederic Dreyfuss
MBA 2020

Sophie Song, CFA
MBA 2020

John Szramiak
MBA 2020

Rodrigo de Paula
MBA 2021

Matt Habig
MBA 2021

Alison Tien
MBA 2021

Visit us at:

www.grahamanddodd.com
www.csima.info

Columbia Business School
AT THE VERY CENTER OF BUSINESS™

The Heilbrunn Center
for Graham & Dodd Investing

CSIMA

COLUMBIA STUDENT
INVESTMENT MANAGEMENT
ASSOCIATION

Issue XXXVII

Fall 2019

Paul Moroz, Mawer Investment Management



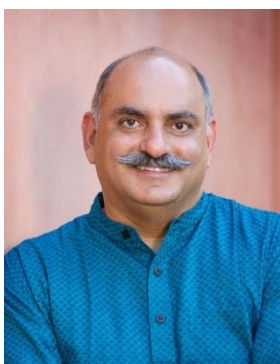
Paul Moroz

Paul Moroz is Chief Investment Officer and a director at Mawer Investment Management Ltd., a Canadian firm with over CA\$55bn AUM which he joined in 2004. He is also co-manager of the Mawer Global Equity Fund and the Mawer Global Small Cap Fund. As Chief Investment Officer, he has broad responsibility for the research and analysis of global equities and fixed income securities.

Mr. Moroz relocated to Singapore during 2016 to 2017 and served as CEO and Director of Mawer Investment Management Singapore Pte. Ltd. In 2013, Mr. Moroz won the prestigious Morningstar

(Continued on page 6)

Mohnish Pabrai, Pabrai Funds



Mohnish Pabrai

Mohnish Pabrai is the Managing Partner of the Pabrai Investment Funds. Since inception in 1999 with \$1 million in AUM, Pabrai Investment Funds has grown to over \$580m AUM in the 2nd quarter of 2019.

The funds invest in public equities utilizing the Munger/ Buffett Focused Value investing approach. Since inception, the funds have widely outperformed market indices and most investment managers. A \$100,000 investment in Pabrai Funds at inception in 1999 would have been worth over \$1.2 million as of June 30, 2019, an annualized gain of 13.3% (versus 7.0% for the Dow).

(Continued on page 22)

Ellen Carr, Weaver C. Barksdale



Ellen Carr

Ellen Carr is a high yield bond portfolio manager at Weaver C. Barksdale (WCB), a boutique institutional fixed income management firm. She has two decades of leveraged credit research, analysis, and

(Continued on page 30)

Matthew Peterson, Peterson Capital Management



Matthew Peterson

Matthew Peterson is the Managing Partner of Peterson Capital Management and he manages Peterson Investment Fund I. Matthew has

(Continued on page 42)

Welcome to Graham & Doddsville



Meredith Trivedi, Managing Director of the Heilbrunn Center. Meredith 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.



Professor Tano Santos, 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. The classes sponsored by the Heilbrunn Center are among the most heavily demanded and highly rated classes at Columbia Business School.

We are pleased to bring you the 37th edition of Graham & Doddsville! This student-led investment publication of Columbia Business School (CBS) is co-sponsored by the Heilbrunn Center for Graham & Dodd Investing and the Columbia Student Investment Management Association (CSIMA). Since our Spring 2019 issue, the Heilbrunn Center hosted the 2019 *From Graham to Buffett and Beyond* dinner in Omaha and the 2019 Pershing Square Challenge. The Heilbrunn Center also attended an alumni event hosted by Sheldon Stone '78 in L.A.

Our first interview in this Fall Issue is with Paul Moroz, Chief Investment Officer of Mawer, a Canadian investment fund. He discussed the value of having business operation experience early on, the importance of performance measurement, and the process of making repeatable value-added decisions. He discussed the benefit of holding a seemingly "boring" company like Wolters Kluwer, the headwinds Alphabet may face, and their longstanding position in Constellation Software since its IPO in 2006.

We were also lucky to have a conversation with Mohnish Pabrai, founder of Pabrai Funds. He explained the difference between compounding a portfolio and investing in compounders, why he dislikes leverage and shorts, and his love-hate relationship with levered financial institutions stocks. He discussed his views on IPSCO and GrafTech, as well as investing in South Korea.

Next, we had an in-depth discussion on investing in high yield bonds with Ellen Carr, a portfolio manager at Weaver C. Barksdale and an adjunct professor at CBS. She discussed challenges specific to the high yield bond market, from the pitfalls of investing in fallen angel bonds due to structural differences between investment grade and high yield securities, to the evolving role of intangible assets as collateral.

Finally, we spoke with Matthew Peterson, managing partner of Peterson Capital Management. He discussed the three main criteria he uses to assess businesses, his unique approach to portfolio construction, and his recent investment in DJCO.

We continue to bring you stock pitches from current CBS students. In this issue, we feature finalist pitches from the 2019 Pershing Square Challenge. David Hao '20, Eric Niu '20, and Freda Zhuo '20 recommended a long position on Aramark (NYSE: ARMK), James Shen '20, Lauren Warsavsky '19, and Mark Zager '20 recommended buying Servicemaster Global, Inc. (NYSE:SERV), and Edgardo Gutierrez '20, Yuri Rettore '20, and Rodolfo Zeidler '20 recommended to invest in US Foods, Inc. (NYSE:USFD).

We thank our interviewees for contributing their time and insights not only to us, but to the whole investing community.

- G&Dsville Editors



Value Investing Program Welcome Reception



Professor Tano Santos and Meredith Trivedi at the Value Investing Program Welcome Reception

Columbia Business School
AT THE VERY CENTER OF BUSINESS™
The Heilbrunn Center
for Graham & Dodd Investing

CSIMA | COLUMBIA STUDENT
INVESTMENT MANAGEMENT
ASSOCIATION

Pershing Square Challenge - May 2019



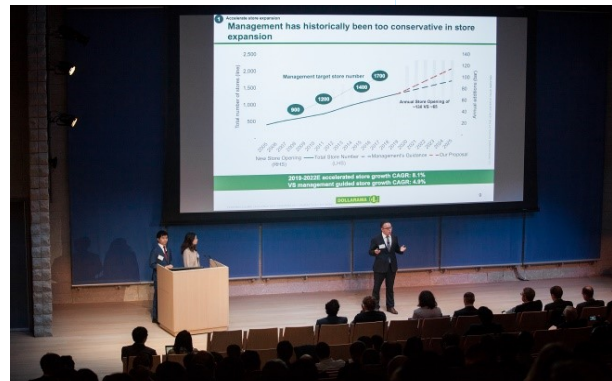
1st Place Winners: Laurent Liu '19, K.Y. Wong '20, and Mingming Wu '20



2nd Place Winners: David Hao '20, Eric Niu '20, and Freda Zhuo '20



Audience looking on as teams present



Laurent Liu '19, K.Y. Wong '20, and Mingming Wu '20 pitching Dollarama, Inc. (DLMAF)



Applied Security Analysis Professor Anuroop Duggal delivers opening remarks



Ryan Israel, Pershing Square Capital Management, addresses the audience



The judges meet to discuss the pitches and select the winning teams

“From Graham to Buffett and Beyond” Omaha Dinner - May 2019



Dinner panel featuring Professor Tano Santos, Mario Gabelli '67, Ashvin Chhabra, Ross Glotzbach, Paul Hilal '92, and Thomas Russo



Audience members look on during the panel

Value Investing Program Welcome Reception - August 2019



Value Investing Program Class of 2019-2020 Student Orientation and Welcome Reception



Students chat with Professor Santos at the Welcome Reception

Alumni Event Hosted by Sheldon Stone '78 in L.A. - September 2019



Sheldon Stone '78 (Head of Oaktree High Yield Bond) with Professor Tano Santos



Professor Tano Santos speaks during the event

SAVE THE DATE

23rd Annual *Columbia Student Investment Management Association Conference*

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

William von Mueffling '95, President & CIO, Cantillon Capital Management

100 years of Value with **Tweedy, Browne**

Robert Shafir '84, CEO, Sculptor Capital Management

Fireside chat with **Michael Mauboussin**, Blue Mountain Capital and

Baruch Lev (NYU), who will discuss his paper “Explaining the Demise of Value Investing”

Presented by:

The Heilbrunn Center for Graham & Dodd Investing and
Columbia Student Investment Management Association

Friday, February 7, 2020
8:00 a.m. to 5:30 p.m.

Columbia University
2920 Broadway (at 115th Street)
Alfred Lerner Hall
New York, New York

For inquiries, please contact: valueinvesting@gsb.columbia.edu

Paul Moroz, Mawer



Paul Moroz

Foreign Equity Fund Manager of the Year award at the 19th annual

Morningstar Awards. Prior to joining Mawer, Mr. Moroz was employed by Alberta Investment Management and Merrill Lynch Canada Inc. Mr. Moroz is a Chartered Financial Analyst charterholder. He earned a Bachelor of Commerce degree from the Haskayne School of Business at the University of Calgary. Mr. Moroz is a member of the CFA Institute and the Calgary CFA Society.

Graham & Doddsville (G&D): Could you tell us how you got into investing?

Paul Moroz (PM): I became a businessperson before I was an investor. It started in junior high school trying to find ways to make money, so I sold chewing tobacco brought back from the U.S. In high school, I started a business with my friend cutting grass and doing spring cleanup, before expanding into landscaping.

That was a fantastic experience, because we learned so much about all the aspects of running a business. We wrote a business plan, got a loan, and bought a truck. In fact, the organization that lent us money forced us to create a partnership, so we learned about the legal aspect. We were also doing our own marketing. We hand-delivered flyers, hundreds of them. We also had to figure out how to collect the money and deal with receivables, invest capital, and manage the few employees we had. We later sold the business, so I also had to

understand what it was worth to a buyer.

You learn so much about investing from a business perspective. For example, we used to have a contract to cut people's grass, and that was great because it was recurring. I knew how much money we were going to make over the course of the summer. That was very different than landscaping projects, because those were one and done. It was a lot more cyclical. Those concepts were important for a businessperson as well as for an investor.

I also started speculating around that time, which is on the opposite end of the investing spectrum. For example, in high school, I raised \$1,000 to invest in the Bulgarian lev, which had depreciated like 1,000 times against the U.S. dollar. I thought maybe currencies would mean revert, and if you invested \$1,000 and this thing snaps back, well that's your first million. I remember walking down to the local bank in a town just outside of Calgary, Canada, and trying to buy \$1,000 worth of Bulgarian levs. Of course, the bank didn't have Bulgarian levs, and they were perplexed. I didn't understand the full economic picture at the time and how the economy produced that result. Still, it was a huge learning occasion.

In university, I incorporated an investment company. That was neat, because it was a real-time experiment, like a little hedge fund. We weren't dealing with a lot of money, maybe \$50,000 in total at its peak, but we turned the portfolio 20 times a

year, and we used some leverage. I got to make so many mistakes in my career early on. The lessons were massive. What was so neat about that experience was I had incorporated the company myself. I read through the Alberta Corporations Act, bought share certificates, and held shareholder meetings. It was like this crash course in thinking about the governance, the company, and what it really was. These experiences of speculating, running a business, and thinking about governance all proved a tremendous accidental education to becoming an investor.

I had an extremely clear idea that I wanted a career in investment management, but even beyond that: I just did it. I skipped class to trade stocks on the library computer. In one year, I worked at a local brokerage firm, which was another great experience. It was an entry-level position, entering trade tickets into the system. Still, I had to skip a few classes to take that job and get that experience. In my co-op term, I worked for Merrill Lynch in research.

Sometimes there are things in life which can create a little bit more motivation. The University of Calgary had an investment program with real money that you could run, and I applied for that. I'll always remember the interview. This was right at the end of 1999 and I was talking about Nortel Networks, how I thought it was really a silly investment. The valuation didn't make sense. At one point, the person interviewing me asked: "How can you want to short this stock when there's so

(Continued on page 7)

Paul Moroz, Mawer

much collective intelligence and people that believe in it." I had a probably inappropriate response to that, something like "I don't need to follow the crowd". Needless to say, I didn't get the job. But I had the mild pleasure of watching Nortel melt down, and knowing that independence was worth something.

When I got out of school, an opportunity came up in the investment arm of the Alberta government. Today, they look after around CA\$100 billion. That was a rotational program, where I got to see how a large institution managed money.

G&D: What was your role at the investment arm of the Alberta government early in your career?

PM: I spent some time in different groups, which was beneficial. I spent a little bit of time in the asset allocation group and gained a different perspective. I remember learning about the concept of portable alpha, which I thought was funny at the time, separating the value that you can add, versus what the general stock market is going to do and bucketing those into two different groups. That's a pretty powerful mental model to have early on.

Then I spent a little bit of time in the analytical group. Even though the work wasn't terribly exciting, setting up a systematic process for benchmarking and measuring performance, it still led me to realize that if you're going to get better at the sport of investing, you must keep scores properly. You have to be intellectually honest and

evaluate your mistakes in order to be able to improve. Finally, I had an experience in the Canadian Investments Group. I got to see how an institution manages money and the pressure of thinking about things on a relative versus an absolute basis. I remember a decision was made to buy Nortel on the way down. It was still an important component of the Canadian stock market after the tech bubble had been washed out, and the decision was meant to reduce risk by moving the position closer to its benchmark weight. I will always remember thinking to myself that was such a backwards way of looking at risk.

"If you're going to get better at the sport of investing, you must keep scores properly. You have to be intellectually honest and evaluate your mistakes in order to be able to improve."

As an investor you really have to think about the consequences of the ideology that you take. Looking at risk on an absolute or a relative basis is a huge philosophical decision that practically impacts your investment decisions. I'm not saying either side is right or wrong, but it's important to understand

yourself, and where you stand on those issues.

G&D: Do you use a benchmark?

PM: Well, it's a unique situation, because today we manage close to CA\$60 billion for our clients. Over 70% of our business is institutional. To my earlier point about the need to have a proper measurement and keeping score properly, we have proper benchmarks for each of our investment strategies.

From a client's perspective, you have to add value over a cycle or there's not much point in paying fees. So there's a relative component there. But what's unique about our firm is that when we started in 1974, we were focusing on managing money for high net worth individuals. One of their goals is preserving capital. Risk is looked at in an absolute sense. It's Warren Buffett's comment: "Rule number one, don't lose your client's money. Rule number two, don't forget rule number one."

This gave us a unique perspective that has shaped how we think about risk as a firm. I'm not so concerned about volatility, but what I don't want to do is impair clients' capital. Still, we have to add value as an investment management firm, so there's still a relative component.

G&D: Do you use portable alpha to filter out the noise of the market?

PM: I think the concept is much more interesting in theory than in practice. You can have all sorts of strange

(Continued on page 8)

Paul Moroz, Mawer

things, even with the best laid-out plans, go wrong. Imagine if we took our existing philosophy and process to create a portfolio, and then short a given asset to net out the difference. While I think that tends to work over a long period of time, you can get short-term challenges that could last several years. My approach is to never put yourself in a position where even if you're fundamentally right, the markets can dictate your results.

When I was younger, I learned it the hard way shorting stocks that got called and taken away. Even if you're fundamentally right, you don't have the capacity to stay solvent. That's the main issue I see with portable alpha. I know you can create all sorts of interesting products with derivatives, but I think as you increase counterparty exposure and financial leverage, it gets complicated fast, and it's not a place where I see much practical application for clients.

G&D: Were there any inflection points or mentors that influenced your investment strategy today?

PM: I went through a real exploratory phase. The very first book I ever read on investing was on chart analysis, explaining the Dow theory and the different ideas around how much information the market has. Later on, a big part of my investment philosophy came from my original business experience: is the growth of a company from recurring business, can it access capital to finance its operations, even simple concepts like barriers to entry. I remember putting

our fliers for the landscaping business right on top of someone else's flier; there were really no barriers to entering that business. I joke that I started out with the best education because it was also the worst business to be in.

“There have been people in the investment community who are too focused on Ben Graham's philosophy, focusing on book value instead of recognizing that it's just a heuristic for the cash flow that can be produced by those assets.”

Many people refer to competitive advantage as a moat, based on Warren Buffett's letters. I think something else is just as important yet hasn't gotten as much air time: functional advantage, which is the very nature of the business. The person who started me on this is Thomas Caldwell. At some point, he was investing in stock exchanges. He made the point that these are really good businesses by the very function of what they do. A stock exchange naturally tends to

have a network affect, not require a lot of capital, and grow with the market. For all these reasons, a stock exchange is a pretty good business. When I started running our small cap portfolio at Mawer, thinking about functional advantage became a real theme when sorting out good businesses from the bad on a first principle's basis, before getting to competitive advantage or management.

I also read Ben Graham, who is key for understanding the concept of intrinsic value, and separating the company from its stock. A point on which I differed immediately was the importance of book ratios. It was based on my experience of selling that landscaping company. I think we had \$700 of equipment, and sold it for \$1,500. Beyond what's marked in the books, the success of the business is what really mattered: are those contracts going to be kept, will landscaping work be done under that brand, can you manage your employees and operate profitably. What mattered was the cash flow stream and its longevity. There have been investors who are too focused on Ben Graham's philosophy, focusing on book value instead of recognizing that it's just a heuristic for the cash flow that can be produced by those assets.

The way the world has evolved, there are a lot more knowledge-based businesses where the competitive advantage isn't based on the assets. You have to make a judgment on the people and the culture. Phil Fisher is another big influence. I still refer to “able and honest”

(Continued on page 9)

Paul Moroz, Mawer

management teams; those are his words.

On another level, I'm also a fan of George Soros. Beyond the currency and speculation, I think *The Alchemy of Finance* is such a great book in which he talks about the concept of reflexivity and the separation between what makes a hard science and what makes a social science. The market has this unique characteristic that you can really influence the outcome. That complicates things both to the upside and to the downside. This has influenced not only the way I think about investing, but also the way I think about managing a business. Just by injecting energy and leadership into an organization, you can change the dynamics of that business, which then results in a different economic outcome. The universe is very reflexive.

G&D: What's your investment process?

PM: I came to Mawer in 2004. At that point, I had read so much that I was able to clearly differentiate between what I believed in and what I didn't believe in, based on what I saw in the market and the errors I made. Our investment philosophy is very simple. We invest in wealth-creating companies, the ones able to earn a high return on their capital by virtue of their competitive advantage and able and honest management teams allocating capital to build a resilient business. Our last tenet is don't pay too much. You can shortcut our investment philosophy to Quality at a Reasonable Price, as opposed to value or growth. It's not going to be different

from how a lot of other investors look at the market. It's the process and the culture, along with the modes of thinking and incentives, that have enabled us to take that simple investment philosophy and execute it very well. There's nothing secret or proprietary about our philosophy. These are all other people's ideas that we've stitched together.

"The market has this unique characteristic that you can really influence the outcome. That complicates things both to the upside and to the downside. "

There are a number of factors we look at when assessing management. I still feel like we're in the dark ages in terms of management evaluation, but one of the benefits that we get out of going back and reading public documents over time is that you can understand what management teams have said they are going to do and what is their actual track record of doing so. If a management team is consistent in thought, deed, and word, that's our definition of integrity. We want to allocate capital toward people with greater integrity, which really comes down to trust and execution. There's a

better chance that management is going to do what they say they will do, if they have established that track record in the past. On capital allocation, it's not just business models that create wealth, managers can make decisions to use capital more effectively or not. There is just a wild range, as you start to interview management teams. When you go out to their offices, you can see the decisions. It's the little things, whether they spent money on art in the board room, how much they are willing to pay people, or whether they have a process for thinking about acquisitions. All this relates to capital allocation. There's the immediate thought about what a stock is worth, but as you move out in time, as T tends to infinity, those choices of capital allocation become a prime driver of stock returns.

Like many people, we believe the value of a company lies in its discounted cash flows. A differentiating aspect of our philosophy at Mawer lies in our probabilistic approach. I actually wrote in my cover letter, "This intrinsic value thing is great, but have you ever thought about looking at intrinsic value in statistical terms, rather than just as an absolute number?" It stemmed from my observation and experience looking at oil and gas companies, where I thought "You don't know what the price of oil is going to be." One of the best ways to deal with that uncertainty is to conduct a Monte Carlo analysis. If you were to just estimate the intrinsic value and compare that to the stock price, given the volatility around your assumptions, your

(Continued on page 10)

Paul Moroz, Mawer

discount to intrinsic value may not be statistically significant. Intellectually, I was already heading down the path of "Wait a minute, the world is random." That's exactly the path Mawer was heading down, which I didn't know at the time. They were implementing these Monte Carlo models that would be the big difference in how to look at the world.

I have a tremendous amount of respect for the intelligence of the market and I think that the goal in investing is often to avoid making behavioral errors. While the concept of intrinsic value is fantastic, one of the errors you can make is to get locked into thinking your opinion of value is the correct one. To the contrary, we build the models ourselves and understand the key drivers of these businesses. We then think about the world probabilistically through scenarios and Monte Carlo analysis in order to understand if, from a statistically standpoint, we actually have much of a discount at all. You start to realize that it's not about getting a top stock pick and being correct. What we get with our Monte Carlo analysis is a fair value range, a framework that imposes a level of humility in our decision-making. As a security trades further down in its fair value range, it doesn't mean it's necessarily undervalued, but it gives us a little bit more statistical understanding of how we should be reflecting these odds. When stocks trade to either the lower or higher end of the fair value range, we adjust. We are very probabilistic as a research department and that can be

very different from many stock pickers out there.

"We have some prototypes of automated discount cash flow models that build out ranges, but what we need first is to do the work required to understand the quality of a company."

It has served us well, because another area where some investors got caught out is on where discount rates have gone. Imagine if you said, "I will only buy stocks that trade below 10x earnings over the last decade." You would have most probably been left with a portfolio solely comprised of companies facing problems. To the contrary, when it comes to valuation, what we do is we randomize and iterate our discount rates, which are log normally distributed after building our weighted average cost of capital up from spot bond yield curves, corporate bond premiums, and equity risk premiums. That allows for some flexibility and evolution in how we look at valuation.

I would say we're practicing relative absolutism estimating discount rates. The problem is, if you have an absolute number, how did you come up

with that number? The most that you can say from first-principles basis is "Your return should be above your perceived risk-free rate." It's probably not going to be so high or there will be competition that drives it down. So, in a way, it's relative. It's based on inflation. It's relative to your risk-free rate. It's relative to competition. It's relative to how much capital there is. It has to be relative.

What we require for companies to earn over a business cycle is always dynamic. We recognize we don't know its true value. When analysts start building models, they have more of an absolute idea on making decisions, and we'll often say "If you moved your discount rate half a percentage point left, that's a 10% move," and that's a major change. We have to be aware of that and be flexible in how we look at the world, or else we can make mistakes. So much of this process aims at mitigating behavioral errors overconfidence, as we think we know what will happen.

G&D: Do you use the Monte Carlo simulation to screen ideas or to generate the valuation? Do you seek out investments where the range of outcomes displays a floored downside and a right skew?

PM: It's mostly after we are into the intensive analysis process. We have some prototypes of automated discount cash flow models that build out ranges, but what we need first is to do the work required to understand the quality of a company.

(Continued on page 11)

Paul Moroz, Mawer

One of the benefits of our process is we can shift our investment selection based on themes, trends, or options that might relate to that skew. I'll give you an example relating to the shape of a distribution. We have been working on oil and gas companies, particularly in Canada, where a big issue is getting the oil and gas out to the U.S. – we just don't have the pipeline capacity. In reviewing valuations, among many risks are the environmental ones. A company like Canadian Natural Resources might be close to a CA\$35 billion market cap, but its tailing pond liabilities could be anywhere from CA\$2 billion to CA\$9 billion or more. It presents a more negative skew.

On the contrary, one of our European companies is a testing, inspection, and certification company called Intertek. They test and certify all sorts of things to make sure they meet certain criteria and standards. They also have an assurance business to make sure the standards are in place at companies. It's a unique company, and they just announced today they would be developing a sustainability assurance service, enabling companies to understand how sustainable their products are. If you have noticed the rising concern for the environment, it seems that Intertek would be extremely well-positioned to benefit from that.

As a portfolio manager, I would be adding incrementally to Intertek and trimming incrementally Canadian Natural Resources. It's not black and white; it's about leaning to the right or the left.

G&D: Could you discuss how you source ideas?

PM: That's the part of the process we've left the most open and creative. We are a process-focused firm. If you were asking about due diligence, there are a number of specific steps. But there are many ways ideas can come together and we want that, because creativity's important.

The most creative ideas come about when we just get out there and talk to people. Being in Calgary, Canada, there are not a lot of companies that come to us. We often go to companies in road trips or research trips. We screen all the companies in a country and then get out and talk to those we are interested in.

“Brute force screening is the best way to do it. It's tough, because it takes a lot of time. But if it's tough to do, there's also a better shot that there will be an inefficiency.”

You might say, “There are an awful lot of companies. How can you parachute into India and figure out which 40 companies to talk to over 2 weeks?” Well, it's relatively easy because we define what we are interested in and what we're not. My estimate is there are only about a third of all

companies that really create wealth. You can narrow your investment universe down in fairly short order. Once you have a conversation with management, if you're not focused on next quarter's earnings but on how they think, how they build their business, and why they make certain decisions, then the information becomes very rich. Brute force screening is the best way to do it. It's tough, because it takes a lot of time. But if it's tough to do, there's also a better shot that there will be an inefficiency.

We have also institutionalized a lot of things. We have a database with over 8,000 companies and over 300,000 entries, including everything from management interview notes to independent sources of information, such as conversations with suppliers, customers, or competitors, as well as public documents, releases, sell-side research, everything that we've been collecting for over 20 years. This is a platform that helps us organize the world to focus on those companies that, at this time, meet our investment criteria, and where we think we can add a little more value by investigating more. Even when we're looking at something for the first time, we already know a lot about it, and that helps tremendously. It's more of a resource allocation problem than a screening one.

G&D: Are there investments you're excited about?

PM: We have a slogan, “Be boring. Make money.” I think people would be surprised but, over a long period of time, if

(Continued on page 12)

Paul Moroz, Mawer

you're going to be a successful investor, it's not about the one bang stock pick. Having a few of those helps, but it's more about not losing and staying on process, especially in large caps. I have colleagues who could talk all day long about unique, special small cap stocks, but I don't think this illustrates what we're trying to do in terms of consistently tilting the odds in our clients' favor, and making value-added decisions for them on a repeatable basis.

A great example is a company called Wolters Kluwer. It's based in Europe, and I think Peter Lynch would say, "It's a terribly boring name for a terribly boring company." They have a number of businesses that are just the most boring in the world: legal and regulatory, tax and accounting, finance and compliance, and health. The company was originally a publisher. A lot of the products they sell are reference materials and books sold to legal practitioners. All that used to be print, but now the business has been transitioning to digital.

One element of the thesis was that print was struggling in terms of pricing growth, but this was mitigated as the company transitioned to a digital, subscription-based business model. Today, print accounts for less than 10% of the business, and you're only left with these wonderful niches where 80% of the revenue is recurring. Of that 80%, their retention rate stands between 90% and 100%. This goes back to my history of first thinking about businesses and the functional advantages they hold. The

combination of non-discretionary services representing a small cost related to clients' overall operations is extremely attractive from a business model perspective.

"I have colleagues who could talk all day long about unique, special small cap stocks, but I don't think this illustrates what we're trying to do in terms of consistently tilting the odds in our clients' favor, and making value-added decisions for them on a repeatable basis."

Furthermore, the company has good market share positions. In tax and accounting, it holds the #1 or #2 position across Europe, with a 25% to 35% market share. In their health division, they are #2. If you go into your doctor's office for a checkup, and your doctor is on the computer, they are not just searching Wikipedia – they're most likely looking at Wolters Kluwer's reference materials online. This information is vetted, and we think these businesses are all going to be around for a very

long time. They are now at the point where the print business has been declining for a while and revenue growth rate has gone back up from 1% to 3-4%. That's helped drive a little more interest in the security. At this point, it trades at 23x earnings. We consider it in the middle of its fair value range, between high €40s and €80 a share. The internal rate of return stands only at 5% to 7%. This is not something super attractive. Still, we recognize its unique characteristics as we approach the end of the economic cycle.

This is where it helps to be index agnostic. It's categorized as an industrial stock, but the business model doesn't present the same level of industrial cyclicality as most industrials. The doctors aren't canceling their subscriptions in a down cycle. It's a nice recurring business and it might even have greater pricing integrity and stability during a downturn than many consumer staple stocks, whose barriers to entry have declined with the increasing ease to advertise and distribute. That's how it fits into the portfolio.

Management capital allocation has also been pretty steady. What they have implemented is a target return on invested capital of over 9% and it has reached just a little bit over 10% over the last five years, translating into an ROE of almost 25%. It's not home run capital allocation, but they have acted with a lot of integrity not only on a return basis, but also in terms of moving capital towards segments that are more recurring in nature and more defensive.

Paul Moroz, Mawer

In terms of risks, they do have some debt, but at 1.8x debt-to-EBITDA I think that's not a significant concern given the quality of the business. A maybe more significant risk would be academic journals. This segment has been facing some pressure, because the industry's been moving towards open-source journals.

I'm not as concerned about relative risk. There's risk that interest rates or discount rates go up and the stock de-rates. By the same token, there's that same risk the other way. Right now, we have \$16 trillion of negative yielding debt in Europe, so you get an odd consequence in the event of a recession. The 10-year yield bond in North America could be negative 1% and your discount rate could be lower. A stock like this could be worth 30x or 40x earnings. It's a possibility.

If the world doesn't fall apart, it'll still be okay. If the world falls apart, we think it will act more like a consumer staple. It has some resilient qualities to it in the portfolio.

G&D: It seems the "valuation at a discount" element is not so important here?

PM: There are very few times when all the stars align with this philosophy and everything's just perfect. There are inherent trade-offs, and what we hope is that across the portfolio we arbitrage out those facts and trade-offs to be consistently ahead. That's why long-term investing is not what you think it is, in terms of each individual stock producing all this wonderful alpha. In fact, you don't even know whether

a particular scenario that would lead to that wonderful alpha will even occur. To us, it's about shifting the odds and grinding forward.

"We've had so much passive share gain in the U.S. and interest in technology firms. This also calls for basic diversification, for not getting too far ahead of ourselves, because if everyone runs for the exit in the American stock market, and the tech companies really get beat up, is it possible that Google could trade at a much lower price?"

G&D: Similar to Wolters Kluwer, you also hold a 3% position in Google. Incidentally, they trade at similar multiples but have different growth profile. How would you describe your investment in Google?

PM: That's interesting to approach Google from a valuation perspective. Historically, Google has grown at a much higher rate, and if you were to compare those stocks on some basic multiple principles, they might be fairly similar. There's an argument

that you can have a lot higher weight in Google. The highest weight that we allow ourselves to have is 6%.

One of the reasons our position in Google has come down is because they are facing headwinds in the advertising market, along with Facebook and Amazon. Sure, they built an amazing system around search, own the Android platform, and display some pretty good optionality with their bets segment. But think about the competition that could be unleashed if Netflix decided to monetize their business through advertising and drop their subscription prices to compete with Apple's or Disney's content. This would be a huge threat to what Google can charge. That's one of the risks that we see evolving. It's very clear they're going through an antitrust phase in their business, similar to what Microsoft went through. There's a reason to recognize that this could be split apart. We think the base case is that there'll be minor restrictions, but that's still good reason for basic diversification.

Also, let's just separate stock from company for a moment. We've had so much passive share gain in the U.S. and interest in technology firms. This also calls for basic diversification, for not getting too far ahead of ourselves, because if everyone runs for the exit in the American stock market, and the tech companies really get beat up, is it possible that Google could trade at a much lower price?

If you look at Baidu, the equivalent of Google in China,

(Continued on page 14)

Paul Moroz, Mawer

it hasn't been doing that well. Of course, Tencent and their WeChat platform has been wildly successful, and Alibaba is pretty big. Yet the way the Chinese market has developed is that search has lost relevance. I don't know the way the world's going to turn out, but maybe people will be doing their searches directly on Amazon or Facebook. Those are all risks. It's not that we don't like Google, but there's been some heightened risk more recently and that's what that weighting reflects.

G&D: Could you discuss your investment in Constellation Software, and where you stand on the company now?

PM: Constellation Software is in the business of buying niche software companies. It's been a very attractive company. The question always is, do people know about Constellation Software now? Some of the price reflects that. Believe it or not, we bought it in our small cap fund, off the IPO. I was involved in the original analytical work on that. It's amazing. I've gone back and looked at the investment reports, and I don't think anyone recognized how significant the opportunity was.

Constellation Software is a great example of how people focus on different things. There were many investors who said, "Yeah, I think this is a good company, but it's too volatile and illiquid." They didn't have the time horizon to hold the position. When we met with Mark Leonard, who was the architect of the whole company, he outlined why these niche software companies in these small

verticals had strong competitive advantages. He went through Porter's five forces to establish this and said that there was an opportunity in acquiring these. This was around 2005, and we were still suffering in the market from the tech bubble blow-up. Many people didn't want to touch tech at all. That was part of the psychological opportunity, too. You have to be willing to understand things on a first principles basis rather than just saying "I'm not going to do tech." At the time, you had to be thinking long-term to be able to manage the volatility and take the position.

"Around 2005, we were still suffering from the tech bubble blow-up. Many people didn't want to touch tech at all. That was part of the psychological opportunity in Constellation Software. You have to be willing to understand things on a first principles basis rather than just saying I'm not going to do tech."

Another part of the appeal of Mark's business plan was that he was very clear in terms of how he would allocate capital.

He operated with a high degree of integrity. He really did that, and did that well. As we look back on the investments, what we didn't know at the time was how well they would be taking businesses that weren't really making that money and turning them around. The businesses themselves had barriers to entry, but others wouldn't have created the same results in managing the turnaround. The other thing was the culture. Mark had implemented a culture of measurement and was a thought leader in managing this business for the long-term. When you can do that and hold for so long, results are just outstanding.

Today, we are still invested in Constellation Software, but the risks are different. Despite the excellent capital allocation, it's gotten tougher. They're looking at larger acquisitions. They have lowered their hurdle rates for acquiring companies and use debt to help meet the hurdle rates. They've been pragmatic about it. Investors waiting for the perfect 20%, 25% unlevered IRR acquisition just haven't done anything.

The other thing that's probably changed is, there are questions that remain around the legacy portfolio. How much technical debt is there across their portfolio companies? Has there been underinvestment in the transition to cloud? The thing that investors really have to watch closely is understanding how that organic growth is trending across the portfolio.

Finally, Mark was much more intimately involved in making capital allocation decisions at

(Continued on page 15)

Paul Moroz, Mawer

the beginning of the journey with Constellation Software. Now there are other people that are more involved in that. Those capital allocation decisions have been pushed down throughout the organization, but there's only one Mark Leonard, like there's only one Warren Buffett.

G&D: Can you talk about your recent addition of Microsoft to the portfolio?

PM: Microsoft has a number of really special characteristics. Of course, there's the dominance of their operating system. Additionally, they've done a good job of transitioning to the cloud. When we did our work on understanding that opportunity, we looked at our cloud bill. That was so revealing, because it's broken down by line items as if you're buying auto parts or something. It will give you the quantity and the price. Often these things are really small when they are broken down, so psychologically, it would make it very difficult to negotiate down the price of cloud with Microsoft. More than being a recurring and non-discretionary service, the software is woven into the fabric of the company.

There is also extra code that's been written to port applications to the cloud. This makes it difficult to switch. It's a lot less of a commodity than we certainly envisioned it to be. It means you have a long runway of opportunity and optionality with respect to all these different devices that will be connected to the cloud. Microsoft has a really nice position for it.

Another big thing was when Nadella took over. That transformation of culture will be used as a business case study for generations. They have created the culture necessary to win in this environment, and they have made a lot of tough decisions. The big one was being a lot more open than the company ever was during the Gates and Ballmer eras. They now look at other software companies and think about win-win partnerships, as opposed to a "we win, and you lose" type of mentality. For the cloud, that's a cultural and business strategy shift that has really opened up the potential of the market.

"When it comes to investing, I believe people have to practice. It's not an academic exercise. Use your own money. Don't wait. It doesn't matter if you're investing just \$100 in the stock. Just do it."

For sure, there'll still be some cyclicalities in the business and in the stock, notably because of how the stock trades. It's in the technology basket. There's a lot of passive money that's invested there. It's the U.S. stock market, which is extremely dynamic. I still think the firm has a bright future.

G&D: Would you have any advice for current students pursuing a career in the investment management industry?

PM: You have to read as much as possible. You can't blindly latch on to any sort of investment philosophy. As opposed to someone saying "I read a couple of Warren Buffett's letters, so I'm going to try to invest using his philosophy," I'd much rather focus on discovering and understanding why I'm making a decision, how I feel about each principle. It's not only a lot of fun, it will also lead to a much clearer understanding of where you stand, as opposed to getting lumped in with a particular brand without even having a core understanding of why you're there.

My second thought builds on Ben Franklin's expression: "Tell me and I forget. Teach me and I learn. Involve me and I will remember." When it comes to investing, I believe people have to practice. It's not an academic exercise. Use your own money. Experiment with shorting stocks. Experiment with creating a process. Set up a system for real time experiments and coordinate it in such a way that you can make errors that won't ruin you, but from which you can learn. Even looking back on my experience, I was just so lucky falling into these experiments early on, which developed the way I think and the decisions I made when investing. I encourage people to actually do it. Don't wait. It doesn't matter if you're investing just \$100 in the stock. Just do it.

G&D: Thank you so much for your time.

Aramark (NYSE: ARMK) - Compelling Opportunity for Activism 2019 Pershing Square Challenge Finalist (May 2019)



David Hao '20

David is a 2nd year student at CBS and a member of the Value Investing Program. Before CBS, he covered global energy, material equities at TD Asset Management in Canada. David serves as the Co-President of Columbia Student Investment Management Association (CSIMA). He interned at Causeway Capital during the summer.



Eric Niu '20

Eric is a 2nd year student at CBS and a Private Equity Fellow. He is also the Co-President of CBS' Private Equity Club. Prior to business school he was a private equity associate at Acasta Capital based in Toronto.



Freda Zhuo '20

Freda is a 2nd year student at CBS and a member of the Value Investing Program. Prior to CBS, Freda was a sell-side equity research analyst at Goldman Sachs covering consumer staples companies.

Freda Zhuo, CFA
FZhuo20@gsb.columbia.edu

Eric Niu, CFA
ENiu20@gsb.columbia.edu

David Hao, CFA
DHao20@gsb.columbia.edu

Trading Stats (Mlns except per share)		Financials (mln)						
		FY16	FY17	FY18	FY19E	FY20E	FY21E	
Market Capitalization	7,655	Revenue	14,415.8	14,612.2	15,789.6	16,454.8	17,024.0	17,613.9
Enterprise Value	14,684	EBITDA	1,375.7	1,405.9	1,615.1	1,738.4	1,859.9	2,004.2
NTM P/E	12.8x	Margins	9.5%	9.6%	10.2%	10.6%	10.9%	11.4%
Avg. 3M Daily Volume	2.32M	Operating Profit	939.3	964.8	1,108.4	1,193.4	1,274.8	1,379.2
Float	98%	Margins	6.5%	6.6%	7.0%	7.3%	7.5%	7.8%
52 Week High/Low	27.37/ 43.70	Net Profit	481.2	530.9	850.7	597.8	685.1	791.5
Current Price (05/02/2019)	31.08	Margins	3.3%	3.6%	5.4%	3.6%	4.0%	4.5%

Recommendation

We believe ARMK is a compelling LONG with a 23% 3-year IRR with a 4-to-1 upside/downside skew.

Aramark is deeply undervalued with market sentiment obscuring the investment opportunity. What we see today is two business segments that deserve more market recognition - the core catering business, which is more resilient in the midst of food/labor inflation, and the uniform business, which has margin enhancement opportunities if scale is increased. All in, we see margin upside of 10% above consensus FY21 EBITDA. Additionally, recent share underperformance opened a window for activist involvement to accelerate value creation, with the **bull case upside of 37% 3-year IRR**. Consensus is focused on leverage, cost inflation, and a lower multi-year outlook from the Investor Day in December 2018, though our in-depth primary research with over 30 stakeholders unveiled opportunities for an activist to:

- 1) Realign senior & mid-level management incentives;
- 2) Address low-hanging fruit in operational improvements;
- 3) Potential spinoff of the Uniform segment or sale of entire business.

Aramark Overview

ARMK is a ~\$15bn EV global leader of food catering and uniform rental services to education, healthcare, business & industry, sports, leisure, and corrections clients. The company is the #3 player globally in Food and Support Services ("FSS"), behind Compass Group (LON: CPG) and Sodexo (SWX: SW), both based in Europe. Additionally, the company is #2 in uniform rentals in North America, behind Cintas (NASDAQ: CTAS). Most of the company's revenue comes from North America where contract catering penetration is lower than other developed countries. Since its IPO in 2013, the company has improved margins through a variety of cost cutting initiatives and increase in contract catering penetration. In 2017, ARMK purchased Avendra and Ameripride to bolster its scale and the uniform rentals business.

Investment Thesis

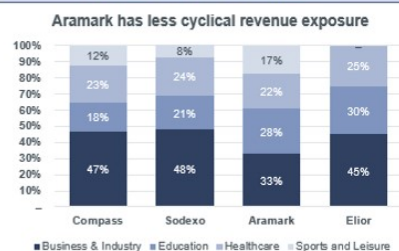
1. Food and Support Services is a higher quality business than currently perceived: 85% of ARMK's revenue is in FSS, which is primarily contract catering. Recent contract turnover garnered attention but obscures the strong business characteristics of FSS: end-market client outsourcing remains a secular driver (in a bid to save costs) and catering revenue is sticky with longer-term contracts. ARMK's revenue coming from business/industry (33%), which is cyclical, is also lower than that of its peers (45%+). In addition, ARMK has a higher North American exposure, which is higher-margin and less penetrated than Europe. While rising costs have been a concern, ARMK has multiple levers to offset cost inflation through investments in technology and doubling the food purchase scale with its purchase of Avendra. Our primary research indicates that the initial \$40M synergy target with the Avendra acquisition is conservative.

2. Uniform becoming more competitive and essentially a "free option": ARMK is the #2 player in uniform rental in North America, but its acquisition of AmeriPride should make the Uniform segment more competitive. Uniform economics are largely driven by per-route profitability, and AmeriPride enables higher revenue per route via larger contracts, as well as increased automation and efficiency vs. CTAS. Importantly, current valuation suggests inefficiency in market pricing. If we assume ARMK's FSS segment trades at peer level (1x EBITDA, at parity with Sodexo and a discount to Compass), investors are getting the Uniform business for free.

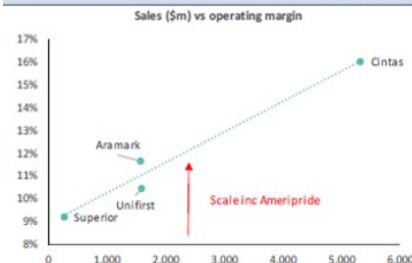
3. Activism to address opportunities in operational improvement: We believe ARMK has significant opportunities to catch up to best-in-class peer Compass Group. We propose that ARMK's senior management incentives to be restructured to include: 1) aligned peer group - current peer group includes megacorp staples like McDonalds, PepsiCo, and Starbucks, but excludes Compass Group, Sodexo, and Cintas, whom ARMK competes with on a daily basis; 2) quantify ROIC targets and "individual" component of compensation;

Aramark (NYSE: ARMK) - Compelling Opportunity for Activism

FSS: Best-in-class revenue mix



AmeriPride drives route density & margin growth



ARMK valuation well below comparable peers



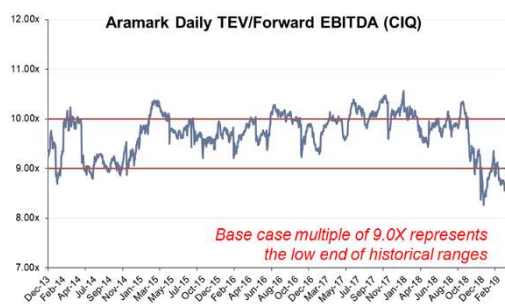
3) tie synergy targets to NEO compensation and have third-party auditor verification; and 4) for middle management, emphasize customer service and collaboration to share best practices.

We believe these improvements can lead up to ~12% EPS enhancement. Finally, to the extent that the market does not appreciate the value of the Uniform business (not part of ARMK's operational enhancement opportunities), a spinoff can be pursued in a tax-advantaged (Reverse Morris Trust) manner to accelerate value accretion.

Valuation

Given our view that ARMK's core operations are undervalued, our base case price target of \$58 represents a 23% IRR and is based on assumptions of conservative top line growth (+3.5%), margin expansion (+90bps to ~8% by 2022E), and 9x EV/EBITDA (close to the low end of its historical range). The bear case of \$25 represents a -7% IRR and would assume no sales growth as well as full cost inflation of almost 4% along with a peer-low 7.5x multiple.

We believe that activist involvement in ARMK can accelerate value creation, and outline two bull scenarios. The first is through a tax-free spinoff of the Uniform business (~\$4bn EV), which enables both the FSS and Uniform businesses to trade closer to peer multiples and generates a 32% IRR. The second bull scenario assumes operational involvement from an activist prior to spinoff, to realign incentives and accelerate margin expansion (e.g. through retention-rate improvement and route-optimization). This could add up to ~10% to our base case 2022E EBITDA and improve the IRR to 37%. All-in, we see close to a 4:1 bull/bear skew indicating favorable risk-reward.



Aramark 3-yr IRR Profile: Bear, Base, vs. Bull Cases



Risks & Mitigants

- Leverage/Economic Recession.** While Aramark's revenue/profit fell ~10%/~15% during the 2008 recession, the company's end market exposure is a lot less cyclical today with ~50% in non-cyclical segments. The company's debt is comfortably termed out with the first significant maturity in 2023.
- Contract Losses.** The company is well diversified across industries and contracts are long term (3-5 years) so losses can be mitigated through clear communication of expectations and middle management incentives that are tied to performance.
- Cost Inflation.** The company and industry has a demonstrated track record of passing through cost inflation to end customers—this is contractually protected by the contract terms. Additionally, the company has opportunities to optimize labor spend.
- Changes in Outsourcing Trends.** Online food delivery and telecommuting may slow sales growth—but the TAM of outsourcing in Healthcare and Education remains substantial.

Subsequent Events

This investment recommendation was presented at the 12th Annual Pershing Square Challenge on May 2, 2019. On August 16, 2019, Mantle Ridge LP purchased a ~20% economic stake in ARMK and the investment firm expressed intention to discuss business strategies, operations, governance, and composition of executives with the Board of ARMK. On August 26, 2019, then CEO of ARMK, Eric J. Foss, announced his retirement.

ServiceMaster (NYSE: SERV) - Long with Constructivism 2019 Pershing Square Challenge (May 2019)



James Shen '20

James is a 2nd year MBA student at CBS and a member of the Value Investing Program. Prior to CBS, he worked at HSBC in the fixed income trading and balance sheet investing teams. James interned at Cornerstone Research this past summer.



Lauren Warsavsky '19

Lauren is a recent graduate of CBS and currently works as a Director at N*GEN Partners, a growth equity fund focused on healthy living. Prior to CBS, Lauren was a generalist investment analyst at Focused Investors, a value-oriented investment management firm, and an investment banker at Houlihan Lokey in their Financial Restructuring Group.



Mark Zager '20

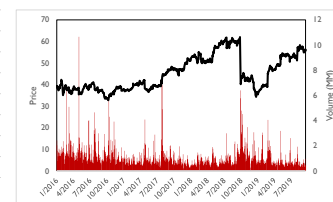
Mark is a 2nd year MBA student at Columbia Business School and a member of the Value Investing Program. Prior to CBS, he was a generalist investment analyst at Anderson Growth Partners, a value-oriented investment management firm. Mark interned at First Manhattan Co. this past summer.

James Shen, CFA
JShen20@gsb.columbia.edu

Lauren Warsavsky
LWarsavsky19@gsb.columbia.edu

Mark Zager
MZager20@gsb.columbia.edu

Trading Stats (as of 5/2/2019)		Financials (\$MM)	FY15	FY16	FY17	FY18
Share Price	\$49.00	Revenue	1676	1724	1754	1899
Market Cap (\$MM)	\$6,659.10	Gross Profit	770	802	793	859
Enterprise Value (\$MM)	\$7,674.77	Gross Margin	46%	47%	45%	45%
52 Week High/Low	62.70/ 34.28	Adjusted EBITDA	386	405	374	398
Short Interest	2.28%	EBITDA Margin	23%	23%	21%	21%
EV/EBITDA Fwd	17.6x	FCF	308	355	283	315
P/E Fwd	34.5x	FCF/Share	2.26	2.59	2.09	2.32



Recommendation

We recommend a long in ServiceMaster ("SERV") with a 3-year price target of \$78, representing an upside of 59% on 5/2/2019 and an IRR of 20%. Our investment thesis is supported by ServiceMaster's long growth runway, durable competitive position, and cash flow generation abilities. In addition, we see opportunities for a constructivist to further maximize the value of the company.

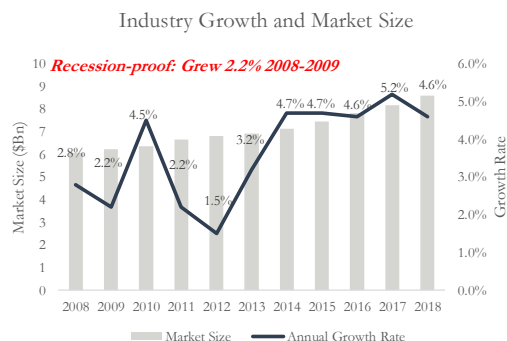
Business Description

SERV provides: i) residential and commercial termite & pest control services through Terminix, and ii) cleaning, inspection, home repair, & disaster restoration services through ServiceMaster Brands. Terminix is the second largest pest control company in the US with 21% share and accounts for 87% of ServiceMaster's revenue.

Investment Thesis

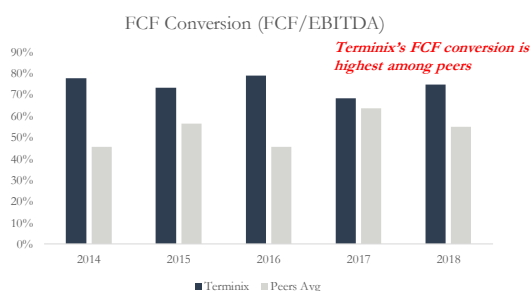
I) Pest control is a sustainable industry with a long growth runway

- The historical growth rate in the pest control industry has been both stable and sustainable. The \$8.5bn US pest control market has grown at GDP+ for the past 10+ years and is recession proof, having grown 2.2% between 2008-2009.
- The penetration rate of do-it-for-me pest control services is still relatively low. Only 33% of the country has this service and it is growing as millennials become homeowners.
- Pest control companies have been raising prices at 2%+ annually on average.
- The industry is very fragmented. Although the top two players in the industry control ~37% of the market, there are ~20,000 players in the space and most have fewer than 100 employees. Small firms and attractive route economics provide enormous white space for tuck-in acquisitions.



II) Terminix is an attractive business that generates a lot of cash

- Terminix has strong recurring revenue. Contracts are structured to have upfront payment plus an annual maintenance charge. The average customer life is between 4-8 years and retention rates run ~80%.
- Terminix has diverse revenue streams across geographies and product mix. The top branches are well-positioned in the fastest growing markets throughout the US.



- The business generates superior margins and free cash flow. With a 20% EBITDA margin and 75% free cash flow conversion (FCF/EBITDA), Terminix's cash flow generation ability is higher than peers.

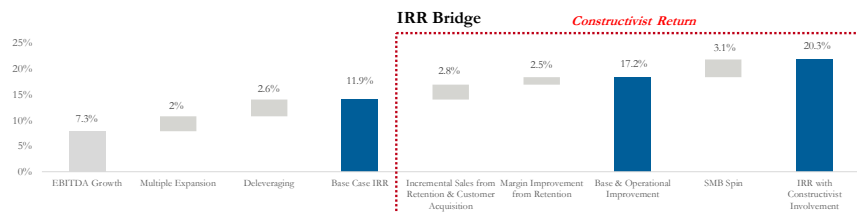
ServiceMaster (NYSE: SERV) - Long with Constructive Activism

III) ServiceMaster's recent struggles call for a focused strategy. We propose a three-fold constructivist plan.

- i. Expand the board and align executive compensation with metrics that maximize value for shareholders.
 - Current situation: Previous strategic inconsistencies reflect a lack of control and guidance from the board. Additionally, named executives' performance targets are relatively easy to achieve, which could result in a lack of incentive to achieve better performance.
 - We propose that ServiceMaster add a more pest control experienced cohort to the board.
 - The board should also change executive incentive compensation targets to a blend of metrics (revenue, gross margin, diluted EPS, and operating cash flow) that drive value for shareholders.
- ii. Close the gap with Rollins through training and technology.
 - Current situation: Terminix's retention rate trails the industry leader Rollins by 2% due to lags in training and technology.
 - We propose that Terminix benchmark to Rollins and launch remote & field trainings for 1st year employees, provide managerial training to managers, restructure technician's pay plan to an hourly pay plan, and adopt the BOSS & GPS tracking systems to improve on-time delivery of services, optimize routes, and provide better customer service.
 - Our analysis suggests that a 1% retention improvement would yield an incremental \$0.20 to EPS.
- iii. Spin off ServiceMaster Brands (SMB) to unlock additional value.
 - Current situation: Terminix's company owned model and SMB's franchise segment have few synergies. Cross-selling on national accounts has not worked well historically and cost synergies (if any) may only exist at the corporate level.
 - A spin-off would increase managerial focus and ascribe a proper valuation to each independent segment. Moreover, ServiceMaster historically has had success with spin-offs, including TruGreen's spin-off before ServiceMaster's IPO and FrontDoor in October 2018.
 - Based on our analysis, the current price suggests investors are getting a high-margin business like SMB for only 9x forward EV/EBITDA. A tax-free spin would increase the IRR on the investment from 17% to 20% and unlock additional value for the company.

Variant View

- Wall Street does not give enough credit to Terminix's restructuring potential. Under the new CEO's leadership, Terminix is going through a turnaround process and we believe top line growth will return to industry averages given management's strategy.
- Consensus estimates understate Terminix's incremental margins. We believe that by focusing on improving employee/customer retention, Terminix can achieve a higher incremental margin than consensus.
- The current multiples have room for expansion. Even at a discount to pure-play peer Rollins, ServiceMaster's multiples have ample room to expand as operations improve.



Valuation

- Using a sum-of-the-parts approach, we arrive at a \$78 target price by assuming a 20x 2021 EV/EBITDA for Terminix and 14x 2021 EV/EBITDA for SMB.
- We use Rollins' valuation as a benchmark for Terminix, and took a 30% discount to reflect factors such as Rollins' limited float, cult following among the investment community, and its long history of delivering superior organic growth.

Terminix vs Rollins by 2021

	Terminix	Rollins (Consensus)
Organic Growth(3y avg)	4.4%	5.1%
Inorganic Growth(3y avg)	2.7%	2.2%
Gross Margin	43.5%	51.9%
EBITDA Margin	23.1%	21.7%*
Leverage	0.8x	0x
EV/EBITDA	20x	29x

Risks & Mitigants

- Company and shareholders are unreceptive to plan: our constructivist approach does not call for removing management or board members and should be viewed favorably by key constituents. Management is incentivized to optimize ServiceMaster's business portfolio under the new changes to the 'double trigger vesting' program.
- Terminix and SMB may not reach expected valuations as independent companies: Both Terminix and ServiceMaster Brands generate ample and stable free cash flow, which underpins the valuation. At present prices, we believe there is a large margin-of-safety.



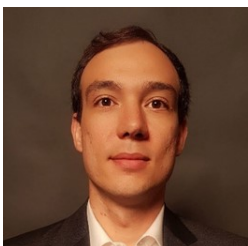
Edgardo Gutierrez '20

Edgardo is a 2nd year MBA student at CBS. Prior to CBS, he worked at Moneda Asset Management, a LATAM based asset manager with \$10 billion AUM, covering telecom and health care equities. He interned last summer at Archegos Capital, a multi-billion long/short fund, based in New York.



Yuri Rettore '20

Yuri is a 2nd year MBA student at CBS. He started his career with Safra Asset Management covering education and food & beverage. He later moved to Apex Capital, a \$2B equity fund, where he became partner. During the summer, he interned at T. Rowe Price in London.



Rodolfo Zeidler '20

Rodolfo is a 2nd year MBA student at CBS. Prior to CBS, he worked at the equity investment team of Votorantim S.A., the financial holding of one of the largest Brazilian groups. He interned last summer at T. Rowe Price London.

US FOODS (NYSE: USFD) - Long with Activist Value-added 2019 Pershing Square Challenge

Edgardo Gutierrez, CFA

EGutierrezreyes20@gsb.columbia.edu

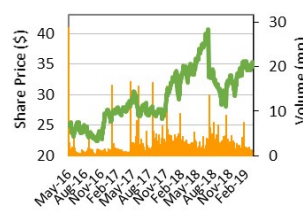
Yuri Rettore, CFA

YRettore20@gsb.columbia.edu

Rodolfo Zeidler, CFA

RZeidler20@gsb.columbia.edu

Trading Stats		Financials (\$ mn)	2016	2017	2018	2019E	2020E
Market Capitalization	7,954	Revenue	22,919	24,147	24,175	26,815	29,556
Enterprise Value	11,477	Gross Profit	4,053	4,218	4,306	4,819	5,360
P/E 2020E	13.9x	Gross Margin	17.7%	17.5%	17.8%	18.0%	18.1%
EV/EBITDA 2020E	11.3x	EBITDA	467	587	672	832	1,016
Current Price (\$/share)	36.6	EBITDA Margin	2.0%	2.4%	2.8%	3.1%	3.4%
52 Week High/Low	40.6/28.0	Net Income	210	444	407	489	572
		Net Margin	0.9%	1.8%	1.7%	1.8%	1.9%



Opportunity Summary

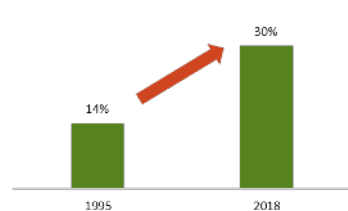
We are recommending a **LONG** in USFD with an implied **23% 3-year IRR** as a passive investment, which can be improved to 33% with activist involvement. We think US Foods operates in a recession-resistant industry and the company presents strong and increasing competitive advantages. Recently the stock has declined more than 30% due to some operational challenges and misunderstandings over a capital allocation decision. These events have opened a window of investment opportunity for an activist shareholder, who can help improve business decisions and priorities and ease market anxiety.

Business Description

Food distribution is a **simple business** that has a **strong and stable cash flow generation pattern**. In the US it is a highly fragmented \$290 billion industry, with approximately 15,000 players. USFD is the second largest player with **8% market share**, just behind Sysco (SY) with 16%. USFD and SY are the only players with **national breadth**.

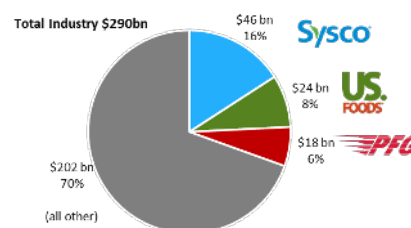
The industry has been consolidating in the past several decades. USFD buys products from 5,000 suppliers and delivers to 250,000 customers. Scale is extremely important in this business as it allows players to i) have bargaining power with suppliers; ii) run more efficient supply chain operations; and iii) dilute fixed costs. This combination of scale advantage with a consolidating industry translates into high barriers to entry and a widening moat.

Historical Share of Top 3 Players²



(1) USFD's numbers; (2) Source: Hale Group, Technomic

US Sales (\$bn) and Market Share



Recent Developments

USFD's latest results came out with quarterly earnings of \$0.64 per share, beating consensus estimates. This compares to earnings of \$0.57 per share a year ago (figures adjusted for non-recurring items). According to management: "Total case growth also improved, thanks to strong performance with independent restaurants and improved growth with healthcare and hospitality customers. Our service platform continues to get stronger and we are confident in achieving our financial guidance for the year." **Over the last four quarters, the company has surpassed consensus EPS and topped revenue estimates three times.**

Variant View

Based on our research, we believe that i) consensus today significantly underestimates the potential of the business and ii) the current multiple gap (~18%) versus Sysco is not justified and can be narrowed. We disagree with the following market perceptions:

- Management lost some credibility after i) sequential negative sales guidance revisions and ii) delivery problems during the implementation phase of a new logistics system. **We think current management has been improving the business since it took over and has the potential to continue doing so.**
- The company announced the acquisition of SGA, which represents 13% of revenues on a pro-forma basis, while the market expected cash distribution after years of deleveraging. The acquisition price was considered high, raising concerns regarding capital allocation discipline. **We believe the SGA acquisition was opportunistic, strategic, and will ultimately be value accretive.**
- SGA's acquisition also raised questions as to whether the integration process would pose an additional challenge for a management team that was already facing some difficulties. **In our opinion the integration is facing normal implementation challenges with limited long-term effects. Moreover, we see plenty of opportunities to reduce the margin gap vs SY.**

US FOODS (NYSE: USFD) - Long with Activist Value-added

Investment Thesis

1) Independents and private labels will drive gross margin expansion

•USFD's economics differ depending on the size of the client. On one end are large restaurant chains (1/3 of USFD's sales): these customers buy large volumes and therefore have bargaining power over distributors, which leads to very low margin deals. On the other end are a **large number of independent restaurants** (1/3 of USFD's sales): these buy in low volumes, which therefore gives distributors the power. The combination of this independent restaurant segment with the scale advantage of large distributors results in double the gross margins of national chains versus local ones, and a **return on invested capital that we estimate is >20% (compared to low single digits for large clients). Independents and private label are two correlated long-term secular trends that will make the business stronger and more profitable with time.** Evidence shows it is much easier to sell private label products to independents since customers save 10%-15% with the same quality, which is an appealing value proposition.

•According to management, half of the EBITDA margin gap to Sysco comes from gross margins, specifically due to lower private label penetration. Considering only the US Broadline business, Sysco makes 50% of their sales from independents, while **US Foods makes only 33%**, although it is **growing at almost double the market rate of the segment**. USFD's share of private label currently is at 35%, but is increasing at 100 basis points per year and accelerating. On an apples-to-apples comparison, our research suggests that the penetration gap versus Sysco is around 8%-10%. We estimate that 100 basis points of private label penetration expands gross margins by at least 10 basis points. **In conclusion, based on our research, 80% of the margin gap can be narrowed, resulting in a potential 1.3% increase in gross margin.**

2) Significant room for OPEX reduction

•During the years of private equity ownership, USFD underinvested in logistics, favoring sales initiatives and quick-return projects. USFD also lost a lot of clients after the announcement of a failed merger deal with SYY, as Sysco's sales reps convinced customers to start switching long before the transaction was blocked in 2015. Those problems, combined with talent turnover and low levels of engagement, led to operational underperformance and widened the margin gap between the companies. After the IPO (May 2016), USFD started to get back on track and results have improved significantly since then. We are confident that a great portion of the margin gap with Sysco can be narrowed.

•According to management, the other half of the EBITDA margin gap comes from OPEX. We know that supply chain expenses are almost double sales expenses, yet USFD is much more advanced in terms of sales initiatives and just recently started to focus on supply chain. Therefore, **we believe that management's plan to boost OPEX efficiency by \$120 million between 2017 and 2020 is credible and will likely come as flat real OPEX growth, with 50 basis points impact on margin.** However, it is worth noting that the gap is a moving target, with Sysco itself expecting an 80 basis points reduction from 2017 to 2020.

3) Activist shareholder can enhance value

•We know the market is worried about capital allocation discipline and we noticed there is no one with a strong investing background on the board. We think that by getting a seat on the board, an activist can help ease the market anxiety by assuring the quality of future capital allocation decisions. This can help close the valuation gap with Sysco (~18%). Our research suggests, for example, that management is not pursuing private label penetration as aggressively as they could, and we know that private label is an important driver of EPS. With board representation, an activist can i) assure that incentives and priorities are aligned with the key drivers of value creation and ii) focus on what creates most value to shareholders, reduce chances of missteps, and facilitate communication with the market.

Valuation

Under our Base Case, management steadily improves the business at a sub-optimal rate and anxiety persists, resulting in a non-ideal multiple. Sales grow 3.8% CAGR, PL penetration increases 100 bps per year, and EBIT margin reaches 4.1% in 2022, leading to \$4.05/sh EPS '22'. Using a 16.7x P/E multiple (USFD's current multiple) on expected EPS '22', we obtain \$68/sh, implying a 23% IRR. Activist involvement can enhance EPS by 6-7 p.p. and help expand the P/E multiple, therefore reaching a 33% implied IRR.

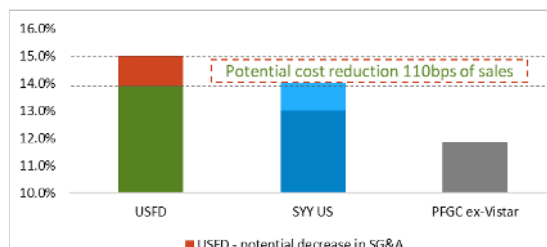
Illustrative Unit Economics of PL Products

	USFD Third Party	Branded Suppliers	USFD Private Label	
Revenues	100.0	86.7	88.4	12% lower price
COGS	86.7	56.4	65.9	15% implied manuf. GM ¹
Gross profit	13.3	30.3	22.5	
GM	13.3%	35.0%	25.4%	1.9x branded GM

	KHC	GIS	K	CPB	Average
Gross margin	34%	35%	36%	33%	35%

(1) Gross margin of TreeHouse Foods (THS), the largest private label food and beverage manufacturer in NA, is ~15%

SG&A Over Sales



	3-YR IRR 19' - 22' Fwd	EPS 2022			
		Stagnant	Passive		Activist
		Consensus 19'	<- Mid ->	Passive	<- Mid -> Activist
PE (Fwd)		2.19	3.12	4.05	4.40 4.74
Syr low	12.4	-9%	2%	11%	14% 17%
USFD current	16.7	0%	13%	23%	26% 29%
Syr average	17.2	1%	14%	24%	27% 31%
Target	18.0	3%	15%	26%	29% 33%
Peers average	19.2	5%	18%	29%	32% 36%
Syr high	22.2	10%	24%	35%	39% 42%



Mohnish Pabrai

Mohnish Pabrai, Pabrai Funds

Pabrai founded TransTech, Inc., an IT Consulting and Systems Integration company, in his home in 1990 and bootstrapped the company to over \$20m in revenue when it was sold in 2000.

He authored two books on value investing, *The Dhandho Investor* and *Mosaic: Perspectives on Investing*; with the former translated in German, Mandarin, Japanese, Thai, Korean, and Spanish.

Pabrai won the 1999 KPMG Illinois High Tech Entrepreneur award granted by KPMG, The State of Illinois, and The City of Chicago. He is a member of the Young President's Organization, and the Founder & Chairman of the Dakshana Foundation, providing 1-2 years of coaching for Technological Institutes' and Medical Schools' Entrance Exam to gifted but impoverished students, predominantly in rural India. The Indian Institutes of Technology have accepted 2,146 Dakshana Scholars in the last 12 years. Since 2017, medical schools have accepted 296 Dakshana Scholars, including 55 at AIIMS, India's top medical school. He lives in Irvine, CA and enjoys spending time with his wife Harina and children Monsoon and Momachi. He loves reading and playing duplicate bridge.

Graham & Doddsville (G&D): What's your background and how'd you get into investing?

Mohnish Pabrai (MP): I'm an engineer by training – my undergraduate degree is in Computer Engineering. I worked in hardware and firmware design at first, then moved to international sales and marketing in tech, before starting my own IT Services/System integration company. In 1994, I was vacationing with my wife in London and I was looking for something to read on the flight back, so I picked up one of Peter Lynch's books at the airport. I had never actually read any investing books before and I found Peter's book very exciting to read. Then I found out there was another Peter Lynch book and read that one, too. In the second book he was talking about a guy named Warren Buffett reverentially.

"The thing that Warren Buffett figured out when he was a 10-year-old kid was the magic of compounding."

I had never heard of this guy "Buffett" before. But I was lucky, because the first few books on Buffett came out in the early 90s and Lowenstein's biography on him came out in 1995. I was just trying to find out who this guy Buffett was, and that of course opened up a massive new world to me as I went through the biographies, the Letters to Shareholders; I learned a lot from all of this material and found it very exciting. The thing that

Warren Buffett figured out when he was a 10-year-old kid was the magic of compounding. He understood, even at that very young age, what Einstein said: "Compounding is the eighth wonder of the world." And the second thing he understood was that if he could compound at high rates, even starting with a very small amount of capital, he would get incredibly wealthy.

All the useless nonsense I got taught in school, and they never taught me this. I mean, when we learn compounding in school it's just for algebra or fractions or geometry. No one tells you it's the holy grail. Nobody explains its magic. So I was reading Buffett's biography by Lowenstein and I said to myself, "Wow, this kid just figured out two things." One of those two things – the magic of compounding – I've even figured out now. I got it at age 30 and he got it at age 10, but that's okay, I still have a long runway. Then for the second piece, how to compound at high rates, well Warren and Charlie are open books. They've freely shared how they do it.

At that time, I had just sold a small portion of my company and I had \$1 million in my bank account. It was actually the first time in my professional life that I didn't have any debt. I thought if I can compound that money at 26% p.a. for 30 years like Buffett, then through the magic of compounding the million becomes a billion – and I thought the billion was a much better number than the million. Even if I missed it by 80% or even 90%, who cares? Even \$100 million or \$200 million is still pretty good.

(Continued on page 23)

Mohnish Pabrai, Pabrai Funds

So I decided to give compounding a shot while still doing my day job running the boring IT company. I thought 26% should be a cakewalk at that time, because I had never invested before. In the first five years, the \$1 million turned into \$12 million – a return of 64% per year. From 1995 to 1999, I made more money from investing than my declining IT business was making, which had 200 people. Eventually my friends saw the success I was having and wanted me to manage their money too. I thought it wouldn't be too much effort for me to place one more trade for my friends after my own trades were done; but I didn't want to lose their money. I looked at the Buffett Partnership and modeled Pabrai Funds after that. I started Pabrai Funds in 1999, really just as a hobby, with \$1 million from eight friends and \$100,000 of my own money.

In the first year we were up 70%, and this was during the dot-com bubble while the NASDAQ was crashing and burning. From 1999 to 2007, the funds had returned about 37% p.a. before my ridiculous fees. Then from 2007 to 2009 we dropped nearly 70%. I learned a lot in 2008 and 2009. Adversity is a great teacher. Every time something negative happens to any of us, when we look back we usually recognize that time as one of great learning and great growth. I'm very grateful for that.

G&D: What were your mistakes during this 2007-2009 period and what did you learn from them?

MP: One mistake I made was I had several bets on levered financial institutions, and those institutions that were levered in 2008 and 2009 are not the ones that went on to live happily ever after. In fact, if you look at the returns of various banks since 2007, there's only one bank that actually had a positive return since then: J.P. Morgan. Every other bank is negative, and some are negative by a lot. I wasn't invested in banks, but I had some bets in sub-prime mortgage lenders, and they went straight to zero. To be honest, I continued to struggle with levered financial institutions until very recently.

"I still have one levered financial institution in my portfolio. When you're an alcoholic, you just can't give it up. So hopefully by talking to you now the lesson is getting seared into my mind: don't go near levered financial institutions."

It's interesting, as an investor each of us will have certain things we're very good at, and some things we have trouble with. For example, I have never seen Warren Buffett make a dumb bet with levered financial institutions. I think his batting average is 100%. But I've seen him make a ton of mistakes on retailers. If you

were to sum up all the Berkshire acquisitions, their record is actually not great. But if you weight them by actual capital deployed, their record is unbelievable. He was right with the banks – and I think now he's given up on retailers. So in some areas, Warren is just absolutely spectacular. That's the way for all investors. We have some areas we're really good at and we have other areas where we still have more to learn. I still have a lot to learn. For example, I still have one levered financial institution in my portfolio. When you're an alcoholic, you just can't give it up. So hopefully by talking to you now the lesson is getting seared into my mind: don't go near levered financial institutions.

G&D: Do you feel like you have certain circles of competence, maybe in technology companies, having started out as an engineer?

MP: You know, one thing that has benefited me greatly in investing was what I learned during my childhood. My father was an entrepreneur and he must have started, grown, and bankrupted at least 15 different companies in 15 different industries over his career. He had a jewelry manufacturing operation, he manufactured high-end audio speakers for Phillips, serviced and repaired high-end Japanese tape recorders, started a radio station, made a movie, had a handyman services company, an insurance brokerage, on and on and on...

He was really good at figuring out opportunities, even in fields that were brand new to

(Continued on page 24)

Mohnish Pabrai, Pabrai Funds

him. He was exceptional at starting and getting these businesses going, but he was always overly optimistic and highly levered. Then the first large storm would hit and the business would disappear. Then we'd be back to zero because my parents were very bad financial planners and we'd have no money for rent or groceries. Yet, somehow, he'd start another business again. My father used to say you could put him naked on a rock with nothing and he'd start a business.

Starting at the age of 11 or 12, my brother and I used to be like my father's Board of Directors. Eventually whatever company he was running at the time would be in trouble. He'd sit down with us and we had to figure out how to make it run for one more day. Then the next night we'd figure out how to make it run for one more day, and then for one more day...

Around age 16, he started taking me on sales calls with him. I am still amazed he did that. By the time I was 18, I had finished many MBAs. I had learned plenty about business they'll never teach you in business school.

One big advantage I gained from all this is I can understand businesses really well. I can crack business models. I can crack them on a wide range of industries, and I can do it really fast. I can look at a business and pretty quickly get my bearings on its basic economics and how it works and all that. But I can still get some investments wrong, because that's not where the investing results start and end. You need

to think fast and you need to think slow. On the thinking slow, there are a lot of humans better than me. I have very good skills on one side, but I have to get a lot better on the other side, and that's what makes it fun. There's still a lot of learning for me to do on the thinking slow side.

"Investing is straightforward. It's simple, but it's not easy. It's simple because we're just trying to figure out the future trajectory of a given business. But it's not easy, because figuring out the future trajectory of any given business is really, really hard to do, even for the most simple businesses."

In general, it is really critical to be right in the center of your circle of competence; you don't want to be near the edges or, God forbid, past the edge. If there are any things that are fuzzy for you, move on. We've got 50,000 stocks globally. Ideas are going to keep coming. If you don't buy one particular stock, you're still going to get rich. It doesn't matter. There's an unlimited supply of ideas.

G&D: Can you talk in more detail about your investment philosophy, which you said you modeled on Buffett's and Munger's own investment strategy?

MP: I think investing is pretty basic. The core principles will never change. We're putting out cash today with the goal of getting more cash in the future. Like Buffett said, it's all about comparing one bird in the hand with two in the bush. So, you ask questions, "How certain are we that there are two in the bush? How long is it going to take to get those two in the bush?" That's really what investing is.

At the core, investing is straightforward. It's simple, but it's not easy. It's simple because we're just trying to figure out the future trajectory of a given business. But it's not easy, because figuring out the future trajectory of any given business is really, really hard to do, even for the most simple businesses. There are so many factors that can affect that trajectory.

To be honest, you cannot figure out the future trajectory of most companies. Most businesses just don't have that type of a dynamic. Capitalism is too brutal – most companies won't even be around in 20 years. I don't want to try to figure out the future trajectory of companies like that. I want to make bets that are as no-brainer as possible, with as few variables involved as possible. So although figuring out the future cash flows of a given business is a difficult exercise, we can do some hacks to simplify the problem for us.

Mohnish Pabrai, Pabrai Funds

For example, in 2003 I came across this steel company called IPSCO. IPSCO was interesting because the stock was about \$ \$45 a share. They had \$15 a share in cash, no debt, and they publicly stated that their free cash flow was going to be \$15 a year for the next two years. This cash flow was contractually locked in from their customers.

Basically, if you looked at the cash on hand and the next two years of cash coming in after taxes, in two years you'd have \$45 a share on the balance sheet, and you were paying \$45 a share. All the plants, inventory, customer relationships, know-how, everything else, were free.

Now this was a widely cyclical industry, so it was possible that after two years earnings would be negative. But it was more likely, that earnings would be positive. I said "Okay, I don't know what this company is worth. I'm just going to make a bet, keep it for two years, and see what happens." That's a hack. I never ever figured out the intrinsic value of IPSCO.

A year goes by, then IPSCO announces that they'll have one more year of \$15 per share in earnings. The stock is now trading around \$90. Then a few months later some Swedish company came in and offered to buy them for \$160 and the stock immediately jumped to \$152. I didn't even wait for five minutes after I heard that news. I was out of there. It was a great outcome, and all because Mr. Market gives us these hacks.

G&D: Do you have any recent investments similar to IPSCO?

MP: There is a company called GrafTech that recently showed up on my radar. It's similar to IPSCO in many ways. We don't know the trajectory, but I think the odds of losing money are pretty muted, while there's a built-in element that could give me a nice double or triple in not too long. What's not to like about that?

"I said Okay, I don't know what this company is worth. I'm just going to make a bet, keep it for two years, see what happens. That's a hack. I never ever figured out the intrinsic value of IPSCO."

GrafTech makes ultra-high-performance electrodes, which go into electric arc furnaces that are used in mini-mills to make steel. Nucor, for example, is a customer. There are two ways to make steel: you can either make it with iron in a blast furnace or you can melt scrap in an electric arc furnace. To melt the scrap, you need these graphite electrodes able to withstand the 2,000- or 3,000-degree heat in the furnace. GrafTech makes these electrodes.

There are only three or four other manufacturers of these electrodes in the world. It takes three to five years to construct a new ultra-high-performance electrode manufacturing facility for greenfield expansion, so supply is very constrained. On top of this, GrafTech is the only manufacturer in the world that is backward-integrated. There is a very critical raw material required to make these electrodes called needle coke and, again, there are just three or four manufacturers of needle coke in the world. It's a byproduct of refining petroleum; for example, ConocoPhillips is a big supplier of needle coke. GrafTech is the only electrode manufacturer which owns a large needle coke facility. It takes a long time to construct a new needle coke facility, maybe five years or more. To sum up, there are number of factors in this industry that make it challenging to instantaneously raise capacity.

In 2018, prices for these electrodes went crazy. Historically, they were \$2-3,000, maybe \$4,000, a ton. Last year, they went all the way to \$25,000 or \$35,000 a ton. They just went bonkers. Of course, all the electrode manufacturers reaped incredible profits.

These electrodes represent only 3% to 5% of the total cost of making steel. It's a small part, but it's a critical one. The chemistry of these electrodes is very important, and so is the consistency of the supplier. GrafTech went to their customers and said "Hey, these electrode prices are going crazy, it's hard to get supply."

(Continued on page 26)

Mohnish Pabrai, Pabrai Funds

Do you want to sign a contract with us where we'll guarantee the supply and the price for the next three to five years?" All kinds of customers took them up on that. As a result, 70% of their production for the next several years is already sold, at a known margin and a known selling price. These are locked-in, take-or-pay contracts. Unless the customers go bankrupt, these are enforceable contracts. Furthermore, they're spread across hundreds of customers, so the revenue stream is very diversified. If you look at that 70% of revenue which is locked-in over the next several years, it covers the market cap. It's IPSCO 2.0. Now it's not coming in two years because it's not 2004 – it's coming in five years. But such is life; that's still okay.

The other 30% of production is sold on the spot market. This gives you a variation on what can happen. If electrode prices go crazy again, they will make super profits. They've only sold the production where they know what their costs are. No other ultra-high-performance electrode manufacturer can offer their customers these types of contracts because they don't have control of the raw material, so they don't know what their cost of raw materials is going to be three years from now. GrafTech is the only manufacturer that can offer this.

From my point of view, it's the same thing as IPSCO. Who knows what's going to happen here? I certainly don't. But why do these opportunities exist in the first place? It's because

markets hate uncertainty. The market, just like me, has no idea what the other 30% of production is worth. And Mr. Market has no idea what cash flows look like for 100% of production after five years. But we've got the downside covered, so we just sit on it. If at some point we get a deal done with China, we get a deal done with the rest of the world, if the world starts humming again, maybe things go crazy. But maybe none of that happens and we get our money back. There's a wide range of outcomes, but virtually all are acceptable.

"Why do these opportunities exist in the first place? It's because markets hate uncertainty. The market, just like me, has no idea what the other 30% of production is worth. And Mr. Market has no idea what cash flows look like for 100% of production after five years. But we've got the downside covered, so we just sit on it."

G&D: How do you find opportunities such as IPSCO or GrafTech? What does your process look like?

MP: I depend on the readers of Graham & Doddsville! Hopefully they can Google me and find my email address, and can you please put down that I am in desperate need of their great ideas. There's a fan of Mohnish in Canada who sent me the full write-up and thesis on GrafTech. All I had to do was to have mastery of the English language, and thankfully the education system did teach me that. I read it and I said "Okay, let's verify the facts." And the facts all checked out.

So, many people keep sending different ideas. I'm going through Value Line every week, too, and some stuff comes in that way. I'll read *Graham and Doddsville*, I'll look at Value Investor's Club, Sum Zero, the usual suspects. I'll look at DATAROMA to see what other people are buying. There are a lot of places to find ideas.

G&D: You came to investing because you wanted to compound, but it seems that in your portfolio you don't tend to have a lot of compounders. Is that a fair way of looking at it?

MP: That's a really good question. I am hoping that when I grow up, I can invest in the compounders. The problem is that out of 100 businesses, maybe two or three of them are good. Most of them are crap. When we look at these compounders, especially the "obvious" compounders, everyone else can see them too.

Is MasterCard a compounder? Yeah. But what's the multiple? I can't even look. Investing is not about buying great businesses,

(Continued on page 27)

Mohnish Pabrai, Pabrai Funds

it's about making great investments. A great compounder may not be a great investment. Look at Coca-Cola. If you bought it in 2000 and you held it until 2015, you had a pathetic return because it went from 40-plus times earnings to 14 times earnings. And 15 years is a long enough time to call yourself a long-term investor. At the end of the day, price matters. I wish I can get better at this. I think many times companies that look expensive are actually cheap. It's all a matter of the future cash flows. But I am such a cheapskate, as you saw with IPSCO and GrafTech. Should I buy GrafTech or should I take a flier on MasterCard? GrafTech or Amazon?

Every once in a while, you can get a compounder that's like a diamond in the rough; people can't see that it's a diamond, but it is. Every once in a while, that happens with me. Those are the ones a cheapskate like me can buy.

G&D: How do you think about risk and portfolio concentration?

MP: My portfolio is very concentrated. By the time you get to the sixth or seventh name, we are talking about 80% to 90% of our assets. Yet, everything is probabilistic. There aren't any sure bets in investing; the best we can do is just put the odds very heavily in our favor. That's one good reason not to make something like GrafTech 100% of your portfolio. But I think if you had something like GrafTech, someone like Charlie Munger would say if you had two other positions, you'll be fine. In fact,

Charlie would probably say that if you were 1/3 Berkshire, 1/3 a compounder like Costco, and 1/3 GrafTech, that's probably okay.

"I am hoping that when I grow up, I can invest in the compounders, ... [but] everyone else can see them too.

Is MasterCard a compounder? Yeah. But what's the multiple? I can't even look.

Investing is not about buying great businesses, it's about making great investments."

G&D: Do you use any leverage in your portfolio?

MP: No. Leverage is a very bad idea, and I'll tell you why. When I met Buffett for lunch in 2008, I asked him a question: "What ever happened to Rick Guerin?" Rick was one of the original Superinvestors of Graham-and-Doddsville. Warren said that he and Charlie always knew they were going to get very rich, and they were not in a hurry. He said Rick was in a hurry. When the stock market crashed in 1973-1974, it was down 60% and, if the market is down 60%, there are stocks that are down 90%,

95%. Because auction-driven markets are not rational, the lowest price a stock can trade at is one cent, regardless of the economics of the business. Instantaneously, it can trade at any price.

In 1974, Rick got margin calls, and Warren bought Rick's Berkshire holdings from him at \$40 a share. Each of those shares is worth \$300,000 right now, but Rick was forced to sell them to Buffett at \$40, and he didn't get the chance to play out his hand. By the way, I have since gotten to know Rick Guerin. He is a good friend and a fantastic human being and has done very well with his compounding endeavors. A small capital base, a long runway and a good compounding rate can do wonders. And I should add that Rick's recollection of these 1970s events differs from Warren.

When I look back at the Buffett lunch, if the only lesson I got from it was this conversation, it was well worth it. I was already not interested in leverage before I went for the lunch. After God himself told me this story, I said "We're never going to do that." So, Pabrai Funds doesn't use leverage, and I'm not going to take a stock like GrafTech and make some supposition that auction-driven markets can act in a certain band. They can do whatever they want, instantaneously. Just look at Long-Term Capital Management. There are a lot of history lessons out there. No leverage, please. I know that's blasphemy in private equity, but I think one can have a very good and wealthy life without leverage.

(Continued on page 28)

Mohnish Pabrai, Pabrai Funds

Same thing with shorting, it's just dumb. Maximum upside is a double. Maximum downside is bankruptcy. What kind of stupid bet is that? I look at the Forbes 400 list and I don't see any short-sellers on it. Someone like Jim Chanos, who's really good, will tell his clients "Listen, the market was up 10% last year and I was down 6%." And he's doing flips because he did so well, because he beat the market by four percent. That's how the scorecard is kept by short-sellers. Market is up 15%, I'm down 9%, you should be so grateful; and that's actually a really good feat for short-sellers. Shorting is one of the dumbest things you can do.

G&D: Can you talk about your international exposure? Recently, you were owning only one US stock.

MP: Now we have three, but one of those is Chrysler, which is technically European. The other two are GrafTech and Micron Technology. Yet, as Charlie says, go fish were the fish are. I feel like the U.S. fishpond has been pretty depleted, so I've gone to countries where I think the ponds are a little more well-stocked with fish.

We have significant exposure in India. Recently, I've been making trips to South Korea and to Turkey. When the Turkish Lira collapsed and the ship was going down, I booked a flight to Istanbul. Just as everyone was exiting, I decided, "Let's go take a look." By the way, the tea was really good – and the bargains in the stock market are awesome. One of the best bets I have is in Turkey. I won't talk about it

here because I'm still buying, but we have massive upside potential there with a pretty muted downside.

"No leverage, please. I know that's blasphemy in private equity, but I think one can have a very good and wealthy life without leverage.

Same thing with shorting, it's just dumb. Maximum upside is a double. Maximum downside is bankruptcy."

Unfortunately we aren't able to put much capital into it. South Korea is very interesting as well. Just look at the KOSPI index: 30 years ago, it was at 1,000, and now it's at 2,000. It's kind of like if the Dow was at 3,000 today. But in fact, 30 years ago there wasn't a South Korean civilization like the one today. It's been a miracle. The other thing is that when I went to Seoul, I talked to South Koreans and asked them: "Where do you put your money? Do you buy stocks?" They said, "Are you stupid? No. Stocks only go down." They buy apartments because prices have doubled in the last four years. We have some bets in South Korea, and I like those too. Yet honestly, with the South Korean market, I think if you just bought the

index, you could do quite well. The entire market cap of the country is less than Microsoft or Google or Apple. You can just buy the whole country for less than Microsoft.

G&D: One issue with South Korea is corporate governance and that not all shareholders are treated equally. How do you get comfortable with that?

MP: The companies we bought don't have those issues. I screened those out. We have rock-star governance. They listen to me, what a concept! I went to them and said, "Listen, you guys control the company and it's your company. But how about doing X?" Guess what? A few months later, they're doing X. Hallelujah! I didn't even twist their arm.

G&D: How much does the management team factor into your decision making?

MP: I think management is incredibly important. I've been burned many times when I didn't pay enough attention to that. Businesses, as I already told you, are very fragile. Most of them don't survive very long. Leadership, both depth of leadership as well as quality of leadership, matters a huge amount. The Fiat Chrysler bet I made was a very heavy bet on Sergio Marchionne. You could buy the whole thing for \$5 billion. Most of Ferrari, which is now a \$38 billion market cap was buried inside Fiat Chrysler. But even after we got many times our money back, I kept it because I realized that, my God, there's an incredible capital allocator at the helm, who really understands how to create value. When you run into

(Continued on page 29)

Mohnish Pabrai, Pabrai Funds

those kinds of people, you really want to hang on. Those are very unusual.

Then, on the other hand, I had an investment in a company in China which I just completely exited. During the entire time I owned the company, I had no idea who ran it. We put about \$21 million into it and got \$100+ million four years later, and still left a lot of money on the table. I still don't know who ran the company. But it's one of the widest moat companies one can ever think of. It's called Kweichow Moutai, and they manufacture a branded Chinese liquor. None of us can drink it – we can't handle it because it's so strong. It'd be like drinking gasoline. Still, it's incredibly expensive and seen as a luxury. You've got a product that I can't imagine costs more than \$5 a bottle to produce, being sold for over \$150 a bottle. Globally, 50% of all the liquor sold at more than \$150 a bottle is Moutai. It has the greatest market cap of any liquor company on the planet.

About four years ago, when I bought it, the Communist Party was cracking down on corruption... See, a lot of Moutai was being consumed while government officials were meeting with private people. What happened is people would take pictures, and if you were a government guy and there was Moutai on the table when you were meeting anybody for lunch, you just went straight to prison, because they said nothing good is happening in that conversation with the Moutai open. Yet, the company just has an unbelievable moat. I still don't

know who runs it, but it doesn't matter. I think the village idiot can run Moutai, and still mint money. All he has to do is to jack up the price by 15% every January 1st. They can sell that stuff at any price they want, and it'll all be gone. They come up with a special edition at \$40,000 a bottle, and it's gone in an hour.

“Take the job you would if you weren't getting paid. Work for someone you like, admire, and trust, don't take the job with the most prestigious firm or offering the most money. Those are both very stupid things.”

G&D: Did you trim your position with Fiat Chrysler at all after Sergio passed away?

MP: No, I didn't. I recently started trimming. It was a really sad thing that Sergio passed away. He was a one in a 100-year kind of manager. A very unusual guy. He was quite confident about the future of the business. Still, he was going to retire in a few months anyway, and his hand-picked successor is running the place now. In fact, from then until now, the execution has been great. I haven't seen Fiat Chrysler do stupid things after Sergio was gone. I think he gave them a game plan for the next four years, and they're executing very well on that

plan. They have great owners, too. John Elkann and the Agnelli family are exceptional stewards and they've been very fair to outside shareholders. They've conducted themselves with the highest ethical standards. No complaints. But I wish Sergio was still running the place.

G&D: Do you have any parting advice for MBA students who are looking to get into the investment world?

MP: I think all of you should have an investing account. You should have a three-stock portfolio, in honor of Charlie Munger. And those 3 stocks should all have prospects of compounding capital north of 30% annualized. Not the stupid \$10 worth \$13 stuff. It's okay if one of the three is GrafTech, I'll give you a pass on that. But the other two need to be solid compounders that no one understands or can figure out, and they need to be squarely in your circle of competence.

In terms of career, take the job you would take if you weren't getting paid. As Buffett says, go work for someone you like, admire, and trust. Those are the jobs you want. Don't take the job with the most prestigious firm or offering the most money. Those are both very stupid things.

Lastly, remember that it's all about length of runway and rate of return. Starting capital is not that relevant. All of you will have plenty of income. The key is to spend considerably less than you earn. There are two sides to getting rich. One is spending less than you earn, the second is compounding.

G&D: Thank you very much.



Ellen Carr

Ellen Carr, Weaver C. Barksdale

portfolio management experience through several cycles.

Prior to joining WCB in 2013, Ellen was a high yield analyst and portfolio manager at Capital Group from 1999 to 2012, where she was responsible for \$4 billion AUM across Capital's high yield strategies, including a sleeve of its flagship high yield fund (ticker AHITX).

Additionally, Ellen is an adjunct professor at Columbia Business School, where she teaches courses on the credit cycle and cash flow forecasting. She has published articles in the Financial Times and is co-authoring a book about the dearth of female portfolio managers to be published by Columbia University Press.

Ellen splits her time between Asheville, NC and New York. She serves as a board member of her local NPR affiliate, the national NPR Foundation, the Wilma Dykeman Legacy, the Thomas Wolfe Memorial, and is a member of the finance committee of the Western North Carolina Community Foundation. Ellen also manages a family foundation (carrfamilyfoundation.org) which awards college scholarships in rural communities.

Ellen received a BA (magna cum laude, Phi Beta Kappa) from Harvard College and an MBA from the Kellogg School of Management at

Northwestern University. She is a Chartered Financial Analyst (CFA) Charterholder.

Graham & Doddsville (G&D): Thank you for taking the time to interview with Graham & Doddsville. Can we start by discussing your background and how you got into the investment industry?

Ellen Carr (EC): I went to Kellogg Business School a long time ago (I just had my 20-year reunion, actually). Before that, I worked for a small consulting firm in Los Angeles and had no background in investment management. When I got to Kellogg, it was the lead-up to the dot-com bubble. Equity analysts were quoted all the time in the Wall Street Journal and it just seemed like an attractive career, one where people would care about your thoughts on a company. These were the days of Mary Meeker (a Morgan Stanley tech equity research analyst in the late-90s), who was known as "the internet queen" back then. Sell-side analysts had a lot of sway and influence over companies, influencing which stocks went up. I liked the fact that you could translate company analysis into actionable ideas for investors.

While at Kellogg, I focused heavily on sell-side recruiting for the summer because this was where most of the jobs were. Although I had never thought about fixed income before, I worked at Morgan Stanley over the summer, rotating across fixed income sell-side research and the trading division. I liked the people I met during the interview process at Morgan

Stanley the best, so I thought this would be an interesting place to try something out. It was the summer of 1998, when Long-Term Capital Management failed, a predecessor to a lot of much bigger failures that happened in later years. At the end of the summer, Russia defaulted, many emerging markets were having issues, and a crisis started in Asia. It was a difficult time for full-time employees at Morgan Stanley (I saw a lot of traders with their heads down on their desks), but it was a great time from an intern's perspective, experiencing all these market events.

By the time I got an offer from Morgan Stanley to go back, I figured out that my personality was more suited to the buy-side. I liked an environment where I could take more time to dig into a company and adopt an entrepreneurial approach. On the sell-side, everybody learns to do the same model, which was valuable training. Yet, I wanted to spread my wings and approach investing from a more creative perspective. I received an offer from Capital Group thanks to a referral by a Morgan Stanley colleague and decided this was where I wanted to go; it was also an opportunity to go back to California.

G&D: How did going through the market volatility of the late '90s influence your career and investing philosophy?

EC: A lot of that filtered through my first 5 years in the investing business. During my summer at Morgan Stanley in 1998, a lot of bad things happened. I then went to

(Continued on page 31)

Ellen Carr, Weaver C. Barksdale

Capital Group in 1999 and equity markets peaked before starting to unravel in 2000. I was in the High Yield bond market and it wasn't a great time there either. Then 2002 was an especially bad year. On the equity side, Capital had just been through a difficult underperformance period because we stayed away from the internet bubble. None of the analysts could figure out how to value these companies and it turned out they were right to stay on the sidelines. There were some very painful moments, especially on the institutional side of the business, an area where clients are looking at performance relative to a benchmark.

I witnessed that, and with it the vindication that came from sticking to your guns and demanding common sense valuation metrics for the companies in which you invest. That was also the era of Enron and WorldCom, which was another one of Capital's great "avoid" moments on both the equity and fixed income sides. The analysts could not model Enron; anybody who said she could was lying. Watching some of the most senior equity analysts struggle with the valuation and say "I don't understand how the investing universe has gotten into a love affair with this company that doesn't generate free cash flow" was powerful.

The most important thing that I learned during that time was to be cautious. That might have hurt my investing career sometimes, because I am a very conservative investor. When I was still at Capital Group, I was always the most conservatively positioned and

that manifested in a lower yielding portfolio than the other portfolio managers. However, I started managing money a couple of years before the credit crisis and my results were the best during that time period because I tended to be more conservatively positioned. To anybody thinking about a career in investment, going through a cycle, and particularly a bear market, is an invaluable experience.

"I don't know how to value any of the FANG stocks, but it can be helpful to sit on the opposite side of the capital structure table.

If I were to truly challenge myself, I would try to take an equity perspective. Conversely, if I were an equity analyst, I would probably take a fixed income approach."

G&D: How did the internet bubble impact the High Yield market in the late '90s?

EC: We had a very different experience on the debt side versus the equity side. On the debt side, those internet companies didn't come to the High Yield market. They were looking for equity capital,

which was absolutely the right way for companies such as Pets.com to fund themselves. However, during the 2002 High Yield bear market, the TMT sector had grown to about a third of the market. The High Yield group at Capital was substantially overweight those sectors because the analysts who followed them were very passionate about the companies. The High Yield TMT analysts were spending a lot of time talking to their equity counterparts, yet managed to blind themselves, failing to realize that the same things that equity analysts were worried about were relevant to the companies that they were looking at even though they were different companies.

It was an interesting lesson about the need to look at all the data points. A great example is the paging industry. The paging industry financed a lot of its capital requirements in the high yield market from 1999 through 2001. The analysts liked some of the paging companies, yet they didn't consider the fact that if you liked the wireless sector, which was nascent at that point, then you probably shouldn't like the paging sector too because it would likely be disintermediated. Connecting the dots is certainly a lesson I learned and still spend a lot of time attempting to do today.

An analogy today would be the FANG stocks. I don't know how to value any of the FANG stocks, but it can be helpful to sit on the opposite side of the capital structure table. As an example, I don't own Netflix bonds. They trade very well. It's a BB-rated company and

(Continued on page 32)

Ellen Carr, Weaver C. Barksdale

I've always been very skeptical of any company that doesn't generate free cash flow. If I were to truly challenge myself, I would try to take an equity perspective and think about why the equity market has so much comfort in a company's ability to march towards free cash flow, asking myself "what is it I'm missing here?"

Conversely, if I were an equity analyst, I would probably take a fixed income approach to Netflix and say "this company doesn't generate cash flow. In fact, its operating cash deficit seems to be growing because it's investing so much in content. How could that possibly translate into the valuation that it has in the equity market?"

G&D: Do you see any bubbles in the market right now? Are you cautious against any industries?

EC: I think the biggest bubble right now is in the corporate debt market. There are a couple of different aspects of it that are particularly troubling. The first one is the explosion of BBB-rated bonds. A certain percentage of BBBs get downgraded to junk within five years of issuance based on rating agencies' seasoning models. Over the next five years, there will be pressure on the High Yield market because the capital structures of Investment Grade companies are much larger. Take GE for example: there were concerns they would be downgraded to High Yield earlier this year. If that had happened, GE would've represented about 10% of the High Yield market value. It would be really difficult for the High Yield market to absorb

that tremendous "issuance". Investment grade portfolio managers are overweight BBBs. They tend to overweight the highest risk part of the market because the default statistics on BBBs are virtually nil, yet you get paid some incremental spread over higher-rated corporate bonds. The fact that a lot of money has been invested in that part of the market makes me nervous about what will happen if there is either a recession or an exogenous shock.

"Fallen angels' bonds are structurally inferior to other bonds in the High Yield market, because High Yield bonds generally enjoy covenant protection and are issued at the operating company level with subsidiary guarantees."

I'm also worried about the Leveraged Loan market, which is exhibiting the same type of underwriting behavior, exuberance, and frothiness that it did in 2007. I think of High Yield bonds as a pretty stable asset class. There are ups and downs in covenant quality and deals underwritten at this point in the cycle are typically not great, but the High Yield market doesn't boom and bust the way the Leverage Loan market does

because it has a pretty stable investor base. High Yield investors don't change that much from cycle to cycle, whereas there is often new money flowing into and out of the Leveraged Loan market. The collateralized loan obligations, or CLOs, that we saw in 2005 to 2007 are back. Most of these investors are not sophisticated analytical buyers; they are buying primarily because something has a certain rating, although in some cases what they're buying isn't worth as much as what they think it is. Those buyers are also the ones who will probably be forced sellers at the wrong point in the cycle.

G&D: Could fallen angels be attractive, given their relative safety and liquidity?

EC: I think they could be in the long-term. During the 2005 fallen angels' cycle, the auto companies got downgraded to High Yield. Ford, GM, and Chrysler combined became 15% of the High Yield issuances. The market wasn't ready to absorb all that volume. These issuers were downgraded to High Yield because they were deteriorating, so it took them a long time and, in the case of Chrysler and GM, a Chapter 11 process to get back to Investment Grade. I don't anticipate a similar thing to happen in this cycle, but rather that some companies will gently slip from Investment Grade to High Yield. That will give us a chance to buy better issuers, which is positive.

However, even in the case of a perfectly good company that's become risky in terms of leverage and gets downgraded

(Continued on page 33)

Ellen Carr, Weaver C. Barksdale

to High Yield, there are two factors that will make an orderly transition difficult. First, the sheer amount of supply will require some time to be absorbed. When there is massive selling pressure, with Investment Grade holders forced to sell bonds from previously BBB issuers which get downgraded to High Yield, it creates a vacuum until High Yield buyers have had a chance to research the credit and get to know the individual bonds in the capital structure.

Secondly, the fallen angels' bonds are structurally inferior to other bonds in the High Yield market, because High Yield bonds generally enjoy covenant protection and are issued at the operating company level with subsidiary guarantees. To the contrary, Investment Grade bonds are for the most part lacking these structural protections. Even if you like AT&T better than Sprint as a company, you still might look at Sprint's secured bonds and prefer the collateral protection as opposed to a general unsecured obligation at the parent company level for AT&T bonds. These may look like technical differences, but in the High Yield market they matter a lot.

G&D: If an Investment Grade company gets downgraded to High Yield, would the return be attractive enough for High Yield managers?

EC: It depends on the point in the cycle. The spread between BBB and BB bonds is fairly compressed now, but there's still about 100 bps of spread pickup. If the spread stands at 100 bps between BBB and BB, with the wide bid-ask spread in

High Yield market dislocation, valuations usually overshoot to become truly cheap before High Yield managers get really excited and buy a fallen angel.

“Contrary to what happens in the Equity market, if you sell something at a high price in the High Yield market, then good luck on ever buying it back below or finding something reasonable to replace it with.”

G&D: Are there any industries in the BBB market that you are worried may be downgraded to High Yield?

EC: I don't think it would be an industry phenomenon. If you take the 2000 to 2002 cycle, it was very industry focused. It was Telecom, Media, and Tech, the latter to a lesser extent. This time around, there's good diversification among the various BBB industries; same thing in High Yield. Hence, I'm not that concerned about any particular industry. Take sectors like Energy or Commodities: a lot of shakeout happened in 2015 and 2016. I think it will be bottom-up oriented, without any particular industry stress.

G&D: Do you usually hold bonds to maturity, or is your return coming more from spread compression?

EC: By and large I'm not looking for capital appreciation as much as I'm looking for something to mature at par. At my firm, the primary mandate on the High Yield side is a short duration one. We have a five-year maturity limit. Once I buy, unless the credit deteriorates meaningfully, I intend to hold it to maturity, particularly due to the high trading costs in High Yield.

Early in my years as a portfolio manager I made selling mistakes. I would sell a company that was up four points because I knew it didn't deserve to trade at that valuation. Yet contrary to what happens in the Equity market, if you sell something at a high price in the High Yield market, then good luck on ever buying it back below or finding something reasonable to replace it with. Once I get invested in a name it takes a pretty big change in my credit opinion to sell it.

Having said that, I'm not afraid to sell something if my credit opinion has changed. I recently sold Pitney Bowes, which became a fallen angel a couple of years ago. When it entered the High Yield market I liked the bonds for two reasons.

First, a number of bonds had coupon step-up protection, meaning that every time the bond got downgraded by a notch, the coupon increased by 25 bps to a maximum of 200 bps, meaning a holder of the bond was protected from spread widening as the

(Continued on page 34)

Ellen Carr, Weaver C. Barksdale

downgrades occurred (i.e. the increased coupon offset the spread increase). Second, I liked the company's free cash flow generation. So even though it had been downgraded and had several businesses under assault from different internet business models, Pitney Bowes still had a tremendous amount of free cash flow, and it was also investing in new business lines.

I owned the bonds for about 18 months and, every quarter, things didn't exactly go the way management said. There was always some new story about why this business line wasn't as profitable as they had hoped or, even if the revenue trend was good, management had overestimated the margin potential. Finally, after five or six quarters, I decided to exit the position because my initial thesis that the company would both continue to generate good free cash flow as well as maintain its margins was gradually disproven. When something goes against my thesis for more than a couple of quarters, I sell.

G&D: When a company goes from High Yield to Investment Grade, do you usually sell?

EC: It depends on how I feel about the market at the time. Given the current environment, I generally have not sold rising stars. In some cases, that is because by the time they get Investment Grade ratings, the maturity has become short. For example, I held onto Constellation Brands when it got upgraded to Investment Grade more than a year ago as it is maturing later this year. Still, you don't always have the flexibility to do that.

With some of the institutional clients who are more benchmark-focused, I would be more likely to sell something that gets upgraded.

"I think that at this point of the cycle the better trade is to increase the credit quality and give up a little bit of yield. When the downturn comes, that's when I want to buy the lower-rated, lower-quality issuers because the spread will become much greater."

G&D: As a bond investor, do you place more weight on the valuation or the fundamentals?

EC: I think valuation is more important in Equities than in Bonds. People in my market can make bad sell decisions based on valuation alone, but they generally don't make the wrong decision if it's based on fundamentals. If a credit is deteriorating from a fundamental point of view, you really want to get out of it. Eventually you will feel really good about having gotten out of a bond that is down five points from par when the company goes through restructuring and ends up

paying 50 cents on the dollar. Of course, you have to consider valuation and should not pay too much for something. Yet what people tend to do at this point in the cycle is they don't want to own things like HCA because it looks too rich. Investors are getting greedy and are only looking at valuation. They look at spreads between wireless telecom issuers going from a B to a CCC and say "I'm getting paid 100 bps to get the CCC, so I'd rather own that," while I think that at this point of the cycle the better trade is to increase the credit quality and give up a little bit of yield. When the downturn comes, that's when I want to buy the lower-rated, lower-quality issuers because the spread will become much greater.

In Fixed Income people tend to sell too early. What they do is look at a spread or a yield target and sell once the bond hits that target. The problem is that when that happens, it's a classic example of selling your house because you thought the housing market was overvalued; but guess what, you now have to go find another house and you may end up in a worse house. The High Yield market is very much like that. Oftentimes the house you're in is the best one, and even if you could get the right price for it, it would be hard to replace it with something you liked as much.

My view on this has evolved since the time I was at Capital. At Weaver, where I manage millions rather than billions, I have more opportunity to do transactional things. I can sell something based on valuation because the liquidity

(Continued on page 35)

Ellen Carr, Weaver C. Barksdale

constraints aren't as material as they were at Capital, and I can probably get reinvested more easily. Still, generally speaking, if my credit view on a company hasn't changed, I would continue to own it unless I see something really exciting that I want to replace it with.

G&D: How comfortable are you with counting on assets to mitigate risk when issuers operate in a declining industry?

EC: I always value collateral. If there is a secured and an unsecured option in the capital structure, and if I can only buy one, I will almost always buy the secured position. Between the OpCo position versus the HoldCo position, I'll always take the less risky position in the capital structure.

However, you still have to be comfortable with the collateral. For example, in the Chrysler 2007 leveraged buyout, the second-lien was worth nothing because it was secured by the subsidiaries' stock, and by the time the first-lien holders got paid out at par there didn't remain enough collateral to go around.

It will be interesting to see how the High Yield market evolves to evaluate the lack of what High Yield investors would consider good collateral. A lot of the new tech business models like the FAANGs don't really have buildings, factories, or tangible assets; it's much more about intellectual property. The Equity market has always been cognizant of the value embedded, whereas High Yield investors usually want to be able to point at something and

say: "that's mine if this company files." I think the degree of value we've placed on hard collateral is going to decline over time because real assets are becoming a meaningless concept.

"I'm wondering how the market is going to evolve and if hard collateral will be less valuable... It may not be valuable to have as collateral an old mall that nobody goes to anymore or a factory that's worthless because production has moved."

It's not as important any more to own a factory or a building in this age of more technology-oriented business models. I'm wondering how the market is going to evolve and if security or "hard collateral" will be less valuable. It might become equally valuable to have subsidiaries' stock as collateral, whereas it has previously been perceived to be inferior collateral, since today it may not be valuable to have as collateral an old mall that nobody goes to anymore or a factory that's worthless because production has moved.

In a bull market the market doesn't care about collateral. Take HCA for example: the spread between the secured and unsecured debt is around 75 bps right now. I'm very happy to sacrifice 75 bps yield for HCA's secured paper. In a bear market, that discount would balloon to over 200 bps, even for HCA, which is not a distressed issuer. Since the market is not paying a lot for that unsecured risk, you are better off in the secured part of the capital structure. When the market turns to a bear credit market, I expect to rotate out of some of the secured structure to buy the unsecured paper.

G&D: In addition to collateral, what other fundamental factors do you look at when assessing an issue?

EC: I always focus on free cash flow and that takes many different forms. I'm looking for companies that generate free cash flow and are interested in deploying that free cash flow beyond giving it back to their shareholders. That might be paying down debt, reinvesting in the businesses, or maintaining capex to keep the businesses in good shape.

The focus on free cash flow allows me to think bottom-up as opposed to taking an industry view. In top-down industries, such as the Commodities sector, no matter what the management team does, the company's fortune will be dictated by what's going on in the Commodities market. If you go back to the Exploration & Production (E&P) cycle, Chesapeake had bad management before they

(Continued on page 36)

Ellen Carr, Weaver C. Barksdale

booted the former CEO. The new management was good and did everything they could to position the company for a down market. But when the cycle hit, it overwhelmed even the new management team's best intentions. The company was too levered and hit a rough patch. In these industries, you want to have a view on the industry and that's why I tend to avoid the more commoditized sectors.

I like bottom-up industries because even during an economic slowdown, if management executes well, the companies will do well. The retail sector is a great example of that: if you have a great value proposition and sound execution, even if there is a recession, customers will still come to you because you built a better mouse trap.

G&D: How do you put together a portfolio?

EC: We manage our portfolios to meet client guidelines. My typical approach when starting a portfolio is to cap industry exposures at about 2x the benchmark level. If an industry represents more than 10% of the High Yield market, as the Energy sector currently does, I'll typically have an upper bound at index plus 500 bps. My lower bound stands at zero, meaning I'm not afraid of not owning anything in an industry.

Having said that, most of the time you can find something to invest in, especially in a large industry such as Energy. For institutional clients who are paying for exposure to the High Yield market, I find it irresponsible not owning any

Energy issues when the benchmark is 15% Energy. Because there is so much variety in operating models and capital structures, you can find something attractive. At the issuer level, we have a 5% limit. When I first invest in a company, I usually take about a 2% starter position and monitor it for a couple of quarters to make sure the investment thesis plays out. My average positions are usually in the 3% range, with only a couple of issuers at the 5% level. In all cases where I own a position of more than 4%, I have both the secured and the unsecured positions in the same capital structure. A great example of that is Tenet, which is a hospital company. Tenet is not the best hospital company by any means, but it is a 4.25% position in my portfolio. Two-thirds of that is secured because secured hospital bonds are bulletproof, unless there's fraud. The other third is unsecured. As Tenet had its share of issues and there is some noise around the Healthcare sector, you get paid to hold the unsecured part of the capital structure: there is a 150 bps spread pick-up.

G&D: When you add positions to your portfolio, do you use any metrics to gauge whether they are a good fit for the overall portfolio or is it a pure bottom-up exercise?

EC: It's rare to uncover an investment that the market hasn't priced appropriately. Yet something can be priced appropriately and still generate a 6% return, with good conviction on the company's long-term commitment to its ratings. As an example, a lot of High Yield managers probably

don't own as much HCA as I do. It is a 4% position in my portfolio, and I own both the secured and unsecured paper. Most people would say all the juice has been squeezed out of the HCA orange because it trades like Investment Grade, even for the unsecured bonds. Howard Marks, who is the god of the High Yield market, always says "you don't have to know exactly where you are, but you have to know if you're closer to the end or the beginning of the credit cycle." Looking at every single indicator, from corporate leverage to the duration of this bull market by way of valuations, it should be clear that we are much closer to the end than to the beginning of the credit cycle. That's why staying in HCA capital structure and under-yielding my benchmark still feels okay.

The place where I would like to have a buy list, yet don't have any at this point, is the CCC part of the market. I am generally underweight CCCs as I believe it's not the right time to invest in them. Still, from what I have seen in the last few market cycles, when the market turns you need to be ready to buy quickly because windows of opportunity will close and shut. Some bonds get marked down 20 points on a one-million-dollar trade—that's just how illiquid the market can be when it turns. I think it would be worthwhile to come up with a list of lower-quality issuers that are trading at lofty valuations. The market will punish them when it turns, and those are the names I would like to add in such a period.

(Continued on page 37)

Ellen Carr, Weaver C. Barksdale

G&D: How do you screen for opportunities? Do you source your own ideas or do analysts bring ideas to you?

EC: I work with another portfolio manager and an analyst. That's been helpful, but I do not invest in any company unless I build a model from scratch and go through the 10Ks, financial statements, and the earnings' transcripts. I think doing the foundation work on a firm sets you up for a good investment decision.

I tend to start with companies displaying a stable or improving ratings trajectory. I also have a couple of industry biases. First, I don't like financials because High Yield financials are a contradiction: financial companies should be Investment Grade since accessing capital is so important to their business model. I tend to be underweight the Commodities and Energy sectors, simply because leveraging a highly volatile company eventually leads to ruin, which we saw in 2015 and 2016.

I had good success in some melting ice cube industries, for example with an incumbent wireline company or some retail issuers that have found a home in the High Yield market. Those companies are under assault from changing business models and evolving technology, but they take a lot longer to die than they might appear to. I wouldn't touch the equity of these companies, but firms like Frontier or CenturyLink can offer attractive Fixed Income opportunities in the very short end of the maturity curve. A company may not be viable

long-term, yet it could still have a bank revolver available, cash on the balance sheet, and assets that it can sell, all of which would make it investable under a two-year maturity, but much less so with a five-year or eight-year maturity. The poster child for that is J.

“20 years in the fixed income market is a lifetime... You don't always have to have a constructive long-term view about a company to get comfortable with its short-term maturities.”

C. Penney. Retail was my first sector; I started covering it in 2000. It was when everybody started talking about the internet and its impact on the mall sector. Everybody decided that the mall was dead and no one was ever going to shop at Macy's again. It turns out it was true, but it took 20 years for that to come home to roost. J. C. Penney is on the verge of filing for bankruptcy and Macy's is still BBB, albeit trading more like a BB. We are finally seeing Amazon and the other internet alternatives take a bite out of the cash flow of these companies... But 20 years in the fixed income market is a lifetime. There might have been five new issues and bond maturities in that timeframe, which means

you don't always have to have a constructive long-term view about a company to get comfortable with its short-term maturities.

G&D: Do you usually buy companies that you have known for a long time?

EC: At least two-thirds of my portfolio is comprised of companies that I have known for over five years, even for the very short-term holdings. An example is Nielsen, which I have known for a long time. It became private equity-backed during the 2005-2007 LBO cycle. I like the company and its underlying cash flow generation, but there have been many questions about the sustainability of its business model. Nielsen has a clear pathway to paying down debt, but there is the risk that if it is acquired it will be levered up, so I have only been comfortable owning a short maturity bond.

As another example, Sprint is a company with which probably every High Yield investor has a love-hate relationship. Yet you would still be hard-pressed to find a High Yield portfolio manager not owning any of its bonds. There are many investment theses on Sprint. Some hold it because of the M&A thesis: they assume that under the Trump administration, there is going to be a way to get the T-Mobile/Sprint merger done that didn't exist in the Obama administration. That is not my investment thesis. My investment thesis is spectrum value, which covers the bonds easily. There is a whole class of High Yield investors who have known Sprint over the many

(Continued on page 38)

Ellen Carr, Weaver C. Barksdale

troubled iterations of its history. The company still burns cash and is one of the only companies I own that doesn't generate free cash flow, but I'm still comfortable with it, because the spectrum Sprint owns would be very valuable in somebody else's hands. Although they're not managing the spectrum well, bond holders take comfort from the underlying asset value of the wireless spectrum.

G&D: ESG mandates are witnessing rising popularity. What's your experience on that and what do you think is driving this rising demand?

EC: We received a lot of interest in ESG mandates recently and I think this is an area with a lot of growing pains right now. We currently don't do anything labelled as SRI or ESG because that means such different things to different firms. For example, if you look at PIMCO's total return fund that calls itself ESG, it owns Exxon. You can argue that Exxon is doing some things about the climate, but I think a lot of investors who buy an ESG fund do not want to invest in big oil firms.

The investment management business faces long-term issues, which is illustrated by fee compression and a shift to passive. One area that I think will continue to grow and thrive is ESG. But we should take a step back and think about what we are trying to achieve with ESG and who should be proposing the ESG criteria. Should clients come up with a list of companies? Or should asset managers create ESG buckets, exclusions, approved lists, and work it into

the DNA of how their analysts analyze companies, similar to what AI Gore's firm Generation Investment Management does?

"There are firms such as Generation Investment Management that have done a good job of generating superior results under an ESG framework, but I think that is the exception rather than the rule. To gain real traction, it's going to take a lot more in terms of specific criteria and transparency into the way firms define ESG."

I think what has been driving the popularity of ESG is the millennial generation. My son, who is only seven, is already having conversations with me on this. One of his favorite shows is The Lorax, and it's basically about climate change. My son and I had this philosophical debate about what we are doing to the Earth, and he talks about how if he had land, he would never cut down any trees. The younger generation picks things they want corporations

to address, and I think it's rippling through the market. If it's having this much of an impact today, just think about what it's going to look like in 50 years, when this generation oversees all the wealth. The evidence to date on the performance of ESG mandates is mixed at best. Nobody is making a ton of money in ESG versus non-ESG mandates. There are firms such as Generation Investment Management that have done a good job of generating superior results under an ESG framework, but I think that is the exception rather than the rule. To gain real traction, it's going to take a lot more in terms of specific criteria and transparency into the way firms define ESG; but I think ESG will get there.

That being said, I think returns should still be an important factor. I get excited about the prospect of combining a focus on returns with an attention to things you want to see companies do. But as an analyst who models companies all day, I don't have a framework for incorporating that. Bloomberg now has a function that gives companies an ESG score, and it's very quantitative. It goes through everything from board composition, diversity by gender/race, to employee practices. Still, it can sometimes generate counterintuitive results. There is still a lot of work to really understand how to translate corporate culture and practices into a set of quantitative metrics. This is a real opportunity; right now, there is no substitute for bottom-up research.

(Continued on page 39)

Ellen Carr, Weaver C. Barksdale

G&D: On the topic of passive vs. active, what do you think will be the key value-add factor for active going forward?

EC: Weaver's CIO wrote a white paper titled "The Top Ten Reasons Against Fixed Income Indexation and Why Passive Fixed Income Management Doesn't Exist." In line with him, I think it's much more difficult to adopt a passive approach in the Fixed Income space.

The first reason comes from the lack of liquidity: since Bonds are not exchange-traded, it's difficult for ETFs to move around and get invested. Until the liquidity challenges are fixed it will be difficult for passive to take the kind of share it has taken in Equities.

The second reason is that passive represents maybe 5% of the High Yield market but tends to be a big marginal contributor to volatility. On down days, ETFs programmatically sell bonds as retail investors pull out, and the opposite thing happens on the flip side. As a small nimble active manager, you can pick up good bargains on days like that. Another big problem with passive in Fixed Income is that it does not discriminate between big issuers, which are usually more levered and thus poorer credit, and good issuers. It's a similar structural issue to the one you have in Equities, when you are buying overvalued companies, but there is a big difference between buying the stock of an overvalued company and investing in the bonds of a company which is so levered that it's a potential distress candidate. These are structural

issues that I think passive players just can't address in Fixed Income.

"There is a big difference between buying the stock of an overvalued company and investing in the bonds of a company which is so levered that it's a potential distress candidate. These are structural issues that I think passive players just can't address in Fixed Income."

G&D: What are some of the investments you are most excited about these days?

EC: I'm not super excited about anything right now because valuations are stretched. Occasionally, I'll stumble across a good company while reading a sell-side research report or hearing something from a trader, and then dig in.

A great example is a chemical company called Olin. Its 2022 bond is BB-rated. The management team has been stable and the founder is still involved in the company. It has always managed its capital structure conservatively, with an eye on the BB rating, and it generates a fair amount of free cash flow after dividend. Given

its leverage trajectory it's a rising star candidate, meaning it has the potential to be upgraded to Investment Grade. Some of the biggest winners in High Yield are companies that have Investment Grade ratings potential but are still priced and rated as BB. Because of the 100+ bps spread compression that occurs when a company goes from High Yield to Investment Grade, these firms' bonds offer a lot of upside potential.

Another example is Penske Automotive, an auto retailer. I'm concerned about the auto cycle long-term, but Penske and its peers generate a lot of free cash flow from their parts, service, and repair operations. That's a sticky, more stable part of their business that does not fluctuate a lot over time. They have a BB/B split rating and management is comfortable with that rating. Unlike Olin, they don't have Investment Grade potential, but they are a steady company that I think should hold up well in a down cycle. Given the performance of the auto sector and the potential downturn, looking back to 2008 can provide the worst-case scenario and, in 2008, Penske still generated free cash flow and managed to take a lot of costs out. It makes me feel confident that the firm should hold up well, even in an Armageddon scenario.

G&D: What was the most unexpected investment in your career?

EC: Some of my worst mistakes were two companies that defaulted in 2015. The first one was Peabody. I now focus more on the industry

(Continued on page 40)

Ellen Carr, Weaver C. Barksdale

and if it's a terrible industry I don't care how good the management team is. At the time, I got coal completely wrong. It was during the Obama administration, which declared war on the coal industry. It's difficult to price political risk in, but that was one of the factors that contributed to the default. I also underestimated how quickly the cycle would turn. I was not taking a skeptical enough view of the coal sector and focused on the large component of the world that uses coal, not realizing how quickly it can turn for an individual company. I ended up owning Peabody's equity, mostly for option value, even though it was trading at something that represented 10 cents on the dollar.

During the same cycle I also owned Linn Energy, a natural gas company that was a darling of the High Yield market. There, I made a different mistake. In the years leading up to the Commodities crash of 2015, Linn had done all the right things from a balance sheet perspective. It made a big acquisition in 2014, financed with equity, and de-levered as a result. Linn wanted to further de-lever, but it hit the Exploration & Production cycle at the wrong time. I then made the mistake of placing more emphasis on what the management wanted to do and not enough on what the company was actually capable of doing. In a good environment, the fact that the management wants to de-lever is important. Yet when the cycle turns, as was the case for Linn then, management is not capable of de-levering before it gets hit by the cycle.

G&D: Can you discuss the differences between working for a large fund like Capital Group versus your current firm, Weaver C. Barksdale?

EC: It's been a delight to go from managing billions of dollars to millions of dollars, because it opens my investing universe while also narrowing it in a very positive way. When I worked at Capital, we managed about \$25 billion in High Yield and I was directly responsible for about \$4 billion. That meant I had to own at least 100 issues in the portfolios, which translated into 80 issuers. A lot of times I found myself owning low or weak conviction names simply to get invested.

Today, I own between 30 to 40 issues in my portfolio, which translates into 30 to 35 issuers. I love being able to invest in a much smaller number of companies. When you are only investing millions of dollars, you can get invested in the bonds and the issuers that you are excited about.

A great example is Ingles Markets, a supermarket company which happens to be headquartered in Asheville, NC, where I live. I have followed this company for years and watched it deal with new entrants, from Whole Foods to Kroger by way of Trader Joe's. There are now all kinds of competitors that didn't exist when the company was founded many years ago, and yet it has continued to do well. This is a company that makes a big difference in my portfolio today, and which would not have worked at Capital. The bonds outstanding represent around \$500 million,

and at Capital it would have been too small for it to have made a difference in my portfolio. At Capital, positions less than \$50 million wouldn't really impact a portfolio, but at Weaver even \$1 million positions make a big difference.

In terms of portfolio construction, when I was at Capital, I would sometimes struggle to get something to a 2% position because I just couldn't find the bonds, while today I can. Being able to focus on a smaller group of higher-conviction names has been one of the joys of working at my new firm.

G&D: Do you have any advice for students going into the investment management industry?

EC: Make sure to thoroughly interview the company before you start working there. I think it's a great career, but more than ever your professional path is going to be highly dependent on who you work for. In the next decade, there is going to be a tremendous amount of shakeout, consolidation, and fee pressure. Think critically about the industry and the company, taking an analyst perspective. There is a lot of political pressure to invest in passive alternatives, and a lot of investment committees are blindly switching from active to passive management to satisfy their boards.

Different funds have different ways of dealing with this. Some are rolling out no-fee alternatives, experimenting with novel ideas, while trying to protect core active management by positioning

(Continued on page 41)

Ellen Carr, Weaver C. Barksdale

themselves for an environment where active management continues to witness fee compression. Others are doubling down on active management, making a conscious choice to not deviate from it and to continue investing the way they have. It helps if they have lower fees than their peers, making them more competitive with the passive universe. You need to understand the mentality of a company and figure out what their competitive advantage is.

The whole industry is still trying to figure out how to evolve from here. The most knee-jerk way to evolve is to cut fees. Probably every firm has been in a position of fee-cutting for the last decade or more, ever since the passive revolution took hold. The firms that are thoughtful are thinking not just about cutting their expenses in response to fee pressure but also about investing in technology and exploring other areas of improvement, such as diversity, in order to come up with other sources of competitive advantage. Investing, especially portfolio management, is one of the least diverse industries. This is also an industry that has consistently charged high fees while not being able to justify them. The passive providers came in, provided the same thing at lower fees, and it worked. But I think what will prove active management works is more diversity in investing teams.

More diverse teams make better decisions. Most portfolio managers make individual decisions, yet if teams of people making

individual decisions become more collaborative, this could probably lead to better outcomes. The investment management industry can definitely increase diversity by having more women, more people from different ethnic backgrounds, and more people who went to different schools. One of the equity analysts who covered retail at Capital had actually worked on a Macy's floor for years before he ascended the ranks and eventually went to work at Capital. He had a great knowledge base.

multiple perspectives it allows for. Valuing diversity and putting it in action is going to be very important in the years to come for the industry.

G&D: Thank you very much for your time.

“More diverse teams make better decisions. Most portfolio managers make individual decisions, yet if teams of people making individual decisions become more collaborative, this could probably lead to better outcomes.”

One of my mentors at Capital, who was the CIO of the balanced funds, started her career as the head of investor relations at International Paper and then moved to the sell-side—a transition which would be much less likely today. I think having people like that would contribute to results over time because of the



Matthew Peterson

Matthew Peterson, Peterson Capital Management

two decades of experience with global financial markets and financial services firms including **Goldman Sachs, Morgan Stanley, Merrill Lynch, American Express, and Ameriprise Financial.**

Prior to forming Peterson Capital Management and launching Peterson Investment Fund I, Matthew split time between Wall Street and London as Capital Markets Manager in the Financial Services Vertical at Diamond Management and Technology Consultants. Matthew worked as a member of both the U.S. and U.K. offices, with expertise spanning from risk management to derivative processing. In 2010, Diamond was purchased by PWC, and became Diamond Advisory Services.

Before Diamond, Matthew worked with Merrill Lynch, and founded M. Peterson Financial Services, a financial planning firm that offered client planning services to American Express Financial Advisors.

Graham & Doddsville (G&D): What's your background and how did you get started in investment management?

Matthew Peterson (MP): I've been working in finance professionally for two decades, but I actually started at 10 or 11 doing pretty unconventional things, like recycling soda cans out of my father's law firm and then using the cash to trade bank certificate of deposits;

interest rates were much higher in the '80s.

I went to the University of Puget Sound, a liberal arts school on the West Coast, where I studied economics and math. From there, following a short stint in Beijing, I went to Wall Street and, again somewhat unconventionally, I took the consulting route. This put me at Goldman Sachs working with some of the top managing directors in the risk management space. I spent almost seven years between New York and London doing market risk management and credit risk management at Goldman Sachs as well as at a couple other institutions, of which Morgan Stanley.

During that time, I also was earning my CFA designation, and with that in 2010 I determined that it was the appropriate time for me to launch my own firm. I could live anywhere, and so from a quality of life perspective, I decided to come out to the West Coast again. We launched our fund in 2011 and have returned about 15% per year since inception.

G&D: Coming from risk management and consulting, how did you develop your investment philosophy?

MP: I start by reading and educating myself based on the vast amount of information that's available. The issue is that people tend to stray from these key principles – especially if you're paid based on an annual review and bonus cycle. It's much easier to maintain discipline if you operate independently. The way I developed my philosophy

was by studying great investors, but I also think it has evolved organically through experience as well.

There are three things I want to see when I analyze an investment: a superior business model, a superior management, and extraordinary value. For a superior business model, I'm often looking for something that can scale and that has a dominant invariant strategy. This could be a win-win relationship with customers, employees, shareholders, and society, so that the company can become a very strong and sustainable business. If it's a mature business, I'm looking for something that has very high cash flows, with a natural moat that will protect it from competition for a long period of time. Capital-light companies, or even negative working capital firms such as SaaS firms, are examples of superior business models.

In terms of superior management, the first question is: do they have high integrity? Then there are nuanced details, like: do they have an owner mindset? You can recognize if they do or do not by the way they talk. If they have a shareholder mindset, they'll talk about things in terms of "cash flow per share" or even "return on equity"; if they don't have a shareholder mindset, they're probably exclusively talking about revenue growth. This is important, because I think management's main responsibility is capital allocation. If you have a superior business model and there's a ton of cash flow that comes into the business,

(Continued on page 43)

Matthew Peterson, Peterson Capital Management

management determines what to do with that cash flow. There are only five main things they can do with cash flow: make acquisitions, reinvest in operations, pay a dividend, pay down debt, or repurchase shares; but the choices they make matter significantly. A lot of times, people who rise to management positions may not have capital allocation knowledge or experience.

If you have an exceptional business model and superior management, usually the price is very high. Finding extraordinary value is the most challenging part. As an investor, you really need to be doing something different to find an opportunity that will fit all three criteria.

If you're just screening for value, for example, it won't work; you'll get too many false positives. Instead, I tend to look for hidden assets and hidden value, whether it is companies that are operating with a specific strategy or in a specific niche that protects the business model, or subsidiaries that are not on the financial statements. I think the easiest way to find value – once you've identified the other two criteria – is to find assets that do not show up on the financial statements.

G&D: How do you uncover this hidden value?

MP: I think that when you invest, you should always focus on the process, not on the outcomes. In a probabilistic distribution of the future, you can make exceptional investment decisions and still have a bad outcome every once in a while; but if you

pursue the process, and you have a superior process, ultimately your outcome will be superior.

“You should always focus on the process, and not the outcomes, when investing.”

There are four stages in our investment process. The first one is a very thorough 13F filter and analysis. I look through hundreds of 13Fs each quarter to evaluate what other managers are buying and selling. If you have the ability to identify superior value-oriented managers, look through their 13Fs, and take a superset of the stock ownership across these managers, you ultimately end up with only a few hundred unique firms – which means you just eliminated 95% of the US market. Charlie Munger likes to say “fish where the fish are.” Well this is where the fish are. Our portfolio is very concentrated; we only have 14 positions and five of them make up over 50% of the portfolio. This means we only need one or two ideas every year. We are really searching for needles in a haystack. For me to deviate from this universe of stocks, I need to understand very clearly why none of the hundred value funds that I admire have put a penny into it.

The second step is fundamental analysis. You take the 200 businesses and look for superior managers,

superior business models, and superior value. Our third step is a little unique. Once an exceptionally mispriced opportunity is identified, I do not buy its stock outright. Instead, I search for a method to obtain the shares for below-market prices. Often, I write cash secured long-dated puts on the securities; we are paid a premium to buy the securities we want to own. It becomes more difficult when you start running billions of dollars, but even Warren Buffett sells puts.

I'm looking for the optimal way to accumulate the shares we desire. There is oftentimes an inefficiently-priced product affiliated with the equity, so you can take advantage of that, and get a better price than what's offered on the NYSE.

I'll give you an example from our portfolio. In 2011, Buffett announced very publicly Berkshire's new policy to buy back stock at 1.2 time book value. Immediately the price of the security rose to 1.2 time book, but the price of the puts and calls did not incorporate this qualitative detail. At the time, the B share price was \$80 and we were able to sell 15-month puts with a strike price of \$80 for \$20. This left us with a binomial outcome - If the shares dipped below \$80, our counterparty will put their stock to us, costing us \$60 instead of \$80. Alternatively, if the prices rise, we keep their \$20 on our \$60 collateral and earn 33% over 15 months. If we think the shares are worth \$200, and we're happy to buy at \$80, then we're much happier to buy at \$60. I'm giving that example on Berkshire because it's something so obvious: you can

(Continued on page 44)

Matthew Peterson, Peterson Capital Management

get a 25% discount simply by selling puts rather than buying on the NYSE.

Finally, the fourth step in our process is about portfolio management. For that, we use things like the Kelly criterion, which was created by John Kelly in the '40s. Originally, it was a way to avoid the transmission of noise through telephone lines. It turned out that some of the concepts could be applied to poker, as well as in finance. The Kelly criterion says that, if you have a fixed pool of capital, and you know the probability of winning if you make a correct bet and the probability of losing if you make an incorrect bet, then there's an objective allocation you should have to that opportunity. Most managers significantly over-diversify, and correlations tend to move toward one during a crisis anyway. If you're adding a 15th or 16th or 17th position to your portfolio, you are not getting any of the diversification benefits. In addition to that, your 17th best idea is presumably not as good as your 1st best idea. In essence, you are reducing your return, but not your volatility. The Kelly criterion guides toward smarter portfolio allocation decisions.

G&D: How do you come up with the appropriate probabilities in order to use the Kelly criterion accurately?

MP: The reality is that you don't know the probability of being right and you don't know the outcome when you're right. So the inputs are still subjective. I use the Kelly criterion because I want to have a framework for portfolio

allocation that's as objective as possible. Most of the managers I know have a very subjective approach to the allocation process, because it's very hard to identify the factors that make it objective. I've studied a lot of behavioral finance and recognize how much our environment can impact our emotions, and how much that can have an impact on an allocation decision. The Kelly criterion isn't perfect, but I just want to make these decisions as objective as possible.

If you use the Kelly criterion, you'll find that the optimal allocation you should give to any opportunity is between 10% and 50% of your portfolio. In other words, the optimal number of securities you should have in your portfolio is between two and ten; we have fourteen, because if you have two securities with the same potential outcome, then you can split their allocation.

G&D: What discount-to-price do you normally look for?

MP: It depends on the business model. I classify things internally as to whether they're a Ben Graham opportunity or a Phil Fisher opportunity. A Graham opportunity is something where the business, earnings, or management are not as high of quality and intrinsic value isn't necessarily growing but you can buy at a very, very deep discount. A Fisher opportunity would be a superior business model with intrinsic value growing at high double-digit rates, that you'd be willing to pay more for, maybe even a fair price. Ideally, I prefer Fisher opportunities; with Ben

Graham stocks, you have to constantly find new ideas. If a company doesn't have the best business model and doesn't have exceptional management, then once it becomes fairly valued you have to get out and find a new place for your capital. I prefer to allocate to the Fisher opportunities than the Graham opportunities. We're eight years in and we have a lot of Fisher opportunities; but we're happy to hear about more from any of your readers.

G&D: What's a recent investment you're excited about, and what's your process for analyzing that opportunity?

MP: I typically don't talk about our holdings publicly, but at least one position in our portfolio is a long-term compounder that I expect us to hold for decades, so I don't mind speaking about it. It's such an obvious situation, yet nobody's getting involved. It's hidden in plain sight.

When we do our 13F analysis, we can follow the breadcrumbs to other opportunities. Many people are familiar with Charlie Munger, but what many people might not know that, for over 40 years, Munger has been running another company called Daily Journal. It's a publishing company, but it's also a technology company. Daily Journal has a hidden business model, and it's not at all about newspapers. It's very misunderstood and there are zero analysts, zero investor relations. They have significant off-financial statements value, they have deferred revenue, and they have accelerated costs. I think it's undervalued

(Continued on page 45)

Matthew Peterson, Peterson Capital Management

from both a Ben Graham and a Phil Fisher perspective. It's a micro-cap compounder in an enormous space, and it has an extraordinary board and management team – perhaps among the best management teams in history.

Charlie Munger bought this company for \$2 million in 1977 with Rick Guerin, who was one of the original “Superinvestors of Graham-and-Doddsville”. Both Rick and Charlie remain on the board to this day. Peter Kaufman, author of “Poor Charlie’s Almanac” and an incredible CEO in his own right at Glenair, also sits on the board. The board is exceptional.

Daily Journal has 10 very specific niche papers that operate in the legal space and are very resilient. For example, they have an internal public disclosure notification business; so when there are foreclosures or estate plans that need to go out publicly, they broker that business.

People think this is a newspaper company, and that’s what people are missing. We basically value the newspapers at zero. During the Great Recession, the newspapers brought in some cash and Rick Guerin and Charlie, being the great investors that they are, invested that cash in the stock market and built a \$220 million equity portfolio inside of Daily Journal. The company has a \$300 million market cap, with \$220 million in real estate, equity, and cash.

Interestingly there's debt, and in finance and accounting we tend to treat all debt as equal. Still, debt can take very

different forms. Daily Journal has the best debt I've ever seen. It's primarily deferred capital gains tax: zero interest, non-callable liabilities owed to the government if and when they sell their securities. It's 100% their decision. They also have a \$30 million loan that they used to build their technology business. That's a margin loan against their very large equity portfolio; it is below 3% interest rate, non-callable, and the dividends from their equity portfolio service the payments. That's very different than a revolving liability at 7% or 8% that has an expiration date and potentially high interest rate.

The most important thing, however, is the new technology business. This is something that very few people know about. I've been going to these Daily Journal annual shareholder meetings for eight years, and they say very little about Journal Technologies. The lack of information about this technology group intrigued me. Last year, I found a training conference Daily Journal was holding in Utah for users of their technology, which turned out to be a case management software solution for court houses and municipalities. I couldn't attend the conference because I didn't have the right courthouse credentials. Instead, I booked a room in the hotel, sat in the lobby, and interviewed their customers as they got coffee for three days, before being politely asked to leave by the COO, Jon Peek.

When I left the conference I had learned an enormous amount and had tools to continue my research. I

learned that they don't bill until implementation is complete, three or four years after they've won an RFP. This makes their income statement void of much deferred revenue. I also learned that they have these tenure contracts with automatic price increases that will still push right through even during a recession. I learned how much their customers love the products they're providing. It was very eye-opening. I also realized that, to really understand what they were doing I needed to understand who was using their software, because the financial statements were so incorrect.

The company has an ethos of deferred gratification. They look for opportunities to provide services today and get paid tomorrow. When they go into an RFP process against their main competitor, the behemoth Tyler Technologies, they are able to present customers with an opportunity where they will not be billed until the implementation is complete and the court approves the software; many times that goes out three to four years. When you're up against a strong competitor who would like customers to pay \$100,000 a month, it's very valuable to defer the billing to the end. At Daily Journal, they do not report revenue until it is billed and received, despite the fact that they are already performing significant work today. There's a ton of off-financial statements' value and you need to do work to find it.

I brought in an intern and we went county by county across America, digging through the tax reports and meeting

(Continued on page 46)

Matthew Peterson, Peterson Capital Management

minutes to find Journal Technologies or Daily Journal being discussed. If we found something, we'd then search for contracts in that county. What we found was incredible. Los Angeles owes them \$5 million. Austin, Texas owes them \$1 million. Surprise, Arizona, owes them \$25,000. Australia owes them at least \$16 million, and potentially a whole lot more as of last week. We found over \$40 million in revenue that has not been captured on their financial statements. We found over a hundred contracts that are being implemented across the nation. These contracts have recurring license agreements. It's a SaaS business model, with automatic price increases and 10-year lock ups. We believe that within the next 10 years, there'll be at least \$150 million in recurring revenue from the technology business.

SaaS is one of the best business models out there today. You create software and it scales around the world. You've probably seen margins of 60%, 70%, 80% in this space. But if you used a simple, very low margin of like 25%, you'd realize they're going to have close to \$40 million of EBIDTA in the not too distant future. This whole company is a \$300 million market cap business. We're taking the whole newspaper business and saying it's worth nothing; we're taking the equity portfolio of \$220 million and subtracting the "fake" debt of \$70 million, so we're left with \$150 million net; and now we need to figure out if Journal Technologies is worth \$150 million to cover the current market cap. Well, our models show that this is a

\$1 billion business in less than 10 years.

G&D: How did you come across this idea? At what point did you realize that this was something worth digging into?

MP: I've been going to the Berkshire Hathaway annual shareholder meetings in Omaha since 2004. The Daily Journal meetings are held in Los Angeles and I started attending those, too. It was a very small, intimate group, just a few hundred people, and we got to sit and talk to Charlie for a couple hours. It has grown over time and now more than a thousand people attend, but it's still quite small compared to the 40,000 plus at Berkshire Hathaway.

It was through eight years of watching these conversations and reading the annual reports that I started to recognize that the technology piece seemed to be gaining traction. Originally, Charlie referred to it as a group of "five ninety-year-olds with one eye who can't walk, trying to climb Mount Everest; it's never going to work." A few years later, he started saying things like "Well, we've jumped from flow to flow and crossed the river, but just because we did it once, doesn't mean we'll ever do it again." That's quite a different statement. It suggests that they've accomplished the initial objective. That encouraged me to start wondering what the software actually is, and the more I discovered that nobody knew, the more intriguing it became. Frankly, most people didn't even know that they have built a case management software for courthouses.

G&D: Do you invest internationally as well?

MP: We are very much diversified globally. Two years ago we launched a Turkish-focused fund named Talas Capital, which serves as a capital pipe to some of the most undervalued companies in the world. It's a zero management fee fund, based on the original Buffett partnership. Through that fund we've been able to capture a basket of eight Turkish securities that trade for three times earnings. We held most of the eight positions through the entire crisis which occurred over the last years. The market declined by about 40% but we are basically flat. We intend to hold these positions for a very long time. We think of ourselves as owners, and we go and meet with management to discuss their long-term strategies. Fluctuations in currency or politics doesn't bother us; it's actually expected. Over the long-term, I think we have a very high probability of significantly not only outperforming the Turkish market, but also the S&P 500.

We've also been able to purchase about 3% of Mohnish Pabrai's Dhandho Holdings through private transactions. We're not an investor in the fund, we are owners of it; through it we get some indirect exposure to the Indian stock market.

G&D: Are there other investments that you are excited about?

MP: I will share a position that we have created. Over a number of years, we've

(Continued on page 47)

Matthew Peterson, Peterson Capital Management

constructed a very asymmetric payout hedge that we hold in our portfolio. I noticed that overpriced puts were shrinking considerably over the last few years, particularly as volatility was very low. This made it less valuable to sell the puts, because the return no longer compensated for the risk. I started wondering if I should be buying some underpriced puts rather than selling the overpriced puts. I eventually recognized that, if sized appropriately, it could be a very advantageous position in for our portfolio, particularly in the event of a major correction or recession.

It would be unnecessary to hedge to zero, because we're value investors. At some point, we become net buyers. With 1% of our portfolio, we buy puts slightly out of the money, because 10% or 15% volatility is not going to hurt us. Then we go down 30% or 40% and sell a put there to help pay for the put we're buying, and then we go down even further and sell a second put where we would ultimately like to buy again. These are three-year put contracts. By doing this, we're able to take an already low premium and reduce it further by picking up far out-of-the-money options to finance it. For example, with 1% of capital we were able to buy \$5 worth of protection in case the S&P 500 falls below 2,750 and that turns into \$75 (or 15x) if the market falls through 2,000.

As the markets fall, we have this embedded contrarian asymmetric position that will explode upward in price. I think it's a very nice hedge to have on at this point. We were able to implement it first in

2017 and we were able to implement it again in 2018. We've been trying to get the same prices through all of 2019 and are yet to put on the hedge because the prices have been too high. Should the prices decline a bit more, we will create it again for the third year. This will cost us 1% a year for protection in flat or up markets; but a 40% drop in the market will deliver us a large gain in the portfolio.

“One of the greatest things about this business is that you're on an intellectual treadmill and you're constantly learning, growing, and evolving.”

G&D: Do you have any advice for students pursuing a career in investment management or those looking to launch their own fund?

MP: The first thing to recognize, assuming that you have the education and IQ, is that it's nice to have experience. I encourage people to spend a year, maybe two, working either on Wall Street or under a prominent manager, in order to try understanding how the whole

business works. I think that when launching a firm, focusing on the three legs of the stool – portfolio management, operations, and marketing – will help the company be successful. I have seen many firms with an exceptional portfolio manager who can't write an investor letter on time, or who has no ability to raise capital; those businesses ultimately don't last.

One of the greatest things about this business is that you're on an intellectual treadmill. You're constantly learning, growing, and evolving. In general, people should expect launching to take a little bit longer than they would expect; but if they do it wisely, they may be able to launch with less operating expenses than they assume.

G&D: Thank you very much for your time.

Get Involved:

To hire a Columbia MBA student for an internship or full-time position, contact Dan Gabriel, Director, Employer Relations, in the [Office of MBA Career Services](#) at (212) 854-6057 or valueinvesting@gsb.columbia.edu.

Alumni

Alumni should sign up via the Alumni website. [Click here to log in.](#)

To be added to our newsletter mailing list, receive updates and news about events, or volunteer for one of the many opportunities to help and advise current students, please fill out the form below and send it via e-mail to valueinvesting@gsb.columbia.edu.

Name: _____

Company: _____

Address: _____

City: _____ State: _____ Zip: _____

E-mail Address: _____

Business Phone: _____

Would you like to be added to the newsletter mail list? ☐ Yes ☐ No

Would you like to receive e-mail updates from the Heilbrunn Center? ☐ Yes ☐ No

**The Heilbrunn Center for
Graham & Dodd Investing**
 Columbia Business School
 3022 Broadway
 Uris Hall, Suite 2M6
 New York, NY 10027
 212.854.1933
valueinvesting@gsb.columbia.edu

Visit us on the Web:
**The Heilbrunn Center for
Graham & Dodd Investing**
www.grahamanddodd.com

**Columbia Student Investment
Management Association (CSIMA)**
<http://www.csima.info>

Contact Us:
 FDreyfuss20@gsb.columbia.edu
 SSong20@gsb.columbia.edu
 JSzramiak20@gsb.columbia.edu

Graham & Doddsville Editors 2019-2020



Frederic Dreyfuss '20

Fred is a second-year MBA sponsored by Columbia (Columbia Fellow). He spent the summer working in the Equity Investment Group at Capital Group. Prior to Columbia, he was an Investment Manager in the Principal Investments department of BNP Paribas, where he invested across the capital structure of unlisted companies active in various industries all over Europe. Fred graduated from Sciences Po Paris with a Corporate Strategy concentration. He can be reached at FDreyfuss20@gsb.columbia.edu.



Sophie Song, CFA '20

Sophie is a second-year MBA student and a member of Columbia Business School's Value Investing Program. During the summer, Sophie worked in the Fixed Income group at Capital Group. Prior to Columbia, she worked at the Royal Bank of Canada and the Office of the Superintendent of Financial Institutions in liquidity and market risk management in Toronto. Sophie graduated from the University of Toronto with an Accounting and Economics concentration. She can be reached at SSong20@gsb.columbia.edu.



John Szramiak '20

John is a second-year MBA and is a Columbia Fellow. Prior to Columbia, he worked in the Private Credit group at First Eagle Investment Management. He also built and ran a value investing website, which he sold earlier this year. He spent the summer working at a leading e-commerce company in India, where he built a new credit scoring engine for the company's lending platform. John graduated from Boston University with a concentration in Finance and a minor in Economics. He can be reached at JSzramiak20@gsb.columbia.edu.