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“Fish Deeper, Fish Alone”—Paul Sonkin

Paul Sonkin is managing member of the Hummingbird Value Fund. He has worked at the SEC, Goldman Sachs, Royce Funds, and First Manhattan Company. He holds an MBA from Columbia, where he teaches courses on applied value investing.

GD: What is your take on the market right now? There seems to be some divergence of opinion among investors currently about where we are in the cycle.

PS: What’s going on now is that many of the people I am talking to – many smart, savvy investors – think that the second and third shoe is going to drop. For that reason, I think there is a tremendous amount of money sitting on the sidelines. And,

because people expect it, I think it’s not going to happen. An example that I was talking about the other day is 9/11. I think that there are a lot of commonalities between Lehman and 9/11. Basically, what happened is that Lehman set off a chain reaction – sort of a negative feedback loop. I think it was a Thursday morning, October 11th when the Reserve Fund announced that they had a lot of exposure and they broke the buck. I remember that we were thinking, “Our cash may not be safe.” Wachovia had failed and you were having these huge bank failures and the world became a very, very scary place. Everybody pulled back. The country just shut down for a quarter, which is very similar to what



Paul Sonkin - Managing Member, Hummingbird Value Fund.

happened after 9/11 – although, I think that was more psychologically driven. You had this huge exogenous event, which introduced a huge amount of uncertainty in both cases.

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Welcome Back to Graham & Doddsville

We are pleased to present you with the third edition of *Graham & Doddsville*, Columbia Business School’s student-led investment newsletter co-sponsored by the Heilbrunn Center for Graham & Dodd Investing and the Columbia Investment Management Association.

The tumultuous market over the last year has only further reinforced the merits of a sound, long-term oriented

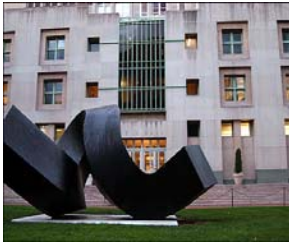
investment philosophy, and at Graham & Doddsville, we believe that there is no better way to study investing than directly from successful industry practitioners. With this objective, our current issue contains four interviews with leading investment professionals.

First, the issue features an interview with Paul Sonkin, managing member of Hummingbird Value Fund and

value investing professor at Columbia. Paul gives us his thoughts on the current market environment and applying Graham & Dodd principles to a microcap strategy.

Since the application of value investing goes far beyond common stocks, Steve Moyer, author of *Distressed Debt Investing*, sits down with us to discuss opportuni-

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Welcome to *Graham & Doddsville* (continued from page 1)

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ties in the current distressed cycle, and their implications for value investors.

Next, Timothy Hartch and Michael Keller of Brown Brothers Harriman Core Select Fund discuss their philosophy of focusing on essential services in a value framework.

Finally, we talk with Jim Scott, director of research at the Heilbrunn Center, about applying quantitative tools to value investing. Mr. Scott is also a Managing

Director of General Motors Asset Management and a former Columbia Business School professor.

Along with providing our readers with insightful and timeless content, we also aim to provide specific investment ideas that are relevant today. Inside are two condensed student investment recommendations. The first recommendation is Precision Castparts (PCP), winner of this year's Sonkin Prize. The second recommendation is the short-sale of Apollo Group (APOL),

winner of the second annual Pershing Square Challenge.

Finally, this issue contains articles detailing the numerous opportunities in investment education available to CBS students, including this year's trip to the Berkshire Hathaway Annual Meeting and the Second Annual Pershing Square Challenge.

Please feel free to contact us if you have comments or ideas about the newsletter, as we continue to refine this publication for future editions. Enjoy!

Paul Sonkin (continued from page 1)

“When people are faced with uncertainty, they really don’t know how to react so whatever they are doing, they just stop.”

When people are faced with uncertainty, they really don't know how to react so whatever they are doing, they just stop. They go into conservation mode. I am a big proponent of evolutionary psychology. It is sort of like the fight or flight reflex. If you are faced with a huge shock, you get this huge adrenaline bump and it is kind of like an automatic response. I think that is what happened in the fourth quarter. What I am starting to see now in the press and in anecdotal evidence coming out of these companies on a grass roots level is that people are starting to spend money again. They aren't going to spend as frivolously as they did in the past, but they are going to spend

money when they need to spend money.

What we are seeing with a lot of our companies is that people are making necessary expenditures, but they are revisiting all of their other expenses. You are still going to go out to dinner, but maybe you go out to the less fancy place. In our portfolio companies, I think that one big beneficiary of that is a company called Avantair that does fractional planes at basically half the cost of Netjets. It has actually been taking a lot of share from Netjets. I think this happens at every level. People want to downsize a little bit, but they don't want to be eating cat food when they've been eating

caviar. They're not going to go from one extreme to another. You have intelligent people making intelligent decisions about spending and there are companies that are going to be beneficiaries of that.

Getting back to the 9/11 analogy, the "next 9/11" is not going to be as much of a shock. If you have another horrific incident where 2,000 people were killed in say, San Francisco, the country would just react differently because it has already happened once, and I think that when it happens the first time there is this huge reaction. When it happens the second time, people become desensitized

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Berkshire Annual Meeting

I could have sworn I was at a rock show, not an annual meeting. Yet there I stood outside the Qwest Stadium in Omaha, Nebraska on a Saturday morning at 6am with 35,000 other excited fans waiting in anticipation for the doors to open for the 2009 Berkshire Hathaway Annual Meeting.

This year, the annual meeting had a cowboy theme, which couldn't have been more appropriate. Our tickets branded us as "partners," not shareholders. And when the doors finally opened, the stampede for the best seats in the stadium began. Never did I anticipate that I'd be competing in a foot race against agile seniors at 7am on a Saturday morning for a chance to listen to a pair of octogenarians speak for 6 hours.

Fortunately, I was traveling with another student who had attended before. He led the way as we weaved our way through the crowd into seats 10 rows off the left side of the stage; a perfect line of sight for the Oracle. It was 7:15am.

The night before, we attended a shareholders reception at Borsheim's, one of North America's largest jewelers which Berkshire purchased in 1989. The store overflowed with partners proudly bearing their shareholder passes around their necks.

At the reception, I met a family represented by three

generations. The grandmother's father had been approached by Warren Buffett in the 1950s to contribute \$10,000 to his original partnership and had declined the offer. The family we were visiting had a similar story. Her father was approached by Warren Buffett too. He told Warren to come back when he was driving a nicer car than him. The irony is that Warren is probably *still* driving a worse car (he drove a Lincoln Town Car until 2001, and then replaced it with a Cadillac DTS). I wondered how many others had similar stories.

After the Borsheim's reception, we ventured over to the local Dairy Queen (also owned by Berkshire). It was hosting a book-signing with authors who had written books on Warren Buffett. A BBC film crew was there filming a documentary. After indulging my childhood sweet-tooth with my favorite DQ Blizzard, I sat down and spoke with Bill Child about his book: "How to build a business Warren Buffett would buy." Bill Child built RC Willey into Utah's largest furniture store and sold the company to Berkshire for \$175 million in 1995 after being introduced to Buffett by the owners of the Nebraska Furniture mart (as you can guess, also owned by Berkshire).

I asked Bill how Warren had assessed his company. Warren asked him why he was selling the company,

what he intended to do after the sale, and then to send over three years of financial reports and a brief history of the company. Within three days, Bill had a response. The offer was significantly lower than the \$200 million he had been offered by investment bankers and other furniture retailers, but ultimately Bill accepted Warren's lower offer. I was amazed that it took Buffett only three days to feel comfortable purchasing this company.

Waking up the next morning at 5am was remarkably easy. I jumped out of bed like a kid on Christmas morning. We arrived outside the Qwest stadium by 6am. After claiming our seats, we decided to go explore the exhibition hall. Two friends stayed behind to guard our prized seats.

The hall was filled with companies Berkshire owned, including Borsheim's, Fruit of the Loom, Dairy Queen, NetJets, Justin Boots, See's Candy and more. We had our pictures taken with the Fruit of the Loom "fruit" and the Dairy Queen mascot. Add in a "Wall St." roller-coaster ride to parody the ups and downs of "Mr. Market" and the annual meeting would have been a cross between a Disney Land for investors and a Star Trek convention, except instead of speaking in Klingon, people used words like "margin of safety," "intrinsic value," and "moats."

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“There is no ‘hedge fund’ industry that exists separately from the ‘money management’ industry.”



Ajit Jain, Adam Weiss '96, and Bruce Greenwald at the Heilbrunn Reception in Omaha following the Berkshire Annual Meeting

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Berkshire Annual Meeting (continued from page 3)

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Then I noticed a press circle moving toward us. Before I knew it, Warren Buffett was walking directly toward me. In fact, I was in his way. I came face-to-face with my idol and completely froze like a deer in headlights. Would security jump on me if I said hello and reached out to shake his hand? I decided to smile and politely step aside. “Those dilly bars look good,” he said pointing to another member of the crowd as he walked by, “I should get one.”

We returned to our seats eager to finally hear him speak. The morning began with a one-hour video collage of commercials for companies Berkshire owns and small satiric skits. In one clip, Warren pretended to be Tiger Wood’s caddie. In another, Warren sold a mattress called the Nervous Nellie to a customer in the Nebraska Furniture Mart. The mattress had a compartment to store money, Berkshire shares, and old magazines.

The rest of the meeting followed a question and

answer format. Questions alternated between audience members and questions submitted in advance to three journalists from Fortune, CNBC and the New York Times. The questions covered every topic, from improving financial literacy, Berkshire’s exposure to derivatives, Buffett’s view on the government bail-out, the threat of inflation, and Berkshire’s investment in a Chinese battery maker (BYD). The entire time Warren and his partner, Charlie Munger, drank coke, ate See’s fudge

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Paul Sonkin (continued from page 2)

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to it. Mauboussin talks about is what’s called “robust consensus.” You have manias and panics when you don’t have a robust consensus. If you are in a boat and everybody is sitting in the middle, you’re fine. If everybody goes to the bow then it’s going to sink. If you have a robust consensus and people’s expectations are evenly distributed then you’ll have an equilibrium, but if everyone expects the same thing then you will have disequilibrium. So what happened in the bubbles is that you had this disequilibrium and then you had this shock to the system that brought it back to equilibrium.

What you have now is more of a robust consensus. Everybody doesn’t have the

same view now. You have these widely differing views, and because you have these differing views there is a lot of cash sitting on the sidelines and one of those two constituencies is going to be right. There is either going to be another shoe to drop or not. But I think a lot of that other shoe dropping has already been priced into stocks such that you have companies that are trading as if they are going bankrupt. I think it was back in February when GE was \$5.80. It was trading as though it was going to go bankrupt, and Citi was trading as if it was going to go bankrupt. There were a lot of other companies. Those companies have rallied off of their lows, but still you have a lot of people who still believe it. I was on the phone the other day with

two really intelligent guys. We were just kind of chatting and I said, “What do you think? Do you think that it is a head fake or the beginning of a new rally?” And one of them said it was a head fake and the other said it was the beginning of a recovery, and they said it at the same time.

GD: Some have speculated that the recent “robust consensus” is more shorts covering their positions and buying back shares in decent size.

PS: Yeah, but we are also hearing that people are starting to put capital to work again and that stocks look cheap. Prices are clearly made on the margin and the volume would not be indicative of short cover-

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Paul Sonkin (continued from page 4)

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ing per se.

GD: *Playing devil's advocate, very few people predicted this would happen or that it would be this bad. But if you didn't catch it the last time, what makes you think you can predict the macro environment today?*

PS: I don't. I don't think that anybody can. What you will see is that guys with very small funds don't think a lot about the macro environment. I could talk about the macro environment, just like I could talk about the Yankee game or whatever the topic du jour is. But when you have a large cap fund or a large fund complex, you have to really be able to opine intelligently on where the macro economic situation is going because you are the market. If you have \$20 billion under management, you are the market. If you have \$20 billion under management, you either have a huge position in a lot of tiny companies, in which case you are fairly exposed to the overall market or you have concentrated positions in large cap companies in which case you are really exposed to the macroeconomic environment. But if you have a small portfolio with little companies, you are not as exposed. You don't really need to have a view. We could get down in a granular way and say that even in a severe recession that Avanta is going to perform relatively well – not as well as it

is going to perform in a recovery, but it will still perform. Or a company like Fortress International, which we own, or a lot of these other companies will be able to perform quite well, irrespective really of what the overall economy does. As a microcap investor,

“As a microcap investor, what you are looking for is something where it can grow against the industry”

what you are looking for is something where it can grow against the industry returns or grow against negative economic trends. What we have experienced is that when you have a crisis, everything is correlated. Since June 2007 and until very recently, there was nowhere to hide. The only place where you would have been safe was short-term treasuries. If you were in equities then you would

have gotten killed. I think that there are some people that call these things and there are some people who are ahead of the curve and they are lauded as geniuses. A former student of mine has a \$2 million fund and was up 40% last year because he had one long that did really well and one short that did really well out of only five positions. Statistically you are going to have a few of those. Wayne Garzarelli called the 1987 crash. John Paulson called the subprime crash and made a ton of money. You can't look at those guys. You have to look at the Seth Klarman's who have consistently been able to sidestep these disasters. You can't really look at the one-offs.

We had a horrific year last year. We were down 40%, just like everybody else. What I find very surprising is that people said for a microcap fund, if you were only down 40%, that was pretty good. The Russell 2000 was down around 33%. What killed us was illiquidity. Usually, we are long illiquid names. That usually works out well over the long-term as long as you don't have any major panics. If you want to sell a house today, it is a very illiquid asset, but if you want to sell a house over six months then it is more liquid, depending on the price. It is the same way with our stocks. In the short term they are illiquid, but in the longer term, they are very

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Professor Bruce Greenwald and Dean Glenn Hubbard

Columbia Business School is a leading resource for investment management professionals and the only Ivy League business school in New York City. The School, where value investing originated, is consistently ranked among the top programs for finance in the world.

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Paul Sonkin (continued from page 5)

“Our investors want us to play at a specific table and we tell them that it is going to be volatile. It doesn’t work all the time, but over very long periods of time it works.”

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liquid.

GD: You mentioned Klarman as a positive example. Are there any things that you are doing to emulate his risk management?

PS: It is not really what we do. There are funds that have very open charters and funds that have relatively close charters. We have a very narrow niche that we seek to dominate and operate in. For Seth Klarman, it is like the book *Bringing Down the House*. These guys had six different tables and whichever table that was hot, they would play at that table. Klarman just wants to have as many different tables as possible to play at and plays where the best opportunity is. Our investors want us to play at a specific table and we tell them that it is going to be volatile. It doesn’t work all the time, but over very long periods of time it works. Over a ten year period, we are up over 50% while the markets are at 12 year lows. Over the long-term, we expect that we will have pretty good returns. If you look forward ten years from now, I think the returns are going to be absolutely extraordinary because stocks are just so cheap and the luxury we get is that you’ll see the significant rally in the broader market but it takes a while to trickle down to our names. So we are able to get some confirmation and then we will start seeing some people

picking through our names. What we are seeing is that—name by name—they are starting to get picked over and the stocks are starting to perk up. Essex Crane (HYDQ) got down to \$3 per share and now it is at \$5.40 bid and \$6.40 offer, but still down from \$8. They put out good results and things look good going forward – great fundamentals with a great management team. One of our other names that we are extremely bullish on is Fortress International. They basically perform a lot of technical consulting, construction management, and server farm facility maintenance. This is a huge growth industry. They have had some problems in the past but they have identified what those were and are fixing them. We ran some numbers. The stock is at \$1 per share with 12.8 million shares outstanding with \$12.5 million in cash. They have \$6 million in debt, giving them an enterprise value of about \$6.3 million. You can buy the whole business at \$6.3 million. This is a business that will do \$80 to \$100 million in sales and they could easily do 5% EBITDA margins – probably closer to 10% over time. However, over the last six months, they have done \$2 to \$2.3 million in EBITDA so you figure, even if they do \$500,000 in each of the next two quarters, they are trading at 2x EBTIDA. You get all the growth for free – margin expansion and their

growth in the space. Plus, you get a great management team. We have companies like this in our portfolio which are just incredibly cheap.

Another company that we own, just to give you a really extreme example, is a company called TNR Technical (TNRK). They distribute batteries. The stock is at \$8.50. They have 306,000 shares outstanding so the market value of shares outstanding is \$2.6 million. They have \$2.55 million in cash so you can buy the entire business for \$47,000 dollars and in the last 12 months they have generated \$700,000 in operating income with no debt. It is an \$8.50 stock price with \$8.35 in cash – a 15 cent enterprise value and in the last 12 months they earned \$1.55. We have been sitting on the bid and whenever anyone comes in to sell, we buy stock. It is a \$22 offer so at the offer it looks quite different. At that price, it has a \$6 million enterprise value – just 10x earnings. They had a large dividend a couple of years ago so they distribute cash and buy back stock. You are able to find these things if you just know where to look.

GD: So how to do you find your ideas?

PS: I have known TNR for years and years. I have a database in my head of thousands of companies that

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I have been looking at over the last 20 years. I started out smiling and dialing at a regional office of a wirehouse, Dean Witter Reynolds in 1986 so I have been in this business for 23 years. I have always loved micro and nanocap stocks. We don't really do small cap if you define small cap as \$1 to \$2 billion. We really specialize at the sub-\$100 million, which is the smallest of the small. We are trafficking in the smallest 40 basis points of the U.S. market where there are still 8,000 companies. So there is still tremendous opportunity.

GD: How much capacity is there to manage against that kind of benchmark?

PS: Chuck Royce has had very good performance managing \$1.5 billion in microcaps. Their microcap fund has a geometric average of \$200 million and \$600 million under management in just that one fund. So you can run a lot of money. But I think \$100 million is a good level for us. We peaked out at \$130 million and now we have about \$50 million. We will get back to about \$100 million and then we will start to give money back.

GD: It seems like your search process is a large part of where you think you get an edge over the market. Is that fair to say?

PS: Where we get an edge is by being where nobody

else is. We fish deeper and we fish alone, and I think that's really it. We are looking for companies that are unloved, there is no institutional sponsorship, there's no analyst coverage, where there's very little liquidity, and where management is pretty quiet – they have been sort of “run silent, run deep.”

So you go from unloved, no institutional sponsorship, no analyst coverage, little liquidity, and quiet management, to – these stocks become loved, they get the institutional sponsorship, the analyst coverage, more liquidity, and management starts selling the story.

GD: Given the segment of the market in which you operate, do you have a higher hurdle rate for the type of return you are looking for?

PS: Clearly, we are always looking for a stock that can return a multiple on our money. We look for situations where the stock could easily double. With these small companies, we've seen stocks go private at double where they were trading. We had one that went private at 7x and one that went private at 10x, so we see those from time to time. Usually, when you see these really ridiculous moves, the insiders have a controlling interest, so unless the buyer is willing to pay up, management isn't willing to sell.

GD: With your strategy, it sounds like time is your

friend, so clearly your investor base is important. How do you communicate that issue with your clients?

PS: You need to manage your investor's expectations very carefully. What we try to do is write very honest, sober letters and we tell our investors that we are not the place to put all of your money. You ideally want to have less than 5% of your net worth with us because it is a very risky strategy. Of course, we don't feel it's all that risky.

GD: I guess that's a matter of how you define risk.

PS: Right, the risk of a permanent capital loss. So, in terms of risk, it's the permanent capital loss versus volatility. We think our permanent capital loss risk is low, but volatility risk is high. Unfortunately, what we've had over the past 18 months is continually falling stock prices. But that creates the opportunity. The issue is that investors who have just lost money just want the pain to go away. That's why they sell at the bottom. And when things are going well, it's like they just don't want the juice taken away. People just don't want to sell when things are going up and that's why investors tend to sell at the bottom and buy at the top. It's just human nature. Look at Fidelity Magellan, it has compounded at whatever rates it has, but if you look at the rates of what investors have

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“We fish deeper and we fish alone, and I think that's really it. We are looking for companies that are unloved, there is no institutional sponsorship, there's no analyst coverage, where there's very little liquidity, and where management is pretty quiet – they have been sort of “run silent, run deep.”

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Paul Sonkin '95, Dan Loeb, and Craig Effron at the Pershing Square Challenge

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made, it is half because people get in and out at the wrong times.

GD: So clearly, illiquidity is a particular challenge in managing your portfolio. You mentioned earlier that you embrace diversification by holding a relatively large number of stocks. But how do you deal with particular stocks getting cheaper and not being liquid enough to take advantage?

PS: A lot of investors will sell something cheap to buy something cheaper. I don't really see a lot of that because when something goes wrong, it's priced into the stock in this kind of environment. What I see happening in this kind of environment is, let's say a stock is trading at \$8 and has an intrinsic value of \$12. Let's say that, later, the intrinsic value falls to \$6. In this environment, the stock will go to \$2 from \$8. So, with a lot of these companies, the spread between the price and the intrinsic value gets wider as the business deteriorates because investors just don't want to own it.

GD: So, even if you have the opportunity to do that, a lot of times you might not because the names are so illiquid?

PS: Well, one thing we do is hold cash to redeploy. That's one of the advantages of our arbitrage portfolio.

Our arbitrage investments turn over and convert to cash constantly, so our portfolio generates cash flow that we can redeploy into such situations. We have a situation now that we've been waiting on for a year and we are going to get a huge slug of cash from it; we are going to go from

“So, with a lot of these companies, the spread between the price and the intrinsic value gets wider as the business deteriorates because investors just don't want to own it.”

10% cash to 20% cash pretty quickly.

GD: What kind of situation is it – merger, spin-off, SPAC?

PS: Actually, it's a merger/spin-off/liquidation – a little bit of everything. There's this company called Smith Investment Company that has always owned a controlling interest in another company called AO Smith. Now, AO Smith is buying

Smith Investment Company for stock. For every share of Smith, you're going to get 2.84 shares of AO Smith, so it's kind of a spin-off in that sense. However, Smith Investment Company also has two or three other businesses, which they spun-off into a liquidating LLC. We actually made money because we were able to create Spinco at a negative valuation. And we have a spread on the arbitrage which will collapse.

GD: How much work do you put into a name like that?

PS: It was a big position, so we put a lot of work into it. Typically, you start out with a small position and you put a little bit of work into it. As you start to build on the position, you do more and more work. Eventually, your biggest positions are the ones you've put the most work into.

GD: Do you think of your fund as two different portfolios – arbitrage opportunities and general value opportunities?

PS: It's all one portfolio, but liquidations are the best places to be. Totally not followed by the market and you are doing a pure liquidation analysis. We've been in business for ten years and we've had just one down quarter in our liquidation portfolio. But the beauty of arbitrage is that they are not

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Paul Sonkin (continued from page 8)

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as correlated to the market. However, it can become correlated, like in the current environment, when credit is scarce and deals are broken. So you will get some correlation to the market in the tails, but arbitrage is a wonderful place to be.

GD: A lot of value investors have been creamed lately, but that doesn't mean they aren't good investors. If you can't judge a manager based on recent performance, what should you look at to evaluate an investor? How would you want to be assessed?

PS: I think you need to look at the process and relate the process to what has and hasn't worked historically. We have tried to determine what works, which part of the market is the richest pond to fish in. Then we've tried to identify which bait is the best to use – we fish deep and we fish alone. If you stick to your discipline, then you won't get into too much trouble. We stuck to our discipline and we are still down 50%, so people have asked us if we are will change our discipline – I said absolutely not. I lot of the damage has already taken place. Again, it's this issue of people just wanting the pain to go away, they just don't want to look at it anymore. Now, we are probably in the best time in a generation to be investing in these kinds of companies.

GD: You made the comment about having a discipline and sticking to it and about not deviating. A lot of guys that have come to Bruce Greenwald's seminar class have talked about trying to make some tweaks to what they have done in the past because of the huge volatility in the market. The most popular comment has been, "We're going to pay a lot more attention to macro now." Would that send you running to the hills as an investor?

PS: It's like closing the barn doors after the horse has gotten out. Everybody saw the signs, but you just didn't think there would be this huge catastrophe. There are a few guys that had insurance against a huge catastrophe and a few guys that thought there would be a huge catastrophe. But I think it was just a very low probability scenario that actually played out. So would I do anything differently? I make mistakes every day and I try to learn from those mistakes. Everybody makes mistakes, but the fact that so many people are paying attention to macro economics...it's not going to be there because that's where everyone expects it.

GD: So with the companies you are looking at, you must be looking for companies that can dominate the very specific niche industries in which they participate. For these small companies to

have pricing power, it must be in a very specific niche industry.

PS: For example, a battery distributor we own. I have seen this business model many times in the past. They carry a lot of SKUs in inventory. If you need three of some kind of battery and you need it tomorrow, you can get it from these guys. The only other option is to order 2,000 from China with a six month lead time. I've seen this model many times; they have a low ROA, because of all the inventory, usually about three years worth. They do it because they are able to earn high margins. When you speak with them, once they showed me an invoice where they bought the product for a nickel and sold it thirty-five cents. They've generated 10% operating margins as a distribution company. When have you heard of a distribution company with 10% operating margins? Their customers are paying for the convenience. That is the type of businesses model that we really look for and they are out there—and they're cheap.

GD: You have some experience working for the SEC. How has that influenced the way that you think about the regulatory environment?

PS: In the class that I taught, I used to bring in an

(Continued on page 10)



Professor Bruce Greenwald

Bruce C. N. Greenwald holds the Robert Heilbrunn Professorship of Finance and Asset Management at Columbia Business School and is the academic Director of the Heilbrunn Center for Graham & Dodd Investing. Described by the New York Times as "a guru to Wall Street's gurus," Greenwald is an authority on value investing with additional expertise in productivity and the economics of information.

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Paul Sonkin (continued from page 9)



James Walsh '10 and Christof Pfeiffer '10 prepare for their presentation after coaching from Paul Sonkin

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SEC lawyer to talk about insider trading and compliance issues. The most interesting thing from that perspective is that everything is a grey area. What I would try to press upon the students is that one bad decision could affect the rest of your career. Before you make any decision, I just want you to hesitate for an instant and think about what you are about to do.

GD: OK, ground rule: you can't pick Buffett. Who's your favorite investor?

PS: Oh, I wouldn't have picked Buffett. Seth Klarman.

GD: Why do you say Klarman? You mentioned earlier that he is a very different investor than you are. What about him – is it his record?

PS: It's not the record. It's more the quality and clarity of thought, the discipline, and the creativity. Another investor I have a lot of respect for is Walter Schloss. He kept it really simple, he kept it small, and he has tremendous discipline. He also had a long, consistent track record. I think he had the longest unbroken track record, I think it was about 45 or 46 years. It was about 500 basis points for 45 or 46 years. And he just kept it really simple; buy cheap stocks. If you ask me who I admire, I guess it's Buffett, but I think there are

five different Buffetts. My Buffett would be Buffett #1 from the Buffett partnership. There's Buffett the value investor with Berkshire. The third incarnation is Buffett the rock star. The fourth incarnation is Buffett that buys and holds businesses. The fifth incarnation is Buffett the philanthropist. So I identify most with the first and a little bit with the second.

GD: We were hoping to talk a little bit about your involvement with the Pershing Square Challenge [Editors note: Sonkin taught a master class this year at CBS in connection with the Pershing Square Stock Pitch and Philanthropy Challenge.] First of all, what did you think of the final output?

PS: The quality of the work was really excellent. I was very pleased with the effort that most of the students put in.

GD: Where do you think students make the most mistakes?

PS: The most common mistake that students make is when a boss, for example, asks him for a red umbrella and then he comes back with a blue one and an explanation for how it's going to keep him dry. If you have seven different teachers, you might need to learn how to do something seven different ways. Then you can just absorb it and decide what suits you. Then when

you go to work, you're probably going to need to learn to do it in an eighth way. Arguing with your boss is just not a good idea.

GD: On that note, maybe you could talk about some of the mistakes you have made personally.

PS: Well, recently, we were in cash for so long that as soon as we saw opportunities present themselves, we pounced on them. We should have waited a little longer and husbanded the cash a little bit more.

GD: Was that a market direction issue – mark-to-market – or is it that you didn't realize how much the businesses would deteriorate?

PS: I think it's more a mark-to-market issue. There are some companies we own where their business models have fallen apart, but you're just going to have those, particularly in a portfolio of microcap companies. But for the most part, stock prices have really been irrational. Stocks are just trading way below cash on the balance sheet or replacement value. It's staggering.

GD: Thank you, Mr. Sonkin.

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The Mother of Distressed Cycles—Steve Moyer

For over 20 years Steve Moyer has become both a leading practitioner of distressed debt investing and a teacher of its methodology and value to investing strategy. His book, **Distressed Debt Analysis**, serves as the fundamental handbook for understanding the particular factors and approaches that differentiate distressed investing. His distinguished career has encompassed both buy- and sell-side positions at Tennenbaum Capital Partners, Imperial Capital, Banc of America Securities, Kemper Securities, Drexel Burnham Lambert and First Boston. He graduated with honors from Grinnell College with a Bachelor of Arts degree in Economics, holds a Juris Doctorate from the Stanford University School of Law, a Masters in Business Administration from the University of Chicago School of Business and is a holder of the Chartered Financial Analyst designation. Mr. Moyer recently sat down with **Graham & Doddsville** to discuss the current distressed cycle, its implications and potential opportunities for value investors.

GD: Distressed investors were touting the arrival of the next cycle as early as 2006 but to what degree did they expect it to take the shape we see today and how have the rules of engagement changed when compared to previous distressed cycles?

SM: Investors definitely saw

the current cycle coming well before it arrived. If we look only at the increase in leverage over the last five years it was foreseeable that there would be a large number of distressed companies once we entered into a recession. Of course, as with most other investors, analysts did not necessarily predict the severity of the downturn and that led to many funds making investments too early in the cycle and suffering losses as a result.

This cycle will be much broader than previous ones. It will have a large number of “fallen angels” like GM and Chrysler and could include much more participation by the financial sector. The lack of capital market liquidity will drive a lot of restructurings and liquidations will become more common if financing for reorganizations remains limited. This cycle may also be more litigious as capital structures have become more complex and creditors fight over recoveries.

GD: Comparing the lower volatility approach of investing in secured debt vs. the potentially asymmetric returns of buying bonds how do you think of value and rates of recovery in today’s distressed capital structures?

SM: There is proportionately more secured debt in many capital structures in this cycle. That will make

investing in the unsecured and perhaps even the second lien debt of companies with a lot of first lien debt potentially very risky. So as always the issue will come down to price relative to valuation. While it’s really hard to generalize, unsecured paper may need to get cheaper before it presents an attractive risk/reward tradeoff. However, the complexity of capital structures and existence of CDS should present some potentially attractive capital structure arbitrage opportunities.

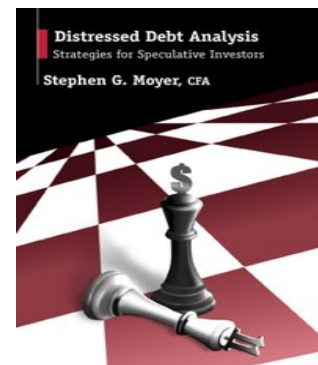
GD: Is it a fair statement, then, to say that the fulcrum security today lies somewhere within secured debt?

SM: Again it’s hard to generalize, but yes, I think to the extent secured creditors want a restructuring (as opposed to attempting to force a sale) they will likely receive a significant if not controlling stake in the debtor’s equity more so than in the past. Given the proportionately large amount of secured debt today and the low market valuations of firms, it’s probable that secured debt will often be the fulcrum security.

GD: As for the ease of access to capital during the bubble what kind of changes do you expect going forward?

SM: I don’t think I’d be going

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“While it’s really hard to generalize, unsecured paper may need to get cheaper before it presents an attractive risk/reward tradeoff.”

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Steve Moyer (continued from page 11)

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much out on a limb to predict there will be less debt in capital structures for the foreseeable future. Among other reasons, CDO's will either disappear or become much less viable which will reduce an important investor class that contributed to the last bubble. In addition, the underwriting pendulum will swing back and leverage ratios, covenants and other underwriting criteria will tighten significantly.

GD: How do you think about the margin of safety on a distressed investment?

SM: Generally speaking the margin of safety in distressed investing can be difficult to quantify. Distressed investing can be as much art as science since returns often depend on unquantifiable variables in the bankruptcy process. Looking back at the 1990's and in 2000, the concept of "margin of safety" was not nearly as important as it is today for a lot of institutional investors. The advent of VAR [value at risk] analysis and the focus on return correlation and volatility has to a certain extent changed the vocabulary of distressed managers.

In past cycles, the combination of less secured debt, structural inefficiencies in the distressed market and economic conditions resulted in the fulcrum class being lower in the capital structure and investors of-

ten used diversified positions throughout the capital structure as a way to manage the upside/downside tradeoff. Given the severity of the sell-off that's happened in many investment markets generally, a lot of investors are willing to leave some money on the table in favor of lower volatility and are looking for investment styles that they perceive as offering an "increased margin of safety". Time will tell whether that is a permanent shift in investor psychology or whether they become more absolute return focused.

GD: Intense litigation seems to be a major theme of this cycle as well. Will this have any impact on returns from distressed investments?

SM: First to comment on the phenomenon [of increased litigation], part of the reason you might see that more is that we have a significantly larger group of investors that are savvy about the bankruptcy/restructuring dynamic. In the 1990's there weren't as many people that understood the bankruptcy process. In the 2000 cycle, many of the investors of the 90's had left the game, so we were again left with a relatively small number of experienced workout investors.

This time around, we have a lot of players that know how to play the game and play it well. While some-

times having more experienced parties leads to more rational solutions, it can also inject a lot of contention into the process. So, while the exact effect the litigation will have on returns is unclear, I do expect more internecine warfare among creditor classes given the incremental complexity in capital structures. Also, as we get to the recovery phase of the recession, more junior creditors may view it as in their best interest to delay the process hoping that the economic outlook for the debtor will improve leading to higher valuations and recoveries.

GD: The increased competition you reference is perhaps a reflection of the size of the opportunity in this distressed cycle. How do you envision the near-term growth and success of the distressed fund industry?

SM: There's a growing consensus that there's going to be a lot of opportunity in the distressed market. Wilbur Ross' prediction that this would be the "mother of all distressed cycles" is probably right. But that doesn't mean outsize returns will be either easy or certain. Many investors have already been burned because they were early and the opportunities to reorganize are limited due to the limited market for DIP financing. In addition, much more dedicated distressed

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Steve Moyer (continued from page 12)

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capital has been raised this cycle so the market may not get as technically oversold as it did at the peak of some of the previous distressed cycles. That may limit overall returns as a class and put an even greater premium on the specific manager. Going back to the big picture, though, if the recession is prolonged and capital for HY companies to refinance remains restricted, there will be a lot of distressed paper and that usually leads to opportunity.

GD: Are there any specific strategies that will return more than others or garner more attention from potential capital?

SM: There are so many asset classes from which to choose as an investor in this cycle. One driver of returns among these classes may be whether it's a class that has yet to attract a lot of the capital and thus have a greater chance of getting oversold. Take, for example, mortgage securities. There has never been this much distressed mortgage paper before. Although some dedicated distressed mortgage capital has been raised, it's small relative to the literally trillions of potential supply. That's why you see the government getting involved in trying to attract more capital to the area. As for which strategies will be effective for fundraising – I think if institutional investors were smart, they

wouldn't get so bogged down in second-guessing a manager's strategy and its effectiveness as opposed to focusing on choosing the manager with great experience and a proven track record.

GD: How do you approach the search process for generating investment ideas?

SM: I've had the benefit of watching an incredible change in technology over my twenty year career. We have so much access to information and data, it's fairly easy to run quantitative screens as a starting point for idea generation. But, of course, that's just the beginning of the process. The depth and quality of work required today relative to the industry norm back in 1990 is night and day. I also think utilizing one's network is critically important. Being able to talk to a bunch of different people in the industry allows for great idea flow back and forth.

GD: DIP (Debtor in Possession) financing has made a slow re-entry into the markets. What has to happen before DIP loans become readily available to firms filing Chapter 11?

SM: Well, if you're a prospective DIP lender you have to have adequate credit support for your loan. But with so much secured debt in place in today's capital structures,

that is increasingly difficult. So, it's no surprise that a good number of DIP loans we've seen have been from the existing secured creditor constituency and have used roll-ups of existing debt as an inducement to commit more capital. I suspect that trend will continue unless asset valuations increase.

GD: Aside from your book what would you consider as required reading for today's distressed value investor?

SM: I think there's a lot of substantive literature coming out of bankruptcy law firms that is very helpful/ useful. There are many more law firms trying to establish a presence in the reorganization field and one of their chief marketing tools is to publish analyses of legal developments in the field. It's critical to pay close attention to changes in bankruptcy law and understand any potential impacts on the process. On the analytical side, there's some good analyses published by the research departments at the different [Wall Street] firms. Even if there isn't one on every situation of interest, they can do a good job of laying out the issues and the analytical approach.

GD: Finally, if you were a young analyst graduating from business school today, what would you look for in a firm when recruiting?



“Wilbur Ross’ prediction that this would be the “mother of all distressed cycles” is probably right. But that doesn’t mean outside returns will be either easy or certain.”

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Moyer (continued from page 13) || Heilbrunn Reception

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SM: Well my view has changed over the last two years but one obvious answer in this cycle is you want to go to a fund with locked up capital. There are a lot of funds with great analysts that are closing their doors due to redemptions and there's nothing you can do about that. Being able to take the long-term view is critical and locked up capital permits that. You should also try and get a good understanding of the investment process at a firm – something you may only gain from the junior guys if you can find one that will be candid about the reality versus the party line: is it in reality one primary decision maker, how political is the process, can you get stuck in an out of favor sector, those sorts of issues. Of course, you want to find a firm that agrees with your investment style and approach. Ultimately, you should find good people with whom you think you would enjoy working and can learn from because there's no substitute for that basic element.

GD: Thank you very much, Mr. Moyer.

Berkshire Annual Meeting & Heilbrunn Center Reception

On May 2, 2009, after Warren Buffett concluded the Berkshire Hathaway Annual Shareholders Meeting, Co-

lumbia Business School alumni headed across N 10th Street to the Omaha Hilton, where the Heilbrunn Center hosted an alumni reception and speaker panel. After digesting the day's events and reconnecting with former classmates, CBS alumni were treated to an exceptionally thoughtful panel of speakers that included Professor Bruce Greenwald, Thomas Russo of Semper Vic Partners, and Adam Weiss (CBS '96) of Scout Capital.

Topics discussed covered a wide range of subjects from the day's events and the legacy of Benjamin Graham and David Dodd's *Security Analysis*, to the pitfalls of investing in bank stocks based only on projections of normalized earnings and the search for value in global markets. Greenwald kicked off the panel by pointing out that although Buffett generously shares a great deal of the insight and reasoning that underlie his investment decisions, at times it is what Buffett does not share that accounts for his success. As an example, Greenwald referred back to earlier in the day, when Buffett told those in attendance how he was prompted by a visiting class of Chicago MBAs in March to declare that he would have put his entire net worth into Wells Fargo that day at under \$9 a share. Buffett went on to explain that this confidence was because Wells Fargo is different than other banks

with national franchises. However, exactly how Wells Fargo is different, he left unsaid. Greenwald provided his own supposition that the difference lies in Wells Fargo's decision to manage the company as a collection of regional banks, which provides lower cost deposits and better risk management compared to a single national bank model.

After Greenwald concluded his remarks, Russo spoke on the search for value in global markets, and then Weiss delivered a compelling speech on the relevance of *Security Analysis* 75 years after its first publication. In addition to highlighting Graham & Dodd's warnings against investing in banking stocks saddled with nonperforming mortgages from another era, Weiss brought up a quotation he once heard that had resonated with him so much that he decided to have it framed and displayed prominently in his office: "Many shall be restored that now are fallen, and many shall fall that now are in honor." Upon rereading *Security Analysis* after many years, Weiss was surprised to find that very same quotation staring back at him. Even though the practice of value investing has evolved greatly since the publishing of *Security Analysis*, Weiss' story provided a striking example of just how much we have all been influenced by Graham & Dodd. *This article was contributed by Matt Gordon, MBA '10.*

“Many shall be restored that now are fallen, and many shall fall that now are in honor.” - Horace

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Berkshire Annual Meeting (continued from page 4)

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and looked happier than two kids in a sandbox. The Q&A period broke for a ½ hour lunch and then resumed.

The most intriguing questions were those Warren didn't really answer. Who was in line to replace him as CEO and head investor? There were three candidates for CEO and four for CIO, he said, but he didn't give any names. Why did he hold Wells Fargo stock? If he could only invest in one company, he replied, it would be Wells Fargo. Of course, he never said why.

How did he evaluate and incentivize managers? That was a great question, he responded. "We don't want relationships that are based on contracts," he said. Charlie Munger added: "Our model is a seamless web of trust that's deserved on both sides. That's what we're aiming for. The Hollywood model where everyone has a contract and no trust is deserved on either side is not what we want at all." Then Warren cited Peter Kiewit's contracts (who founded Omaha's largest construction company) as an example, without specifying what those contracts entailed.

By 2pm, we were all getting fidgety. I didn't want to miss a word, but my legs were beginning to cramp. I had to get up and walk around. I couldn't believe

these two men could sit there for so long in such comfort with no break. At 3:30pm, the Q&A period ended and the formal annual meeting began, whereupon the board of directors were reelected by majority vote. Interestingly, a shareholder had put forth a motion requesting Berkshire to produce a sustainability report. This was my first exposure to criticisms against some of Berkshire's subsidiaries. According to the shareholder's representative, there were allegations of labor violations at a Russell Athletics factory in Honduras. Several Ivey league schools had discontinued their use of Russell Athletics because of these allegations. The representative then passed the microphone to a worker from the Russell factory in Honduras. She spoke for 10 minutes in Spanish about the cramped workspace, long hours with few breaks, and anti-union activity. Following her testimony, Warren asked the CEO of Russell Athletics to respond. He outlined the actions they had taken to improve conditions, and how a non-partisan labor rights group had been invited to monitor and evaluate the conditions. The motion was then put to a vote and defeated.

Following the meeting, Columbia Business School held a reception hosted by the Heilbrunn Center for Graham and Dodd Investing. Professor Bruce Greenwald,

Tom Russo of Gardner Russo Gardner, and Adam Weiss of Scout Capital shared their thoughts on the meeting and the enduring relevance of Benjamin Graham and David Dodd's 1934 *Security Analysis*. Illustrating its ongoing relevance, Adam Weiss cited passages from *Security Analysis* that warned against over-levered institutions. Tom Russo explained how his best investments had come from companies that had grown in value and benefited not only when the market recognized its intrinsic value, but when the company grew and its multiple expanded.

Professor Greenwald shared his perspective on Buffett's incomplete answers. Why was Wells Fargo different from most other banks? Because it focused on local economies of scale, he said. Unlike other banks, Wells Fargo had concentrated its growth in the west, not across the entire country, as did See's Candy. What made Buffett's contracts unique? They incentivized managers to not only pursue growth, but to achieve profitability. Following the reception, we drove to the Nebraska Furniture Mart for a western BBQ cook-out. I was expecting a large warehouse like Costco and was shocked when we arrived. At 77 acres, the Nebraska Furniture Mart was not only larger than eight Costco warehouses laid side

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"Our model is a seamless web of trust that's deserved on both sides. That's what we're aiming for. The Hollywood model where everyone has a contract and no trust is deserved on either side is not what we want at all." - Charlie Munger

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Precision Castparts Corp. (Winner of the 2009 Sonkin Prize)



Chuck Murphy
CMurphy09@gsb.columbia.edu

March 2009

Precision Castparts (PCP)
Price: \$63.85
(March 2, 2009)
FV Target: \$90

Trading Data	
Latest Price (3/2/09)	\$63.85
52-Week Range	\$47 - \$131
Market Cap (\$mm)	8,934.8
Shares Outstanding (mm)	139.9
Valuation	
FCF Yield (ttm)	11.4%
TEV / NOPAT (ttm)	8.36
TEV / EBITDA-CapX (ttm)	8.81
BV per Share	\$32.97
Operating Data	
EBIT margin	22.9%
FCF margin	12.8%
Cash Flow ROA	16.1%
Cash Flow ROIC	22.0%

CAGR, Select Income Statement Items

	1998-2008
Revenue	18.3%
Gross Profit	21.2%
EBITDA	23.8%
EBIT	25.7%
Net Income	28.6%
EPS	24.0%

Company Description: Precision Castparts Corporation (PCP) manufactures specialized metal components for original equipment manufacturers in aerospace (53% sales), power generation (27% sales), and other industrial (20% sales) markets. While these end-markets are cyclical, a substantial portion (roughly 30-40%) of PCP's business relies on maintenance and repair-based sales. PCP is organized by product type, including investment castings (33% sales), forged products (44% sales) and fastener (23% sales).

Thesis Summary: PCP's business is misunderstood for two reasons. First, PCP will continue to benefit from the secular shift to high performance materials, such as titanium. This represents an organic growth opportunity of 5-10% per annum, which will at least partially offset cyclical declines. Second, a substantial portion of PCP's sales includes content required by its customers to properly maintain their capital base. Moreover, PCP has dominant market share in its core product areas—e.g., as much as ~90% in large-diameter structural castings—and generates 22% returns on invested capital, which have risen with its increasing size. In addition to excellent management, it is likely to sustain these returns on capital due to three structural advantages. (i) Scale and (product) scope economies. Scale enables PCP to offer lower prices than competitors in exchange for four or five-year contracts, which in turn creates higher customer switching costs. (ii) Captive customers. Most parts are custom-designed for specific, precise end-products; OEMs (or ultimate owners) cannot replace them with “generic” substitutes. Front-end collaboration forges trusted relationships. (iii) Proprietary manufacturing processes. PCP's know-how is a function of unique manufacturing processes, engineering expertise, and custom-tailored equipment and tools. It is difficult to replicate.

Valuation: PCP's current price of \$64 implies an extreme bear-case scenario, including (i) a severe downturn followed by no meaningful recovery and (ii) relatively poor sales and margin execution by management. (See reverse-engineered DCF analysis on opposite page). It is unlikely that both of these conditions will present themselves simultaneously in the next cycle, particularly given management's stellar execution in the last recession. Assuming a severe downturn with a modest recovery and solid execution, I arrive at a cash flow-based intrinsic value of ~\$90 per share. Risks to the upside include (i) consolidation opportunities and (ii) escalating 787 build rates.

Risks: A deepening recession would certainly adversely affect PCP's business but it would not impair long-term cash generation. Moreover, passenger miles flown and demand for electricity have been remarkably stable in prior recessions. Due to its strong competitive positioning, PCP is able to “pass through” commodity price fluctuations directly to its customers, thereby insulating itself from inflationary pressures.

Catalysts: One of the difficulties of investing in PCP now is that there are no immediately obvious events that will unlock value in the next ~12 months. At the same time, it is possible that EOMs could “push out” or cancel orders, which would probably cause the stock price to fall further in the short term sales prospects. The following is a brief list of potential events that could improve short-term valuation: Competitor has a liquidity problem. Of the available options, Alcoa would be the most likely candidate given that it recently implemented a large dividend cut in order to preserve cash. Regulatory change in the U.S. and/or U.K. New fuel efficiency requirements for aircraft or other industrial products could cause increased demand for PCP's products. Fundamental performance beats expectations. Over the medium and long-term, PCP's fundamental performance should be a catalyst for the stock, as outlined in my valuation analysis above. Assuming no short term catalysts and a difficult industry recession lasting through 2012, investors may have to wait until 2012 or 2013 in order for the market to recognize PCP's long-term value. In this scenario, the IRR on investing in PCP today would be ~23% (assuming value is realized by 2012) and ~17% (assuming 2013).

Growth Drivers: PCP's growth has been higher than that of its end-markets. The Air Transportation Authority expects global commercial airline capacity to grow at ~3% annually through 2025; similarly, the International Energy Agency expects that world demand for electricity will grow by ~2.5% per year through 2030. By contrast, specialty metal component manufacturers to the aerospace and energy markets have grown at a 10% CAGR over the last 10 years. PCP has gained share, growing at a 20% CAGR—roughly twice as fast as its market peers—over the same period. Back-of-the-envelope analysis suggests PCP's historical CAGR comes from the following sources: Aerospace/energy end-market growth: 2-3% per year; Acquisitions: 10-12% per year; Shift to high-performance material: 5-8% per year. **Driver #1:** OEMs are switching from steel and aluminum to lighter weight composite and titanium parts; this trend is especially pronounced in aerospace. PCP and its peers have benefited from increasing demand for castings and forgings made from composite metals (e.g., titanium alloy) and titanium, which are more difficult to work with and thus require highly-

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Precision Castparts Corp (Continued from previous page)

sophisticated manufacturing processes. Fuel efficiency is paramount. Lighter-weight metal components allow end-users to reduce their total cost of ownership. Fuel represents ~30% of operating costs for an average commercial jet liner, whereas maintenance materials are roughly 2%. Increasing demand for composite parts feeds on itself. Aluminum corrodes when it is bonded to composite material; thus, by introducing composites, OEMs must employ titanium (which is corrosion-resistant) or still more composites in its place. Titanium usage has doubled from ~8% of the airframe weight on the Boeing 747 to ~15% on the (forthcoming) 787. This has resulted in a 10-fold increase in revenue per ship set for PCP. Driver #2: Consolidation—since fiscal 1998, PCP has spent ~\$3.6 billion on acquisitions; based on a partial list 11 out of 20 transactions, it has paid an average multiple of 0.9x-1.1x sales. This multiple implies that 50-60% (or \$3.4 billion) of PCP's incremental revenue has come from acquisitions.

Valuation: Price-implied expectations

for PCP are unreasonably low at \$60 per share. To produce the current price, one must assume a downturn 2x worse than 2001-2003, followed by an anemic recovery, which results in a top-line CAGR of -1% over the next 10 years.

In addition—this part is more far fetched—one must assume management is unable to control costs as well as it has in the past. Eg., although PCP's sales volumes were down ~20% in 2003, management was able to increase operating margins by 100 bps in investment castings and limit declines to 200 bps in forgings, its most fixed-cost intensive product line. My \$90 fair value estimate assumes PCP grows at a CAGR of 4-5% over the next 10-year cycle (versus 20% in the last cycle). Also, I gave management credit for its proven ability to trim capacity and sticky expenses during periods of falling volumes; still, I assume margins contract modestly during the downturn. Finally, I assume a discount rate of ~10%, gradual debt repayment, and the current fully diluted share count.

	2007		2008		1	2	3	4	5	6	7	8	9	10	11	CAGR
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
Cost of capital	10.0%															
Sales	5,319.4	6,852.1	7,050.8	6,627.8	5,302.2	4,772.0	5,010.6	5,244.4	5,471.7	5,690.5	5,899.2	6,095.8	6,278.7	6,278.7	-0.8%	
growth rate		28.8%	2.9%	-6.0%	-20.0%	-10.0%	5.0%	4.7%	4.3%	4.0%	3.7%	3.3%	3.0%			
EBIT margin	18%	23%	23.0%	20.0%	15.0%	17.0%	17.9%	18.7%	19.6%	20.4%	21.3%	22.1%	23.0%			
EBIT	966.5	1,576.0	1,621.7	1,325.6	795.3	811.2	894.7	981.5	1,070.9	1,162.5	1,255.7	1,349.8	1,444.1	-0.8%		
Tax rate	33.2%	33.9%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	35%		
NOPAT	646.1	1,042.1	1,070.3	873.5	524.1	534.6	589.6	646.8	705.7	766.1	827.5	889.5	938.7	-0.9%		
NFA Turnover	6.4	6.5	6.5	6.0	6.0	6.0	6.1	6.1	6.2	6.3	6.4	6.4	6.5			
Net PP&E	989.8	1,126.2	1,084.7	1,104.6	883.7	795.3	825.3	853.7	880.5	905.3	928.0	948.2	966.0			
Investment required		136.4	(41.5)	19.9	(220.9)	(88.4)	29.9	28.5	26.8	24.8	22.6	20.3	17.7			
Unlevered FCF	905.7	1,111.8	853.7	745.0	623.0	559.7	618.3	679.0	741.3	804.8	869.2	921.0				
percent change			-23.2%	-12.7%	-16.4%	-10.2%	10.5%	9.8%	9.2%	8.6%	8.0%	5.9%				
PV FCF	4,768.7	1,010.7	705.5	559.8	425.5	347.5	349.0	348.4	345.8	341.3	335.1	322.8				
RV (No Growth)	9,386.7															
PV of RV	3,619.0															
TEV	8,387.7															
+ Net Cash	3.0															
EV	8,390.7															
Diluted shares	140.7															
EV per diluted share	\$ 60															

Key Assumptions:

Revenue growth
 - Used Reuters consensus estimates, ttm trends, and management guidance as a starting point for revenue growth rate in 2009.
 - Had to assume a downturn 2x as severe as 2001-2003 during the years 2010-2012 in order to get closer to the current price
 - Gradually reduced growth rate from ~5% in 2013 (half as much as the rebound in 2004) down to ~3% in 2019.

EBIT margin
 - Used ttm EBIT margin of 23% as a starting point in 2009. Brought down sequentially to 15% in 2011.
 - Assumed gradual (straight-line) reversion to 2009 margins by end-of-period due to cost-cutting and capacity-reduction initiatives.

Capital investment
 - Used ttm NFA turnover to estimate Net PP&E (but reduced it during years of falling revenues) and capital investment required.
 - Assumed no incremental investment in or benefit from working capital given negative growth rate (and for simplicity).

Revenue Analysis

	2008	2009	1	2	3	4	5	6	7	8	9	10	11
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<i>Market Drivers</i>													
Aerospace, % change YoY	33%	-4%	-5%	-20%	20%	25%	12%	8%	5%	5%	5%	5%	5%
Energy, % change YoY	43%	7%	5%	-21%	-14%	30%	20%	12%	5%	5%	5%	5%	5%
Industrials, % change YoY	7%	2%	-3%	-60%	38%	52%	-1%	33%	7%	5%	3%	3%	3%
Automotive, % change YoY	10%	-80%	-100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Cash Flow Valuation

	2008	2009	1	2	3	4	5	6	7	8	9	10	11
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<i>In Millions of USD</i>													
NOPAT, total	1,059.6	1,054.5	979.9	667.7	760.0	1,000.6	1,144.5	1,308.7	1,407.3	1,507.6	1,609.7	1,717.8	1,832.2
NFA Turnover	6.1	5.8	5.7	4.9	5.2	5.5	5.8	6.1	6.2	6.3	6.4	6.5	6.5
Net PP&E	1,126.2	1,134.0	1,118.8	945.7	991.6	1,212.4	1,289.4	1,374.6	1,424.5	1,471.9	1,517.0	1,563.9	1,637.6
Investment in NFA		7.8	(15.2)	(173.1)	45.9	220.8	77.0	85.2	49.9	47.4	45.1	46.9	73.7
A/R Turnover	6.7	7.3	7.2	6.4	6.7	7.0	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Net A/R	1,027.9	896.5	881.2	719.9	765.4	947.6	1,019.4	1,143.1	1,204.0	1,264.2	1,323.7	1,386.0	1,451.3
Sales to Inventory	6.9	6.4	5.3	4.5	4.8	5.1	5.4	5.7	5.8	5.9	6.0	6.1	6.1
Inventory	992.9	1217.4	1,202.6	1,029.2	1,073.7	1,306.8	1,384.2	1,470.3	1,522.0	1,570.9	1,617.4	1,665.7	1,744.2
Sales to Payables	9.9	11.0	10.9	10.1	10.4	10.7	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Payables	689.4	596.7	583.8	457.7	494.6	621.8	678.5	760.8	801.4	841.5	881.0	922.5	966.0
Net Working Capital	3.6	1.7	1.6	0.8	1.1	1.4	1.7	2.0	2.1	2.2	2.3	2.4	2.4
Investment in WC		(1.9)	(0.1)	(0.8)	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	-
Cash Interest Paid	52.3	46.8	39.3	31.8	24.3	16.8	9.3	1.8	-	-	-	-	-
Total Debt	355.0	311.8	261.8	211.8	161.8	111.8	61.8	11.8	-	-	-	-	-
FCF Before Discretionary		1,001.8	906.0	759.8	639.6	712.7	1,007.9	1,171.5	1,345.5	1,460.1	1,564.5	1,670.7	1,758.5
PV FCF		6,385.2	823.6	627.9	480.5	486.8	625.8	661.3	690.4	681.1	663.5	644.1	
RV (no growth)		18,322.3											
PV RV		6,421.8											
TEV		12,807.0											
+ Net Cash		3.0											
Equity Value		12,810.0											
Diluted Shares		140.7											
Implied Equity Value per Share		\$91.03											

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Apollo Group - Short (Winner of the 2009 Pershing Square Challenge)

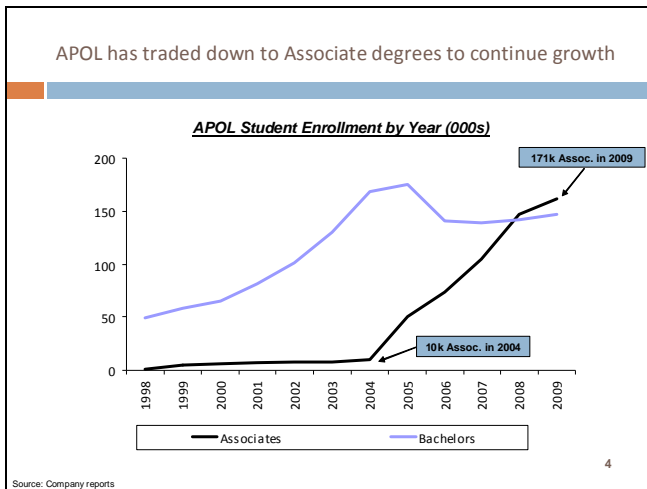
Apollo Group (APOL)
 Price: \$66.97
 (July 17, 2009)

Tim Rupert '09 (TRupert09@gsb.columbia.edu)
 Grant Bowman '10 (GBowman10@gsb.columbia.edu)
 John Piermont '10 (JPiermont@gsb.columbia.edu)

April 2009

Apollo group is priced to perfection while the outlook is far from perfect. In order to maintain its current valuation, APOL must increase its enrollment by more than 70% which implies an unrealistic share of the total addressable market. They must do this in the face of increased regulatory scrutiny, more competition and deteriorating student defaults.

There was a critical inflection point in APOL's business in 2005. Associate students represented less than 5% of the total in 2004, but today represent more than 40% of total enrolled students and more than 50% of new starts. This represents a fundamental deterioration in the business, as Associates degree students pay 25% lower tuition, are 30% less likely to graduate and have default rates of 27% vs. 7% for Bachelor degree students. As a result of rising defaults, APOL stopped enrolling Associate students at its



2-year school and began enrolling them at the University of Phoenix in order to conceal them among the larger

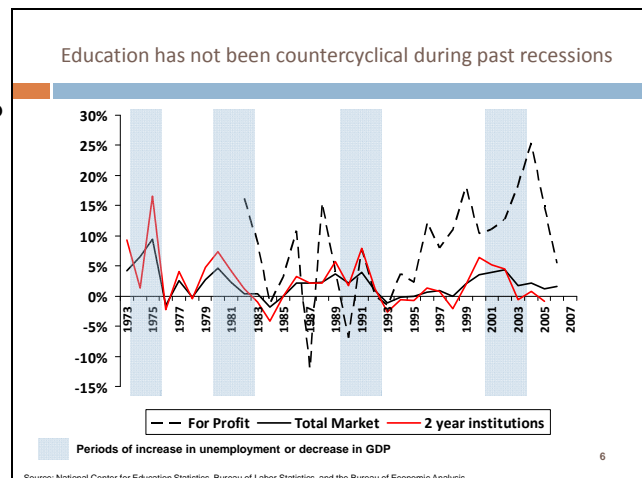
bachelor degree student body.

Despite these efforts, our analysis indicates APOL is in jeopardy of violating its Title IV eligibility requirements after reflecting a new default test and rising defaults for all consumer loans. Even if APOL does not violate its requirements, it will have to scale back Associate enrollments in order to manage its cohort default rate (CDR). The new method for calculating CDRs has extended the default period, which will result in higher CDRs and will require APOL to track its former students for another year in order to keep them current on their loans. This will pressure APOL's margins. The test for cohort default rates has increased from a two-year test to a three-year test. Student lenders estimate this will result in a 40-60% increase in defaults numbers. Additionally, performance

for similar consumer loans has steadily deteriorated. Losses on credit cards and consumer loans have increased by 50% and 70% respectively.

For-profit education is perceived to be countercyclical. This has not been the case in past economic downturns. During 2001 to 2003, for-profit education performed well

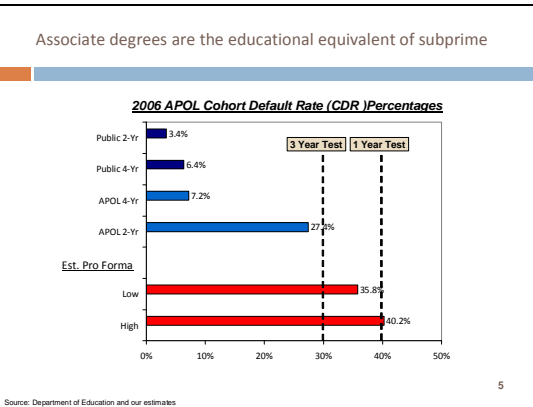
but that was not the case during past recessions. The for-profit education industry took off in that period due to a rapid expansion of online degrees. The overall education market did not perform well during that period. If APOL is countercyclical: Why are FAFSA applications down? Why is APOL having to spend more per new start? And why aren't APOL's enrollment counselors becoming more produc-



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Apollo Group (Continued from previous page)



Public universities pose a threat to APOL and the for-profit education industry. Our primary research with a board member and graduate of one of APOL's for-profit competitors indicates that public universities are a real threat. Our contact indicated that: **"You can do everything at the University of Minnesota that you can do at [For-Profit school]. That wasn't the case 8-12 twelve years ago.** The only reason I didn't go to U. of M. was I had a job and didn't want to lose it. There was just no flexibility. Now there

is. **U. of M. will take the students back that it lost to [For-Profit School].** We've spoken to a number of public universities that have online degree programs. In 2002, only 15% of public universities offered online degrees, today that number is above 60%. For-profit competitors are also an increasing threat. The number of new for-profit schools has doubled since 2000. This manifests in increased pressure for leads. Our primary research with for-profit lead generators indicates that the typical number of bidders has greatly increased and that leads prices have increased by 50%.

APOL's growth has been achieved by rapidly expanding its enrollment staff. We don't need to get into the enrollment tactics, but let's just say these counselors could sell Mexican timeshares. APOL is vulnerable to competition because it does not provide attractive value to its customers. An "education" at APOL costs more than at public universities, yet students receive less support and are far less likely to graduate. The best evidence of APOL's customer value proposition is its dismal retention rate, which is the

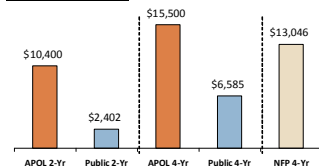
Per student valuation summary

Per Student Valuation Analysis:	Comments/Assumptions
Average Revenue Per Student	\$9,500 LTM of \$9,448
Average Discount	(475) LTM discounts of 4.8%
Net Revenue	\$9,025
Instructional Costs	(4,000) LTM of \$4,013
Contribution Margin	\$5,025
% Margin	56%
Annual Marketing Expenses:	
Marketing Cost Per New Start	\$2,700 LTM of \$2,735
Required Starts	76% Given 55% churn, must start 0.76 students per year to maintain enrollment
Annual Marketing Expenses	\$2,052
G&A / Student	\$600 LTM of \$659
Pre-tax CF Per Student	\$2,373
Taxes (@38%)	(902)
A/t CF Per Student	\$1,471
Discount Rate	8.0% 10.0% 12.0%
Implied Value Per Head	\$18,391 \$14,713 \$12,261

Note: This assumes APOL maintains 1 student into perpetuity and reflects required annual marketing expenses to offset churn

APOL offers dismal customer value proposition

Average tuition

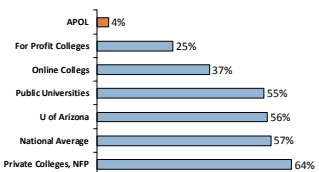


Source: US Department of Education Institute of Education Statistics, College Entrance Examination Board and University of Phoenix. Tuition figures are for in-state enrollments.



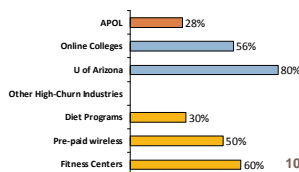
Their slogan should be:
Pay More. Get Less.

Graduation rates



Source: National Center for Education Statistics and Digest of Education Statistics (Dept. of Education).

Retention rates (new starts)



Source: National Center for Education Statistics and Digest of Education Statistics (Dept. of Education).

lowest among all reporting online colleges. Its retention is also lower than notorious high churn industries like diet programs and fitness centers. You're more likely to stay with Jenny Craig than APOL. Importantly, this results in APOL having to continually replace its student base.



Focused on Essentials: Hartch & Keller of BBH Core Select



Timothy Hartch (top) and Michael Keller (bottom) - co-managers of the BBH Core Select mutual fund.

Timothy Hartch and Michael Keller, CFA, are co-managers of the BBH Core Select Fund. Mr. Hartch received an A.B. from Harvard University, where he was elected to Phi Beta Kappa. He also received an M.B.A. and J.D. from the University of Michigan. Mr. Keller previously worked for KeyBanc Capital Markets and earned a B.S.E. from Princeton University.

GD: You've noted in the past that the BBH Core Select investment criteria grew out of Brown Brothers Harriman's successful M&A advisory and private equity activities. Are there other ways you are influenced by being part of this firm?

TH: Yes, several members of our equity investment team including me began our careers here at BBH in M&A and private equity and the Fund's investment strategy reflects that heritage. Brown Brothers Harriman is also a privately owned bank and we have a culture that emphasizes integrity and capital preservation. We try to keep things simple, avoid big risks, and focus on what is important. The Core Select investment strategy was originally designed for clients of our private wealth management business, many of whom are owners or former owners of private businesses. They tend to understand and appreciate our criteria and share our goals. Our first

priority is to preserve capital and our second priority is to grow it. These dual objectives drive our focus on market leading businesses providing essential products and services.

MK: And, by the way, most of the \$5 billion in equities that we currently manage is from our private wealth management business, although the mutual fund is growing steadily.

“We have a culture that emphasizes integrity and capital preservation. We try to keep things simple, avoid big risks and focus on what is important.”

GD: It seems like there might also be a link in terms of valuation. In addition to DCF, I've read that you also use private market values to arrive at your intrinsic value

estimates.

MK: We use an intrinsic value framework. Most often, this means we are using a DCF or economic profit model. We augment these methods with other approaches such as backward valuation analyses that use the current price to determine what growth and profitability assumptions—as well as returns on capital—are embedded in the stock price. A current example in which we have used this approach is Dell. Dell is facing a horrendous hardware environment and weak corporate PC spending, but our work suggests the market is pricing in negative growth into perpetuity. Essentially, the company is being valued as though it is a run-off business, and we feel that's unjustified. It's true that we will look at comparable private transactions, mostly as a sanity check. It is not the primary tool. It is just to supplement the DCF valuation to make sure we are not arriving at a value that is grossly inconsistent with actual transaction multiples.

GD: That said, given falling transaction values in the current environment, how have you adjusted your private market value estimates? Are you finding that your intrinsic value estimates have changed much in the last year?

MK: As we define it, intrinsic

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“BBH Core Select” (continued from page 20)

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insic value is not a rapidly fluctuating number. It is a relatively fixed conception of value. Valuation models themselves don't yield any certainties – false precision and overly optimistic assumptions can undermine the exercise. Looking at comparable transaction multiples can bring you back down to earth. Also, it's wise to examine the embedded marginal returns on capital in the forecast period to make sure you have made realistic assumptions. The idea is to stimulate thought and protect against some of the common shortcomings you find with DCF modeling.

Complexity in modeling can be the enemy of clear thinking. We often gain greater insights from simple models, such as one we use that distills our forecasts into an IRR calculation showing our prospective returns from today until an exit a few years out. We assume that the cash flows during the holding period either pay down debt or are used to repurchase shares. Here, we're asking the question, “If you were buying the whole business, what sort of return could you reasonably generate?” The higher the better – we like to see returns at least approaching the mid teens.

As a general point, we spend zero time focusing on historical valuation ranges for companies or industries. How the market valued a company ten years ago is

usually not relevant to how much a company is worth today.

TH: Also, our process is not just about valuation. It's about fundamental analysis and due diligence. We don't spend much time trying to guess about macro factors. We maintain an exclusive focus on our investment criteria, and we try to assess the risks outside of management's control. It's how you would think if you owned 100% of a business. We approach public equity investing with the same long-term strategy.

GD: How do you proceed with due diligence in the large cap space? Where do you think you are getting an edge over other investors? Is it more in the valuation or the screening process?

TH: Because we focus on large cap public companies, there is only so much additional information you are going to get from meeting with management. Also, if you are doing work on eBay or Microsoft, you may not have the same kind of access to senior management that you might find in the small cap space. So we do as much work as we can with a company and then find former executives, customers, competitors, and other knowledgeable industry participants that can provide additional insight.

MK: I think it's important, too, to understand that our criteria create a fairly small set of opportunities, so we

don't often find ourselves needing to screen for new ideas. Not every company and industry fits the standards we are looking for. Some companies are not going to make the shopping list now or ever. Given our objectives, we like to have reasonable visibility into what a company will look like 10 or 15 years down the road. Not many businesses offer that. We are investing in tremendous franchises with durable competitive advantages.

GD: It sounds like your investment criteria are mostly qualitative (e.g., loyal customers, essential products, etc.). Is that right?

TH: I think you are correct to say that our criteria are largely qualitative. We start by figuring out which are the right businesses. Then we look closely at management to see if they are good allocators of capital. Finally, we look at price. Price is really the third step, but still a critical step, in our process.

MK: Often qualitative factors will get you to the quantitative. There is quite an overlap between a company's returns on capital and its qualitative characteristics, such as industry structure and competitive position.

GD: Can you think of a time when you have waived one or more of your criteria and why?

MK: I wouldn't say

(Continued on page 22)

“As a general point, we spend zero time focusing on historical valuation ranges for companies or industries. How the market valued a company ten years ago is usually not relevant to how much a company is worth today.”

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“BBH Core Select” (continued from page 21)

“Our investment decisions don’t just come down to the companies discount to intrinsic value. It’s also the quality of the business and the risks. Right now, I think we have the opportunity to buy some of the best businesses at very reasonable prices.”

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(Continued from page 21)

“waived.” But as an example, we own positions in two oil and gas companies—XTO and Occidental Petroleum—despite the fact that their revenues are largely determined by commodity prices.

TH: In other words, these are companies that might fall short on our “loyal customers” criteria. Their products are have-to-have but they are commodities.

MK: Both XTO and Occidental acquire and exploit proven resources rather than taking wildcat exploration risks. Nor are they focused on the downstream side of the business where margins aren’t very attractive. Both companies have very low finding and development costs and the ability to increase production substantially over the next decade. And if you pick up Occidental’s annual report and read it, you will be very impressed with management’s emphasis on return on invested capital.

GD: How large of a discount is the current portfolio selling at versus your estimate of intrinsic value?

TH: Of the 30 companies in the portfolio, there are two that have balance sheet issues—those would be Liberty Media Interactive and Aflac—and they are both trading at about 30% of our intrinsic value estimates [as of March 31st 2009]. Those

companies aside, most of the others are trading between 50-70% of intrinsic value.

GD: How does this compare to other companies on the shopping list that are not in the portfolio?

TH: There are many businesses that we follow that right now are trading below our intrinsic value estimates, but our investment decisions don’t just come down to the companies’ discount to intrinsic value. It’s also the quality of the business and the risks. Right now, I think we have the opportunity to buy some of the best businesses at very reasonable prices. For example, late last year we purchased Dentsply (NASDAQ: XRAY), which is the leading provider of consumable and other products to dentists. This company has a powerful sales force, strong brands, and a broad product line. Dentistry is also benefiting from very positive demographic trends, which should fuel increased demand from developed and emerging markets. Historically, Dentsply’s share price reflected these many positives and traded at lofty multiples. But currently Dentsply is trading at \$26 or under 14x this year’s EPS. Our intrinsic value estimate is north of \$40. Another high quality addition to the portfolio last year was W.W. Grainger. They are a leading distributor of maintenance, repair

and operations supplies to industrial and commercial businesses. Grainger has been the dominant company in its space for decades, yet it still has less than 5% share of a \$140 billion market. We think Grainger has an opportunity over many years to double or even triple its market share. Relative to its competition, the company has a broad product line, great geographic coverage, and significant scale and purchasing power.

GD: Does Grainger have a loyal customer base?

TH: Yes, Grainger has a strong customer value proposition that generates repeat purchases. From a customer’s perspective, 40% of the cost comes from the process of purchasing supplies, rather than from the actual cost of the supplies themselves. Grainger helps reduce the process costs. You can’t take for granted things like the fulfillment of purchase orders, which can be a huge headache. If a customer goes to a local distributor for a critical part—and they don’t have it—then that person has to spend more time looking around for it. Grainger covers 99% of the country and is able to offer a higher level of service, including one-day delivery, which its competitors can’t match.

GD: Have you ever looked at Pool Corporation (NASDAQ: POOL)? It has a

(Continued on page 23)

“BBH Core Select” (continued from page 22)

(Continued from page 22)

similar franchise in the pool construction and maintenance supplies distribution business.

TH: We have in our small cap team. As I recall, they also have strong management and an enviable competitive position. But I’m not sure about the steady-state number of pools in this country or the opportunity for market share gains over time. Accordingly, there may not be as much certainty about the long term outcome as with Grainger.

GD: What about the other 130—the “rejects,” if you will?

MK: Just to clarify, yes, there are roughly 150 companies on our wish list, including the companies in the portfolio. As for the 120 that aren’t in our portfolio are not, we don’t think of them as “rejects.” It would be more accurate to think of them as our “bench”—companies we would like to own. In a lot of situations, the bench companies have a close counterpart in the portfolio.

TH: An example is Waste Management. We really like the long term outlook for the waste industry. The other leader in that industry is Republic Services. At the moment, we have chosen Waste Management, but Republic has capable management and good assets too. There is a similar situation with Vulcan Mate-

rials and Martin Marietta. Again, we like both businesses a lot, but right now we just own Vulcan.

MK: We pay almost no attention to sector weightings relative to indices. Some over-weightings in our portfolio might not be surprising given our criteria and objectives—for example, we own a number of food and beverage companies in the consumer staples sector. But it is not a thematic call. It’s simply an outgrowth of applying our investment criteria and insisting on a discount to intrinsic value.

TH: We are careful about concentrations of risk. For example, right now we have approximately 15% of the portfolio invested in insurance companies, including three property and casualty companies (Berkshire Hathaway, Chubb, and Progressive). Since hurricanes and other catastrophes can hurt property and casualty companies, we might not add a fourth company with that kind of exposure.

GD: The other insurance company in your portfolio is Aflac. As you mentioned earlier, Aflac is currently facing some balance sheet challenges.

TH: Aflac is a provider of specialty medical and disability insurance in Japan and the U.S. The core operating business is performing quite well despite the recession, but like many other insurance companies Aflac has

had problems in its \$65 billion investment portfolio. It holds over \$8 billion of junior debentures issued by European financial institutions. Investors have been concerned that some of these financial institutions might fail.

MK: A critical difference relative to most life insurers is that Aflac’s exposures are capped. You can have a run on a life insurer if customers cash in their policies. But that can’t happen to Aflac. Most of their policies, like cancer insurance in Japan and disability insurance in the U.S., have a defined payout for a particular event and no surrender value. Aflac knows the maximum payout at the origination of each policy. The real risk – because of the long-lived liabilities and potential for losses in the investment portfolio – is that Aflac could fall out of line with statutory capital requirements and need to raise additional capital at exactly the wrong time, which would be dilutive to current shareholders.

GD: Why are you comfortable with this risk?

TH: When we made our initial investment in Aflac several years ago, it had a strong capital position and a conservative investment strategy of matching assets with liabilities and purchasing only highly rated securities. Aflac also did a good job of avoiding the sub prime problems that caught

(Continued on page 24)

“We have purposefully only invested in financial services companies with strong franchises and balance sheets. It is because Aflac started with a strong balance sheet that it should be able to survive the current storm.”

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“BBH Core Select” (continued from page 23)

“If you look at the businesses we own, you will see companies that really have outstanding qualities—have-to-have products and services, large customer bases, high retention rates, good returns on capital, and ample after tax free cash flows.”

(Continued from page 23)

many other companies. What Aflac didn't foresee is that so many of the world's leading banks who are the issuers of these debentures would run into serious trouble at the same time. However, because these banks are so important to the world financial system, governments have rushed to their aid with additional capital. Accordingly, most of the junior debentures that Aflac owns probably will not default. Aflac's core business also continues to grow rapidly and is extremely profitable. Management expects net income of over \$2 billion in 2009 before investment losses. That means that Aflac can absorb significant investment losses without having to raise additional capital, as long as the losses don't all come at once. We have purposefully only invested in financial services companies with strong franchises and balance sheets. It is because Aflac started with a strong balance sheet that it should be able to survive the current storm.

GD: Turning to portfolio construction, some value investors have advocated holding cash in this environment. What is your philosophy on holding cash? You are currently at 6%, is that correct?

MK: Our cash right now is below 5%. Cash is an outgrowth of securities selection. Generally we keep enough cash in the fund to

avoid forced sales, but it is not managed to a specific minimum, nor would we be disappointed if the cash balance swelled. In 2006, we had over 10% cash at one point, but generally it has been well below that level.

GD: On a related note, what do you think about gold? Some value investors seem to have caught the gold bug. What is your view on that thesis? On one hand, gold has no intrinsic value; on the other hand, it could be an attractive hedge against inflation or devaluation.

MK: I tend to agree with your comment that, first, gold doesn't have a measurable intrinsic value and, second, you have to store it and insure it. Given the choice, I think we would generally prefer other “real” assets that generate cash flow. Think about our two energy names or Vulcan Materials, which has 13 billion tons of aggregates in the ground. These companies have assets that can't be duplicated and demand for those assets will grow over time. Waste Management is another example. The company owns 273 landfills with an average remaining life of 40 years. People don't usually think about it this way, but these landfills are not just holes in the ground. They are unique assets that are difficult to replicate. Not surprisingly, there are all kinds of zoning and environmental

restrictions against building a new landfill. We think of them as very real assets—both operating assets that generate cash for the business, but also as stores of value that can be priced well over time. Real estate is another asset class that can protect against inflation, but we don't own any REITs in our portfolio at this time.

GD: Do you have a view on inflation?

MK: We worry about rising inflation and are aware of the potential for monetary debasement, but our equity investment team doesn't make specific inflation forecasts. That's not part of our investment decision making process.

TH: Our view is that a business that provides essential products and services and has a strong competitive position is a pretty good hedge against inflation. Consider a company like Coca-Cola with superior brands, great global distribution, and relatively low private label penetration. In an inflationary environment, Coca-Cola should be able to raise prices to offset rising input costs. Companies with weaker competitive positions won't have that luxury. High inflation is not good for financial assets in real terms, but we think our portfolio would hold up relatively well.

MK: The thesis for gold

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starts to make sense if you believe we are heading towards hyperinflation.

GD: Names like eBay, Intuit, and Dentsply are not necessarily traditional hunting grounds for value investors.

TH: We think our approach is pretty differentiated. Our business criteria are different from what other value investors use. If you look at the businesses we own, you will see companies that really have outstanding qualities—have-to-have products and services, large customer bases, high retention rates, good returns on capital, and ample after tax free cash flows. We are proud of the businesses we own. We think they will thrive over many years.

MK: We also look for businesses with hidden assets and “optionality.” You mentioned Intuit. Intuit is a company that is pursuing several promising growth initiatives in healthcare, online banking, and geographic expansion. The company is spending money in these areas, but we aren’t giving them any credit for these investments in our intrinsic value estimates. It’s nice to get the upside for free.

GD: How do you avoid falling in love with companies that meet your criteria and have performed well?

TH: We try to be very objective with our process.

We record in writing our due diligence findings. We also prepare a detailed written investment summary for each company. The investment summary describes how the business compares against each of our investment criteria. The summary also identifies the key risks for each company and the big variables outside of management’s control. We try to avoid companies with high severity risks, even if they are low probability risks. Putting down our analysis in writing makes it easier to recognize when there has been an adverse development or when our original thesis is not playing out. Also, having clear criteria is empowering to the investment team. It gives junior people more ability to challenge senior people without making the discussion personal. You’re absolutely right—you don’t want to fall in love with your investments.

Our intrinsic value estimates also provide objectivity. Last year we sold all of our Western Union shares based on price. It’s an excellent company, but the market price rose above our intrinsic value estimate. At the time, Western Union’s business was flourishing and its share price didn’t look like it was reflecting the potential for any cyclical or long term challenges.

MK: When we come across negative feedback about one of our companies, we always investigate. Often the criticism will prove false or

immaterial, but we listen with an open mind. You guys probably know this better than I do from your courses, but there is a well-documented behavioral bias towards explaining away negative inputs. We want to know the short stories on our companies.

GD: I gather that position size is a function of discount to intrinsic value but also something you have called “durability of the franchise.” How do you assess the latter variable?

MK: The primary metric for determining position size is margin of safety. On this subject, though, our thinking is different from many other investors. We see margin of safety as having two components—it should be reflected, first, in the business and, second, in the price. We are not strictly buying \$1 for \$0.50. Absolutely, we want that price discount. But we also want a margin of safety in the business itself. The durability of the franchise refers to the strength of the competitive position and the certainty of the outcome. For every investment, we want to be certain that our capital is protected against a permanent loss and we want an opportunity for significant capital appreciation.

GD: Thank you, Mr. Hartch and Mr. Keller

“On this subject, though, our thinking is different from many other investors. We see margin of safety as having two components—it should be reflected, first, in the business and, second, in the price.”

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A Quant Among Us—Interview with Jim Scott

“As a quant ... you are dealing with a lot of low quality information. So the best way to take advantage of that is diversify and to control risks or the factors you are not predicting...And you protect yourself against the stuff you can’t predict.”

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Jim Scott is Managing Director for General Motors Asset Management. Previously, Mr. Scott was President of Quantitative Management Associates, a subsidiary of Prudential Financial, where he managed a team overseeing \$45 billion in enhanced equity index, value, balanced, and long-short funds. Mr. Scott is a graduate of Rice University and holds an M.S. and Ph.D. in Economics from Carnegie Mellon University

GD: Can you describe your background and your role in the Heilbrunn Center?

JS: Let me start off earlier. I didn’t always have the title of professor, but I taught for about 20 years. I started as grad student and visited at Stanford and then came to Columbia. I left in 1987. Not that I was off the payroll but I was off the tenure track. Then I was working at Prudential in their asset allocation group. That eventually grew into a quantitative equity shop with some asset allocation. I was President of that, we formed a subsidiary. And then, when I retired from that, my wife said, “You have insufficient interests.” And so I asked my buddy Tony who needed somebody to do equity here, that was about three years ago, and I started doing that.

Before that, when I was retired, I talked to Bruce Greenwald. And he said, come be research director

at the Heilbrunn Center. It’s been wonderful. He is a great guy to work with.

GD: Which finance courses did you teach at Columbia?

JS: Corporate finance, security analysis, an M&A seminar, PhD seminars—this, that and the other.

GD: The Heilbrunn Center takes a different approach to efficient markets than traditional corporate finance. Since you’ve seen both sides, I wonder what is your perspective on that?

JS: I believe there is money to be made by active management. I prefer a fairly disciplined approach, a quantitative type of approach. But certainly since I’ve come here, I’ve come to better appreciate fundamental approaches, value approaches. I think there are strong growth managers too. It’s a different discipline.

When I was teaching corporate finance at Columbia, most of it was based on valuation theory. Everything had to do with the valuation of a company. I was heavily influenced by that. So when I came back to develop a quantitative strategy, initially it was value-based. Net present value, book value—stuff like that. As a quant ... I guess I should make a point here. You are dealing with a lot of low quality information. Because you’ve got not much information

on a lot of different companies. So the best way to take advantage of that is diversify and to control risks or the factors you are not predicting. So a lot of it is, “what can I predict, what can I not predict?” And you protect yourself against the stuff you can’t predict. It’s just a very useful discipline and it is not one that is widely appreciated in the non-quant community.

Although it’s increasingly so. We’ve got a good manager in the UK, who is purely a fundamental guy. 20 stocks, OK? Or 30 stocks. He comes in every morning and pulls up a screen and he looks at the marginal contribution to tracking error on every stock in his portfolio. So he knows where he is taking his big bets relative to what he believes the market is judging him against. And he will trim his position if he thinks his confidence is not in line with that marginal contribution to tracking error. So you are seeing much more quantitative tools being used by fundamental guys. And by value guys as well.

At the same time, what you are seeing is the quants are becoming more and more fundamental. Doing more industry analysis, sector analysis, trying to dig inside income statements, and things like that. There are always going to be people on either extreme but you are seeing a bit of a conver-

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gence. And I’m trying to manage money and make money, what are the tools at my disposal, how can I make the best use of whatever information I can generate. So you are seeing that sort of thing.

GD: Talk about risk metrics you’re looking at. Do you tend to use industry Standard BARRA risk factors or do you have your own risk models that you use?

JS: At my former shop, we had used BARRA risk factors initially. We moved away from BARRA’s because we thought they were universally used. We didn’t know what kind of factor exposures they were giving us. We moved to much more explicit consideration of risk where we knew exactly what we were controlling. We controlled for industry, sector, size of position, growth rate, etc. We knew that if we got far away from our benchmark on those dimensions, one, we weren’t sure how good our alpha was, how well we could predict, and so we decided to focus the alpha by controlling those things where we felt we had predictive ability. The way I do risk control is, “how do I best focus my portfolio where my skill is? How do I control those things that I know can hurt me and where I don’t have a lot of confidence in those predictions?”

GD: Interesting what you said earlier about the UK

manager. In a way, you could see how that could encourage less risk taking.

JS: No, this is a very aggressive manager. He has had a stellar track record. He has won all sorts of awards for high returns which you don’t get by not taking risk. He just wants to know where they are and how heavily he is exposed on individual names. Because he looks at his portfolio in terms of individual names. It makes sense. If you are taking three times as much risk on this one stock, which you are no more confident in than this other stock, then you want to straighten things out.

GD: A lot of value investors will say things like, “market risk isn’t price risk, that’s not the real risk,” and “volatility is your friend.” But if you plot that against BARRA risk factors, it just looks like you are taking on more risk. Whereas they would claim they are not. How do you reconcile those viewpoints?

JS: Both things are correct. To a large degree, it is matter of time horizon: how long do you as a manager have to produce good returns? If you have the luxury to wait five to seven years for a big payoff, then the way you view risk is differently than if you are reporting to institutions that get really upset if your three year track record slips. As the markets have become more institutionalized, managers have become more

short-term oriented for self-preservation. Which is not to say you can’t utilize the same skills, but you have to be much more careful about portfolio construction if your ideas have longer payouts. So I think they are both consistent and the notion that, “hey this is a cheap asset, I’m going to buy it and I’m going to make a lot of money one of these days,” is very appealing and I think right. It’s just that today today’s institutional marketplace, and to some extent the mutual fund marketplace, it is somewhat more difficult to actually use.

GD: Knowing that, have you tried to construct time arbitrage portfolios? Do you talk to your clients and say, here is an opportunity three years out, here is the model that will help us generate alpha in the long term, but in the short term you might not like the way it looks?

JS: Three years is a little short for some of these strategies. It is a hard question to answer. Most institutions say they have long time horizons. But at the end of the day, you had better keep performing.

GD: What about this institution? How long would you say is the time horizon here? Are you managing primarily on behalf of General Motors’ pensioners?

JS: And for a lot of other clients as well. I don’t want to get into it, but I will tell

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“What you are seeing is the quants are becoming more and more fundamental. Doing more industry analysis, sector analysis, trying to dig inside income statements, and things like that.”

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“Jim Scott” (continued from page 27)

“To an extent, industry models have been in place for a long time because many value factors work best within industries or within sectors than across them if you are looking for shorter-term or even medium term payoffs.”

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you personally they have a very long horizon. Although maybe it is getting shorter. When times get tough, horizons get shorter.

GD: Any reactions to the recent Dave Swensen interview in the WSJ? The reporter asked him if endowments should change their portfolios to be less volatile in the short run. Swensen was fairly adamant that—regardless of current market conditions—the horizon hasn’t changed, therefore the portfolios shouldn’t. So that is the ideal, right?

JS: To a degree—to the degree that it is really implementable. I mean, everybody faces pressures. Fortunately, we didn’t have those kinds of problems. Not by a long shot.

GD: When you’re constructing models. You mentioned quant moving more in a fundamental direction. Do you have very specific models for different industries, or subsectors, or do you use low price to book which tends to work across industries so you’ll use that, or do you look at different variables for industries versus chemicals or pharma you might look at different things?

JS: Let me talk about the industry in general, and then I will turn to my approach. What you are seeing in the industry is that more people are either moving to or at

least considering industry-type models or super industry type models. To an extent, industry models have been in place for a long time because many value factors work best within industries or within sectors than across them if you are looking for shorter-term or even medium term payoffs. But there have been explicit models of different industries.

Backing up—first generation quant was, you run a regression, you figure out what the coefficients are, and that tells you what you should be using to generate alpha. Second generation gets much more complex and starts dealing with different ways of looking at different types of stocks. Third generation I guess is, within a quant portfolio, forming what might be ... sort of robotic industry analysts. So, you’ve got your model for a particular industry.

What I have tended to favor and actually we perhaps pioneered this—we certainly thought we did at the time and most of our clients thought it was unique—is we just started out from a basic PV formula. And said, OK, if you look at this formula ... think of a Gordon Dividend Discount Model. You’ve got dividend divided by discount rate minus the growth rate. If the growth rate is zero, it is just dividend or earnings divided by the discount rate. So what that’s telling you is, for com-

panies like that, you can focus on their normalized earnings are, what their assets are, stuff you can see pretty well today. What Graham would say—or what Greenwald would say—is pretty good information. Because it is near-term and it is more tangible.

OK so in that part of the market, you use value metrics more because that makes more sense. When you get out here to the high growth rates—that is sort of hopes and dreams. Price to earnings ratios, or price to book ratios, can be very high and yet you can make money by buying those stocks. So it is more of a Buffett notion that you are willing to pay for growth. The way we implemented it is—we called it the news factor. We’re looking for news of a fundamental nature that should affect the present value of future cash flows for growth companies. OK? And that was the main thing we focused on. So the question is, what’s news, and how does it evolve over time if government rules change, or whisper estimates go out of style because ...

GD: Reg FD.

JS: Yeah, that sort of stuff. So it’s a question of what’s news. And so, in that part of the market, you still have some value metrics, but you focus more on news metrics. You are more like a

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growth stock investor. You want to know what’s driving those hopes and dreams. And in the middle, it turns out you need a little of both. The way we approached it was very much finance based and economics based and how do we build in ways to measure what theory is telling us should matter. It still works.

GD: And you found a good way to quantify the news based information?

JS: Some of it is real simple, such as analyst earnings estimates. This relates to some of the work I’ve done with the Heilbrunn Center. I started out trying to test whatever behavioral theories were really important. Were people over-extrapolating past results or were they slow to act? Were they too conservative ... what was going on? I had a great grad student who worked on this with me, a PhD student, Jorge Murillo.

We were looking at momentum, which you can either explain as overreaction or under-reaction to news. And that under-reaction to news came out of something like prospect theory or something. And we finally found that actually neither one of those is what is going on. There are some smart investors out there who are six months, 12 months or 18 months ahead of the market. And they see that this stock is going to outperform significantly, they buy-in, and they affect

the price. And conversely, they leave the party for some of these stocks that are subsequently going to have hard times. So they sell those and they drive prices down a little bit. When we started looking at it through that lens, it is pretty clear—at least it is clear to us, it is not clear to some of the academics yet. Momentum is neither over-extrapolation of past results nor is it under-reaction to news—it is smart people moving prices before others figure it out.

In my work here, as I talk to a lot of these managers, I initially tried to talk to them in those terms. Some of them got it. It is clear that that is what a lot of them are doing. And that’s the reason they are successful. A really good fundamental guy is really trying to look out as far as they can into the future. I think some of them have better insights than get into their portfolios. Because sometimes the portfolios don’t control for these uncontrollable or unpredictable risks. And so their good ideas are may be influencing market prices and driving momentum but they may not be capturing the full advantage of that.

GD: What types of investors are these? Could you put a face on who these momentum guys or smart guys are? Are these like the Tiger Managements or tiger cubs of this world?

JS: Yes, exactly. I’m not really familiar with them but

I know the name and I know it is what they try to do. It is typically your long-run fundamental, your value investors and your good growth investors. And there are a lot of investors who don’t fit either of those classifications neatly. They just look for stuff they think is cheap. They are looking at balance sheets, they are looking at industries and how industries are moving, and they may be in stocks an index provider might classify value or might classify growth, but they are really looking for fundamental economic value. And sometimes they don’t fit some of these metrics. And I’m a little hesitant to name individual managers just given my position here.

But they are out there and I like some of them a lot. One of the interesting things I’ve discovered here is how some of these guys aren’t looking at individual companies they’re looking at industries, and they’re looking at capital flowing into and out of industries, and they’re doing a lot of industry dynamics, and taking advantage of that in interesting ways. One of the things I’d like to do if I could ever get the time enough to do it is to figure out how quantitatively how to approach some of those things because I think quants can learn a lot from savvy fundamental guys.

GD: Have you noticed a common intellectual thread you seen in good fundamen-

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“Momentum is neither over-extrapolation of past results nor is it under-reaction to news—it is smart people moving prices before others figure it out.”

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“Jim Scott” (continued from page 29)

“You can still get yourself in trouble if you overweight one factor way beyond all bounds of what you can predict. And some people still do that. They claim they are just picking bottom up stocks and these exposures just fall out—but sometimes they do too.”

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tal managers and good quant managers? If you knew nothing about their portfolios but only knew how they described themselves and their process—what do you look for?

JS: What I look for is a sensible economic story and intelligent use of data. As you know, data is very important for fundamental guys and quant guys. If they are looking at shipping in and out of Los Angeles or the West Coast ports—well, that’s interesting. Particularly if you see they do that right and make money in the process. So the first two things are a sensible economic story and good use of data.

And I tend to still be interested in portfolio construction because I think you can still get yourself in trouble if you overweight one factor way beyond all bounds of what you can predict. And some people still do that. They claim they are just picking bottom up stocks and these exposures just fall out—but sometimes they do too. It’s a problem. So I like to see some risk control. Quants typically control industry, sector, size—stuff like that. The good fundamental guys, they control some things differently. They may be concerned about macroeconomic risk, about a recession or expansion, or about commodity prices risk.

So there are different ways to intelligently look at risk and build a portfolio. But generally I am looking for someone who has some of that—some intelligence in that respect. And if you just let things fall out as they may, then I would certainly argue for a smaller allocation to that manager no matter how good they are. If you put too much of your money with that manager, you can get your head handed to you.

GD: How much transparency do you require of your managers?

JS: Equities are relatively easy. I mean, we know everything they hold all the time. We can see their performance hourly if we so want! But, you know, we have other things to do.

Transparency of process is something you always want. With quants, the tugging match is a little more clear because the quant isn’t going to turn over the computer code to you. That is not fair to ask. But you do want to know, what is the intelligence being brought in? How do the risk controls work? What are the alpha signals? How do you construct them? What is most important? How do they evolve over time? Just a whole series of issues that you can ask without asking them to divulge some important trade secret.

The fundamental guys are more difficult. And the most difficult are the guys who are pretty good but can’t explain what they are doing. Those are tough. You push for transparency but some of the times it is very difficult to obtain.

GD: There are investors who have seven to 10 stocks in the portfolios. Is that just unacceptable to your framework?

JS: There are lots of ways to make money in this world and that is too few for my taste. By a long shot. How do I know if they are smart or lucky? You just can’t tell as an outsider.

GD: Specific quantitative approaches. What do you think about the magic formula?

JS: Well I think it is very simple. Certainly institutionally that would not fly. Because people believe there is more at work than that. They may be wrong, but generally people want multiple metrics to value. As far as profitability is concerned, you need information about stability and predictability of future profitability as well. In today’s environment, one of the major mistakes some value guys have made is insufficient concern about corporate liabilities. And in part, that is due to lack of transparency in the accounting data, which has really badly served investors.

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GD: What goes into a great quantitative investment process? Is it model building to capture alpha? Portfolio construction? Risk Management? Trading and implementation?

JS: It’s a good question. And the answer is: everything matters. You need some fundamental insights on how you are going to capture alpha. And then once you have that, you build a process around that. And it can either be a high tracking error process or a low tracking error process. But it ought to be dependent on where you’re trying to gain your alpha. For example, that model I laid out earlier about growth rates is a process that is really a core process to both growth and value stocks, so what that argues is a fairly risk controlled process.

Given that, everything you said matters. You want the best sources of alpha you can get. First, you want the best source of alpha. Second, given your source of alpha, how do I best package it? What can I predict and what can I not predict? And how do I control those things I can’t predict? So it’s all portfolio construction. And then there’s turnover. How frequently should I turn this portfolio over? Well, turnover depends on the decay rate of your alpha. And it also depends on your transactions cost. And all of those things determine how long you are going to hold a

security. Transactions cost are very important, especially if you have a risk control product. Because the lower your tracking error—for example, 5 bps or 10bps—it can make the difference between huge commercial success or not. So you need to really focus on what’s the best and most effective way to trade. It’s a continual battle.

GD: What are your thoughts on applying quantitative approaches to fundamental value approaches?

JS: Some are moving more towards that. And I see more moving towards that every year. And does it limit returns? Well, arguably not. Because arguably you’re just limiting risks that you don’t know how to predict. I think it makes sense to do it. But do I think it makes sense to do it in as explicit a way as a quant? No, I don’t think so. I think it’s useful in the way that some of these managers have quantitative tools that tell them when they’re wandering away from the market in some sense. That’s useful—and they should pay attention to that.

GD: Why hasn’t it happened sooner—that fundamental and quantitative investors are comparing notes more?

JS: I think it is happening. I think it’s happening more and more. And I don’t think it’s going to stop. You know, because it’s a competitive game and the question is—how do you win?

And there are a lot of different tools out there. And some of the players are deciding they can use several tools.

GD: Getting back to the Heilbrunn center, are there directions you’d be interested in seeing it go? Obviously we don’t do a lot with quantitative approaches. Your approach is very different than a lot of the things they teach us in the Value Investing Program.

JS: Yeah, and I think the Value Investing Program has been tremendously successful. The kind of insights people can generate coming out of there are extraordinarily valuable. I’m going to be teaching some lectures at Columbia soon—they’re not actually in the Value Investing program but they’re going to be about portfolio construction—and I think some of those ideas could be powerfully introduced to some of the students in the program.

And you’re starting to see value managers using a variety of quantitative tools, particularly the larger ones. A lot of large managers use net present value techniques, but you don’t want to over rely on that because you don’t want to neglect the balance sheet—particularly the liabilities. We’ve seen financial institution after financial institution imploded. Certainly they are all—or a lot of them—use screens of various kinds, using the types of value

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“A lot of large managers use net present value techniques, but you don’t want to over rely on that because you don’t want to neglect the balance sheet—particularly the liabilities.”

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“Jim Scott” (continued from page 31)

“So far, the government actions have stabilized the bond market to a degree and some large financial firms. But we have not moved much beyond that. And the problem now is the real economy.”

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metrics that have worked in the past. And there are two views on that. Some think they are very helpful because they help you focus on things that may be useful. But they may also leave out some things that may be important. Some fundamental value managers actually use optimizers. And they may not follow them, but they look and see what they’re suggesting. And they might tweak their portfolios to get closer to the benchmarks they’re being judged against. And really I’m talking more about from an institutional perspective because that’s the world I’ve lived in.

GD: What about the types of things you think look really interesting?

JS: Well, I agree with Bill Gross – that TIPS look extraordinarily underpriced right now. The inflation protection is essentially just being given away. Although I’ve noticed that since he came out with that statement the spread between 10 year TIPS and treasuries has widened. Some people may have followed his suggestion. So that’s pretty obvious. A bet that a number of people have made recently is on quality—solid companies with good franchises and strong balance sheets that look kind of bullet proof relative to the recession. Those stocks have gotten bid up. People are wondering when to go

back into more cyclical names. And the jury is out on that one. It’s a very difficult time. It’s a very uncertain time. So far, the government actions have stabilized the bond market to a degree and some large financial firms. But we have not moved much beyond that. And the problem now is the real economy. If you look at some of the really distressed fixed-income—some of the stuff that looks like it has some life—it was a great buy in October but it’s not so good now.

GD: Let’s talk about your role here at General Motors Asset Management.

JS: I’m the Equity Guy. We manage equities for a number of different pension programs and we also do derivatives of various types – futures, swaps, options, etc. We use external managers and manage three different strategies in our offices here. They’re all largely quantitative because we haven’t got a huge staff of analysts. So that’s the way to go in that situation.

GD: Can you talk about some of the research you’re currently interested in?

JS: I’m still really interested in this momentum idea. Because as far as I can tell, nobody has come up with a good notion of what drives momentum. And so I’m still looking at that—and what I think it is good value guys and good growth guys push-

ing stock prices. So that’s one of my areas of interest.

GD: What’s your philosophy on sharing research? Let’s say you come up with a fresh insight about what drives momentum, for example. It’s nice to publish it – but it’s also nice to capture it yourself.

JS: Well, I think you can use it both ways. It’s a general rule—particularly if you are starting an investment shop—it’s very useful to publish. It gives you a lot of credibility and if it’s an accepted piece, it’s a good marketing tool. Secondly, if you publish, aren’t people going to steal your ideas? To a degree, yes. But could they copy your investment process? No. I mean, you could have a quant come in here and tell you exactly what he was doing and you wouldn’t do it. Because if you’re good enough to duplicate it, you wouldn’t. Because you’d have your own ideas about how you’d change it and tweak it. And so people try to keep these ideas proprietary but most of them are pretty much out there in the public domain anyways. So, can you give your research away? A little bit, but not too much. If you’ve done the research—you wouldn’t publish all of it anyways—and are there things in there you can use to make money? Generally, yes. Also, you’ll know more about how to take advantage of

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these insights than other people. So it's also useful in developing and changing your process.

GD: Any advice you'd have for us as we're starting out?

JS: It's a tough time—it's a very tough time. Starting your own firm is difficult. You need that first investor—and then not only that, but you need to grow pretty quickly. As I say, one of the surest ways to do it in “quant land” is to publish. If you look back at a lot of these large successful quant funds, a lot of them were started in exactly that way. You need some way to establish credibility. So working for another firm is a good way to do it, but it's a longer trip to getting there. I think this is a difficult business to break into although the Applied Value Investing program seems to have done pretty well relative to most because it is a very small community. I think this is a great business, though. You have so much fun.

There's always something to learn. And it's really hard—you're gonna lose a lot. And everybody knows that. Your peers know that. And your clients know that.

GD: Thank you, Mr. Scott.

Berkshire Annual Meeting
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-by-side, it probably had its own zip code. Talk about economies of scale!

On the way to the airport the next day, we drove by Buffett's house and Kiewit

“Trust is not something that appears explicitly in a p/e ratio or a discount rate. It's not something you can model in an excel spreadsheet. And it's certainly not something that can be quantified in a contract.”

Plaza – about a 10 minute drive apart. You could easily imagine Warren skipping into work. He had a gorgeous brown house with a barn-style roof, but it was certainly not the type of palace you would expect one of the world's richest men to own. What shocked me the most was the lack of a visible security presence. No fence. No moat. He obviously trusted his neighbors.

It helped me realize that if there was one underlying theme to the weekend, it was the value of trust. The original partners trusted Buffett with their hard-earned money, and Buffett in turn held that level of trust in the managers of every company he has ever owned. He trusted Russell Athletic's management to make the right decisions in Honduras. He trusted Bill Child to continue to run RC Willey exactly the same way after he bought the company. He trusted all of his managers and that trust manifested itself as stable, predictable cash flows.

But trust is not something that appears explicitly in a p/e ratio or a discount rate. It's not something you can model in an excel spreadsheet. And it's certainly not something that can be quantified in a contract; which presents amateur investors like me with a challenge. If trust is so important, how do we identify and value it? I suppose that is the art of investing, and why “value” investing is a bit of a misnomer. After all, Benjamin Graham didn't title his book “the value investor,” he called it *The Intelligent Investor*.

This article was contributed by Brandt Blimkie, MBA '10.

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Second Annual Pershing Square Challenge



2009 Pershing Square Winners: John Piermont '10, Tim Rupert '09, and Grant Bowman '10 with Pershing Square Founder Bill Ackman.

Pershing Square Challenge Winners

2008

Tim Rupert '09

Grant Bowman '10

John Piermont '10

2007

Shilpa Marda '09

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On April 3, Columbia Business School held the finals for the Second Annual Pershing Square Value Investing & Philanthropy Challenge. The event marked the culmination of the three-month competition among 42 teams of first and second year CBS students. Pershing Square founder and CEO Bill Ackman launched the Challenge in 2008 to build upon Columbia's value investing tradition and instill a deeper commitment to Philanthropy among the next generation of business leaders.

The Challenge grew dramatically from its first year, involving 124 students in a special master class led by CBS alums Paul Sonkin and Caryn Zweig. The class taught a Graham & Dodd framework for search and valuation strategies, and students further benefitted from extensive mentoring from twenty practicing industry professionals.

The five teams selected as finalists presented their investment recommendations to a distinguished panel of hedge fund portfolio managers, including: Bill Ackman and Paul Hilal of Pershing Square, Craig Effron of Scoggin Capital Management, John Griffin of Blue Ridge Capital, Douglas Hirsch of Seneca Capital, Dahlia Loeb of Reveille Capital, and Daniel Loeb of Third Point LLC – as well as Columbia's own, Professor Bruce Greenwald. Each group made a ten minute presentation followed by fifteen minutes of follow-up questions from the panel.

Ivan Andreev, Eric DeLamar, and Richard Tosi made the first presentation of the day, recommending the purchase of Lender Processing Services (LPS) with a target price of \$50. LPS is the largest mortgage processor in the U.S., handling over one-third of all originations, mortgage processing, and default services. The team felt that the stock was “unloved, neglected, and misunderstood” by analysts due to its exposure to the mortgage industry. However, they believed that the company's scale gave it an entrenched competitive advantage in a favorable industry environment. In their view, the company was well positioned to make money despite, or indeed, because of the poor performance of the underlying mortgages. Mr. Griffin com-

mented that the idea was “extremely well researched.”

Next, Matt Gordon, Renata Motta, and Carlos Medeiros presented First American Title Company (FAF). The team argued that the core title insurance operation was depressed due to the sharp decline in home sales. However, the team noted that even following the decline, sales were at the same level as in the late 1990's when they conservatively estimated earnings power of around \$155 million (versus -\$117 million in 2008). The team applied an EBT multiple of 8x to their estimate of normalized earnings for the core business and used the market valuation for the publicly traded subsidiary First Advantage (FADV). Under this scenario, the market was valuing the remaining Information Services segment at only 2.2x its \$319 million trailing EBITDA. Applying a more normal multiple gave the stock a substantial 20% to 70% margin of safety.

The third group recommended the short sale of Apollo Group (APOL), the parent company of the for-profit University of Phoenix. The group members, Tim Rupert, John Piermont, and Grant Bowman gave a spirited argument that the market's belief that the stock was countercyclical was a fallacy. First, nearly all of the company's recent

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“Pershing Square Challenge” (continued from page 34)

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growth has been in Associate degrees, which now make up 40% of enrollment – up from 5% in 2005. These degrees have lower tuition and graduation rates and carry a much higher default rate. In fact, the high default rate (27.4% versus an average of 6.4% at public 4-year universities) had placed the school’s Title IV eligibility under review, with 80% of the firm’s revenue at risk. The team argued that the competitive situation had also worsened with 60% of public universities now offering online degrees and more than twice as many for-profit competitors than in 2000. The group believed that with APOL, both students and investors “paid more and got less.” Mr. Ackman commented that the research was “very thorough,” but Mr. Griffin cautioned that the stock was very expensive to short, with an annual cost of 22%.

Next, Christof Pfeiffer and James Walsh recommended the purchase of Clear Channel senior secured term loans that were issued in connection with the company’s 2008 LBO. The debt was currently trading at forty cents on the dollar, implying an enterprise value of \$6.7 billion. However, the team calculated the firm’s value at a minimum of \$12 billion. Under this analysis, the debt offered an IRR of 30% per year over three to five years. Assuming that Clear Channel’s outdoor advertising busi-

ness traded at a similar multiple to Lamar Advertising, the market value of the radio business was only \$800 million, despite generating an estimated \$865 million in 2009 EBITDA. The team argued that this was far too conservative and that the debt had significant asset protection. After completing the group’s “incredibly impressive analysis,” Mr. Ackman said that the judges would “have their own competition to see who gets to hire the presenters.”

The final presentation by Troy Scribner, Meghan Baivier, and Duncan Winstead was the recommendation of Jack in the Box (JACK) with a target price of \$30 per share. The team believed that the nation’s fifth largest burger chain had strong core restaurant operations, significant asset value, high growth in its Qdoba chain, and a catalyst to unlock value as the company refranchises more company-owned locations. The firm’s real estate was valued at \$15.2 per share based on recent transactions, and an earnings power valuation of the current stand alone restaurant operations amounted to \$13.45 per share. The team attributed additional value of \$4.5 and \$5.1 per share for refranchising and growth, respectively, and then subtracted \$8.5 per share in debt.

After a brief consultation the panel of judges returned with their verdict. Second

and third place were awarded to Clear Channel and Jack in the Box, respectively. The first place award was given to Tim Rupert, John Piermont, and Grant Bowman for their analysis of Apollo Group. The winning team received a \$25,000 check from Pershing Square that they could then direct to an area of their choice at Columbia Business School. Mr. Ackman was very pleased with the growth and success of the competition stating, “Last year we provided angel financing. This year it is mezzanine. Next year, I am expecting the competition to be like a Berkshire Hathaway annual meeting.”

“Last year we provided angel financing. This year it is mezzanine. Next year, I am expecting the competition to be like a Berkshire Hathaway annual meeting.”



Pershing Square Judges: Paul Sonkin, Daniel Loeb, Craig Efron, Caryn Zweig, Douglas Hirsch, Dahlia Loeb, Kevin Oro-Hahn, Paul Hilal, Bill Ackman, Bruce Greenwald, and John Griffin.

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Van Biema at NYSSA

“We always think of value investors as protecting cash, because we buy at a discount to the intrinsic value, so we should lose less than the market.

In fact, that couldn’t be further from the truth.”

Last year was a rough one for even the top value investors. On Jan. 27, Michael van Biema, a former Columbia Business School professor and current principal of van Biema Value Partners, presented his ideas at a New York Society of Security Analysts meeting on how investors should view risk and reward to prevent making repeat mistakes. The title of the talk: “A Snowball in Hell,” after the new Warren Buffett biography, “The Snowball.”

Risk and reward is the key metric upon which investment professionals evaluate the quality of investments, said van Biema. “Unfortunately, it doesn’t appear that we have a terribly good understanding of what that means,” he said. “Very brilliant people have tried to understand the relationship between risk and return and have failed horribly.”

van Biema said that the failures of late have happened in large part because investors don’t properly understand risk. Informational risk, in particular, has played a large role in the root of the various financial crises over the past 100 years. van Biema believes that to counteract informational risk, good value investors should pay attention to the degree of error they put on their valuation. “If an investment has a large degree of error in it, you are better off to moving to something else,”

he said. “If there is a low degree of error and you buy it at a significant discount, you are an intelligent investor.”

Another misconception that value investors have is that they will always do better than the growth guys. Not so, said van Biema. “We always think of value investors as protecting cash, because we buy at a discount to the intrinsic value, so we should lose less than the market. In fact, that couldn’t be further from the truth,” he said. In periods of extreme irrationality, the performance of value investors can be even worse than the market’s. But as long as you are a patient investor, said van Biema, it shouldn’t matter over the long term. van Biema’s fund was down 22% last year. That performance still made it the second-best performing value fund, behind Jean-Marie Eveillard’s First Eagle Global.

Another problem is continuing to believe in the rationality of the markets. Just because markets have become inefficient and mispriced does not prevent them from becoming more irrationally mispriced. “The fixed income markets disprove the theory that markets behave efficiently,” he said. But smart investors can find value in those inefficiencies. One of van Biema’s fund managers discovered an arbitrage opportunity in the fixed income markets, of which he then took ad-

vantage. Once that arbitrage opportunity disappeared, it reappeared, and the fund manager was able to make money off of the same play two more times. “That should not be happening,” said van Biema. But people are seeing nice returns as a result of these arbitrage opportunities.”

van Biema is also looking to Asia for investment ideas; in October, the firm started a separate Asia fund. van Biema said that huge opportunities are arising due to people’s expectations; everybody is focused on high growth companies. They are missing out on the relatively slower-growth companies, which are still growing at an uninterrupted rate of 12%.

van Biema ended the discussion with the idea that brighter times are ahead. Prior to the beginning of significant market disruptions, van Biema said he grew wary because he noticed that small value managers were all starting to converge. He looked back to historical data, and noticed that the periods where value investors had correlated predicted significant economic declines. The good news, however, was that after those periods, returns tended to be very positive for the next two to four years. His conclusion: “Now is probably a pretty good time to start a value fund.”

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