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Graham & Doddsville

An investment newsletter from the students of Columbia Business School

Issue XXXVIII — Winter 2020

Inside this issue:

Editors:

Frederic Dreyfuss
MBA 2020

Sophie Song, CFA
MBA 2020

John Szramiak
MBA 2020

Rodrigo de Paula
MBA 2021

Matt Habig
MBA 2021

Alison Tien
MBA 2021

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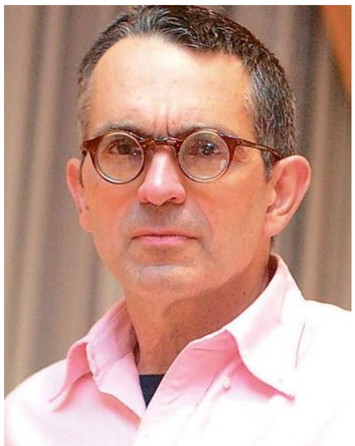
The Heilbrunn Center for Graham & Dodd Investing

CSIMA Columbia Student Investment Management Association

Paul B. Kazarian '81
Japonica Partners



Paul B. Kazarian '81

Paul B. Kazarian is the Founder, Chairman, and CEO of Japonica Partners and its non-profit affiliate, the Charles & Agnes Kazarian Foundation. Japonica, founded in 1988, is a private investment firm that has built its track record by creating transformational investments with low risk high return.

Japonica's culture, under Mr. Kazarian's leadership, is to see what others do not see and to use "education-education-education", a Japonica mantra, to accomplish what others believe is impossible.

Japonica's transformational investments have three building blocks developed over Mr. Kazarian's career: discover systemic misconceptions, discover a massive undervaluation, and create extraordinary value. Using this model, Japonica's investment track record includes

(Continued on page 5)

Heron Foundation

From left to right: Dana K. Bezerra, Preeti Bhattacharji '14, and Nisha Prasad '17

Heron is a private foundation established in 1992. Its mission is to help people and communities help themselves out of poverty. Heron pursues its mission by championing people, places, and firms that challenge broken conventions and dare to change.

Dana K. Bezerra is the president of Heron. Bezerra began her career in agriculture in California. Her family owned a dairy farm in the San Joaquin Valley, where she witnessed the bankruptcy of a local creamery, the formation of an independent milk producers' cooperative, and the provision of a local tax abatement package to a multinational food company, leaving a lasting impression on the complicated relationship between communities and markets.

Bezerra proceeded to work at Merrill Lynch, where she specialized in Philanthropy and Nonprofit Management, then joining Heron in 2006. As a program officer, Bez-

(Continued on page 25)

Welcome to *Graham & Doddsville*

Meredith Trivedi, Managing Director of the Heilbrunn Center. Meredith leads the Center, cultivating strong relationships with some of the world´s most experienced value investors and creating numerous learning opportunities for students interested in value investing.

Professor Tano Santos, the Faculty Director of the Heilbrunn Center. The Center sponsors the Value Investing Program, a rigorous academic curriculum for particularly committed students that is taught by some of the industry´s best practitioners. The classes sponsored by the Heilbrunn Center are among the most heavily demanded and highly rated classes at Columbia Business School.

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CSIMA Columbia Student Investment Management Association

We are pleased to bring you the 38th edition of Graham & Doddsville. This student-led investment publication of Columbia Business School (CBS) is co-sponsored by the Heilbrunn Center for Graham & Dodd Investing and the Columbia Student Investment Management Association (CSIMA). Since our Fall 2019 issue, the Heilbrunn Center hosted the 28th Annual *Graham & Doddsville Breakfast* in October 2019 and the 5th Annual *CSIMA Stock Pitch Competition* in November 2019.

We first interviewed **Paul B. Kazarian '81**, Founder, Chairman, and CEO of Japonica Partners. Mr. Kazarian shared with us his extensive experience, starting as corporate white knight in the 1980s and Fortune 500 CEO in the 1990s, before becoming - with $4bn - one of the largest owner of Greek Sovereign Debt during the Eurozone crisis in the 2010s. He explained why he does not believe in the standard risk/return framework and how Japonica built a 30-year track record of investment displaying high return with low risk, and how the firm finds and addresses systematic misconceptions in the market.

Mr. Kazarian also discussed how treacherous he thinks the sovereign bond market is, and shared invest in sovereigns.

We also sat down with the President of the Heron Foundation, **Dana Bezerra**, along with recent CBS alumni **Preeti Bhattacharji '14**, VP Integrated Markets, and **Nisha Prasad '17**, Senior Associate Integrated Markets. They discussed the evolution of impact investing over the past several decades, Heron's mission to invest 100% of its capital in socially responsible investments, their unique investment process for analyzing socially impactful companies, and what the future holds for impact investing and how this will affect the entire investing landscape.

We continue to bring you stock pitches from current CBS students. In this issue, James Shen '20 shares his long idea on Nuance Communications (NASDAQ:NUAN), Bruce Kim '20 presents his short thesis on Peloton Interactive (NASDAQ:PTON), Alvaro Pasquin '20 presents a long thesis on Rolls-Royce Holdings (LSE:RR.), and Mingming Wu '20, Kyle Campbell '21 and K.Y. Wong '20 recommended buying Etsy (NASDAQ:ETSY).

Lastly, you can find more interviews on the *Value Investing with Legends* podcast, hosted by Professor Tano Santos. Recent guests include Leon Cooperman, Joel Greenblatt, and Bruce Greenwald.

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

G&Dsville Editors

Value Investing students visit the set of CNBC's Fast Money with Guy Adami

Professor Tano Santos and Meredith Trivedi record the *Value Investing with Legends* Podcast

CSIMA COLUMBIA STUDENT INVESTMENT MANAGEMENT ASSOCIATION

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Graham & Dodd Breakfast - October 2019

Kent Daniel delivers opening remarks

Attendees at the 29th Annual Graham and Dodd Breakfast

Cliff Assness and Professor Tano Santos

CSIMA Stock Pitch Challenge - November 2019

CBS team presents their pitch

Judges at the 5th Annual CSIMA Stock Pitch Challenge

Heilbrunn Center team and CSIMA Stock Pitch VPs and AVPs

CSIMA Co-President Dao Hao '20 interviews Michael Weinberg '98 and Anna Nikolayevsky '98

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Paul B. Kazarian, Japonica Partners

Paul B. Kazarian '81

a select number of transformational investment efforts such as: one of the largest private owners of Greek government bonds (GGBs), majority stockholder who assumed key executive positions (Chairman, CEO, and CFO) at Fortune 300 Sunbeam-Oster Company, largest stockholder of CNW Corp, largest creditor and sole proponent of successful joint plan to reorganize Allegheny International, and lead sponsor and global institutional investor organizer of Borden Inc.

Japonica's non-profit affiliate, The Charles & Agnes Kazarian Foundation, named after Mr. Kazarian's grandparents who were survivors of the first genocide of the 20th century, the Armenian Genocide, is a philanthropic operating foundation whose core competency is to improve public financial management (PFM) and financial literacy. The Foundation's year-end 2018 assets and spending since founding are over a quarter-billion US dollars.

Prior to founding Japonica and the Kazarian Foundation, Mr. Kazarian was an investment banker at Goldman, Sachs & Co. Mr. Kazarian is an adjunct professor in the sector of public financial management at Columbia Business School and has lectured and presented extensively and globally, including at Harvard Business School, OECD, INET, Oxford, London School of Economics, CESifo, London Business School, credit rating agencies, U.S. Military Academy at West Point, National School of Development at Peking University, and ISCTE Business School at the Instituto Universitário de Lisboa. Mr. Kazarian served as the Sole Special Advisor to the Center for European Policy Studies (CEPS) Task Force on Government Balance Sheets. Mr. Kazarian received the 2016 William Pitt the Younger Award for extraordinary leadership in strengthening democracy through government financial management.

Graham & Doddsville (G&D): What was your path to investing?

Paul B. Kazarian (PBK): My path was very simple and clear. I had one professional job in my life before Japonica and that was in the corporate finance department at Goldman Sachs with a wide range of clients from the US government, to high tech start-ups, to the firm's largest and most important clients. By chance or design, I don't know which, I worked closely with many, if not most, of the members of the senior management committee. This was an amazing learning experience and I made the firm a lot of money with my hard work, good judgment, and execution skills.

My exposure to investing, and value investing in particular, started strong at Columbia Business School. At CBS, I learned from some of the best professors in the world on investing, finance, accounting, and management. Often when making difficult and important decisions, I remember wisdoms learned at CBS.

"My exposure to investing, and value investing in particular, started strong at Columbia Business School. At CBS, I learned from some of the best professors in the world on investing, finance, accounting, and management. Often when making difficult and important decisions, I remember wisdoms learned at CBS."

G&D: What important lessons would you like to share as a white knight investing in corporates and sovereigns?

PBK: There were many, as this ties in with our focus on double bottom line. Japonica was the largest stockholder in one of the largest railroad holding companies in North America, CNW Corp., and commenced a US$1.6 billion white knight tender offer and full board proxy to maximize shareholder value. We started

(Continued on page 6)

Paul B. Kazarian, Japonica Partners

as a white knight to save CNW from value destructive management, a potential destructive leveraged buyout, and community dislocations. Japonica achieved a 2.2 times investment multiple and 57% IRR in 1.5 years with no leverage, and an initial estimated downside return of positive 1.4 times.

Next, as the largest creditor and sole proponent of the successful plan for the US$690 million bankruptcy reorganization of Fortune 200 Allegheny International, Japonica saved the company from being mired in bankruptcy with the business declining by the day, resulting in a 1.3 times investment multiple and 181% IRR in 7 months with no leverage, and an initial estimated downside return of positive 1.2 times.

Then, as majority stockholder and after assuming key C-level executive positions (Chairman, CEO, and CFO), Japonica led the US$1.5 billion turnaround of Fortune 300 Sunbeam-Oster Company. We saved 10,000 jobs at Sunbeam-Oster, reinvested in communities, and shared our wealth creation throughout the 26 companies under the corporate umbrella, from senior management to the factory employees. This resulted in a 5.9 times investment multiple and 104% IRR in 3 years with investment grade corporate leverage, and an initial estimated downside risk of positive 2.0 times.

At Borden Inc., we were lead sponsor and global institutional investor organizer proposing a US$2.4 billion restructuring of the Fortune 100 company. We told the board that the company would be destroyed by a leveraged buyout and bad management. However, acting in a contra-fiduciary manner, incumbent management adopted scorched earth tactics and we accordingly withdrew our proposal.

"Greece presented the greatest challenge: the challenge to save a country…after launching a US$3.8 billion … our GGB investment resulted in an 8.9 times multiple on capital invested at exit and 35% IRR after about 5 years with no leverage."

Greece presented the greatest challenge: the challenge to save a country. As one of the largest private owners of Greek government bonds (GGBs), after launching a US$3.8 billion (€2.9 billion) unmodified Dutch auction tender offer for select GGBs, we improved Greek government public financial management with broad and widespread benefits to Greek society. Our GGB investment resulted in an 8.9 times multiple on capital invested at exit and 35% IRR after about 5 years with no leverage, and an initial estimated downside return of positive 2.8 times.

G&D: How did your success as a Fortune 300 CEO help you as in investor?

PBK: With 26 businesses around the world, 10,000 employees, and an investment grade balance sheet, I confirmed my ability to create extraordinary value from a double bottom line perspective. Japonica management created value by turning around this underperforming global special situation, assuming the Chairman/CEO and other senior executive positions, and changing its culture to become entrepreneurial. Japonica senior management who assumed positions at the underperforming global special situation were perfectly aligned with our investors and received no equity compensation, transaction fees, or non-shareholder approved compensation.

G&D: How did Japonica build a 30-year plus track record of transformational investments with low risk high return?

PBK: Since 1988, Japonica has built its track record of highly select transformational investments with low risk high return using the same three building blocks to make our investments. The Greek government bonds (GGBs) were our latest and clearly our most rewarding. We stay with these building blocks because they are in our culture and it is only with them that we have again and again accomplished what others believed to be impossible and have used "education-education-education" as our most powerful value creation weapon. Value investing traits are imbued in each building block, and these building blocks are essential to us successfully making low risk

(Continued on page 7)

Paul B. Kazarian, Japonica Partners

high return transformational investments, which includes the GGBs. The balance sheet part of value investing is essential for each of our transformational investments to maximize what we call a double bottom line: low risk high return from a financial perspective, and hugely positive social benefits.

Let me give two quick examples of why. From a financial perspective, there is no one at Japonica or outside who believes we can continue our low risk high return track record in transformational investments without our three building blocks. It would have been impossible to have built our track record since 1988 with an average 4.6 times return on invested capital, a 94% IRR, and an initial estimated downside return of a still very attractive positive 1.9 times. And, the building blocks were so powerful with our GGB transformational investment that we achieved an 8.9 times return on invested capital at time of exit with an estimated downside return of a very attractive positive 2.8 times. As an aside, Japonica uses GIPS to measure returns for internal-only management purposes.

From a social perspective, these value investing-based building blocks have saved thousands of jobs, saved communities that were on the very brink of economic collapse, and gave personal pride and satisfaction to employees who lost or never knew economic success. The GGB investment took the social part of our double bottom line to a new and much higher level. By becoming a world leader in public financial management, we now have the ability to positively impact entire countries and, indeed, continents.

"Discovering systemic misconceptions is the starting point for low risk high return transformational investments."

To amplify on this point, given our track record, our relationships, and our capital, there is no one in the world that we cannot access, and even with this wide reach, we have found no one who can match the powerful combination of these value investing-based building blocks in creating low risk high return transformational investments. Japonica's risk return analysis using no leverage is starkly different from fund managers who commonly use four or more levels of debt to juice their returns to offset the illusory benefits of diversification. Japonica contrasts with fund managers who leverage LP commitments, leverage holding companies, leverage subsidiaries, and whose LPs leverage their interests.

When I say Japonica is highly selective, it means that we focus on only one transformational effort at any one time, which provides a unique competitive advantage over the standard and customary investment models. This singular focus has allowed us to build a culture of significantly exceeding the best key performance indicators globally, in both business and philanthropy.

G&D: Would you explain how Japonica has consistently seen what others have not?

PBK: Discovering systemic misconceptions is the starting point for low risk high return transformational investments. As in the past, with the GGB investment, we started by identifying systemic misconceptions, which is building block one, as they related to the Greek government, peer governments, and third-party produced materials. The massive quantity of relevant materials, which was essential to critically dissect, produced by third-party organizations was staggering compared with our prior transformational investments. Materials by organizations such as the IMF, the OECD, and the European Commission, in addition to countless think tanks, academics, and investment advisors, felt like a tidal wave of new information each day. Equally staggering was the shoddy quality of their analyses, which grew worse every day. Volumes of garbage information seemed to be valued over quality of precise insights. When analyzing the materials, we could see the hands of staff people who had been promoted for their internal political prowess, their use in promoting the agenda of their superiors, or their ability to espouse mind-numbing complexity over simplicity. The volume of material was so great, we had a full-time librarian to keep the materials organized.

(Continued on page 8)

Paul B. Kazarian, Japonica Partners

With a long list of systemic misconceptions, we then built a new PFM technology framework to assess sovereign risk and the fair value of the GGBs in a 3 to 5 year time horizon as well as the downside risk. Our math produced an 85 target price with GGBs trading in the teens, and a downside price in the 40s, which clearly qualified as discovering a massive undervaluation - our second building block. The third and final building block was constructing a plan to create extraordinary value and then start execution. Effectively executing the plan necessitated that we build a superstructure team of over 230 of the best professional specialists in an unprecedentedly large number of fields.

G&D: Could you provide insight into Japonica accomplishing what others believed to be impossible?

PBK: With all of our transformational investments, those considered to be the smartest in the sector dismissed our plans as impossible. They would be so sure of their convictions that they would confidently be quoted in the mainstream media. In the end, they were dead wrong. Thankfully in our world, the economic and social rewards provide a nice prize to our superstructure teams. As for the those who were so wrong, their arrogance and ignorance seem to keep them in a bubble of denial. This was true with CNW, when the industry wags dismissed our $1.2 billion tender offer to save what they called "nothing more than two strips of rust fading into the sunset." This was true when the denizens of the bankruptcy world dismissed our reorganization plan for a company nobody–not even the management–believed could survive. This was true with Sunbeam-Oster when none of the major international headhunting firms could find a turnaround executive willing to stake their reputation as CEO. This was true with Borden when we told the board they were going to be destroyed by a leveraged buyout and bad management.

And, most importantly, this was true when virtually every major sovereign bond investor and a long list of talking heads could not understand why Japonica was so willing to buy such a large percentage of the Greek government bonds. The GGBs were our most profitable investment and the investment where we had the greatest positive social impact.

Accomplishing what others believe impossible comes back to our three building blocks and our superstructure teams. The systemic misconceptions set the foundation for the future. The superstructure teams help confirm that the systemic misconceptions are real. Discovering the massive undervaluation provides the financial resources to execute our plan. Having a superstructure team dedicated to this one investment enables us to execute our plan to create extraordinary value, as execution to perfection is an absolute must.
Our most valuable team members share our culture of passionately living our transformational investment. They truly understand the importance of "education-education-education" to create extraordinary value both in financial and social terms.

"Our most valuable team members…truly understand the importance of "education-education-education" to create extraordinary value both in financial and social terms."

G&D: What are the three building blocks of Japonica's transformational investments?

PBK: Japonica's transformational investments have three building blocks: discover systemic misconceptions, discover a massive undervaluation, and create extraordinary value. Discover systemic misconceptions rooted in financial statements (especially balance sheets), which do not reflect economic reality. Discover a massive undervaluation, which starts with building detailed consolidated and segment financial statements. Create extraordinary value by optimizing these discoveries, often through informal and formal education, with the balance sheet as the primary financial performance measurement tool.

G&D: Would you briefly describe what qualifies as a systemic misconception building block in a Japonica transformational investment?

(Continued on page 9)

Paul B. Kazarian, Japonica Partners

PBK: To qualify as a systemic misconception, a very important financial fact must be universally stated and be wrong. The systemic misconception must have a direct relationship to a massive undervaluation. The systemic misconception must be unquestionably accepted by the lead steers in all sectors including investment, academic, political, and NGO. The highest value systemic misconceptions are repeated blindly and unquestioned as fact by the media. And, even better, those talking heads must initially view any challenge to existing orthodoxy as deserving of ridicule.

Knowing our numbers were 100% correct with our GGB investment, we gained greater conviction when the status quo espousers would walk out of meetings without hearing the material, create fabricated negative stories about us, or comment in the media that "no respected economist would agree with Japonica's numbers." As Michael Steinhardt told me during our first meeting, "your systemic misconception is not a systemic misconception if I can make calls to the smartest on the topic and any one of them tells me that you have a valid point."

Our first encounter to test our systemic misconception came when Michael Steinhardt set up meetings with George Soros and Bill Ehrman, who was Soros' leading rails analyst. I went in and debated CNW against Ehrman. He completely disagreed with me. Completely. He was so irritated with me he got up and walked out. I figured Steinhardt who suggested the meeting would never invest with me. Since I couldn't convince Ehrman, the most respected rail analyst, I figured that was it. Yet, when I came out and we met, Steinhardt wanted to sign a partnership.

"Our first encounter to test our systemic misconception came when Michael Steinhardt set up meetings with George Soros and Bill Ehrman, who was Soros' leading rails analyst. I went in and debated CNW against Ehrman. He completely disagreed with me. Completely. He was so irritated with me he got up and walked out."

With the GGBs, we had discovered 25 major systemic misconceptions. It wasn't just the debt and the many debt related metrics, but systemic misconceptions across a broad horizon. And, we had ten major work streams to create extraordinary value. Both contributed to the massive undervaluation.

G&D: How does your new PFM (Public Financial Management) technology sovereign bond investment framework compare to the frameworks used by the largest sovereign bond investors globally?

PBK: Over the past eight years, we've met with or analyzed the research of the so-called best investors in sovereign bonds. The financial research and analysis we found was so deficient that if done by a professional equity manager, they would be criminally guilty of gross negligence and more likely recklessness. What masqueraded as financial research ranged from futilely seeking to boil an ocean of information, to building complex models that have zero track records of accurate predictability, to abdicating the research to financially clueless theoretical academics, economists, or political operatives.

What is even more surprising is the investors with the primary fiduciary responsibility for the third-party funds, who you expect to know better, that readily accept and make investment decisions on this garbage financial research. In sum, the so-called sophisticated sovereign bond investors resemble sheep standing in line at the slaughter house. And, as for the technical legal investors in sovereign bonds, these investment decisions are not at all based on understanding the financial position of the sovereign government issuer.

Using new PFM technology–including heavily weighting what we call the three Indicators (Citizens' Wealth, Total Government Net Worth, and Total Government

(Continued on page 10)

Paul B. Kazarian, Japonica Partners

Net Worth as % of GDP) and prioritizing related insights–can significantly improve the deficient predictive track record of the current obsolete sovereign government credit risk rating framework used by S&P, Moody's, Fitch, and DBRS which futilely attempts to boil an ocean of considerations and focuses on only approximately 30% of sovereign Government Total Balance Sheets.

G&D: Why has the sovereign bond market proven to be fertile ground for Japonica?

PBK: Sovereign debt markets are massive, hugely inefficient, and among the most treacherous in the world. First, the numbers published by governments, NGOs, and rating agencies all too often do not reflect economic reality and are not internationally comparable. Whatever numbers get headlined, you are well-served to assume that they are politically motivated garbage. Examples include numbers hidden from the public, politicizing of numbers going undetected, and the lemming-like behavior of rating agencies, NGOs, IBs, lead steer sovereign bond investors, and the media and their talking heads. Government Total Balance Sheets and financial statements and notes are a very different animal than in the corporate world and require a special skill to analyze and extract meaning both historically and by comparison. We invested almost endless hours and scores of people to get government balance sheets that represent economic reality rather than the desires of the political actors.

The financial numbers reported by governments are all too often extensions of a political power process where fraudulent numbers and cooking the books is considered both an absolute right of those in power and to be rewarded. The challenge to produce government balance sheets and financial statements from the outside is not for the faint of heart. And, when you ask governments how long it will take to produce a proper balance sheet, don't be surprised when they say they need 10 to 15 years. The real answer is that they do not want to produce proper financial statements because they do not want to be constrained by reporting numbers that reflect economic reality, and they do not want to be held accountable for the financial consequences of their actions.

"Sovereign debt markets are massive, hugely inefficient, and among the most treacherous in the world."

We've always done sovereign debt, but never to the extent of the Greek situation. Around 1993, we started looking at the rating agencies' material on sovereigns and realized there is no reason to believe that their analyses are going to give any support in determining what's going to happen. None. This makes it a fertile ground for someone who can do a better analysis to say "No. There are obvious flaws in their work. This is a much better credit. This is a much worse credit." We do this work, and, when we find the better credits, we'll buy their bonds, and, when we see worse credits, we don't touch them.

"Think about going into an investment universe without financial statements... people will start boiling the ocean, because they have to produce ... reports. People want to believe they know what's going on."

In 2011, rating agencies had Greece rated A-minus and, 18 months later, Greek bonds became the largest default in the history of the world. The rating agencies don't know, and two of them give their research away for free. It's like believing you can make money from reading the FT or the Wall Street Journal.

I think it starts with the fact that government financial statements have really only existed for the last 12 years. Think about going into an investment universe without financial statements. By default, people will start boiling the ocean, because they have to produce research reports.

People want to believe that they know what's going on. Then, you meet with the major investors, which we had to do with Greece. We had to look at every large bond holder. Some of them do legal analysis.

(Continued on page 11)

Paul B. Kazarian, Japonica Partners

For example, when they go after Argentina, it's a legal decision. Others make political decisions, and our view is that political decisions really are a crap shoot. We do not invest based on political decisions at all. No, it's all the numbers. I think that's another big plus for us because when we were buying the Greek bonds, we were buying from people who were selling because of politics, and they had no idea about the balance sheet. None, none, none. How much time is spent with government balance sheets in economics courses? None.

"For government economic statistics, numbers constantly have to be corrected to represent economic reality and for comparability. Our team had to build 18 years of total government balance sheets for 18 member states where none had existed and still currently do not exist outside of Japonica."

You have a market with entities that just started producing financial statements and people who don't read financial statements, and many of these statements are populated with fraudulent government accounting because the auditors are usually on the side of the government. So, when you read them, you have to go and readjust them in order to kick out all the fraudulent accounting. You have to triangulate. You have to do very hard work, and that's a great space for us to be in. You're in a space that is like a no-man's land.

G&D: How difficult is it to build a government balance sheet and compare to other sovereigns?

PBK: Members of our team were dedicated to updating our government balance sheet numbers daily and did not stop refining our numbers for new information. We realized early on that daily attention to our government balance sheet numbers were an essential part of our GGB investment.

Our government financial statement database is unparalleled to anything in the world, especially given the high quality of the information that has been adjusted to accurately reflect economic reality, and the extensive testing of the numbers using alternate sources of financial statement information and economic statistics.

The importance of developing our own numbers and statistics became obvious very quickly as we found that the quality was worse than any of us could have imagined. Highly respected organizations and individuals were publishing numbers purported to be facts that were at best garbage and often more likely reckless attempts to mislead the public and oversight entities. We found financial assets purported to be 325 billion euros that in fact were only 70 billion euros.

We found government pension funds that had been reduced by more than half-a-trillion when in fact they had increased by over half-a-trillion. And, as for government economic statistics, numbers constantly have to be corrected to represent economic reality and for comparability.

Our team had to build 18 years of total government balance sheets for 18 member states where none had existed and still currently do not exist outside of Japonica. Our team built a database of sovereign government financial statement information adjusted for restatements and comparability for 14 governments going back as far as 1991. Our team had to dig deep to get balance sheet details and changes including individual financial asset appraisal, annual depreciation, government pension funds, hundreds of individual financial debt instruments, and intra entity consolidating adjustments. Our team had to become intimately familiar with the seven major government accounting standards as well as the unique local government accounting standards of sovereigns.

Our team had to collect information by traveling to widely diverse locations around the world to read hard copy material and interview knowledgeable individuals. Our team needed to find nuggets of value from over 100 different primary sources, including government budget reports,

(Continued on page 12)

Paul B. Kazarian, Japonica Partners

government agency reports, parliamentary reports, audit reports, NGO reports, and various databases. To test our information to ensure it was by far the best available anywhere in the world, our team collected and vetted materials produced by any credible entity or individual that claimed to have produced government balance sheet information for any of the EU member states or any of our 14 sovereign government benchmarks.

G&D: How does Japonica Partners add value to its sovereign investments?

PBK: The process to add what we call extraordinary value is similar across all our investments but has important differences. Once we have discovered the systemic misconceptions and a massive undervaluation, we then build a plan to create extraordinary value.

For the GGB investment, we built the largest superstructure team in Japonica's history of over 230 best-in-sector professionals to create extraordinary value by correcting the systemic misconceptions through education and convincing Greece key stakeholders, including the Troika and all major Greek political parties, to embrace the best practices of public financial management. The team accomplished what was considered impossible by building Greece and peer country government balance sheets through analytical triangulation of over 100 primary and official secondary sources covering up to 20 years of data.

Japonica organized major conferences globally that were attended by world leaders and directly challenged the Greece debt myths and educated Greece key stakeholders through free and open debate. The conferences were attended by hundreds including senior individuals across the political spectrum in Greece and Europe. Two of the highest impact conferences were held at CESifo in Munich and the University of Southern California. Additionally, the Japonica team gave over 400 high impact presentations on public financial management and Greek debt sustainability to organizations including: the American-Hellenic Chamber of Commerce, British Hellenic Chamber of Commerce, CEPS, CIPFA, Economic Council of CDU, EGPA, European Court of Auditors, FEE, Harvard Business School, ICAEW, IIF, IFAC, IMF, INET, IOBE, ISCTE, London Business School, OECD, Oxford, PMI Congress, Standard & Poor's, and the World Bank.

"Japonica extensively educated through multiple and lengthy sessions the senior-most leadership of 12 of the largest 14 sovereign wealth funds … who collectively have AuM of US$8.0tn."

In Greece, we worked hard to get adoption of International Public Sector Accounting Standards (IPSAS), install an essential chart of accounts, for the country to become the eurozone leader in monthly financial reporting, and educate the senior financial leadership of all the major political parties. Within Europe, our role as sole senior advisor to the CEPS task force on EU government balance sheets has changed the financial dialogue. And, these are only a few examples of the social benefits of our work on the GGB investment with public financial management.

G&D: What is Japonica's relationship with sovereign wealth funds?

PBK: To date, Japonica has extensively educated through multiple and lengthy sessions the senior-most leadership of 12 of the largest 14 sovereign wealth funds in the world, who collectively have assets under management of US$8.0 trillion with an approximate US$4.0 trillion in fixed income.

G&D: How does Japonica change the views of the most influential decision-makers?

PBK: It's through our relentless education that we change the views of the most influential decision-makers. We educate with research and facts that are irrefutable under critical analysis. Getting people to realize that very important conclusions they hold as unquestionable are false is very challenging. Our information must be perfect, well researched, and have considered the material of every knowledgeable person on the topic. We have learned that it often takes seven encounters, yes seven, to get the person to recognize that a systemic misconception is just

(Continued on page 13)

Paul B. Kazarian, Japonica Partners

that. Furthermore, we need to educate several of the individuals they trust on the topic. This is super hard work and takes a relentless work ethic.

With our Greek government bond investment, we changed views of the senior-most leadership of major international stakeholders, including prime ministries, finance ministries, parliaments throughout Europe and Asia, IMF, IIF, ECB, OECD, UN, World Bank, CDU, EWG, ESM, Paris Club, US SEC, IFAC, CIPFA, AHCC, CESifo, CEPS, ICAEW, BHCC, and credit rating agencies.

In recognition of the firm's expertise as one of the world's leading public financial management and sovereign debt experts, Japonica leadership served as sole Special Advisor to the CEPS Task Force on Government Balance Sheets and received the 2016 William Pitt the Younger Award for extraordinary leadership in strengthening democracy through public financial management.
The Harvard Business School case study, "Greece's Debt: Sustainable?" focused on the Greece debt systemic misconception and Japonica's efforts. The case study was a seminal tool educating the most influential decision-makers and has become a cornerstone case study, globally, across a range of classes from public financial management, to value investing, to accounting.

G&D: How do Japonica superstructure teams impact the risk-reward relationship, especially compared to corporate, hedge fund, or private equity transaction teams?

PBK: Japonica has a huge competitive advantage in that our entire superstructure teams are focused on one transformational investment at a time. Japonica's superstructure team members span a comprehensive global landscape of the best and brightest in their respective sectors.

"I don't want to get into theoretical discussion. Let's get to the real world: if you take more risk, you're probably going to lose more money. … You can't add more value through better analysis and better work? You have to take more risk to get more return? Sounds like you're setting yourself up for mediocrity at best."

For example, the GGB transformational investment superstructure team exceeded 230 including: academics, capital markets specialists, conference organizers, credit rating agency professionals, domestic law specialists, finance specialists, government administrators, historians, international lawyers, macro-economists, lobbyists, media specialists, micro-economists, NGO executives, private sector C-level managers, professional investment managers, public and private sector accountants, public private sector auditors, statisticians, sovereign wealth fund executives, and think tank executives.

Our process of building and managing our superstructure team minimizes risk and increases return, which is very different from the AUM process of using diversification to purportedly lower risk while seeking to compensate for the return lowering impact of diversification and improve upside returns by adding ever more layers and types of leverage (while ignoring the increased downside exposure of this debt).

I don't want to get into theoretical discussion. Let's get to the real world: if you take more risk, you're probably going to lose more money. Sit back for a minute and think about it. You want to make more return. What do you do? You take more risk? That's the best you can do? You can't add more value through better analysis and better work? You have to take more risk to get more return? Sounds like you're setting yourself up for mediocrity at best. This is our view. It's our 30-year track record. This is how we built Japonica. Japonica does not aspire to AUM metrics nor do we want to manage dumb money.

I think the traditional risk-reward framework could make some sense institutionally. But I'm not taking more risk to get more return, because maybe

(Continued on page 14)

Paul B. Kazarian, Japonica Partners

it's going to be more risk and less return. We are super selective and everything we do is designed to minimize that risk, so that our downside is actually still an upside. You constantly get prodded to take more risk by peers and bankers, especially if you're in New York City. I think the benefit of not being here is that I'm not caught up in competition, because I'm so predisposed to competition. I spend a lot of my time in sleepy places like Lisbon where I just work. Work every day, and that's just it. It's easier that way, because you really can stay focused.

G&D: Would you explain the creation of the Citizens' Wealth metric to evaluate government financial performance?

PBK: Citizens' Wealth was by far the most important number we looked at during our GGB investment. We made our purchase decision based on Greece's vastly better number than Eurozone investment grade sovereigns and our decision to exit by assessing Greece Citizens' Wealth changes between 2012 and 2017 and the comparison to the peer group. No one else had these numbers and still no one else has these numbers today. Without them, investors are flying blind when investing in any sovereign government including those in Europe.

Citizens' Wealth and Total Government Net Worth are two of the most incredibly important and widely ignored metrics. Citizens' Wealth per person, which is total economy GDP less Total Government Net Worth, should be the most heavily weighted indicator in a sovereign government credit risk rating framework based on its comparative superiority to other metrics, including its integration of: the most comprehensive measure of a government's financial position (Total Government Net Worth defined as 100% of Total Government Assets less 100% of Total Government Debts), audited annual financial statements with Total Government Balance Sheets and Notes based on international public sector accounting standards, the most widely used economic growth metric GDP, and a communication friendly per person indicator.

Citizens' Wealth is a new per citizen government performance indicator providing significantly better historical and comparative insights into the relationship between the total economy GDP and Total Government Balance Sheet (especially compared to GDP or a debt to GDP ratio). Citizens' Wealth can expose touted claims of economic prosperity (i.e., GDP growth) that in reality is financial destruction resulting from hidden increases in government financial burden put on its citizens. Citizens' Wealth is calculated per citizen, which can be more meaningful, easier to understand, and a more helpful management performance metric than abstract percentages or numbers in the millions, billions, or trillions. Citizens' Wealth is measured per citizen and can be calculated: to show changes in Citizens' Wealth over time, to show actual Citizens' Wealth at a point in time, or often to reveal a value created or destroyed ratio.

"I think the traditional risk-reward framework could make some sense institutionally. But I'm not taking more risk to get more return, because maybe it's going to be more risk and less return."

When Total Government Net Worth/Total Government Net Debts are not available, Citizens' Wealth is as simplified Citizens' Wealth* (with an asterisk) by replacing Total Government Net Debts with government financial net debt (government financial debt less government financial assets). Also, worthy of note, our team surveyed economists and others who seek to evaluate sovereign government financial performance and asked them to rank Citizens' Wealth and the most common metrics used to evaluate sovereigns using ten essential traits. The result, Citizens' Wealth consistently scored close to 10 out of 10 and the best of the others 4 to 5 out of 10.

G&D: How socially important is working to improve government financial performance?

PBK: Sovereign debt investing offers an opportunity to create major benefits for society. The social importance of each

(Continued on page 15)

Paul B. Kazarian, Japonica Partners

Japonica Partners transformational investment is significant. We call this the double bottom line. With Greece, it was to save a country of 11 million people from a devasting economic collapse. The historical government financial mismanagement was clear to us and the absence to public financial management was at the heart of the problem. And, with the government composing over half the economy, the ripple effects were enormous. So, we started with convincing the financial leaders within each political party of the importance of PFM, then winning the adoption of IPSAS, establishing a proper chart of accounts, and credible monthly financial statements. The results were both positive and clear, and the Prime Minister and the shadow Prime Minister both publicly supported PFM with videos available online. Additionally, there was an EY study that confirmed Greece had the best monthly financial reporting in the Eurozone.

G&D: How important are media communications to Japonica's investments?

PBK: Media communication has always been an important tool for our transformational investments. The foundation is set with our "education–education–education." We need to educate key decision makers and the public in order to correct systemic misconceptions. Key to our success with educating the media to recognize systemic misconceptions is to go consistently and repeatedly both vertically and horizontally within a media organization with honest and accurate information that contrasts with that which creates and supports systemic misconceptions. Horizontally means as many people at similar levels as practical and vertically means from senior editor and editorial board to staff reporter and fact checker.

"Sovereign debt investing offers an opportunity to create major benefits for society."

Media has an important role in correcting or perpetuating systemic misconceptions. It is important to keep in mind that editors and reports cover many topics at one time, and are constantly fed misinformation, which makes it very difficult to be an expert who can properly synthesize and explain specialized topics. Correcting systemic misconceptions can be especially hard as it is human nature to revolt when firmly held views are challenged. However, through relentless "education–education–education" efforts built upon rational and accurate facts, we have built great relationships throughout the media landscape who are willing to invest the time to begin to see what others do not. The most respected members of the media appreciate our honest and efficient education efforts. One of our goals is to help the media outlet and staff win positive peer recognition for attitude-changing articles. These efforts are essential to correcting systemic misconceptions.

We gave 300 media interviews (resulting in approximately 1,000 articles in 20 languages, some front page and covers); made dozens of media appearances including BBC, CNN, Bloomberg, and domestic outlets; ran 46 full page public notices (12 different series) in key publications including FT, WSJ, NYT, Institutional Investor, Washington Post, and many regional publications; authored several highly regarded papers and brochures; produced a long list of innovative media campaigns including editorials, airport advertising, web portal campaigns, videos, and popular artist drawings; spoke at 15 universities; made over 400 presentations; and organized and sponsored seven major international conferences. Educating and correcting systemic misconceptions held by senior editors and a large majority of their editorial boards is mission critical; it takes a significant commitment of resources even though they usually do not have an economic vested interest in perpetuating the systemic misconception.

G&D: What is the role of Japonica's philanthropic affiliate?

PBK: Japonica Partners philanthropic affiliate, The Charles & Agnes Kazarian Foundation, is named after my grandparents who were survivors of the first genocide of the 20th century, the Armenian Genocide, and has a core competency to improve public financial management and financial literacy. The Kazarian Foundation is funded solely by affiliates of Japonica Partners and had spending

(Continued on page 16)

Paul B. Kazarian, Japonica Partners

since founding plus year-end 2018 assets of over one quarter-billion US dollars.

G&D: Why did Japonica use only partners' capital to invest in GGBs?

PBK: The decision to use only partners' capital was based on the impact on our risk reward ratio. We had ample capital to invest, but we did not want to exceed 8.9% of targeted series. And seeking to deploy more capital ran the risk of increasing our purchase price and potentially reducing our liquidity at time of exit. This was not an easy decision, especially when two sovereign wealth funds recognized the great perils and opportunities of the sovereign debt market and asked us to manage 10 billion US dollars each.

G&D: How would you describe Japonica's work ethic?

PBK: Creating transformational investments with low risk high return requires huge personal sacrifice that only a very rare few will make. We and our best performing team members essentially live the lives of monks with 110% devotional focus on our transformational investments. I know this observation may not be currently welcomed by the "hard work does not equal success" crowd, but this is our experience in building our track record over the past 30 years, and I don't sugarcoat reality.

G&D: What advice would you give an MBA looking to pursue a career in investment?

PBK: The best advice we can give to an MBA starting a new career is to find outstanding mentors or role models. The lessons learned from those whose judgment, skills, and accomplishments you aspire to will set a rock-solid foundation for your growth and success. Michael Steinhardt, a legendary hedge fund manager, was our first limited partner, and provided our team with invaluable wisdom across a wide range of topics, including relationship building; assessing real risk/return relationships; and convincing us to have zero management fee, a 20% real cash back hurdle rate, and, perhaps most importantly, 50% equal sharing of profits. We were honored to give Michael his Institutional Investor Lifetime Achievement Award. A successor to Max Heine's firm, one of Japonica's early limited partners, helped us on constructing and defending the integrity of perfectly aligned, win-win limited partner relationships.

John Whitehead, former co-managing partner of Goldman Sachs and US Deputy Secretary of State, was a senior advisor to Japonica's non-profit affiliate and was very helpful in building our international government relationships, especially in the US and Asia. Bill Johnson, the CEO who built IC Industries, encouraged me to start Japonica and gave invaluable advice on turning around large international businesses without staff reductions, acquisitions, or increases in debt.

Rod Hills, a former Chairman of the SEC and our board member, and Sandy Burton, a former chief accountant at the SEC and one of my professors at CBS, both provided a solid foundation to appreciate the importance of dissecting and inspecting public financial communications. Wash Sycip, a legendary figure throughout Asia, advised us extensively on both Asia and our philanthropic efforts.

"We … essentially live the lives of monks with 110% devotional focus on our transformational investments. I know this observation may not be currently welcomed by the "hard work does not equal success" crowd"

At the early stages of Japonica's first billion-dollar investment (the CNW transportation holding company), we were asked to attend a meeting with Warren Buffett to discuss our CNW investment. He had a relationship with one of our superstructure team members. We discussed our three building blocks, and he was helpful in motivating us to gain the support of CNW's almost 20 different rail unions. Buffett saw this as our biggest risk, and we dedicated the resources to win union support for our plan to streamline operations and expand short line segment sales thus lowering our downside risk and creating extraordinary value.

G&D: Thank you.

Bruce Kim '20

Bruce is a 2nd year student at CBS and a member of the Value Investing Program. Last summer, he worked at Alyeska Investment Group, covering tech, consumer, and healthcare sectors. Currently, Bruce is interning at Marshall Wace Global Opportunities Fund, covering the US consumer sector.

Peloton Interactive, Inc. (NASDAQ: PTON) - Short ($7 PT, +76% Upside)
2020 Artisan International Value Stock Pitch Challenge Finalist

Bruce Kim - HyKim20@gsb.columbia.edu

Executive summary

Peloton (PTON) is an $8.6bn fitness company with 563K subscribers that 1) manufactures and sells fitness equipment ($2,245 for the stationary bike) and 2) generates subscription revenue ($39/month). PTON is an attractive medium-term short for the following reasons:

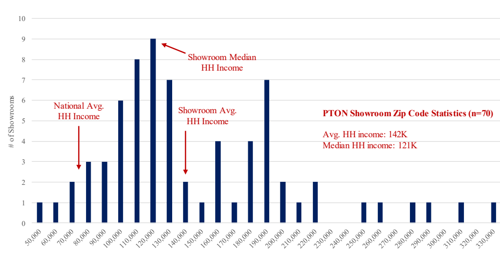
1) PTON is an expensive add-on fitness product with a smaller TAM than market expectation.
2) PTON's churn is artificially low due to the legacy contracts.
3) PTON has no moat against competition (SoulCycle).

1. PTON is an expensive add-on fitness product with a smaller TAM than market expectation.

PTON's current customer profile is in-line with a high-end boutique add-on fitness service, which limits its TAM to 2-3M users. Bulls and the management argue that PTON is an affordable gym-replacement product/ service (with financing) that can reach 5-10M users (as reference, Planet Fitness has 14M members at $10-22 price range). However, currently 2/3 of PTON users have gym memberships:

> *"I think two-thirds (users with gym memberships) is kind of on the money, if not maybe a little low in terms of just boutique fitness users having multiple streams of fitness." (Former senior director of software engineering at SoulCycle)*

While PTON's S-1 defines the upper funnel of its TAM at households with $50K+ income, its showroom location distribution indicates that the company is primarily targeting high-income households. The average household income of zip codes with PTON showrooms is $140K, with the distribution skewed to the high-end. Using $120K as the realistic upper funnel of the TAM, PTON's SAM is limited to 2-3M (see the table below).

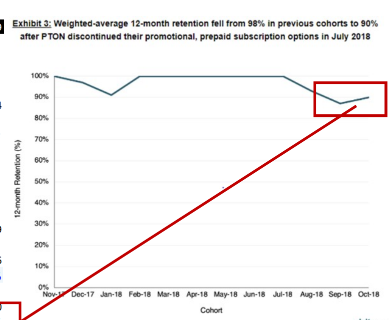


	US		Global	
	S-1	Realistic	S-1	Realistic
Demo	65	25	92	35
TAM	45		67	
Interest	36		52	
SAM	12		14	
% Realistic demo	48%		40%	
Industry penetration (%)		10%		10%
Realistic SAM		2.5		3.5
PTON market share (%)		70%		70%
PTON subs (2024)		**1.75**		**2.45**

2. PTON's churn is artificially low due to the legacy contracts.

PTON's low reported churn (~8%) is artificially deflated due to the legacy long-term contracts, and the recent cohort data shows steadily increasing churn. PTON discontinued the 12, 24, and 36-month contracts in 2018. Users with legacy contracts (~10% of users) are included in the churn calculation as having no-churn. Assuming that legacy contracts have ~20% churn (accounting for the 2-3 years age of the cohort), PTON's real churn is close to 11-13% (see table below). The churn calculation is close to the churn rate of the 2018+ cohort according to Yippet tracking data. More importantly, Yippet's 3m rolling churn is tracking around 18% — showing a consistent trend of increasing churn among new cohorts.

Fiscal year	2017	2018	2019
Connected subs	108	246	511
Avg. subs	71	172	369
Gross adds	79	151	294
YoY%		*93%*	*94%*
YoY Chg.		*73*	*143*
Churn (%) - monthly	*0.7%*	*0.6%*	*0.6%*
Churn (%) - annualiz	*8.4%*	*7.6%*	*7.8%*
Churn (%) - 4Q avg.			
Gross sub losses	2	13	29
LT contract subs			56
% LT contract churn			20%
Adj. gross losses			40
Adj. churn rate (%)			11%



Peloton Interactive, Inc. (NASDAQ: PTON) - Short ($7 PT, +76% Upside)

3. PTON has no moat against competition (SoulCycle).

PTON has no moat against increased competition. With SoulCycle set to launch its connected bike product in early 2020, PTON's pace of gross ads will decline:

- While bulls argue that PTON has network effects due to its social features, less than 5% of its users participate in live class sessions according to Yippet data.
- The learning curve for the hardware development is low, and SoulCycle has the best-in-class modality: "*Anyone including Flywheel and lots of other lower-priced competitors can easily create a bike in 6-9 months (hardware)… SoulCyle has the best in class modalities: Soul = Spin, Equinox = bootcamp, meditation with Headspace, Running with Precision Run.*" (VP of finance at SoulCycle)
- Fixed cost barrier is low (content library created by 34 instructors in 4 studios). PTON's private competitors have VC funding and are not constrained by near-term margin expectations. PTON also has key talent risk — top 5 instructors have outsized Instagram followers vs. the others.

Figure 10: Competitive Offering Comparison

		Peloton	SoulCycle	NordiTrack iFit	Echelon	Fly Anywhere	Mirror	Hydrow
Launched		2012	Early 2020	2013	2018	2017	2016	May '19
Parent Co		-	Equinox	Icon Health & Fitness	Viatek Consumer Products Group	Flywheel	-	-
Products	Bike	✓ $2,245	✓ Price TBA	✓ $2,000	✓ ~$840 - $1,640**	✓ $2,000	-	-
	Treadmill	✓ $4,295	✓ Price TBA	✓ $4,000	-	-	-	-
	Rower	-	-	✓ $1,600	-	-	-	✓ $2,200
	Mirror	-	-	-	✓ $1,640	-	✓ $1,495	-
Subscription offering		$39/mo*	Price TBA	$39/mo	$40/mo***	$39/mo	$39/mo	$38/mo
# Subscribers		511k	-	287k	-	-	-	-
Physical Studios?		✓ 4	✓ 93	-	-	✓ 31	-	-

Source: Company websites, J.P. Morgan. Note: *Connected Fitness Subscription cost; **Bike price with subscription; ***Connect + Extra Mile subscription price.

Valuation & financials

F2024	FAD	BASE	DREAM
Revenues			
Demographics	35,000	35,000	50,000
Industry penetration (%)	5%	10%	20%
SAM (%)	1,750	3,500	10,000
PTON MS (%)	70%	70%	80%
Connected subs	1,225	2,450	8,000
CAGR (%)	*25%*	*44%*	*82%*
Planet fitness subs (2018)	*14,000*	*14,000*	*14,000*
SAM (2018 S-1)	*12,000*	*12,000*	*12,000*
Penetration (%)	*10%*	*20%*	*67%*
ASP ($)	$33	$37	$40
CAGR (%)	*-2%*	*0%*	*2%*
Connected subs revenue	487	1,077	3,882
Digital revenue	49	108	388
% of connected subs	*10%*	*10%*	*10%*
Subscription revenue	**535**	**1,184**	**4,270**
Units sold	355	711	2,320
% of subs	*29%*	*29%*	*29%*
CAGR (%)	*2%*	*9%*	*23%*
ASP ($)	$2,158	$2,388	$2,636
CAGR (%)	*-2%*	*0%*	*2%*
Fitness product revenue	**767**	**1,697**	**6,116**
Total revenue	**1,302**	**2,881**	**10,386**

F2024	FAD	BASE	DREAM
Total revenue	**1,302**	**2,881**	**10,386**
Gross Margin (%)			
Fitness product	*43%*	*43%*	*43%*
Subscription	*60%*	*65%*	*75%*
Total	*50%*	*52%*	*56%*
Gross profit			
Fitness product	330	730	2,630
Subscription	321	770	3,202
Gross Profit	**651**	**1,499**	**5,832**
OPEX (%)			
SG&A	55%	48%	35%
R&D	6%	6%	6%
D&A	3%	3%	3%
SBC	4%	4%	4%
OPEX	*703*	*1,340*	*3,531*
Adj. EBITDA	**(52)**	**160**	**2,301**
Margin (%)	*-4%*	*6%*	*22%*
EV/EBITDA (2024)		15.0x	25.0x
EV (2024)	949	2,396	57,527
EV (Current)	589	1,488	35,720
EV/SALES (Implied)	0.6x	0.9x	22.6x
ND	(993)	(993)	(993)
Market Cap	1,582	2,480	36,712
FDS	332	332	332
PX	$5	$7	$111
Upside/Downside (%)	-85%	-76%	253%

- At 2.45M 2024 subscribers (assuming no pricing power given intensifying competition), I am projecting a base case revenue of 2.9bn 2024 revenue. (vs. 5.2bn consensus)
- Gross margin for the subscription business tops out at 65% with 2.45M subs (improvement limited by the 40% variable cost — mostly music royalty).
- Modeling 6% EBIT margin in the base case (SG&A leverage is limited due to the increasing CAC — increasing churn + intensifying competition).
- Applying 15x terminal EV/EBITDA multiple in the base case (a relatively high multiple given the limited revenue growth and margin improvement runway I am projecting after 2024).
- Discounting back 2024 EV at 10% discount rate.

Based on the assumptions outlined above, the base case price target is $7 (76% upside for the short). In the upside scenario (PTON succeeds as a gym replacement and gets to 8M subs), the short has a 253% downside. However, given my analysis on TAM, churn, and moat of PTON, this is a low probability scenario.

Risks

- **Implementation risk:** low float and high short-interest can result in implementation difficulty and volatility. However, the increased competition in early 2020 provides a near-term catalyst roadmap for the short. Increased liquidity after the lock-up expiration (Mar 24th) might provide a better entry point.
- **Disappointing execution by SoulCycle:** SoulCycle has experienced setbacks with negative PR headlines and management change in 2019. If SoulCycle and other competitors fail to execute, PTON will gain market share without experiencing a spike in CAC. However, recent announcements regarding additional VC funding and Equinox partnership indicates that SoulCycle is committed to penetrating the connected fitness product market.

Rolls-Royce Holdings Plc (LSE: RR.) - Cash is coming - LONG
2020 Artisan International Value Stock Pitch Challenge - Winner

Alvaro Pasquin Llorente - APasquin20@gsb.columbia.edu

Álvaro Pasquín '20

Alvaro is a 2nd year student at CBS and a member of the Value Investing Program. Before CBS, he was a senior investment analyst at the Alantra EQMC Fund, a friendly activist fund based in Madrid, Spain focused on European small caps.

Trading stadistics	
in GBPm except when stated otherwise	
Price in GBP (01/24/2020)	6.75
Shares outstanding	1,896
Market Capitalization	**12,796**
Net debt	683
Provisions	3,425
Enterprise value	**16,904**
52 Week Range	£6.50-10.03
2022E Target price	**£13.5**
Upside	*100%*

	Actual FYE December 31,			Projected Fiscal Years Ending December 31,				
Financial summary	**2016A**	**2017A**	**2018A**	**2019E**	**2020E**	**2021E**	**2022E**	**2023E**
Revenue	£13,783	£13,671	£15,067	£16,128	£16,682	£17,387	£18,013	£18,803
y / y growth		*(0.8%)*	*10.2%*	*7.0%*	*3.4%*	*4.2%*	*3.6%*	*4.4%*
EBIT	£915	£306	£616	£637	£1,116	£1,655	£2,059	£2,401
Margin	*6.6%*	*2.2%*	*4.1%*	*3.9%*	*6.7%*	*9.5%*	*11.4%*	*12.8%*
EPS	*£0.33*	*£0.08*	*£0.18*	*£0.16*	*£0.36*	*£0.61*	*£0.77*	*£0.91*
FCF / Share	*£0.11*	*£0.08*	*£0.34*	£0.32	£0.61	£0.48	£0.83	£1.14
EV / EBIT	8.5x	19.5x	14.1x	10.7x	7.8x	5.9x	4.6x	3.6x
P / E	23.1x	106.2x	50.6x	42.0x	18.4x	10.4x	7.3x	5.1x
FCF Yield	(1.9%)	5.2%	(6.9%)	(6.3%)	3.7%	8.3%	10.7%	12.7%
ROIC	9.4%	3.1%	6.2%	6.9%	12.3%	17.6%	21.9%	26.6%

Recommendation: I recommend a long position in Rolls-Royce, with a target price of £13.5 in 2022 (100% upside - 27% IRR). After the largest investment period in its history, coupled with extraordinary costs in one of its engine programs, profitability has struggled over the last years in its Civil segment, which is loss-making today. However, my view is that consensus is completely unaware of the amount of cash flow coming over the next few years (FCF to multiply by 2.5x), mainly driven by the growth of the Aftermarket division.

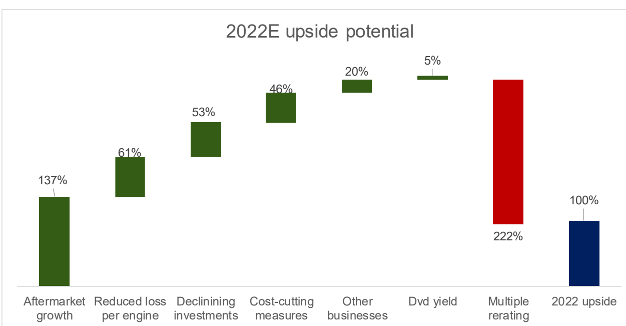
Company description: Rolls-Royce manufactures and services engines for three markets a) Civil (50% of sales), mainly for Boeing and Airbus planes, b) Defense (21%), including jets, helicopters and turboprops, and c) Power Systems (24%) for marine and industrial applications. The remaining is the recently consolidated ITP.

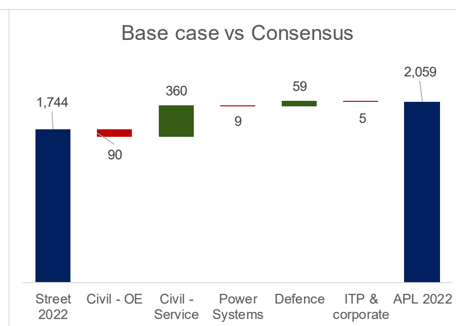
Recent developments: Since 2010, Rolls-Royce has undergone the highest investment period in its history, focused on its Civil division. In total, it has invested around £11bn in CAPEX and R&D for 6 different engine designs. In addition, the Trent 1000 program on the Boeing 787 has been a complete disaster and will imply £2.4bn of extraordinary costs throughout the 2017-2022 period.
However, the result of the aforementioned investment period is that, despite being only 11% of the total engine market, RR has over 30% of the Wide Body market and over 50% of the WB firm orderbook, with exclusivity in the growing A330neo and A350 planes.

Investment thesis: After the aforementioned investment period, Rolls-Royce has set the grounds for huge Cash Flow generation over coming years (FCF to multiply by 2.5x) thanks to:

- **Increasing aftermarket profits** driven by a growing installed base and solving the T-1000 extra costs
- **Reducing loss per engine** sold from £1.4m to £0.4m, leading to £400m impact at EBIT level
- **Normalizing R&D and CAPEX** expenditures after years of heavy investments
- **Cost-cutting measures at corporate level** for a total amount of £400m (£100m already achieved)

In addition, the company is run by an **outstanding CEO** with a great track-record at ARM Holdings. He is , in my view, taking the right steps towards creating the market leader in wide body engine manufacturers.





1. **Growth of aftermarket profits: a) Growth of service revenues:** Airbus & Boeing today have 1,900 planes in the backlog (planes that can have RR engines). With prudent assumptions, they will be delivering around 300 planes annually in the next few years (370 L5Y average). On top of this, RR has a higher market share of this order book (i.e. Rolls Royce is the exclusive supplier for the A330 and A350), which will result in 460 engines delivered per year, and retirements of 140. Management has guided ~500 deliveries and 100-150 retirements, with 520 deliveries in 2019. All this, coupled with growing flying hours per engine and higher revenue per hour flown (better mix), will grow service revenues to above £6bn.

Rolls-Royce Holdings Plc (LSE: RR/) - Cash is coming - LONG

b) **Decrease maintenance costs**: The company has guided towards £2.4bn of extraordinary costs in the T-1000 program throughout the 2017-2022 period. Today, 8 of the 9 fixes required have been designed, and 7 of them have already been certified and now being fitted in the fleet. This means the investment required is almost over and maintenance visits will normalize again in 2022. There are currently concerns that the Trent-1000 issues could spread to the XWB and T-7000 programs. However, primary research has given me confidence this won't happen. The XWB has a completely different architecture and is performing even better than company´s expectations. The T-7000 has 90% commonality with the T-1000, but the younger age of the fleet, easier operating temperature and progress made on fixing the T-1000 issues limit the possibility of having the issues spread into the T-7000 program.

2**. Decline in engines losses:** Today, RR loses £1.3m per engine sold (as of H1 19), reduced from £1.6m in 2018. Management has guided towards £0.4m of engine losses by 2022, with multiple drivers. My conversations with people in the industry, on top of recent performance, gives me conviction in the achievability of this target. However, my base scenario is predicated on £0.6 engine losses in 2022, which would provide around £400m savings per year by 2022 (management guided towards £500m).

3. **Normalization of investments**: Investments in the engine manufacturing business are highly cyclical and depend on Airbus and Boeing's new programs. Rolls-Royce has just ended 6 engine programs that will last at least until 2025, which I have confirmed with competitors and Airbus and Boeing, as they are not planning to start any new airplane programs soon. This will enable Rolls-Royce to reduce the investments needed in both R&D and CAPEX over the next few years to £350m per year.

4. **Restructuring efforts**: Rolls Royce announced a £400m annual cost reduction in its corporate functions by 2020. The aim is to make the organization more efficient, flexible and lean. Specifically, they are targeting C&A and engineering, with the idea of reducing headcount by 4,600 people. This implies £500m of cash costs until 2020, most of which has already been accounted for in 2018 and 2019. While it might take longer than initially expected, the plan is on track and has already delivered £100m savings in 2018.

Valuation: My **base case** assumes Rolls-Royce EBIT growing from current £600m to over £2,000m, driven mainly by the Civil Aftermarket division (£1,200m growth). This will result in **£0.83 of FCF per share, implying a 10% FCF yield in a market where peers are trading at 4-6%.**

Assuming prudent multiples compared to peers and transactions and given the execution risk attached, I believe **share price can double from these levels by 2022.**

Bear case: It would be a perfect storm. Despite the growing installed base, RR is not able to reduce costs nor solve engine problems, leading to more shop visits. Downside case from this point between 10-15%.

Bull case: Management reaches all the targets in terms of cost reduction, elimination of issues and installed base build up. A higher deserved multiple would bring the upside to 172%.

All in all, the results from the upside/ downside analysis is very compelling, and too many things have to go wrong to lose money in the investment

2022 Main KPI´s	Base case	Peers	Transactions
P/E multiple	17.5x	26.6x	25.4x
EV/ EBIT multiple	10.0x	15.8x	18.9x
FCF Yield	5.5%	5.0%	n.a.

** Data from 11 Aero peers and 150 transactions*

2022 Main KPI´s	Bear	Base	Bull
Loss per engine sold	-0.9	-0.6	-0.4
Engines installed base	5,628	6,150	6,503
Shop visits as % of total	21.5%	16.5%	15.5%
EPS	£0.50	£0.77	£0.91
EBIT	£1,388	£2,059	£2,408
FCF/ share	£0.57	£0.83	£1.00
Exit P/E	12.0x	17.5x	20.0x
Exit EV/ EBIT	7.0x	10.0x	12.0x
Exit FCF Yield	8.3%	5.5%	5.0%
Blended TP*	£5.95	£13.53	£18.36
Upside/ (downside)	*-11.8%*	*100.5%*	*172.0%*

**Average of three valuations*

Major risks and mitigating factors

Accounting of service contracts: IFRS 15 implementation provides more prudency on the accounting of the Long Term Service contracts

Trent 1000 issues to spread to new programs: New programs are either different in architecture (XWB) or already include improvements done with Trent 1000 and have had no reliability issues so far (T-7000).

Weak WB market and backlog buildup: Just the replacement of old WB planes would provide enough planes and engines to build a healthy installed base for RR over the next years. Most of these planes don't have an RR engine today but new ones would, given current market share and exclusivity agreements of RR in Airbus and Boeing fleet.

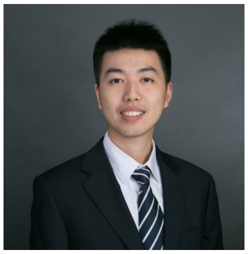
Weak capital structure: The company has enough liquidity today (£5bn in cash + £2bn of undrawn debt) to face any need. The cash flow profile of the business should help to deleverage quickly and net cash position is expected in 12 months

GE to supply the A350: Rolls-Royce has contractual security that Airbus won't open the A350 program to GE. In addition, Airbus has confirmed to me that they will respect the contracts and exclusivities.

Macro downturn: Although there will be an impact to the service revenues (that charge for each hour flown), recent crises show that the decline would not be deep and the recovery would be quick. The impact would be thus limited to the short term.

Nuance Communications, Inc. (NASDAQ: NUAN) - Long
2020 Artisan International Value Stock Pitch Challenge Finalist

James Shen, CFA - JShen20@gsb.columbia.edu

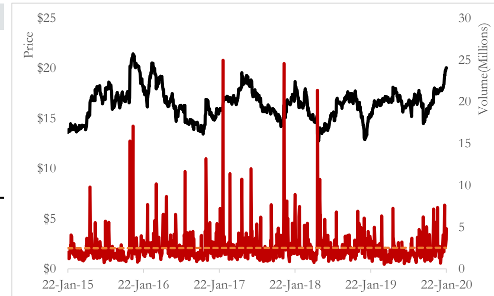


James Shen '20

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

Key Stats			
Share Price	$20	EV($MM)	$6,749
DSO(MM)	284	52 Week High/Low	20/14
Market Cap ($MM)	$5,700	Short Interest	3.60%
Cash($MM)	$587	EV/NTM EBTIDA	18.6x
Total Debt($MM)	$1,636	NTM Fwd P/E	23.8x

	2018A	2019A	2020E	2021E	2022E
Total Revenue	**$2,052**	**$1,859**	**$1,549**	**$1,628**	**$1,733**
y / y growth	*5.8%*	*(9.4%)*	*(16.7%)*	*5.1%*	*6.5%*
Adjusted EPS - JS	**$1.19**	**$1.14**	**$0.95**	**$1.15**	**$1.40**
Variance to Consensus			*13.1%*	*24.6%*	*37.2%*



Recommendation
I recommend a long in Nuance ("NUAN"). Nuance is a speech recognition software company with strong and protected moat. Recent changes in the business, including a) SaaS transition, b) new CEO, and c) business rationalization have made it difficult for the street to analyze the future of the company. As a result, the market misunderstands the company's future margin expansion and growth opportunities. Through my research, I arrive at a 3-year price target of $31, representing a 57% upside on 1/24/2020 price and IRR of 16%.

Business Description
Nuance is a technology company that provides software in automated speech recognition, dialog, and information management capabilities. Its two main business segments are a) Healthcare, where Nuance provides customers speech recognition solutions used in the clinical documentation process, and b) Enterprise, where they provide automated customer service solutions.

Investment Thesis
1) **Nuance is the market leader in speech recognition software used for clinical documentation, which has a large and growing global TAM. The company has a defensible moat vis-à-vis its competitors due to its scale, healthcare specialization and best-in-class AI capabilities.**

- Nuance's speech recognition software dominates its respective markets. Its Dragon Medical products are used by over **60%** of hospitals and clinics, and its PowerScribe products are used by over **80%** of radiologists. Nuance's products are rated highest by industry surveys on customer satisfaction and loyalty.
- Nuance has built 96 medical dictionaries over the past 20+ years to help its speech recognition AI to achieve **99% accuracy**.
- VAR reveals that "Nuance's technology is the best-in-class. Customers are very sticky."

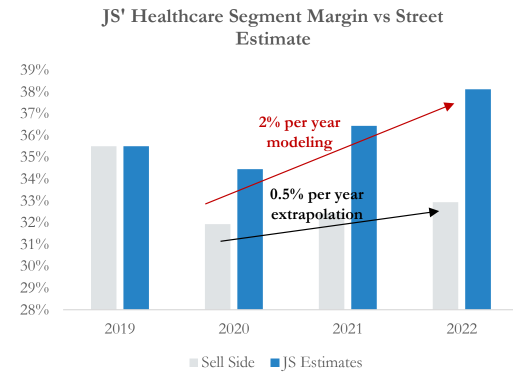
2) **The company has recently gone through three large changes: a) transition of its core healthcare speech recognition business to the cloud, b) a new CEO, and c) business portfolio rationalization, and the combined effect is underappreciated by the street.**

a) Nuance's clients from both the legacy transcription business and license-based Dragon software are getting onboarded to the cloud-based Dragon solution, and this transition will provide significant lift to the Clinical Documentation segment's margin and revenue.

   - The transition from legacy transcription services (HIM) to cloud-based speech recognition Dragon Medical One (DMO) will lift margin by **2-3x**. HIM is a labor-intensive service model that generates mid-30% margin, whereas DMO is a SaaS solution that can have an 80% margin.
   - The transition from on-premise license-based model to subscription-based model will further provide 2-3x upside to the revenue. Based on primary research, Nuance's old license software costs $1500 per copy, whereas the new subscription model charges $100 per month. Annualized revenue for the cloud solution is **2x** the license solution. Further, ARPU over the transition period appears to be much lower than the retail price due to Nuance's initial concession in price. This implies **30-40%+** ARPU upside once Nuance passes the transition phase.
   - The Street's forecast simply extrapolates forward margin by 50bps per year. As the more profitable SaaS business grows relative to the less profitable HIM business, margin expansion should be much more significant if modelled using a product level margin estimate.

Nuance Communications, Inc. (NASDAQ: NUAN) - Long

	Margin Estimate	Current Weight	CAGR(next 3Y)
Dragon Medical & Radiology & Maintenance	mid 80%	69%	20%+
HIM	mid 30%	22%	-13%
Other	mid 30%	9%	-15%



b) The new CEO Mark Benjamin is experienced in building cloud-based solutions. He is deeply incentivized and shareholder friendly, and based on his stated goals and track record, consensus EPS expectation of $1.02 by 2022 and $100mm annual share repurchase appear conservative.

- Since joining Nuance, Mark's initiatives to optimize Nuance's portfolio have introduced improved transparency to investors. He has also been very active in communicating with investors compared to the prior CEO Paul Ricci.
- Mark is deeply incentivized to deliver long-term stock performance. He receives a **10 to 1 stock to cash ratio** as compensation. Additionally, his performance bonus is tied to a **3-year total share performance** against the S&P software index.

Award	Amount	Performance Metric
Base	$800,000	--
Annual Incentive	Targeted $1.2M (150% base)	• Net new bookings and cash flow from operations • FY'18: Guaranteed minimum bonus of 50% of target opportunity ($600,000)
Long-term Incentive	$5M RSUs $5M PSUs	• Vest annually over three years • 3-year relative TSR compared to S&P Software Services Select Industry Index → <25th percentile: 0% payout; 25th percentile: 50% payout; 50th percentile: 100% payout; 75th percentile: 200% payout[1] [1] Payout capped at 100% if absolute TSR is negative
Make Whole Grant	$2M RSUs	• Vest annually over two years

c) Recent spinoff of the automotive business and sale of the imaging business have introduced clarity to the remain co, allowing the company to de-lever, and created opportunities for more future buyback and strategic M&As.

3) Nuance has several greenfield growth opportunities that represent attractive and achievable upside optionality.

- Recently announced partnership with MSFT on the ACI (ambient clinical intelligence) initiative can deliver both margin and topline growth when benchmarked against private peers. Startup company Suki piloted this idea and charges 4x more than Nuance's Dragon software. Conservative assumptions on ACI penetration leads to $1-$3 additional value to current stock price, a 10-20% upside.
- International markets represent future growth opportunities, given the fact that NUAN's AI is able to process 80+ languages in clinical settings, and international customers from 46 countries are using license-based Dragon Medical currently.

<u>Valuation</u>

- Base case valuation: 22x 2022 P/E. I took a 20%-25% haircut from peer average P/E, reflecting the fact that 30% of Nuance is in enterprise where growth picture is less clear. NUAN's projected EPS growth of 16% is also lower than the peer average of 20%.
- Comparable healthcare transaction: 3M bought Nuance's healthcare competitor M*Modal in 2019 for 5x revenue. This is a 10% premium to Nuance's forward 4.5x TEV/Rev for a business that is 1/5 the size of Nuance.

	Revenue Growth (Next 3Y)	FCF Growth (Next 3Y)	EPS Growth (Next 3Y)	2022 P/E Multiple
Cadence Design Systems (CDNS)	8%	19%	10%	27x
PTC Inc. (PTC)	13%	28%	33%	19x
Adobe Inc. (ADBE)	19%	18%	19%	27x
Autodesk, Inc. (ADSK)	23%	25%	32%	30x
salesforce.com, inc. (CRM)	17%	22%	14%	40x
Automatic Data Processing (ADP)	6%	23%	12%	22x
Average	**15%**	**22%**	**20%**	**27.5x**
Nuance	**5%**	**12%**	**16%**	**19.8x**

<u>Risks & Mitigants</u>

- **More startup companies can enter the clinical documentation software market**: hospitals are slow moving organizations when it comes to new technology. Due to heavy regulation and low risk tolerance, hospitals tend to work with trusted partners such as Nuance.
- **Hospitals cut IT spending on documentation software**: documentation services are essential to physician's day to day job and physician burn out rate is rising. Also, the cost for such software normally account for only 1% of a hospitals' services spending.

Etsy, Inc. (NASDAQ:ETSY) - Long
2019 Neuberger Berman ESG Investing Challenge—Champion Team

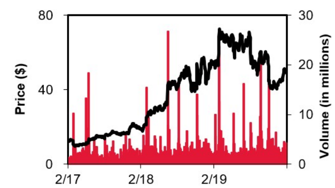
Mingming Wu, CFA
MiWu20@gsb.columbia.edu

Kyle Campbell
KCampbell21@gsb.columbia.edu

K.Y. Wong, CFA
KyWong20@gsb.columbia.edu

Trading Statistics ($M except share data)	
Current Price (1/31/2020 Close)	48.81
52 Week High / Low	73.35 / 39.76
Market Capitalization	5,783
Enterprise Value	5,799
Forward P/E (Normalized Con.)	41.7x
Forward EV/EBITDA (Con.)	25.3x
Float	92.8%
Short Interest (% of Float)	13.6%
Sell-Side Target Price	38 - 66 - 78

$M	FY16	FY17	FY18	LTM19
Revenue	365	441	604	748
Growth %	33.4%	20.9%	36.8%	38.6%
EBITDA	32	45	98	131
EBITDAM	8.7%	10.1%	16.2%	17.4%
Operating Profit	19	29	83	103
OPM	5.1%	6.6%	13.8%	13.8%
Net Profit	(30)	82	77	106
NPM	-8.2%	18.5%	12.8%	14.1%
EPS (excl. one-off)	(0.26)	0.68	0.61	0.83



Recommendation
We recommend long in Etsy. Our 4-year price target is $86, representing 76% upside and 15% IRR.

Business Description
Etsy is a global two-sided marketplace for unique and creative goods that connects small-scale sellers with buyers. There are 2.6M+ active sellers and 44.8M+ active buyers, with yearly transactions exceeding $4B in Gross Merchandise Sales (GMS). Etsy's revenue is derived from GMS-based commissions on each item sold, commission for payment processing through Etsy Payments, and other seller-centric services. The company offers buyers 60M+ items in its various retail categories. Etsy's marketplace take rate, including payment fee, is 11.6% in 2018, 3 – 4% lower than eBay and Amazon's.

Our Variant View
- Seller-side: Market under-appreciates Etsy's moat as the dominant leader in handmade e-commerce.
- Buyer-side: Market under-estimates the future number of buyer growth (driven by the new Ads service).

Thesis
1) Market under-appreciates Etsy's moat in handmade e-commerce
- **Etsy gets the key to success in a two-sided network:** A two-sided network is an intermediary platform with two distinct user groups that provide each other with network benefits. In the case of Etsy, the two respective sides are sellers and buyers. Etsy's strategy started with solidifying its seller base, which Etsy leverages to attract buyers.
- **Etsy treats sellers differently, resulting in high seller retention:** Etsy, once a B-corp, is committed to keeping sellers' interest in mind. It is more like an incubator that seeds sellers to start their own businesses and generate income. In contrast, other platforms act like landlords providing the space and treat sellers as tenants. Our comparison below shows that Etsy charges lower fees and provides better services. One seller told us during our interview, *"When changes were made at Etsy and people were saying they were going to leave, I said, 'What do you think Amazon is going to do to you?'"*.

	Etsy	shopify	ebay	amazon handmade
1 Lowest listing fee	No monthly fee. Listing fee: $0.20	$9-299/month	No monthly fee. Listing fee: $0.35	$40/month No listing fee
2 Lowest commission fee	5%	Not applicable	10%	15%
3 Comparable payments fees	3% + $0.25 per transaction	2.9% + $0.30 per transaction	2.7% + $0.25 **per listing**	2.9% + $0.30 per transaction
4 Seller support services	Manufacturing partnerships Logistics services	E-commerce migration services	**Coming soon:** Logistic services	Fulfillment by Amazon

- **Etsy's network effect within the seller community reinforces the moat:** what protects Etsy's ability to retain sellers is its close knit community. Sellers become friends and exchange ideas on how to produce and sell goods. A seller shared with us, "*there is this tight knit community where people really care about each other. You make friends here. We all support each other.*" It is difficult for competing platforms to break Etsy's social network. A comparison of seller online forums' activities also shows that Etsy has the most active online community:

Mingming Wu '20

Mingming is a 2nd year MBA student at CBS and a member of the Value Investing Program. Prior to CBS, she worked at CPPIB in Toronto, covering global consumer and health care equities, and later at the endowment of Memorial Sloan Kettering Cancer Center in New York. With her team, she won the 12th Annual Pershing Square Challenge.

Kyle Campbell '21

Kyle is a 1st year student at CBS. He served for 13 years as a US Air Force veteran. Alongside his military service, he managed his family office, making decisions in equities, bonds, and real estate. He is now an intern at StackLine Partners.

K.Y. Wong '20

K.Y. is a 2nd year MBA student at CBS and a member of the Value Investing Program. Prior to CBS, he worked at buyout PE firm EmergeVest focusing on the industrial sector in Europe and Asia. He interned at APG Asset Management and Robeco in the summer of 2019, covering global emerging market equity and ESG analysis. With his team, he won the 12th Annual Pershing Square Challenge.

Etsy Inc (ETSY US) - Long | 2019 Neuberger Berman ESG Challenge Champion

	Reply time of the xth most recent thread				
Seller Forum	5th	10th	15th	20th	30th
ETSY	32m	5hr	6hr	7hr	10hr
eBay	8hr	26hr	2d	3d	4d
Amazon	10d	22d	25d	32d	47d

Note: Survey conducted at 8pm on 11/10/2019; Amazon's figure is from its official open forum – there is another forum which is private to sellers only. Most recent thread excludes pinned threads.

2) Market under-estimates the future number of buyer growth (driven by the new Etsy Ads service)

- **New Etsy Ads service:** In August 2019, Etsy rolled out a new service for its sellers: Etsy Ads. It allows a seller to allocate a specified marketing budget to Etsy, whose automated system then allocates the budget to Google Ads and Etsy Promoted Listing Ads.
- **Market's view:** The market is skeptical about the adoption of Etsy Ads by sellers, given that some sellers expressed their resistance to the new service on the Etsy forum, citing disruption to their businesses.
- **Our experiment demonstrates high ROI for Etsy Ads, which will drive high adoption rate:** We conducted a proprietary experiment on Etsy Ads: we sponsored an Etsy seller with $30 for a two-week trial. She has 6 years of selling experience on Etsy with ~3,000 sales made and did not use any advertising on Etsy in the past 2 years. Our experiment showed that ROI of the Ads campaign was 101%, with $118 incremental revenue or $60.3 incremental gross profit, using $29.95 Ads expense. Building on this insight, we believe that Etsy Ads will be favorably adopted by sellers once sellers become aware of the high ROI.
- **High adoption of Etsy Ads will result in higher-than-consensus growth in number of buyers:** how Etsy Ads works is that part of the charge (we estimate to be 50%) is allocated to Google Ads to drive buyers to the Etsy platform. This serves as additional advertising spending on top of corporate marketing expense. We performed a cohort analysis to project the number of buyers in the forecast years, considering 1) buyer churn rates provided by Etsy, 2) projected marketing expense (both corporate and through Etsy Ads), and 3) buyer acquisition cost. As a result, our projected growth in number of buyers is higher than consensus (market assumes mid-teens CAGR vs our of forecast of low-twenties CAGR).

Etsy Ads ROI Calculation	$	Formula
Amount spent on Etsy Ads	$29.95	a
Extra revenue generated	118.00	b
Gross margin of Ms. R's business	51%	c
Gross profit	60.30	d=b*c
ROI	**101%**	**d/a-1**

	No. of buyers in M	2018	2019	2020	2021	2022	2023	2024
Cohort analysis	2012 Cohort	5	5	5	5	4	4	4
	2013 Cohort	2	2	2	2	2	2	2
	2014 Cohort	4	3	3	3	3	3	3
	2015 Cohort	4	4	4	3	3	3	3
	2016 Cohort	5	4	4	4	4	3	3
	2017 Cohort	5	5	5	4	4	4	4
	2018 Cohort	14	6	6	5	5	5	5
	2019 Cohort		18	8	7	7	6	6
	2020 Cohort			25	11	10	9	9
	2021 Cohort				30	13	12	11
	2022 Cohort					36	16	15
	2023 Cohort						42	19
	2024 Cohort							48
Customer acquisition	Etsy Ads funded Google Ads ($M)		6	52	94	142	210	278
	Corporate marketing expense ($M)	158	216	279	353	442	544	663
	Total marketing expenses ($M)	158	223	331	446	584	754	940
	Buyer acquisition cost	11	12	13	15	16	18	20
	New cohort	14	18	25	30	36	42	48
No. of buyer growth	Starting no. of buyers	33	39	48	61	75	91	110
	Churn	(8)	(9)	(12)	(16)	(20)	(23)	(28)
	New cohort	14	18	25	30	36	42	48
	Ending no. of buyers	**39**	**48**	**61**	**75**	**91**	**110**	**130**
	% growth	**18%**	**22%**	**26%**	**23%**	**22%**	**20%**	**18%**

Valuation

- Assuming a forward EV/EBITDA multiple of 13x, we derive a 4-year target price of $86 under the base case, which incorporates a higher-than-consensus growth in number of buyers (per the model above), 2% buyer basket size growth p.a., unchanged marketplace take rate, operating leverage, and multiple contraction to 13x EV/EBITDA from the currently 25x. This implies 76% 4-year investment return, or 15% IRR.
- Under a Bear Case scenario, we model slowing growth in number of buyers, inability to improve buyer basket size, significantly higher marketing expense, and multiple contraction to 10x EV/EBITDA, resulting in –21% 4-year investment return, or –6% IRR.

	Bear	Base	Bull
Number of Buyers Avg Growth YoY	13.5%	24.7%	32.1%
GMS per Buyer Growth	0.0%	2.0%	5.0%
Marketplace Take Rate	12.0%	12.0%	12.0%
COGS % of Revenue	29.3%	28.3%	28.3%
Marketing Expense % of Sales	27.6%	24.7%	24.7%
Prod. Development % of Sales	13.2%	12.2%	12.2%
2024E Adjusted EBITDA ($M)	402.0	744.3	935.7
Forward EV/EBITDA	10x	13x	15x
2023E EV	4,020	9,675	14,036
Less: Debt	776	776	776
Plus: Cash	1,758	2,412	2,682
Equity Value	2,992	11,312	15,941
Stock Price	*$38*	*$86*	*$122*
Investment Return	-21%	76%	150%
IRR (4-year)	***-5.8%***	***15.2%***	***25.7%***

Key Risks

- Macro downturn leading to shrinking discretionary spending.
- Increase in online advertising costs (mainly Google).
- Intensified competition from Amazon and eBay.

Heron Foundation

Dana K. Bezerra

Preeti Bhattacharji '14

Nisha Prasad '17

erra engaged with nonprofit and community leaders who were operationalizing Heron's mission. As President, she sources deals, identifies and develops relationships with investors, and syndicates capital. She has been active in several philanthropic organizations. Bezerra holds a BS in Agricultural Business and Public Policy from Cal Poly, San Luis Obispo.

Preeti Bhattacharji is a Vice President of Integrated Capitals. Prior to joining Heron, she served as an Assistant Director of the Heilbrunn Center for Graham & Dodd Investing and a Research Associate for the Council on Foreign Relations. Preeti has completed projects for ImpactAssets, Center4, the NYC Department of Small Business Services, and the Rachel Maddow Show. She received her BA from Columbia University and her MBA from Columbia Business School, where she won the Nathan Gantcher Prize for Social Enterprise. She currently serves on the Investment Advisory Committee of RSF Social Finance.

Nisha Prasad is a Senior Associate of Integrated Capitals team. Prior to joining Heron, she worked in corporate finance at Intel Corporation. Nisha has completed projects for Veris Wealth Partners, Nonprofit Finance Fund, and The Educational Foundation of America. She co-founded Columbia Business School's Impact Investing Initiative and served as Chief Investment Officer for Microlumbia, a student-run impact fund. Nisha holds a BS in Finance from NYU Stern School of Business and an MBA from Columbia Business School, where she won the Nathan Gantcher Prize for Social Enterprise. She currently serves on the Young Professionals Board of Exhale to Inhale.

Graham & Doddsville (G&D): Could you talk about your backgrounds and how you got into impact investing?

Dana Bezerra (DB): I've been at Heron for almost exactly 14 years. Prior to that, I had been at Merrill Lynch for almost a decade. But don't let that fool you — my family immigrated from the Azores and we were dairy farmers out in California. When I was growing up, I lived through the experience of losing major employers and saw the economic and cultural effects that has on a community. My father ended up becoming a local elected official, and living through that trajectory, I learned that communities have to work together. It often feels like economic forces beyond your walls can control your destiny, but there is a role for us all to participate in the economic prosperity of a place. Those were some of the formative experiences in my childhood.

While I was at Merrill Lynch, I learned a ton and I was incredibly grateful for the experience. But there was still so much about the economy and investment that didn't make sense to me. We would help families think about what they could do with their excess wealth and they would start to ask fundamental questions like, "What is wealth for? How do I think about making an impact whether through investment or philanthropy?" And I would find myself reflecting on those questions.

Eventually, one of my clients told me, "If you want to innovate and experiment in this space, you have to get out of a regulated institution." He introduced me to an article called *New Frontiers in Mission-Related Investment*, the first piece Heron had ever written on the topic. It led me to track down Luther Ragin, who was the vice president of Investments at Heron. In January 2006, I made the decision to move from La Jolla, CA, to lower Manhattan, and I've been here ever since.

Preeti Bhattacharji (PB): I entered Columbia Business School thinking I would do microfinance because that was where the people who were interested in finance and impact ended up at the time. But I went through the impact investing curriculum at Columbia and came to the conclusion that I was interested in impact investing more generally.

I then naively assumed that foundations must be doing impact investing because they have missions and they have capital. But I found out the hard way that most foundations weren't actually aligning their capital with their missions back in 2012. So I spent graduate school wandering through the market, looking for somebody who was working on the type of alignment that I craved, and the name that kept pop-

(Continued on page 26)

Heron Foundation

ping up in my coffee chats was "Heron." So I started here as an intern, and have been here ever since.

Nisha Prasad (NP): I also thought I would start in microfinance when I started at Columbia Business School. I did a few internships in impact VC, which was all the rage at the time. Through many coffee chats with Preeti, whom I had met on my first day of school on an alumni panel, I learned that Heron was a truly unique place. We can use every tool in our toolbox, which means using grants *and* investments to do impact work.

G&D: Did impacted investing exist when you began your career in this field?

DB: It really didn't in the mid-90s. You had to chase it on your own if you wanted to learn more about it. Being in California at the time, I saw a couple of prominent business people that were vocal on how they did business — such as Sol and Robert Price from Price Club; Dr. Beyster, the founder of SAIC, a $9 billion ESOP at the time; and Murray Galinson, one of the founders of San Diego National Bank, who were speaking about purpose-driven businesses.

It was a complicated path, but over time, the field started to pay attention to this notion of "venture philanthropy", or philanthropy that was trying to "act more like a business." There were business people talking about how they wanted to change philanthropy, and there was dialogue in the market talking about how businesses themselves should be different.

One of the philanthropists I learned the most from was Dr. Joseph Jacobs, who was the founder of Jacobs Engineering. He and his family introduced the idea of what it meant to be "strategic philanthropists." I had the opportunity to ride sidecar on their ambition and that's what started my interest in impact investing, and a more strategic, impactful, and aligned philanthropy.

"Impact investing was still considered an asset class when I was in school… In the three years since then, we have come across many asset managers that are including impact investing in their investment processes from the beginning"

NP: I also want to give credit to the evolution of the industry. Impact investing was still considered an asset class when I was in school, as opposed to a part of the investment process. In the three years since then, we have come across many asset managers that are including impact investing in their investment processes from the beginning, whether it comes from client demand or self-interest.

G&D: What makes Heron different, and how did it get to invest 100% in socially responsible investments?

DB: Heron is a private foundation by legal structure. But the board of directors became dissatisfied with the business model of private foundations, where only 5% of the funds are obligated to be used toward services that align with the foundation's mission. They believed that the entire 100% should be working in service to society. So they asked, "Shouldn't we be more than a private investment company that uses its excess cash flow for good?"

So we started in grantmaking, as all private foundations do, but we followed quickly with program-related investments. Program-related investments are mission-related investments that include uncompensated risk. For most of the world, that basically means cheap loans, but you can also use program-related investments if you're investing in private equity or venture capital that includes uncompensated, mission-aligned risk (such as a first-time fund or a management team who lacks experience and can't attract capital from conventional investors). As a fundamentals'-based investor, we try to be as specific as possible about understanding and pricing the risks we take on.

We then moved into mission-related investing with the endowment, which was tricky because the only means to fund our budget year over year is with investment earnings. We knew we wanted to align our portfolio with our values and mission, but we weren't sure in the beginning what that meant. As a result, we had some interesting experiences early on.

(Continued on page 27)

Heron Foundation

For example, we had grants to vertically integrated nonprofit housing developers that worked with low-income families for everything from credit repair and mortgage counseling to acquiring land and building homes. We provided program-related investments in the form of acquisition and pre-development capital and then, as the families moved into mortgages, we would buy the mortgage-backed pools as securities in our fixed income portfolio.

We were on site visits with a number of those housing developers back in mid-2000s and they said a couple of things that were interesting. They mentioned that families who needed credit repair were dropping out of credit counseling because they were coming in with pre-approved mortgages. Somebody was giving them mortgages even though they were not credit-worthy.
As philanthropists, we were concerned because saddling families who aren't really mortgage-ready with mortgages could force them into financial distress. And as philanthropists who use all of our tools, we brought that information to one of our fixed income managers, Barbara VanScoy.
With VanScoy, we realized that the one thing these mortgages had in common was that they were never 30-year fixed mortgages — they were always something else (shorter durations, variable rates, etc.). So VanScoy and Heron made the joint decision to put a mandate on our fixed income accounts that said we would only buy mortgage-backed security pools that were indexed as affordable to the borrower at the time of origination across a full 30-year amortization.

"…as we headed into the housing crisis, …we did not own any exploding adjustable-rate mortgages. We had made a mission-driven decision to limit our purchases to 30-year fixed mortgages because that's what worked for low-income people. And that mission decision really delivered alpha."

As you might imagine, as we headed into the housing crisis, that decision served Heron well — we did not own any exploding adjustable-rate mortgages. We had made a mission-driven decision to limit our purchases to 30-year fixed mortgages because that's what worked for low-income people. And that mission decision really delivered alpha.

And so, over the years, we constantly looked for opportunities to express our mission in our portfolios. Over time, that included things like SBA 7A, SBA 504, and USDA Rural Development loans. (Those are markers for borrowers who would not have been able to obtain bank financing.) As an organization who works on placemaking and helping people and communities to help themselves, those pieces of paper are well aligned with our mission.

It's a constant exploration around how we can put more assets and resources (including not only our financial assets, but also our social and relationship capital) toward our mission. We have continually optimized over time so that more and more of our assets are in play for mission, but we're still not satisfied because it's clear there is more potential in front of us.

G&D: Can you talk about your investment process, specifically, the Net Contribution framework?

DB: We own the intellectual property for a publicly traded index, the U.S. Community Investing Index™ (USCII). That investable universe starts with the S&P 500. With our data provider, we run through fundamental analysis and further screen the universe using the "Net Contribution" framework.

Before we had the Net Contribution framework, we had a couple of less-than-fabulous outcomes. For example, coming through the recession, we were thinking that jobs were the key to helping people and communities to help themselves. Therefore, we decided to invest in companies that employed lots of people (not as an inefficiency matter, but as a function of their business model). At the time, we noticed that we were invested in a company, through a vehicle, that had a high headcount-per-dollar-of-revenue. At the outset, this seemed exciting. However, when we looked under-

(Continued on page 28)

Heron Foundation

neath the hood, we learned that the company was actually a private prison. By picking jobs as a single metric, we ended up with data that said that private prisons were what we should own.

As a poverty-fighting organization, owning private prisons was really not an acceptable answer. But we are a rules-based investor, and it felt disingenuous to swoop in with a values lens and say, "No, never mind." So, we took a deeper look to ask, "What just happened? How did private prisons come to the top? How can we do better in analyzing the data to get a result that's more suitable given our mission?" That's when we realized that we had successfully isolated on a series of data points around job creation, but accidentally obfuscated the fact that enterprises are actually complex with a variety of inputs and outputs that affect a wide range of stakeholders. (And by the way, we refer to businesses as enterprises because, at Heron, we invest in for-profits and nonprofits).
So we decided that we had to acknowledge that enterprises of all types consume things (like labor, clean water, land, or taxes from subsidies) and also emit things (like pollution, wages, and ideally, taxes). Now, we try to take into consideration everything that enterprises consume and emit and determine, on net, whether they are a net contributor or a net detractor from the communities in which they source, operate, and sell. After we do all of that math, we determine whether we want to own it. That's really where the Net Contribution framework came from.

Tactically, we then had to find a way to organize the information in a way that was not unwieldy. So we ended up identifying a few broad types of capital — human, natural, civic and financial — and clustering our analysis into those four pillars. Those are the things that are consumed and emitted. Under each of the four pillars are indicators. For example, under human capital, we care about benefits programs, treatment of employees, and continuity of shift work. Depending on the industry, we care about things like accident performance records. Unsurprisingly, in natural capital, we look at things like carbon emissions and carbon footprint. And at Heron, because of our mission, we tend to tilt our analysis towards human and civic capital.

"…we try to take into consideration everything that enterprises consume and emit and determine, on net, whether they are a net contributor or a net detractor from the communities in which they source, operate, and sell."

Based on what we're experiencing in communities or in the world in any given year, we will focus and go deep on one of the four pillars. Last year, for example, we looked at the effect of the opioid crisis on civic capital. The opioid crisis is ravaging people in communities, and local governments are struggling to pay for all of the effects of the epidemic. We know that's very real from a community point of view. And while elected officials divert their budgets to fight the crisis, they're routing that funding away from other fundamental services that would be needed to make their community work well.

Meanwhile, a well-respected and publicly traded pharmaceutical company was recently fined for its role in the opioid crisis. If you look at the contribution scoring for that company, the opioid business line of that company is less than 7% of its business model. Meanwhile, other parts of that company's business fund important work in the area of vaccines. As a mission-driven investor, how do we think about that balance?

In the same exploration this past year, we looked at tax subsidies and disclosures around that. Communities often offer subsidies to warehouse-companies because new warehouses can lead to the creation of new jobs. But warehouses also tear up local infrastructure because their trucks use local roads heavily. Employees are not always well compensated, and so some of them also utilize public benefits in that place. And many of those employees have children in the school system, which creates further costs for the community. Subsidy is not inherently bad, and companies are not wrong for seeking subsidies. But we ask whether the effect is mutual for the com-

(Continued on page 29)

Heron Foundation

munity and the company. So those are the types of things that we end up looking at in any given year.

Coming through the Net Contribution framework, companies get scored -5 to 5, and they have to be at a certain threshold to be considered investable. Then we ask questions around how the investment affects our mission. We also run controversy screens based on our knowledge from communities about how these companies are performing. Heron has override abilities and can take companies out if a controversy is severe.
We have actually been approached by a number of institutional investors who like the Net Contribution framework but have different missions. So we are asking ourselves if we are willing to hand over the data and let those investors tilt towards natural capital, for example, if that's their mission. We haven't done it yet, but that's the type of thing we're experimenting with.

G&D: Are the four pillars in Net Contribution always quantifiable? Can you always get consistent, quantifiable indicators across companies?

DB: When it comes to the GIPS-compliant public equity index we own, the USCII™, the methodology has evolved over the years because every time we learn something new or get new data, we incorporate it. (When we first started the index, for example, we wanted to own companies that shared their ownership broadly with their employees., but discovered that data was hard to get because standard disclosure at the time was mostly about C-level executives.)
Part of the trouble with operating this index over time is how dissatisfying current data and disclosure is. We learned that self-reported disclosure isn't really data — it usually constitutes promises and pledges that are not quantifiable and measurable over time. We are most interested in things like the square footage of brownfield a company is associated with per dollar of revenue, because that tells us how they choose to operate as a company. It's different than a full-page color advertisement pledging to be a good actor.

"We learned that self-reported disclosure isn't really data — it usually constitutes promises and pledges that are not quantifiable ... We are most interested in things like the square footage of brownfield a company is associated with per dollar of revenue…"

In terms of consistency, as fundamental investors, we're taught that if we're going to utilize data, it needs to be peer-relative and comparable across the entire industry. We always strive for that. But you have to remember that we're also philanthropists who are working in communities. I grew up in the shadow of a large utility company that became popularized by Erin Brockovich. If we, as philanthropists working in that community, know that a company is dumping things unsafely, can we genuinely say we shouldn't use that knowledge when we think about whether to invest in the company? When you have very long-time horizons, as foundations do, many additional things become material to your performance over time. We struggle all the time to decide whether to adhere to the standard that things have to be peer-relative and peer-comparable, or whether to incorporate more ad hoc data.

There are often two answers for Heron. One is, if it's our own capital, we have a lot more leeway to think about utilizing bespoke pieces of information. In the case of the USCII™, we have more of an obligation to adhere to more broadly accepted rules, because other people are invested alongside us.

G&D: How do you get around the unreliable self-reported data?

DB: Our team goes very deep in communities, which gives us conduits to ask additional questions. I will give you a recent example: We recently came across a publicly traded company that claims that it receives zero government subsidies. But we know through our community partners that at least one local government has provided that company with a subsidy.

This is where things get tricky: The disclosures we're seeing from the local government are a few years old. It could be true, in this case, for the com-

(Continued on page 30)

Heron Foundation

pany to say that they did not receive any subsidy *this year* from the government. But if they are making a more general claim, then that's a problem. In which case, how do you score that as part of an investment methodology? Do you give the company a null because you don't believe their self-reported disclosure, or do you give them a haircut?

These are the kinds of things we have to constantly evaluate, which is different from what often gets discussed at most other foundations.

G&D: What's the breakdown among fixed income, public equity, private equity, and grants in Heron's portfolio?

DB: We break down roughly 70/30 equity/debt (with about 68% in public equity and 25% in public debt). We have small slugs in private equity and program-related investments. Of course, we carry a little bit of cash to fund our operations.

We have not owned things like hedge funds in many years. That was never a value-driven decision, it was a transparency decision. There was belief amongst our board that we should know what we own from our earliest days. We felt like we could not invest in vehicles where we could not see the underlying holdings. And because we're an institutional investor, we don't often invest in commingled vehicles because in a mutual fund, for example, the positions are constantly changing. Most of our investments are in separately managed accounts so that we can see and have clarity on what our underlying positions are.

G&D: How long is your holding period generally?

DB: Since we're a mission-driven investor, if we're buying, for example, a bond because it's on mission and it's in a community, we will hold it to maturity. We are typically a buy-and-hold investor. The exception is often in our public equity portfolio and driven by these human, natural, civic, and financial impact scores.

G&D: How does the rate of return come into play in the decision-making process?

DB: We're very mindful of it. Even though we're not here to make money with money, it is our only source of revenue. We're just not seeking to maximize returns at all costs.

We don't think of ourselves as index-constrained or modern-portfolio-theory constrained. Instead, we look at opportunities through the lens of, "What are we learning that communities need, and then what are the investible opportunities we can find?"

When it comes to fixed income and public equity, we track indices because people expect us to, and I'm happy to say we have outperformed often. But by the same token, it would be foolish for us to have positions that match the index. For example, looking at fixed income, we are a tax-exempt organization, so we have no business owning treasuries that make up a big portion of the Barclay's Aggregate index. Therefore, we often have a large R^2 with the index.

I should add that, having been here for a very long time, the terms "market rate" and "below market rate" return almost become amorphous. During the downturn in the economy, our "below-market rate debt" portfolio was our best performing portfolio for three quarters in a row.

PB: One of the things that attracted me to Heron was that Heron emphasizes the importance of providing the right type of capital to an enterprise based on the enterprise's needs. We try to be clear about what our rate of return is, what trade-offs are driving it, for whom value is being created, whose value is being extracted, and what's appropriate for the enterprise at any point in its growth. The impact investing community has learned the hard way that we should not be cramming market-rate capital into enterprises that can't really produce market-rate returns, or pumping overly discounted capital into companies because we can't be bothered to price their risk. That ends up badly for everybody involved, and that's something I wish the sector as a whole talked about more.

G&D: How do you balance lending to borrowers with credit risk and fulfilling the mission of the foundation?

DB: The SBA loans I mentioned are market-rate loans, which are marketable and securitized into pools. Take SBA 7A for example — in those cases, the borrower was almost able to access a traditional loan, but couldn't quite jump the hurdle, so the Small Business Administration (SBA) stepped in and provided a government guarantee on the

(Continued on page 31)

Heron Foundation

loan. It's a good marker for us of a market-rate, impact investment.

And those loans finance real, visible, recognizable companies in a community. For example, there were years when we were active in Buffalo where we owned the loan for Dog Days of Buffalo, which was a doggy daycare place. Everybody in Buffalo who has a dog knows the place. Yet it's a standard loan. It's made by a bank and guaranteed by the SBA, and because of that, we can get great data about the borrower. Because they are in the guarantee program, we know they are part of a population that we want to support. The risk is frankly de minimis. In fact, we are assuming less risk than we would from normal business pools. So, we are able to get a twofer.

G&D: Could you tell us more about the U.S. Community Investing Index™ (USCII)?

DB: Heron started down the path of the USCII 16 years ago because we couldn't find existing products in the market that spoke to our mission. We are a social investor and most of the products in the market at the time were around environment. Environmental impacts didn't always translate into social effects. Since we couldn't find it, we started to build it. Over time, that became the intellectual property for the USCII.

People who don't like what we do will often say there is no impact in owning the USCII. Public companies don't care whether the little Heron Foundation owns them or not. We don't pretend that they do care. But we have an obligation to be the most responsible and aligned investor we can be. The public equity index is our way of saying, based on what's knowable, we choose to own *these* companies. It's not saying we have some affirmative effect because we own them.

"The impact investing community has learned the hard way that we should not be cramming market-rate capital into enterprises that can't really produce market-rate returns, or pumping overly discounted capital into companies because we can't be bothered to price their risk."

PB: One of the things that excites me about the USCII is it ingests data sets from for-profits and nonprofits alike. We scrape together data from anywhere we can find it, and data isn't just the purview of Bloomberg terminals. There is so much latent wisdom in the communities in which we operate, and in the nonprofits that serve them. And we try to surface that and incorporate it.

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

PB: We just made a $1 million program-related investment in a nonprofit called Self-Help Enterprises (SHE). SHE has been in the housing sector in the San Joaquin Valley for the last five-plus decades and has not defaulted on an interest payment or a principal payment in 54 years. They develop and manage affordable rental properties for underserved populations, including immigrants and farmworkers, and they provide technical assistance and leadership development in rural communities with clean water, sanitary sewer, and other infrastructure challenges.

Incidentally, right around the time we made the $1 million direct investment in SHE, we also purchased $1 million of a bond offering that also helped to finance SHE's work. So, we're investing in that one nonprofit using several different financial tools right now.

DB: Because we do the level of looking that we do, we know the impact is real. This is "self-help" housing, meaning the families in their homes do not have the cash to make a down payment, so they "self-help." They have to build their own house with the construction supervisors, put in sweat equity equal to the down payment. That, I would argue, is more readily apparent impact than you are ever going to get from calling a fixed income manager saying, "I want some of that impact stuff."

G&D: For these and other pooled securities, do you always look through to the underlying assets?

DB: Yes. Since we work in communities, we prefer to buy fixed income securities from those communities. Most people would say that's concentra-

(Continued on page 32)

Heron Foundation

tion risk, but we believe those markets are what we are knowledgeable in.

To give you an example: We found a revenue bond from a community that we have done some work in, and we wanted to understand where the revenue was from. It turned out the revenue was from fees and fines, and we were concerned because we know it's a low-income community and fees and fines are often regressive against low income people. Digging further, however, we found that it's from red light camera revenue, which theoretically can't discriminate based on age, race, creed, color. That sounded okay, but then we asked, "Are they only putting red light cameras in low income communities?" That, again, would be a problem. That's the level of look-through we do.

Another example: A fixed income manager brought us a pool of Property Assessed Clean Energy (PACE) residential loans. It's got a pretty good name, and we know from a number of our environmental grant-funding colleagues that millions of dollars have gone into making this PACE program work. These loans would go to people (often low-income people) to do energy assessments and energy upgrades. It's good for the environment because it tends to lower the carbon footprint of the house. It also makes the house more energy-efficient, which over time should lower cooling and heating bills. These are all great things. And in this case, we actually knew the originator, so we called to do some checking.

What we learned is that commercial and the residential loans operate differently. Residential loans are sold by contractors who want the business. The program seems very cheap upfront, but it's repaid through property taxes. The problem, however, is that the loan becomes the senior-most lien on the person's house — and the loans are not income-underwritten. So they were cascading some low-income homeowners into foreclosure. As you can imagine, the mortgage-holders were not at all happy that this government sponsored program was subordinating them without notice.

> ***"If your lens is environmental-only, this is definitely an impact product. But at Heron, we're looking at the net effect of an investment, and this one was problematic from a civic, human, and financial capital perspective. On net, we ended up ordering the divestment of those loans…"***

If your lens is environmental-only, this is definitely an impact product. But at Heron, we're looking at the net effect of an investment, and this one was problematic from a civic, human, and financial capital perspective. On net, we ended up ordering the divestment of those loans even though at the outset, PACE looked like a great impact investment. It made us rather unpopular with some of our grant-funding colleagues who had funded the program into existence.

G&D: What are some other notable investments you have made?

DB: We don't do a lot of direct private equity anymore because, as a small shop, we don't have the underwriting capacity on staff or the risk appetite. But there was a period when we did, and we invested in a company that was an aseptic food processing company. Our diligence affirmed that the technology was real, and if the technology succeeded, it would be a big deal in the food processing space. We invested in the company because they moved into a former furniture warehouse in Troy, North Carolina (a community deeply disinvested by the departure of the furniture industry when it moved overseas). The aseptic food company was revitalizing one of the furniture facilities and bringing about 700 jobs to Troy.

Financially, at the time, it was a home run. However, management then made the appropriate decision that they were too CAPEX-intensive to be the manufacturer, so they were going to license the technology to the food processors themselves. That was the right decision by management, but it meant that all the jobs disappeared from Troy. That was an example where we ended up seeking a liquidity event. We ended up contributing our investment into an incentive

(Continued on page 33)

Heron Foundation

pool for the employees that they started. This is an example of where mission and financial return can often run into juxtapositions.

PB: An interesting position we hold right now is a public equity manager, Ownership Capital. People often assume that everything in our portfolio is high-performing from a social perspective, but that's not true because some managers in our portfolio have a barbell strategy, and Ownership Capital is one of them. What that means is Ownership Capital takes positions in companies that are great social performers, but they also invest in companies that are poorer performers and work actively to improve their behavior. Annually since inception, we've seen 18% returns from that particular manager, which is exciting against a benchmark of roughly 8%.

G&D: What are the biggest challenges facing the impact investing space?

DB: I think one of the biggest challenges is that the space wants to be acknowledged as different more than it wants to be acknowledged as similar. At Heron we're constantly saying, "Let's start with sameness." If traditional investors understood how similar we actually are, there would be more capacity to understand what we layer on in addition. If you look at Larry Fink's most recent letter, what he's saying is that there are more things that are material than we last knew and existing risk models are failing to take them into account. This is all we're saying too, but I think philanthropy tends to come at it by saying, "We want you to take a pledge to doing good first and then we'll talk about investing" and that just puts people on their heels. The other challenge is impact-washing. My concern is that people will appeal to specific interests and we're going to get monolithically focused impact funds without speaking to the unintended bad consequences that they create. I think that's dishonest as an investor.

"…one of the biggest challenges is that the space wants to be acknowledged as different more than it wants to be acknowledged as similar. At Heron we're constantly saying, 'Let's start with sameness."

NP: Some of the peer groups have been obsessed with the idea of impact measurement. There's this idea of, "We need to have the perfect framework with exact metrics before we can start doing investing," and that's letting the perfect be the enemy of the good. Just get started. Go through ups and downs the way Heron and many others did and just start. Because all investments have impact.

G&D: Speaking of Larry Fink's letter and Marc Benioff's comment on stakeholder value, do you see a sea change in impact investing becoming mainstream or is it just for PR?

DB: There is a sea change coming. I think that these new "ESG portfolios" that the large shops are creating will eventually become their default portfolios because we'll all come to realize that ESG factors (like climate change) really are financially material.

PB: We're on the brink of the biggest intergenerational wealth transfer in human history. Capital is about to change hands demographically and culturally. I think institutions who fail to acknowledge that are going to miss out on a massive market opportunity.

G&D: Which stakeholder, the investors, the managers, the board, the employees, or the consumers voting with their wallets, do you think is responsible for driving change in this industry?

DP: Everybody. Heron speaks vocally to asset owners to remind them that they are the client, and it's important to take back their power and ability to drive change. One of the challenges before all of us is, "How do you take retail demand and aggregate that in a way that people feel they have power?" Everybody talks about the behemoth pension funds who can create change, but pension funds only have money because of their pensioners. So, we often raise the issue of fiduciary duty and try to remind people that your fiduciary duty is to your pensioners, your 401k holders, your foundation and its mission. If you're not representing your pensioners or your 401k holders, you're failing on your fiduciary duty. Whereas fiduciary duty has been allowed to mean "maximize profit," we think we

(Continued on page 34)

Heron Foundation

need a restoration to the basics, which will help with this "Whose voice matters?" and "Who drives change?" discussion.

"Capital is about to change hands demographically and culturally. I think institutions who fail to acknowledge that are going to miss out on a massive market opportunity."

G&D: Do you have any advice for students trying to learn more about ESG?

PB: There's quite a bit of material available online on the methodology of the USCII. Tear through that and stress test it. If you find datasets you think we should be looking at or logical disparities, email us. Also cut through the rhetoric by looking at filings (990s, 10Ks, and 13Fs). Look at what people are actually invested in and figure out where there's alignment and where there's not.

NP: Be open to all opportunities you can think of. Walking into Columbia, I was very siloed in my thinking of what impact investing was, but there is impact in everything that we do. As this industry grows, there will be many more opportunities to be involved. Be open-minded about what those opportunities are.

G&D: Thank you.

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

Alumni

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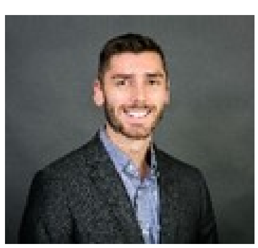
***Graham & Doddsville* Editors 2019-2020**

Frederic Dreyfuss '20

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

Sophie Song, CFA '20

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



John Szramiak '20

John is a second-year MBA and is a Columbia Fellow.
He is currently interning in the Digital Investments team at Sony Music. He spent the summer working at a leading e-commerce company in India, where he built a new credit scoring engine for the company's lending platform. Prior to Columbia, he worked in the Private Credit group at First Eagle Investment Management. John graduated from Boston University with a concentration in Finance and a minor in Economics.
He can be reached at JSzramiak20@gsb.columbia.edu.

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

Visit us on the Web:
The Heilbrunn Center for Graham & Dodd Investing
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http://www.csima.info

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