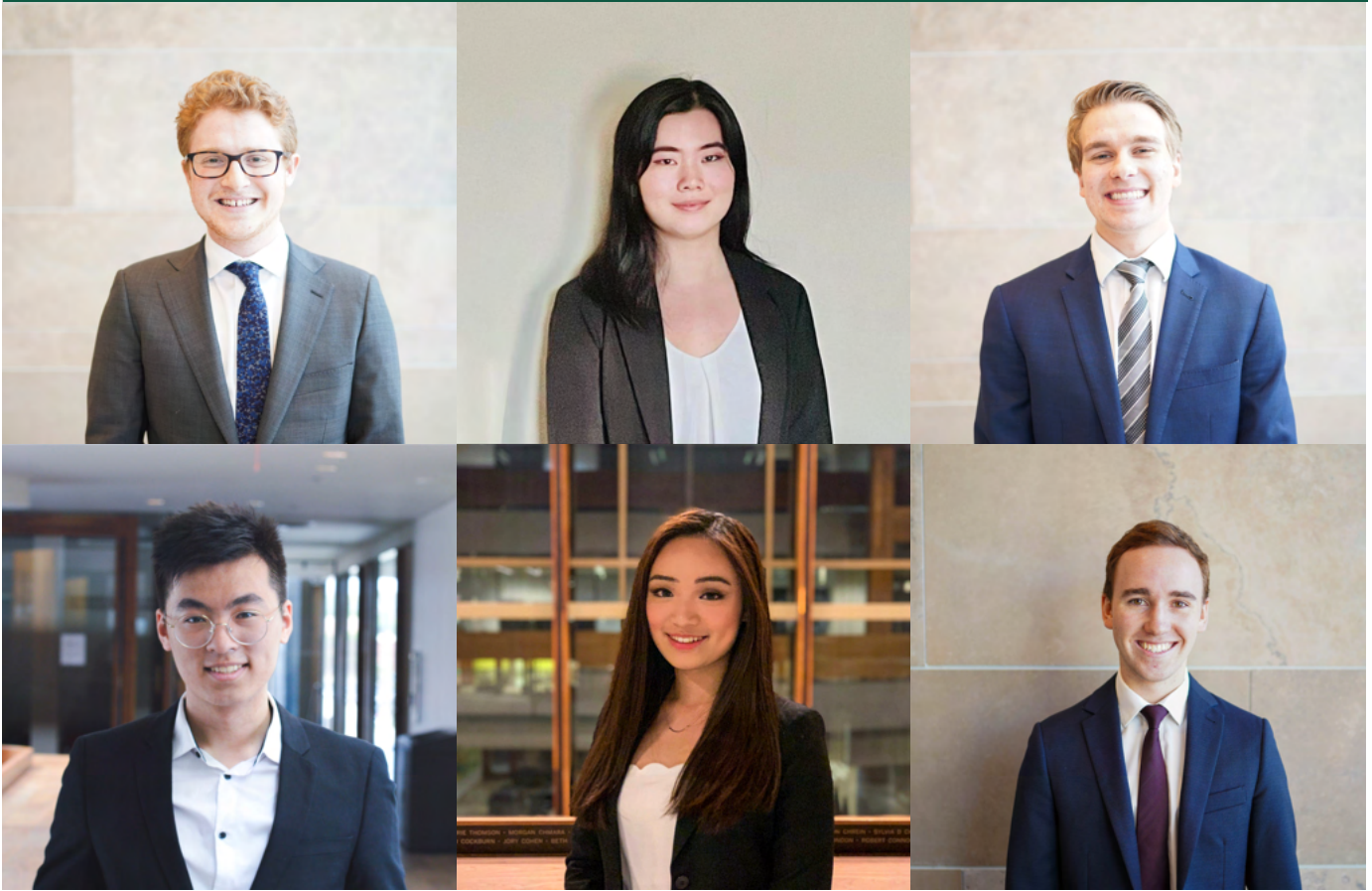


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Ivey Business Review is an undergraduate business strategy publication conceived, designed, and managed exclusively by students at the Ivey Business School. Its mission is to provide a forum for tomorrow's business leaders to develop, voice, and discuss their thoughts on today's business strategies, threats, and opportunities. Articles are written by undergraduate students in the Ivey HBA program, and have been created specifically for the publication after several months of intense collaboration between student writers and members of the Editorial Board.

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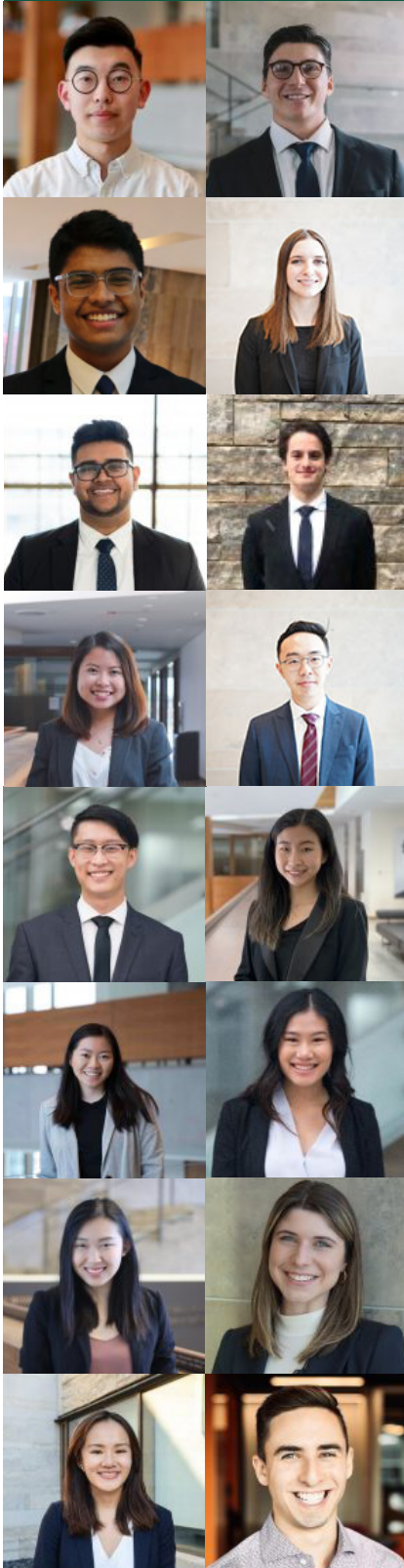
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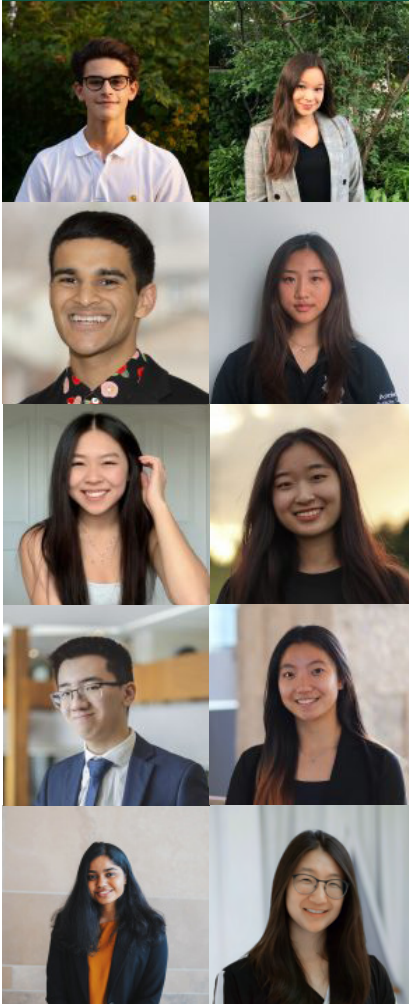
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Note from the Editorial Board:

“Leading Change”

50 years ago, economist Milton Friedman transformed the business world when he declared that the social responsibility of a business was to increase its profits. In contrast, today’s consumers and business leaders increasingly advocate for stakeholder capitalism, where the purpose of a corporation extends to serve employees, suppliers, consumers and the environment. While some oppose this radical mindset shift, it is evident to us at the Ivey Business Review that capitalism must serve all stakeholders, not simply shareholders.



This past year has not been easy, with an avalanche of challenges confronting both business and society. From the global COVID-19 pandemic triggering the worst economic shrinkage since the Great Depression to heightened awareness of racial injustice across the Western world, it is now more than ever before that we need companies to step up and shape the future. Ultimately, leading change is no simple task, but accompanying each challenge are opportunities for growth, learning and the creation of a better world for all. As we envision a future that accounts for these challenges and opportunities, our team came together to propose 13 new strategies for businesses and industries to navigate the rough waters ahead. The result of this endeavour is the Fall 2020 edition of the Ivey Business Review.

After several years of strategic issues and failed acquisitions, we recommend that General Electric look toward the future and invest in long-term energy storage. We demonstrate how Facebook, facing persistent issues in scaling the user base of its VR platform Oculus, should focus on the rapidly evolving post-secondary market. We examine new strategies for minority creditors to survive in increasingly turbulent debt markets, and our feature on Modern Health recommends that the mental health SaaS business align its focus toward university students.

Our articles on TJ Maxx, Lyft, Live Nation, and The Simon Property Group propose strategies for companies whose businesses have been fundamentally undermined by COVID-19, while our recommendations for Louis Vuitton, Sunrun, and Albemarle propose new ways for businesses to prioritize and drive sustainability. Lastly, our articles on Equity Crowdfunding and Epic Games propose paradigm shifts for how companies can lead change in their respective industries.

As we live through a transformative time of rapid economic, social, and technological change, we present this issue of the Ivey Business Review with the hope that the publication will demonstrate new ways for businesses to be actors for positive reinvention, while encouraging you to think of new ways to lead change across the business sphere. By illustrating examples of how business can lead change, we hope to be a part of the shift to a more inclusive version of capitalism.

Sincerely,

Adam Miller, Carol Zhai & Nick Tommasini

Editor-in-Chief, Publisher & Managing Editor

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Organizations that embrace thought leadership position themselves well for the future. Thought leadership runs to the very core of *Ivey Business Review's* mission. We thank our sponsors for their continued support as we execute this critical mission.

Gold



Silver





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EQUITY CROWDFUNDING: THE FUTURE OF IMPACT INVESTING

Interview: Ray Muzyka

Co-Founder of Bioware and founder of Threshold Impact



INTERVIEW

Ray Muzyka is the founder and former CEO of BioWare, and an impact investor.

IBR: You and your co-founder Dr. Greg Zeschuk originally worked as emergency room physicians in Alberta. What motivated you to start BioWare while still practicing medicine?

Before BioWare, Greg and I had actually dabbled in entrepreneurship with medical education software. We made a gastroenterology patient simulator, which ended up being distributed by Janssen-Ortho to all the family doctors across Canada. Even before that, we had also developed an acid-base physiology simulator, which we sold to the University of Alberta—it was used by the first-year med students for a decade. One day at lunch, Greg and I realized that while the potential customers we were speaking to seemed to want medical software, no one seemed to have enough money to pay for it. We liked software, we liked business, but medical education software seemed like a challenging market. So instead, we decided—literally decided over the course of a lunch meeting—to make the leap to take all of our personal savings, max out our lines of credit with our banks to get some startup capital, and hire some folks to start making video games. We both had played a lot of video games; they were our passion growing up. Even after founding BioWare, I continued in rural locum tenens ER and family medicine for the better part of a decade—partly because I liked medicine, and partly because we didn't take a salary for the first five years at BioWare so I needed the money to pay my mortgage payment for my condo and the minimum payments on my credit cards and lines of credit!

We initially had no business training, but there were some intangible things we learned as MDs that ultimately helped us as entrepreneurs as well. As a doctor, you really learn to understand and value the importance of diverse, multidisciplinary teams. You also have to make sure your communication is clear and respectful to your team members and patients. When working with others, you learn to always trust everyone on your team, but also know that you need to be willing to dive deep and understand the details to ensure that the patient is taken care of.

Something else that always stayed with me is the importance of continuous lifelong learning. This is especially true when you're focusing on evolving technologies and dynamic market changes. We're in one of the most transformational periods of human existence right now, so the things you might learn in school are not necessarily always going to be relevant, but the frameworks for learning always will be. You just have to be willing to continually learn.

IBR: How did you manage your time and conflicting goals between your original dream job and your new passion? How did you know that video games would be your next 'career chapter'?

It never occurred to me that it wouldn't become my next career chapter. It's true that both of us had medicine to fall back on if entrepreneurship didn't work out, but it wasn't something that I ever thought about. I was likely quite naïve, in that it never really occurred to me that the company could fail! We just did everything to make sure that it didn't. I was doing the medical locum tenens ER/GP work as a hobby because I loved it, but I just loved BioWare and growing the business and working with my team there more. In a poker analogy, I basically just went all in. When we made *Shattered Steel*, we maxed out our lines of credit and took all our assets and put it all into BioWare. We didn't have any external investors (until 15 years later when we had a private equity investor) or family money to invest in the business so it was on us to make sure it succeeded. I suspect that part of the reason I kept working so hard was so I wouldn't go personally bankrupt!

At the time, publishers were the only way you could get video games distributed, via retail stores. This was prior to the modern era of digital distribution, so you needed a publisher to help you get your products to market. We made a list of what we felt were the top ten publishers in the world at the time and we divided it in half, five each for Greg and me. We then started cold-calling these publishers, but initially, none of them would take our calls. The one we ended up signing with, Interplay, was on my list. I called them at least ten times over the course of a couple of weeks, and finally, the VP Biz Dev I was speaking with there told me to stop calling them. When I asked if they would look at our demo, they finally agreed—if we would stop calling! They then looked at the demo and called us back the next day and suggested we fly down to California that week, and we were off to the races with our first publisher for our first product, *Shattered Steel*. Through sheer perseverance, we ultimately got nine out of ten of the publishers to place a bid for the product and learned early lessons on the importance of price tension and negotiations.

Persuading experienced people to come work with us in the early days was difficult. By the time of *Baldur's Gate*, which was our second game, we had about 60 employees in total. But not a single person on the team had ever made a video game before because we didn't have the money to hire experienced developers and nobody knew who BioWare was. Why would they come work for us when we're a bunch of doctors up in Edmonton making video games? That sounds crazy. And it was crazy. At the end

of the day, our approach to BioWare was about believing in it deeply and going all in. We were lucky to be able to hire amazing people on our first two teams—smart, passionate, hardworking, and excellent team members, but it wasn't until after the success of our first big hit, Baldur's Gate, that we had a brand to attract experienced video game developers to BioWare.

IBR: Although the rewards can be very high, entrepreneurship is also a challenging journey at times. When you were running BioWare, what kind of challenges did you face, and how did you handle them?

The landscape of video games wasn't as big a challenge for us because we were active consumers of video games ourselves and soon came to know all the developers and publishers. We knew their names, and we were very active in conferences and networking. I soon came to love networking. I was slightly introverted when we started, but I developed more of an extroverted streak. And since then, it's just grown because I love networking and meeting new people. Over the past decade I've come to realize that the angel investing and venture capital landscape is a small, tight community, too, but the people in it, like in videogames, are generally very friendly and welcoming.

One early challenge at BioWare was cash flow. In the early years, cash flow was tight, and we had multiple publishing partners because we had several projects. I'd sometimes need to try to convince our publishing partners to send in payments owed to us a bit earlier than was scheduled. There were a few times where unexpected events occurred and I knew that we could go out of business if we don't get enough cash to make payroll the following month. Thankfully, I was always successful in persuading them to send it a little bit earlier those times!

Taking my executive MBA at Ivey was quite instrumental for me. The time when I was taking my MBA, from 1999 to 2001, was one of our fastest periods of growth—we were the fastest-growing company in Alberta one of those years, and second fastest a couple of other years before and after. With rapid growth, structures and systems become strained and can break; being able to explore different frameworks and problem-solving perspectives from Ivey to these challenges was exceptionally helpful.

IBR: What advice do you have for students who are considering pursuing entrepreneurship?

You never know if you'll like being an entrepreneur until you try it! That's the challenge. If you're young and curious about entrepreneurship, I'd ask, what have you got to lose in trying it? Recently, there was a paper by Ajay Agrawal, the founder of the Creative Destruction Lab, Joshua Gans,

Chief Economist for the CDL program, and Avi Goldfarb, the CDL's Chief Data Scientist, about the benefits of mentorship for an entrepreneur. They quantified it in terms of reducing the costs of testing hypotheses, which resonates with me: if you can surround yourself with the right folks who have that critical experience, as an entrepreneur you can de-risk a lot of elements that are otherwise very challenging and risky.

One thing I will note though, similar to our experience at BioWare, is that while helpful, I don't think you necessarily need prior work experience. As an investor, I personally have a bias towards smart, passionate entrepreneurs who have a creative "spark". I invest in a lot of science and technology businesses with first-time entrepreneurs. First-time entrepreneurs can do really well if they're humble and open to feedback, hardworking and thoughtful in their approach, hire the right team and treat the folks they work with well, and bring on the right advisors to help them navigate successfully. For my part, I'm a general medical practitioner, but I co-founded

"You never know if you'll like being an entrepreneur until you try it! That's the challenge. If you're young and curious about entrepreneurship, I'd ask, what have you got to lose in trying it?"

a business that eventually sold for close to C\$1 billion. There was a lot of perseverance and hard work over a long time, we were always seeking feedback to help us to improve, and I was incredibly lucky to be able to work with a great team throughout my journey at BioWare and EA.

In retrospect, I can say early signs were probably pointing to me to eventually become an entrepreneur. I chose one of the more stressful medical fields—I practiced rural locum tenens general practice and emergency room medicine, operating in a remote hospital environment, typically as the only doctor on call and sometimes the only doctor in a hundred-mile radius! You could have multiple car crashes, heart attacks, sick kids all arriving near-simultaneously, some in critical condition, and you had to quickly triage and try to figure out what's going on with them and coordinate a diverse team of nurses, technologists and support personnel. I think you have to have a certain entrepreneurial streak as a doctor to want to do that sort of medical practice.

I like playing poker as well, which is to me a very entrepreneurial type of game. It's got a lot of parallels with business and being an angel investor – it's about taking carefully calculated risks and placing the right bets. I try to de-risk my investing

by being an active advisor with the teams I invest in, doing a lot of thoughtful diligence, and getting opinions from other folks I respect. Entrepreneurial activities can be high stress and high risk. That's an important thing to consider if you're considering becoming an entrepreneur or joining an entrepreneurial team: do you like that level of stress? Is that energizing to you? If it is, then you might want to check out startup entrepreneurship. If it isn't, that's okay. Maybe instead of starting a new team, you'll want to work for an established startup to try it out and learn more about entrepreneurship, or take a more stable, lower-risk role with a team that's more established, already further on their journey.

IBR: You managed the product development, financial, human resources, operations, marketing and legal business side of BioWare. How did you build your business expertise while starting your own company?

For the first two games, Baldur's Gate and Shattered Steel my cofounder Greg and I were hands-on, acting as producers, the games' directors. We built the games with our teams, played them every night to find bugs and provide feedback and ran the business throughout the day. Even though I didn't have any financial background per se, I learned how to love Excel and make financial models. I was always obsessed with scenario modelling, although I didn't know it was called that at the time. Cash flow was one of our most important concerns; we were constantly thinking, 'Well, if that happens then we're out of money, how do we fill that hole as we grow?' We played a very hands-on role there, while also acting as the public-facing voices of the company in PR interviews and managing the team and recruiting new talent as we grew.

It was important for us to find mentors, but at that time, there weren't many technology companies in Alberta, so our choice of local mentors was limited. We modelled our systems and structures on large enterprises like Microsoft or Oracle and other video game developers across the world, and from what we learned in our MBAs, trying to translate from what they were doing to a smaller software business. We leaned too on our professional advisors—our accountants and lawyers. Early on, I learned to run every legal agreement past my lawyers, advice I follow to this day, as I've found that the upfront time and cost can prevent much larger downstream challenges and costs. Even though I've read thousands of contracts now in my life, I still get everything I sign reviewed by a lawyer, and I find that I can always learn something new in this process.

Early on, we established core values at BioWare that we used to run our business and help us make better decisions aligned with our team, our customers and our

shareholders (we didn't have any external investors for the first fifteen years of BioWare so our shareholders were basically us and all our employees, all of whom had shares or options in the business): quality in our products for our customers, quality in the workplace for our employees, and entrepreneurship for our shareholders. Later, we added two additional values: humility and integrity. Humility is about being honest with yourself and being able to take hard feedback. Integrity is being honest to your core stakeholders like your team, your customers, your business partners, and so on. It was important to always try to live those values to keep our turnover low and maintain a good work-life balance. As our teams grew older, team members had children and developed lives outside the office. They

"Humility is about being honest with yourself and being able to take hard feedback. Integrity is being honest to your core stakeholders like your team, your customers, your business partners, and so on."

couldn't spend the same amount of time that they could in the early days. We had to figure out how to balance quality in the workplace with the quality of the products, all while maintaining the entrepreneurial environment. We made sure to talk through problems with our team in the context of those values, all while taking their feedback seriously. The teams working on the products are the first ones to realize when your targets for quality and scope aren't aligned with the resource and time available, so it's important to actively listen when they call this out.

IBR: How did you maintain BioWare's own values and culture after becoming part of a huge organization like EA? Were there ever times when you felt like what made BioWare so great and special were being challenged?

When you get acquired, there's always a concern that you'll lose your identity. You have to be thoughtful about it. Thankfully, the CEO of EA—my new boss—was very focused on ensuring that every individual part of EA had their culture and identity. We were a tenth of the size and therefore large enough to actually have a voice in that conversation, but small enough that we were still proverbially sleeping next to an elephant. I tried to be an advocate for what I felt was important. I always tried to have a rational explanation for why we needed to do something if we had to do something a little differently.

I didn't just say, "No, we've got to do it this way." I thought through the business case first, trying to identify, "What's the advantage to the company of doing it that way? What's the benefit of culturally ensuring that the integrity is maintained there in terms of return to the parent company?" We were then part of a public company, so we had to return earnings per share to the shareholders.

I made a point to fly down regularly to EA headquarters and to all my studios, typically monthly for most of them, so I was on the road a lot, around 200-250 days a year, for the five years I was at EA. This was exhausting, but I wanted to make sure that I had a presence both in HQ and also within my local studios because that was important from a cultural standpoint. I think "out of sight, out of mind" is something to reflect on; in other words, if you want to have influence with the headquarters and your teams, you have to be seen. Now, of course, it's somewhat easier now because video communication is sort of the new normal, but back then it wasn't, though we did use video conferencing a lot earlier than most folks, as my division's leadership was distributed across North America, with my CFO in Edmonton, CMO in San Francisco, CTO in Austin, COO in Virginia, and GMs running business units of BioWare in five locations. I realized I had to make a point of going down to important budget review and product review meetings to have a voice and more influence in the key conversations.

IBR: What motivated you to pursue your "third career" in social impact investing—mentoring and investing in entrepreneurs in technology, media and medical innovation?

When I was retiring from EA, I gave them six months' notice. And for the first four months, they were trying to retain me, but eventually, they realized I was set on leaving. At that point, I became "a dead man walking," so to speak; I still had the same budget authority, signing line item things for million-dollar item allocations and projects, yet I would go to a meeting at HQ and no one would really listen to me on strategy.

So, the result was that for the last couple of months at BioWare/EA, I had some additional free time. I was still very focused on making sure that BioWare was successful and contributing to the parent company, and grooming my chosen successor to step into my role when I left, but around this time I was thinking about what I wanted to do after I retired from BioWare and EA. I discovered the Young Presidents Organization, or YPO, which I'm a member of, had an impact investor talk coming up, organized through their social enterprise chapter. It was in London, England and I only had a day to attend as I had meetings before and after, so I took a red-eye flight out to London and attended this meeting for one day with some of the really big names in impact investing, like Sir Ronald Cohen, who invented the concept of

social impact bonds. There was also this investor who runs one of the largest Latin American and Mexican impact funds, Ignia, and many other amazing people focused on supporting social enterprise and impact investing, and although I didn't yet know much about this space, I found I was truly inspired by it.

I flew back on a red-eye that night, to go back to work, and it came to me. I realized that's what I'm wanted to do in my third career chapter. Similar to how we decided to form BioWare, that was about all the thought I put behind it! Then, I just started reading to learn more. I created a website at www.thresholdimpact.com, trademarked Threshold Impact, and started calling investors asking, "How does this work? What's VC, what's an angel?" I threw myself into mentorship, starting the University of Alberta's Venture Mentoring Service as Founding Chair, and I spent a lot of time learning more about angel investing and impact generally. Four years ago I joined the Creative Destruction Lab as a mentor, and it's been truly transformational for me in expanding my knowledge and network; in addition to my advisory board role, I now mentor a number of teams at the Threshold Impact UAlberta VMS program and take part in 6 streams of the CDL program, in Toronto, Calgary and Vancouver, mentoring a dozen or so teams at any one time there as well as investing in a number of new teams every few months. I gravitated to focus primarily—about 80%—on health-tech and med-tech because of my medical background, and because I felt that was probably an area of social enterprise and impact in which I could make a difference. I still have a number of general technology investments, too, but more and more my investments tend to be primarily health-tech and med-tech, along with bio-med-tech and some pharma investments. All told I've invested in over 60 startups so far, many with follow-on investments too, and I'm continuing to grow the number every year.

IBR: It must take a lot of confidence to just be able to put a big career chapter behind you.

Or naiveté! Maybe it's the humility of knowing that you can screw it up and being okay with that. Maybe it's more the willingness to actually take and implement feedback when you are screwing it up and the desire to take on a new challenge, build a new network, just learn something totally new.

As an aside, I believe humility is a very powerful word for entrepreneurs and investors to keep in mind. I remember somebody on my team once said, "Humility as a core value, seems kind of weird, it feels like a weak word." And I said, "No, it's actually one of the most powerful words you can have in your vocabulary because it means you have the confidence to actually take feedback and to improve." When you fall into a pool, you only get wet the first time. After that, you're wet all the time. So just open yourself up to it and jump in!

I remember somebody on my team once said, “Humility as a core value, seems kind of weird, it feels like a weak word.” And I said, “No, it’s actually one of the most powerful words you can have in your vocabulary because it means you have the confidence to actually take feedback and to improve.” When you fall into a pool, you only get wet the first time. After that, you’re wet all the time. So just open yourself up to it and jump in!

That carries over to my investment philosophy. I invest in teams where they want me to be an active volunteer and advisor. Sometimes it’s more formal than that, and they’d want me to join an advisory board or board of directors. But for all of my portfolio teams, I want to be an active value-add investor that’s going to help them when things get tough – this could be helping with networking with other investors or customers, or operational feedback, or just providing advice when they’re having challenges. I’m a generalist, and I sometimes half-joke that I’m just a country GP, not knowing a lot about anything, but a little about a lot of things; I can look at agreements, I can look at financial models, I can provide feedback on marketing plans. I can provide advice around organizational behaviour, structures, systems and processes, which is a particular passion for me, helping teams as they grow and scale. Certainly, if it’s software related, I’m happy to look at the product, UI and UX and give them feedback on that front, too. I’ve been really lucky to work with smart, passionate, hardworking people over my various career chapters!

IBR: Is there a specific type of advice, or specific obstacles, that you frequently encounter or help entrepreneurs with?

I help the entrepreneurs with whom I work with all sorts of different things. These are the same things I worked on when I was CEO at BioWare: scaling, systems and structures, organizational behaviour, HR processes like management and communication and compensation, marketing and sales, product development, and more. As a med-tech and health-tech investor I’m building some general understanding of the challenges of reimbursement, regulatory hurdles in med-tech, clinical trials and things like that, and I’m getting more pattern matching ability on that front as well when I see things over and over.

Also, something that’s become part of my regular activities is networking, business matchmaking. My friend Chen Fong, who’s based in Calgary and Hong Kong and whom I met through the Creative Destruction Lab, is a consummate and amazing business matchmaker in terms of being able to put the right people together, and I’ve tried to model my networking with him as an iconic mentor. Almost every day I find that I am making an intro to somebody in my portfolio teams and often in my network of investors and

other folks that I’ve run into through my various travels. This is incredibly satisfying and rewarding; in some cases, they’ve actually formed partnerships and have revenues flowing from one to the other from my matchmaking. In other cases, they’re sharing go-to-market lessons of how they overcame regulatory or IP barriers, or have created commercial partnerships. Maybe they’re developing complementary products, but they’re selling to customers that actually could benefit from both of their services so they can share to grow their customer base.

And that kind of goes back to my experience in my medical practice days where there were the specialists in different subject areas, and generalists that bonded everyone together. It’s vital to have a network of specialists and other generalists that can help de-risk different elements and help make your teams more antifragile, and this is true in business as well as medicine, as it turns out!

IBR: What areas of impact investing are you most excited for or interested in moving forward, especially given those kinds of markets that you said you specialized in?

For health investments, there are some really interesting developments in med-tech and health-tech generally, and COVID-19 has actually accelerated the rate of change, probably by as much as 10 or perhaps even more years, down to the past few months of pandemic! Remote patient monitoring now is actually a real deal. Virtual health care is a major thing. It’s actually a positive for the patient, and it’s a positive for the clinician to be able to have more access to data intervals outside of a clinical visit. It’s also obviously better from a COVID-19 infection risk perspective to not have all the patients coming in, especially those who are at risk with complex morbidities and multiple underlying conditions that make them more susceptible to COVID-19. We live in an interesting time, and one of the most rapid periods of change in human history.

The other big thing I see evolving quickly in health- and med-tech is the increased acquisition of data and increased importance of analytics. When you combine that with personalized medicine, genomics and metabolomics and other aspects of A.I. and machine learning, it’s actually very synergistic; you are able to access data on patients individually and combine that with personalized medical reports to inform drug discovery or therapeutic interventions that are more aligned with that particular patient—it’s really quite magical.

And beyond human health, there are incredible scientific and technologic advances in our understanding of physics, climate change, advances in transportation, engineering, energy creation and storage, space travel—and huge opportunities for investors to have a positive impact

in many other categories of impact and social enterprise such as education, climate change and protection of the environment, minority rights and women's rights, reduction of poverty, agricultural technology to reduce global food instability, and more. This is truly a time of transformational change where there's great opportunities to make a real difference. There are real challenges in the world that we can and must all work on together to solve. It's a great time to be alive and continually learning and building networks with others passionate about these causes, and an amazing time to be investing as an angel focused on impact and mentoring social entrepreneurs.

IBR: Given Threshold, your board memberships, and your charitable projects, how do you balance all of these responsibilities and your personal life?

I had a call with a relatively new venture capitalist recently about this, and he was getting overwhelmed. My advice to him was to keep your default answer as "no" until it becomes "yes." It's a tricky balance; this doesn't mean to brush people off. Rather, it means to be principled with whom you do talk to, but to always treat everyone with respect and courtesy. If someone comes to me with a "cold" (non-introduced by a colleague) email and takes the time to explain why they want to speak with me, I'll always try my best to give them some time. It may not go anywhere, but I treat them respectfully and I try to give them advice and feedback and introduce them to some people who could help them more.

When I was at BioWare I realized how important it was to treat every person I met with respect. It didn't matter to me what they were doing, what company they were with, or what stage of their career they were at; I always tried to be respectful and gave them time. I still try to do that whenever I can, but I've had to create a bit more of a filter because of a lack of time and competing priorities. I try to prioritize my portfolio companies at the top, along with friends and family. Close second are my mentorship commitments from the UAlberta VMS program and the Creative Destruction Lab and my various board work, and still lower priority after those, prospective investment deals that are imminently closing. Everything else is behind these priorities, but I do still try to make time, whenever possible, for networking, meeting new people, helping students and doing talks and connecting generally with new deal flow and impact opportunities. Back in pre-COVID times, my wife and I were also passionate photographers, travelling the world to learn more about social entrepreneurship opportunities in health, environment and education and taking photos of wildlife along the way (I post our photos at <https://www.flickr.com/photos/raymuzyka/> albums, if anyone's curious to check them out!).

At BioWare, my realization of the benefits of treating everyone

with respect dawned on me about ten years after I started going to conferences and giving people my time; I started to see interesting things happen. I didn't do it for these benefits, but I came to realize that good things happened later on because of the investment in treating others with courtesy and respect. For example, somebody that I helped early on became a major journalist and they recognized that I had helped them earlier in their career; once that sort of thing happens, I had a friend in an important and influential role. In another example, I'd be walking down the hall at BioWare and someone would introduce themselves as a new employee, saying that I had had a call with them back after we met at the Game Developers Conference ten years ago., and telling me that they always wanted to work at BioWare because of that call! To this day, I try to treat everybody I meet with respect and give them time, to the extent that time permits. The benefits are often indirect and take a while to manifest, but they are real and valuable.

"When I was at BioWare I realized how important it was to treat every person I met with respect. It didn't matter to me what they were doing, what company they were with, or what stage of their career they were at; I always tried to be respectful and gave them time."

Some of my best memories from my Ivey MBA are the case studies that I was able to take back to BioWare, oftentimes the day after I got back from the class. One amazing professor, Al Mikalachki, who retired the year after my MBA, stood out in particular. His class was truly transformational for my understanding of organizational behaviour. And he taught it all out of his head! I came up to him once after class and said "This is amazing. Is there a book I can go to, to learn more?" He responded, "No, it's just me speaking from everything I've taught for the last 40 or 50 years." There are a lot of amazing things that I learned in that class and many others at Ivey, frameworks that I still apply today on a daily basis with my portfolio and mentorship teams.

IBR: If you could go back and give yourself advice as a university student or eMBA student, what would you tell yourself?

Stay focused on your core values. They're the most important thing—living them, truly living them every day and staying open to feedback is very important. And, treat the people you work with and interact with, with respect; build your network,

INTERVIEW

build your relationships every chance you get and treat people respectfully because if you don't, it'll come back to bite you. If you do treat others respectfully and with consideration, it'll be rewarding—and you can't predict how it'll reward you. But it will, and you'll have friends as a result for life that you can turn to. Ultimately, that's what Greg and I did and what our teams did at BioWare.

And if you fail but you learn from it, it's not really a failure. That's also where mentors come into play. They can help prevent you from running off a cliff and give you the feedback to make sure you're asking yourself the right questions. Surround yourself with people who can give you feedback and ask the right questions of you, and listen to their advice.

IBR: When starting BioWare, you mentioned that you never conceived that the idea could fail; evidently, you had a really strong goal in your mind. What does “success” mean to you?

I have a bias against investing in teams that create a business with the sole purpose of exit. Instead, I prefer to take more of a Taoist approach: not to seek an outcome, but rather to strive. This was my philosophy at BioWare; I tried not to seek specific outcomes but tried to strive in a positive direction. If you aim for the moon, sometimes you get the stars! If you're building value every day, good things will happen over time, which will accrue to your customers, your investors and your employees. Those things will lead to virtuous cycles over time. Look for the opportunities, de-risk the challenges and always try to move forward in the right direction. For me, success is having an amazing and passionate team around me, and I was lucky in all my career chapters to work with incredible teams.

I'm still figuring out what I'm going to do when I grow up. I think part of success is always enjoying every step along the journey. One time at BioWare, I was in a panic because Baldur's Gate was a massive hit and it was the second game we had released. I turned to my wife Leona De Boer and said, “What If this is the best thing we ever did?” That was frightening to me because I didn't want it to be the last and only “best” thing we did. For me, success is continually building on the things you've done and always trying to make them better. It also means doing it for the right reasons aligned with core values: you want to make a good workplace for your team, you want to create the best products for customers and you want to create good outcomes for your investors and shareholders. If you do this, you'll be building something incredibly valuable and enduring.

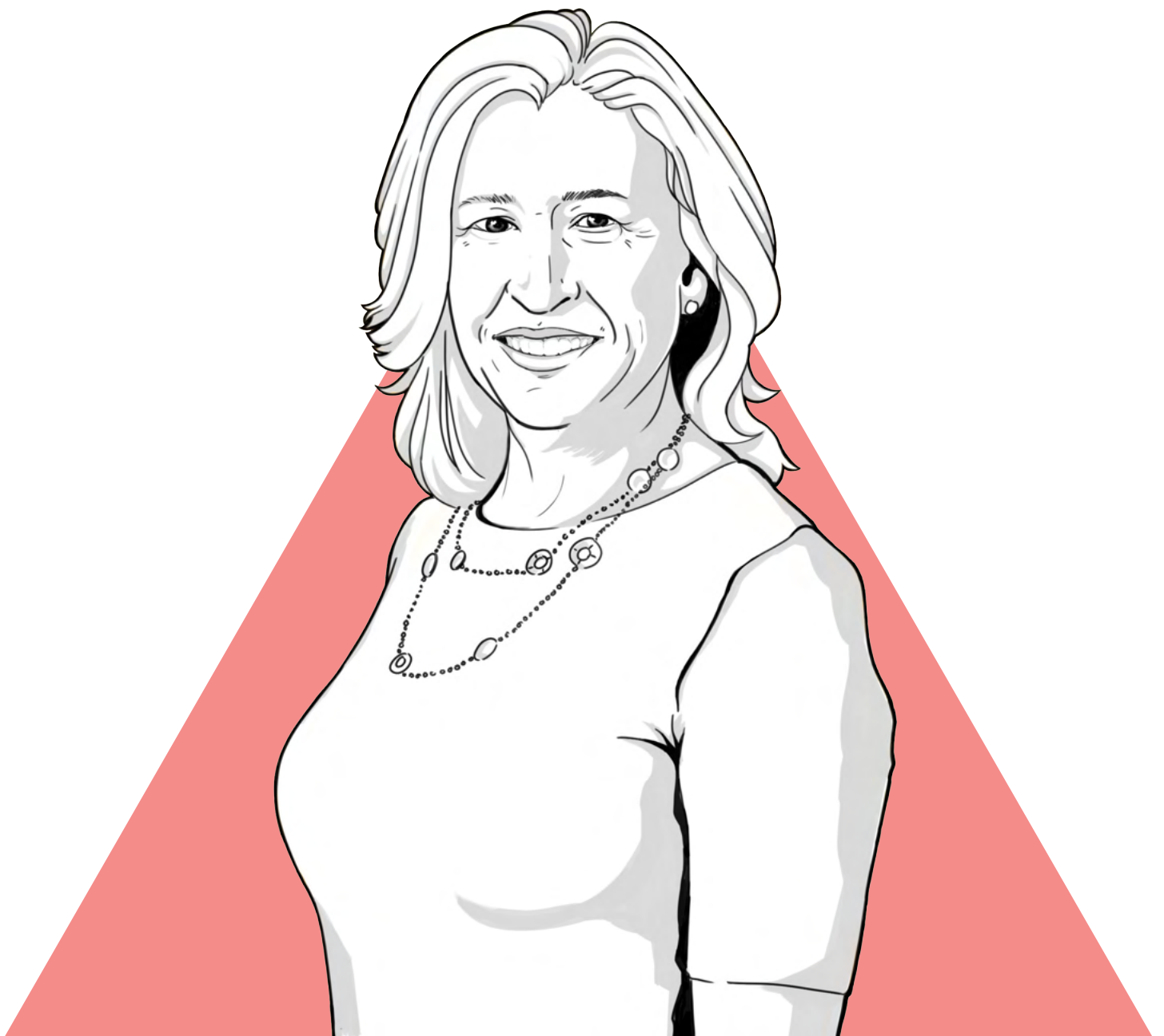
I have a philosophy that teams that create better outcomes for the world—social enterprises—actually have a greater propensity for better financial outcomes. This is because

they are creating things that people love, value and want. Public companies have the challenge of quarterly earning pressure, which sometimes creates more short-term thinking. I personally really enjoy the long-term view of private businesses, including thinking about how you take your past failures, successes and make learnings out of them in the future. That's a long-term view. If you are always striving and not seeking, you can't be disappointed by missing a target; if you're always open to feedback, you can't be hurt by constructive feedback, and you can use it to learn, and grow, and continually improve.

“If you are always striving and not seeking, you can't be disappointed by missing a target; if you're always open to feedback, you can't be hurt by constructive feedback, and you can use it to learn, and grow, and continually improve.”

Interview: Sharon Hodgson

Dean of the Ivey Business School



Sharon Hodgson is the Dean of the Ivey Business School.

IBR: Change has been a constant theme in your life, including 14 moves across Canada and the United States before you turned 22. How did this influence your perspective on adaptability, and how did these insights inform your time leading transformational growth at IBM?

I have always looked at change as an opportunity. I've never looked at it with fear. I've always looked at it as: this is where you can go next and find a new place to learn. In terms of how it informs how I go into a change, I think the biggest thing is knowing yourself, what your strengths and weaknesses are, and making sure that you're doing things to work on your weaknesses. Maybe part of that is the group that you surround yourself with, but you also need to have a lot of self-awareness. I think it's really important to appreciate how you're being perceived, how you're coming across, and be genuine and sincere—that's the best thing you can do.

Plus, I think you also have to be very open-minded. There are so many differences between institutions, especially when you're moving around a lot, so you have to try to understand the cultural norms, how things work, and how things get done. You don't assume; you have to come in listening and not espousing a point of view all the time.

IBR: Today, Ivey students are faced with several career opportunities spanning finance, accounting, marketing, and more. How did you decide to pursue a career in consulting?

Just like all the change that I was going through prior to university, when I got out of university I just didn't know what I wanted to do. And for me, consulting gave me the opportunity to explore many different industries and a lot of different areas within an organization. In consulting, you can play in any part of the stack, from strategy all the way down to implementation, and you can also play across a broad set of industries. It felt like a really great way to jump in, see what was out there, where I could add the most value, and where I got the most joy,

Investment banking is a lot of the same. And actually, if you look at many of our students, they frequently graduate and go into consulting and investment banking. But then if you look at their progress three, five, and eight years out, a lot of them use that as a stepping stone to get to some other career as they figure it out—'What do I like?', 'What do I not like?' And 'Where do I want to play and put my time in?'

IBR: To follow up on the previous question, what would be your advice to Ivey students that aren't sure where they want to start their careers?

The biggest thing I can say, especially thinking about the COVID situation is: take risks now. As you get older, more settled, and have more people relying on you, it becomes much more challenging to take risks. And right now, you guys are the most, I would suspect, unencumbered you've ever been in your life. So this is the time to explore and take a few risks. Also, look at the skills—your half-life on skills is diminishing very quickly. So it's okay to go into an industry that you're not a hundred percent sure that you want to be in and give it a try for a couple of years because I think there are going to be a lot of novel areas where opportunities arise related to the pandemic that could be very interesting for short-term skills development. And you may find that you enjoy it in the long run.

"As you get older, more settled, and have more people relying on you, it becomes much more challenging to take risks. And right now, you guys are the most, I would suspect, unencumbered you've ever been in your life."

IBR: Prior to joining IBM's consulting business, you worked at Andersen, PwC and PW. What are your criteria for evaluating your fit with a company, and how did you approach job moves?

I had lots of moves during my career—including internally and to new organizations—and I looked at everything as an opportunity. When somebody came to me with an idea—'Hey do you want to try this? Do you want to try that?'—I usually started with being open-minded and saying, 'Well, tell me about it. Tell me why this would be a great opportunity for the firm and why it would be a great opportunity for me.' And some of them were probably more planned than others.

I think about the big move that my family and I made to go to China. My husband and I had said that we wanted to do another international assignment when we were in Philly and we said there are probably only two or three countries around the world that we would want to go to for our family. And one of them was China because we thought what a great chance to get an experience in Asia

and really start to understand a culture that's going to be more and more influential. So we just had it in the back of our minds and they came to me and said, 'Hey, we need you to run the consulting business, but it's in Shanghai. Is that going to be okay?'. And I'm like, 'Hm, I don't know, let me check' and I texted my husband saying, 'How do you feel about Shanghai?' And he said, 'When are we going?' So you also have to be on the same page with your spouse, or whoever's important in your life, because your decisions aren't just about you, but also your family.

IBR: Following your work with IBM, how did you decide what direction to take your career next? What motivated you to pursue leadership in academia? How has it differed from corporate leadership?

When I officially left IBM, I thought I actually was retiring. My idea when I left was that I was going to start doing only board work. I was already on one board and was pursuing a second board at the time. But through a roundabout series of things, I realized pretty quickly that I was going to get bored just doing board work and I needed to actually do something that was going to have a more direct impact and keep my brain occupied in a more material way. I created this list of criteria for myself if I was going to take on another big responsibility. Number one: I wanted to make sure that I was in a leadership position and could have a huge impact on the direction of the change. Secondly, I wanted it to be something that was for social good, ideally in Canada. The reason for that is I had an amazing background in Canada growing up and I wanted to be able to give back because as you can see from my career, I left Canada when I was quite young—only twenty-three. So I wanted to come back, and I wanted something that was ripe for disruption. Something where there was going to need to be some significant changes based on the fact that there's so much disruption hitting the industry right now. Ivey seemed like a really good fit. I didn't approach academia; academia approached me and I said, 'Well, no, I am not well versed about this space.' And we actually walked through what my criteria were and why this might be a good fit. And that's how I ended up here. Also, Ivey's already so different from so many other business schools. It's got so many foundational things going for it right now in terms of its reputation; we've got a very unique way of delivering our programming, and it's got so many innate strengths to be able to bounce off of. But hey, we're in an environment where we're under massive disruption—how do you leverage those strengths to actually do good?

IBR: Education, now more than ever given COVID-19, is experiencing disruption across the board, from changing demographics to new technology to an evolving job market and tightening budgets. What are the biggest sources

of change you see in this space right now?

First of all, there's internationalization and globalization and it's become more pronounced as part of the pandemic. Students come internationally to our schools, but our students are also looking for more international experiences. The playing field is not Canada; the playing field is international and that's both for students and for faculty and it's getting more global as we go.

Second, there are regulatory disruptions that are happening and you guys would have been the beneficiaries of a big regulatory change that happened two years ago when the government announced a 10 percent reduction in tuition. But there are other ways that they are engaging in our world to decide things for us and so we've got to be able to pivot based on that.

There are also changing expectations of students in terms of personalization and designing your own program. I say design your own adventure when you come to university, but also be cognizant of the changing expectations of recruiters. For example, recruiters want more digital fluency, they want more people who understand and appreciate the norms of equity, diversity, and inclusion and how to actually embrace that and drive that. There are pieces around the always-on interconnectivity that you guys will want to have access to. But also, how do you leverage technology in a classroom? I mean, you talk about Zoom, but how about VR? How about AR? How about your cases? Instead of just reading a case, how about you actually put on your glasses and you go onto the shop floor and start to see more about what's really happening on the shop floor instead of reading about it. What about AI in the classroom? How do you figure out who's paying attention and who's not paying attention and whether or not their contributions were super valuable to the conversation?

"The playing field is not Canada; the playing field is international and that's both for students and for faculty and it's getting more global as we go."

There's lots of stuff with course content to write. And I just get what we're hearing from students and recruiters about areas that they want more. They want more on sustainability, more on inclusion, more on digital fluency, but I also try to keep that core of what Ivey already is, which is the case-based Socratic method, Cross-Enterprise Leadership, where people learn how to solve complex problems, be persuaded and persuasive. So there are pieces to leverage off of and places

that core of what Ivey already is, which is the case-based Socratic method, Cross-Enterprise Leadership, where people learn how to solve complex problems, be persuaded and persuasive. So there are pieces to leverage off of and places where we've got to go new.

IBR: Obviously, you've spent quite a bit of your career kind leading big change at various companies. Did that help or inform your opinion anyway when you came here to do the same thing at Ivey?

I will say that the big challenge we've got is that we were right in the middle of the strategy, actually the very beginning of the strategy, just doing an environmental stand when COVID hit. The big thing that I know about change is that you've got to engage the community. Trying to execute all the stuff from the top is not going to be effective in terms of driving change. And we're just in the beginning of that process to actually go through and get the faculty and staff engaged to do this. That's what you need to do in an organization if you're going to be effective in building and delivering a case for change and then ultimately get it done.

That said, I can't leave this conversation without saying this: everybody thinks academia is so difficult to change. There's the perception that, after hundreds and hundreds of years, it doesn't move. I would just say this: think about how fast we moved; we pivoted in three days to a completely different mode of delivery. And the quality of what was done was really good. I think over the summer, the faculty even did a lot more to build up not just how they were going to deliver the classes that were in-person, but also digital assets that would help with learning. I don't think anybody can say anymore that academia can't change; academia changed really fast and I think Ivey did really, really well in making those changes and it's a huge shout-out to the faculty and staff for the work that we did, but also to the students for being adaptable, which will be an important element going into the next two years.

Someone gave me a great quote the other day. They said, 'The speed of change has never been so fast, and yet it will never be this slow again.' Think about what the skills are that you're going to need in the future—adaptability, being able to manage change at lightning speed—you guys all need to be intellectual athletes. We talked about the half-life of skills and the skills that you're developing today. Some of them will be embedded like lifelong competencies, but some of these will be things that you're going to have to constantly upgrade. So make sure you're continuing to learn.

IBR: Given your experience with systemic and transformational change both personally and

professionally, what advice do you have for Ivey students entering a post-COVID workplace?

Be open-minded, take some risk. Now is the time to take risks. You have no or very little encumbrances in your life, and mostly your encumbrances get bigger as you grow older. So take the risk now. Be agile, be flexible, and be an intellectual athlete. Make sure that you're constantly challenging yourself to learn and grow.

"Be agile, be flexible, and be an intellectual athlete. Make sure that you're constantly challenging yourself to learn and grow."

EPIC GAMES: THE PASS TO THE METAVERSE

To combat Steam's dominance and pave the way to the interconnected Metaverse, Epic Games should offer a subscription-based game pass.

Jason Purnoko & Kenneth Wong



EPIC GAMES: THE PASS TO THE METAVERSE

An Epic Takeover

Epic Games Inc. (Epic), a leading video game developer and publisher, was founded by CEO Tim Sweeney in 1991. Previously best known for its Unreal and Gears of War franchises, Epic broke into mainstream pop culture in 2017 with the release of Fortnite and the game's signature battle royale mode. Amassing over 350 million players in the subsequent three years, Fortnite now has one of the largest active player bases of any game. Capitalizing on Fortnite's success, Epic launched its online game storefront, the Epic Games Store (EGS) in 2018, and made the EGS the sole platform where users could launch and play Fortnite. Soon after, Epic also launched Epic Online Services and Epic Publishing to expand its reach across the entire gaming value chain. Pursuing this vertically integrated business model was a key step in bringing Tim Sweeney's vision for Epic Games to life: creating a highly-integrated virtual space for all to enjoy.

Dropping in

Since its founding, Epic Games has had a track record of adopting unconventional strategies, disrupting industry leaders and working to level the playing field in favour of small developers.

With his first game, ZTT, Sweeney adopted a "shareware" strategy rather than opting for a traditional retail strategy. Historically, a shareware model allowed developers to self-publish and release large parts of their games for free, allowing gamers to experience the product before choosing to pay the developer for the remaining segments. Through this model, Epic retained the vast majority of revenue, avoiding mandatory fees to publishers and retailers which could have represented up to 85 percent of revenue.

The company hit a major breakthrough in 1998 with the release of Unreal, a massively successful 3D shooter game revolutionary for its graphics and ability to handle large, highly detailed environments. Having recognized the growing technical complexities associated with game development, Epic began to license the core technology behind the game to other developers, naming the resultant tool the Unreal Engine after the game that inspired its existence. Gaming engines like the Unreal Engine provide tools to create games with advanced graphics and gameplay, from simple lighting and rendering to object collision and complex physics. This prevents creators

KEY PERFORMANCE FIGURES, 2020

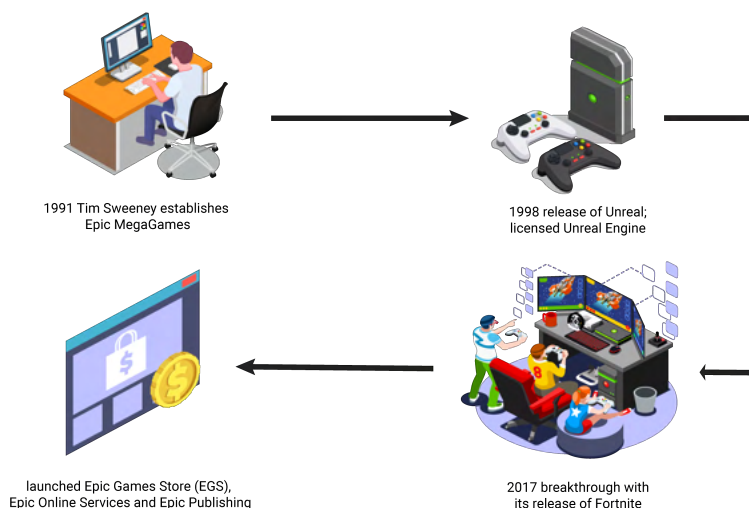


from needing to build a development environment from scratch, resulting in significant time and cost savings.

Playing the Long Game

In 2015, Epic made the controversial decision to stop charging a licensing fee for use of the Unreal Engine, opting instead for a significantly more accessible five percent royalty on future revenues. The company recognized that game development had high technical barriers to entry which continued to skew the playing field against small, independent ("indie") game developers. This decision allowed Epic to lower both the technical and financial barriers to development, enabling small, bootstrapped developers to produce high-quality games for a broad

EPIC GAMES TIMELINE



market. Supporting indie developers and democratizing the gaming industry are some of Epic's primary goals as a company, demonstrated by several of the company's recent strategic initiatives.

Competing for Attention

Despite Epic's success with Fortnite and the Unreal Engine, one significant obstacle stands in the way of Tim Sweeney's goals. Epic has only published one blockbuster game in the past decade: Fortnite. Though Fortnite has been wildly successful, this has constrained Epic's available channels to interact with consumers, while other game publishers like Electronic Arts and Activision Blizzard consistently publish highly successful (if less popular) titles on an annual basis. The concentration of Epic's customer base in Fortnite will make retaining player interest challenging. Even if Fortnite is able to remain relevant for years like League of Legends or Counter-Strike: Global Offensive, Epic's 2020 lawsuit with Apple highlights the risk presented by this lack of diversification. The Apple-Epic dispute saw Apple pull Fortnite from the iOS App Store, a platform where Epic has grossed \$1.2 billion in sales since release. Though Fortnite continues to improve retention through its Battle Pass and pop culture collaborations, Epic should look to diversify its game portfolio by taking on Steam in the PC Gaming storefront market.

Boss Battle: Steam's Castle

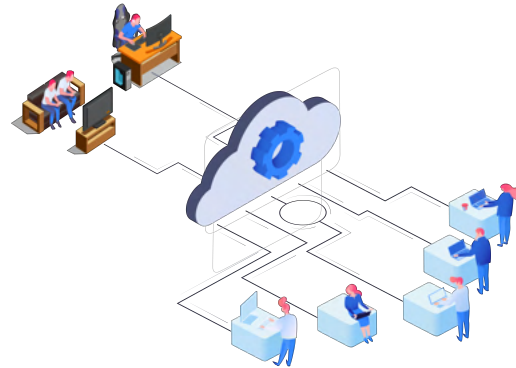
Valve's Steam is the largest player in the PC Gaming storefront market. As a platform, its business model relies on two-sided network effects: consumers are attracted to the platform by the myriad of games, while developers require a robust user base to justify the development of more titles. The early release of Steam's game storefront in 2003 allowed it to build a significant first-mover advantage, strengthening its network effects with little competition to ultimately amass a customer base of over 95 million active users and a library of over 30,000 games.

Epic's current Steam competitor is the EGS, which features over 400 games from both indie and AAA developers. With EGS, Epic retains full control of the value chain, giving the company control over pricing and access to critical consumer insights. Epic has grown the platform through the institution of user-friendly policies—developers are charged a lower distribution fee compared to Steam, and customers are periodically offered free games to keep forever. Despite this, EGS is still in its infancy and will require significant further investment to compete with Steam's dominance in the space.

EGS' Unreal Benefits

To more effectively compete with Steam, EGS should

DOUBLE-SIDED NETWORK EFFECT



introduce a subscription-based games pass that would help to drive expansion and accelerate the platform's existing two-sided network effect. The Epic Games Pass would allow players to access a variety of games from different developers for \$8 per month. Considering a typical game can range from \$15 to \$80, the game pass subscription is a more financially attractive option for users. Available games would include both indie games and high-budget AAA games from well-established developers. For example, a gamer who plays approximately three AAA games over the span of a year would be paying approximately \$180, but the Epic Games Pass would provide access to over 80 games for \$96 annually. Setting a successful precedent for the game pass subscription model, Microsoft's Xbox Game Pass has currently amassed 15 million subscribers over the past three years.

Playing Duos

Through the game pass, Epic can focus on catering to the vast number of independent developers to further incentivize them to operate within the Epic Games ecosystem. Epic's Unreal Engine is already built with these developers in mind, as demonstrated by the engine's design and pricing model. Epic can utilize the good relations it has with developers through Epic Games Publishing and the Unreal Engine by waiving Unreal Engine fees for developers willing to publish their games with an exclusivity deal on Epic Games Pass. This strategy will further benefit smaller developers by providing a source of guaranteed revenues and exposure, hedging the major risks that indie developers face. Applying this incentive structure will both increase Epic's game library and improve customer retention.

While AAA developers already have the resources required to produce games and make large profits, they would still be incentivized to join the Epic Games Pass. AAA games tend to quickly lose steam after their initial release as hype-fueled momentum begins to fade. For example, the critically acclaimed game Sekiro: Shadows Die Twice, released in March 2019, experienced 40 percent of total

sales-to-date within its first 10 days of release. Participation in the Epic Games Pass would provide additional revenues and exposure to AAA developers once traditional retail sales begin to stagnate. With many AAA games featuring supplementary downloadable content and in-game items for purchase, developers are incentivized to pursue strategies that increase their player base even if the game is accessed at a vast discount to retail pricing.

By creating an incentive structure that attracts both indie and AAA developers to its platform, Epic will increase customer retention by maintaining a steady stream of new user content in the form of new game releases.

An Opportunity of Epic Proportions

If Epic can capture seven percent of currently registered PC Fortnite players at an \$8 per month subscription, Epic will generate an estimated \$400 million in revenues annually. Costs will vary because negotiations for pricing for the rights to games will be done on a case-by-case basis with each developer to reach a fair price per game, taking into account varying metrics such as usage and projected demand. Overall, if Epic were to target purchases of 82 indie games and 3 AAA games, it could expect to generate profits of nearly \$54 million.

Epic Games: Into the Metaverse

Ultimately, the Epic Games Pass will further Epic's aims to democratize the gaming industry, further driving growth for indie developers while strengthening its offerings to consumers and unifying their gaming experience on the Epic platform. Importantly, however, it will also help to pave the way for Epic's ultimate goal in creating the Metaverse: a collective aggregated virtual reality space seamlessly connecting users to different persistent experiences. Predicted to be as revolutionary as the internet, developing this alternate virtual world is an integral element of Tim Sweeney's vision for Epic Games and is a driving force behind Epic's strategy of vertical integration. The creation of new economies and the shifting of assets into the meta-world are just the beginnings of possibility with the Metaverse and would unlock enormous value-creation opportunities for participants. Epic Games has clearly been positioning its products to help drive the Metaverse's creation. From dance competitions to hosting the latest Travis Scott concert, Fortnite is extending its reach outside of the typical definition of a game. In addition, Epic's Unreal Engine allows for easy interoperability of assets and data, as everything created using Unreal Engine uses the same underlying technical infrastructure. Epic Online Services would provide the infrastructure to power a synchronous, persistent Metaverse while Epic Publishing would support the establishment of relationships with content creators. All existing elements of Epic are integrated towards

achieving the greater goal of the Metaverse; however, if Epic will indeed be a major player in the creation of the Metaverse in the distant future, it will need to first unite content producers and consumers on a single, seamless platform. To date, it has not achieved the user nor developer adoption necessary to accomplish this.

The Epic Games Pass can act as the bridge, bolstering customer retention and involvement within the Epic ecosystem over the long-term to provide a stable base of loyal customers around which it can build the Metaverse. Moreover, this stickier consumer base would also further solidify Epic's relationship with game developers. The larger the network of customers becomes, the more developers will be enticed to create games for the EGS. This strengthened relationship with developers will be particularly advantageous to Epic as it prepares to develop the Metaverse. The Epic Games Pass will strengthen the company's platform further in the near-term, providing the building blocks necessary to achieve this ultimate goal.

Outlasting the Storm

Overall, the Epic Games Pass would provide Epic the opportunity to develop EGS in a manner that builds on its core strengths and competitive advantages while serving as a perfect complement to Epic's long-term goals. Epic would be able to maximize social good for the gaming community by supporting indie developers with an additional source of revenue and widespread exposure while also providing end-consumers with a breadth of content at an affordable rate. This strategy would instill a high degree of customer retention within EGS, allowing Epic to control and create its own ecosystem which will outlast the popularity of Fortnite. This will serve as a launching point for Tim Sweeney's long-term goals; with the Metaverse dream in sight, the Epic Games Pass could be exactly what Epic needs to secure victory.

LOUIS VUITTON: SUSTAINING GROWTH

In the face of changing consumer demands from Gen Z and Millennial shoppers, LV needs to prioritize sustainable fashion.

Marwan Yousif & Brendan Adamo



The First Cut of the Cloth

Following decades of strong growth, Louis Vuitton (LV) has become the world's most valuable fashion brand with a market valuation of over €32 billion. Revenues for the fashion and leather goods segment of Moët Hennessy Louis Vuitton (LVMH), LV's parent company, grew 79 percent from €12.37B in 2015 to €22.24B in 2019, with LV contributing the majority of revenues; profit margins for LVMH during the same period increased from 28 percent to 33 percent. While the company's current financial outlook is exceptional, changing consumer demands and a hostile regulatory environment will force LV to embrace sustainable practices if it is to maintain its dominance.

From Burning Bags to Getting Burned

The fashion industry is notoriously wasteful, responsible for 20 to 35 percent of oceanic microplastic flows, and more carbon emissions than international flights and shopping combined. Luxury fashion brands in particular are known for maintaining high standards in production and distribution that often result in unsustainable practices. Despite this, at least 10 percent of the industry has not pursued any responsible sustainability practices. Consumers have taken a stand against these wasteful behaviours, with environmental protests cropping up at fashion week events globally.

Demand for high-end luxury stems from scarcity; to this end, LV products are exorbitantly expensive, limited in quantity and only sold in specific locations. When luxury brands are left with unsold inventory, they often opt to destroy the merchandise rather than discount or donate, since this would have negative impacts on their brand's perceived value. To tackle these wasteful practices, the French national government introduced a ban on the destruction of unsold fashion goods, to be implemented by 2023. This move will force retailers like LV to either

greatly limit supply or start recycling materials. It is the first national-level environmental policy for the fashion industry and highlights the regulatory risk which LV faces.

Beyond complying to public policy, fashion retailers have an innate financial incentive to shift towards more sustainable practices. Public market investors are changing their investment behaviours to consider the social impacts of business beyond its responsibility to turn a profit. Recent developments include the sustainable loan Prada received from Crédit Agricole Group, with lower interest rates contingent on meeting environmental standards. Moreover, institutional investors and asset managers are also changing investment preferences in accordance with environmental, social, and governance (ESG) strategies. In the next five years, one-in-five institutional investors say they would allocate 21 to 50 percent of their funds to ESG funds. Thus, companies that pursue sustainable initiatives are able to obtain a more favourable cost of capital, potentially offsetting certain costs associated with sustainability and change.

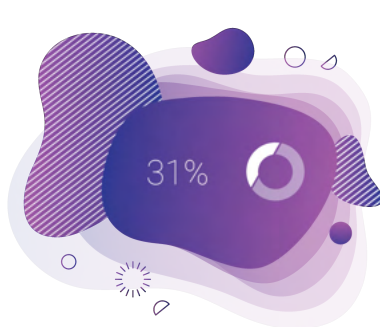
GLOBAL COSTS OF CAPITAL FOR ESG



The New Face of Haute Couture

In the coming years, Generation Z, born between 1997 and 2012, and Millennials, born between 1981 and 1996, will reshape the luxury fashion market. Generation Z consumers currently make up four percent of industry revenues and are projected to represent 40 percent of

WILLINGNESS TO SPEND ON SUSTAINABLE FASHION BRANDS, GEN Z

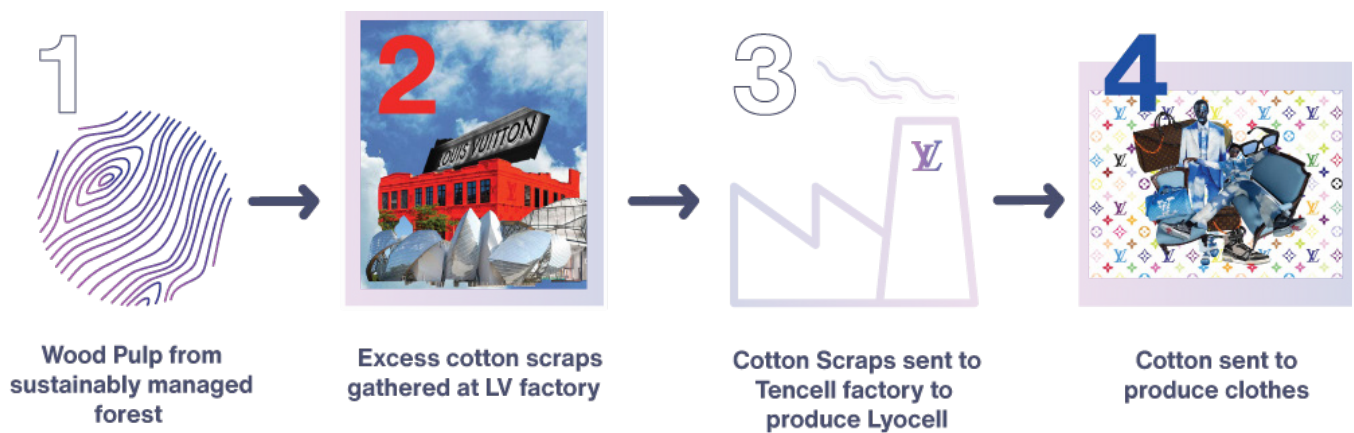


of Gen Z willing to spend more on sustainable products



of millennials willing to boycott fashion brand if not sustainable

SUSTAINABLE FASHION OPINIONS, GEN Z



luxury purchases by 2035. Not only do these younger consumers have shifting product preferences, they also expect their favourite brands to be socially engaged. To that end, consumers are voting for sustainability with their wallets: 31 percent of Generation Z consumers are willing to spend more money on sustainable products and 66 percent of Millennials said they were willing to boycott a fashion brand if it was not sustainable. Consequently, a refusal to embrace sustainability could alienate two of luxury fashions' most important consumers.

While LV has undertaken a number of measures in an attempt to be more sustainable, it has not been successful. In 2016, LVMH launched The LVMH Initiatives For The Environment (LIFE) Program, with the goal of improving the environmental performance of all products. Policies were established to improve source traceability, diminish firm-wide carbon footprint, and increase energy efficiency. LV set targets to reduce energy consumption and waste production by 10 percent in 2020. However, despite these commitments, energy consumption and waste production increased by 6.5 percent and 8.7 percent from 2013 to 2019, respectively. With unsustainable practices such as destroying unsold merchandise and using hazardous chemicals in production, LV is unlikely to meet consumer expectations on its current trajectory.

Despite this, given LV's resources and position as a leading luxury fashion company, it is well-positioned for a course correction. Being vertically integrated, LV is able to effectively manage its supply chain, particularly on materials and waste. Furthermore, it can directly control sourcing and incorporate newer eco-friendly raw materials. Through its positioning and key partnerships, LV has an opportunity to redesign its supply chain to be sustainable.

Making a Material Impact

To improve sustainability, LV should focus on the root of the issue: raw materials. LV's most commonly used materials are cotton and synthetics. Cotton cultivation is an intensive process that requires significant volumes of water and toxic materials. Similarly, synthetics are usually produced from oil, resulting in substantial environmental pollution and contributing to the global plastic pandemic. In accordance with the Ellen Macarthur Foundation's report on a new textiles economy, LV should develop new materials that prevent the release of plastic microfibrils.

Firstly, cellulose, an important input to textile production, can be replaced by partnering with sustainable cellulose manufacturer Tencel. Tencel's Lyocell fibres are naturally white, sustainably sourced, have supply chain transparency, and subscribe to the circular economy. This production process involves significantly less dye, energy and water than cotton, in addition to being biodegradable. Utilizing LV's vertically integrated factories further, LV can gather excess cotton scraps to be used as inputs in the production of Lyocell.

Moreover, LV can adopt more sustainable alternatives to nylon, a synthetic. LV should source products from Econyl, a producer of regenerative nylon that is produced entirely from waste. For every 10,000 tons of Econyl raw material, 70,000 barrels of crude oil and 65,100 tonnes of CO₂-equivalent emissions are saved.

Introducing: The Earth Collection

When first implementing raw material changes, LV should purchase limited quantities of Lyocell and Econyl to produce a limited-edition fashion line, The Earth Collection.

The brand should partner with Virgil Abloh and make use of drop marketing strategies to promote the collection among Generation Z and Millennials. Reflecting on the pilot, LV should consider reviews of the product drop from fashion critics to implement improvements in successive collections. To ensure it does not alienate its current target market, the new materials should be introduced incrementally to other product lines.

Off the Rack

By utilizing its scale and expertise, LV can establish partnerships across the supply chain to produce more sustainable products. A partnership with Tencel will enable LV to produce luxury products from high-quality sustainable materials. Increased focus on sustainability will allow LV to capture significant market share within the growing Generation Z and Millennial demographics and position the brand advantageously for long-term growth. LV is currently one of the most highly sought-after luxury brands; to preserve this reputation, it will need to adapt to changing consumer preferences and policy pressures. Ultimately, to remain a leader in the luxury apparel industry, it is not enough for Louis Vuitton to stick to its traditional roots. Instead, it must adapt and innovate to remain a defining brand for a new generation.

TJMAXX: SAILING TOWARDS MODERN RETAIL

To contend with COVID-19, TJ Maxx must provide online alternatives to its traditional in-store “treasure hunt” experience.

Vivian Xia & Christine Lin



Problems to Port and Starboard

Since the launch of Marshalls and Zayre in the 1950s, the off-price retail industry has been steadily growing. Off-price retailers have historically performed well during periods of economic growth while remaining successful even throughout downturns. COVID-19, however, has created unexpected challenges for many off-price retailers and contributed to a slew of bankruptcies including that of JCPenney. As these chains primarily sell through brick-and-mortar outlets, decreased foot traffic and same-store sales due to social distancing regulations have led profits to plummet. For T.J. Maxx (TJ), the U.S. division of TJX Companies which encompasses T.J. Maxx and Marshalls, open-only same-store sales fell 10 percent in 2020 Q3 while profits dropped 18.9 percent year-over-year. To turn around its decline in performance, TJ should look to ease its dependence on physical retail.

The E-Commerce Tidal Wave

While physical retail channels have collapsed, the e-commerce space is thriving. Since the pandemic began, many retailers have seen upwards of 10 percent growth in their online customer base with consumers indicating their plans to continue shopping online even after stores reopen. Although e-commerce has long been poised for further growth, insights from IBM and Adobe both estimate the pandemic accelerated this growth by around five years; Millennials, in particular, gravitate towards e-commerce, with 85.9 percent regularly using e-commerce platforms. With the retail atmosphere shifting dramatically towards digital adoption, it is crucial for TJ to look towards prioritizing online sales channels and targeting the Millennials segment.

TJ's Manifest

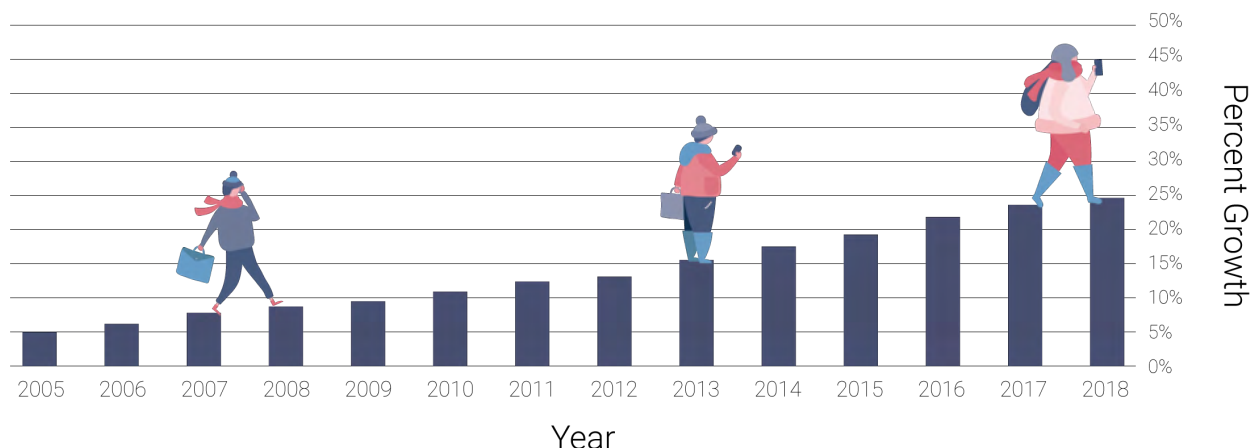
Founded in 1976, TJ is an American subsidiary of TJX Companies Inc. that operates as an off-price retailer offering designer apparel, accessories, and other merchandise. TJ has over 1,200 stores in the U.S., making it a dominant player in the off-price retailer space. As an off-price retailer, TJ purchases excess inventory from designer brands and sells products at discounted prices. Its flexible inventory model allows for the constant offering of new brands and styles to consumers. TJ currently targets value and fashion-conscious women with middle to upper-middle incomes; however, as its customer demographic shifts towards younger generations, it has recognized the importance of catering to Millennials.

Three Key Captains

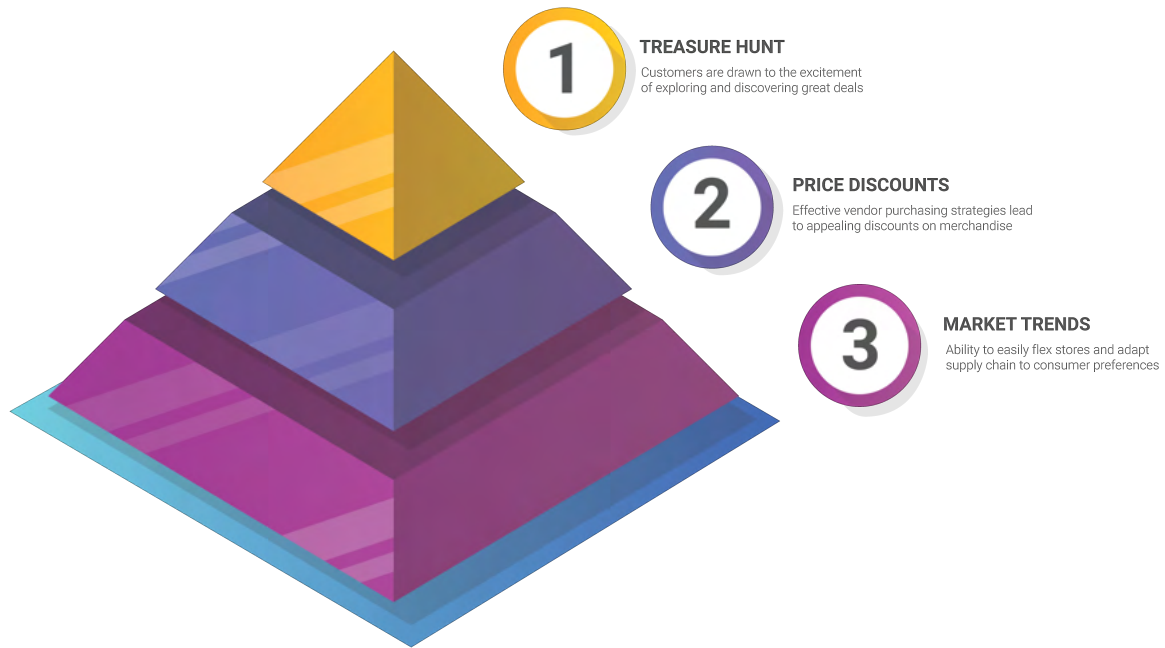
TJ's success relies on three key components: the "treasure hunt" experience, discounted merchandise, and its ability to capitalize on market trends quickly. The treasure hunt experience is characterized by the sense of exploration and discovery when browsing stock. In physical stores, displays shift frequently with no pre-defined plan; this creates huge variability and flexibility in inventory at any given time. From a behavioural perspective, shoppers tend to purchase impulsively when they know items may not be found again, creating a "buy now or cry later" mentality.

Customers are attracted by competitive prices, and they can receive up to 60 percent off at TJ stores compared to other retailers. These cost savings are achieved by TJ's vendor purchasing strategies, which enable a low cost of goods sold. Unlike department stores, TJ does not operate under a buy-back clause, meaning it takes full responsibility for selling all merchandise purchased. This allows TJ to

U.S. CLOTHING AND ACCESSORIES E-COMMERCE PENETRATION



TJMAXX'S THREE KEY SUCCESS COMPONENTS



negotiate lower prices as it takes on the merchandising risk. It can also purchase merchandise at various points throughout the year from overproducing manufacturers and department stores with excess inventory. Above all, these unique purchasing strategies allow TJ to receive significant discounts and provide consumers with competitively low prices.

TJ's ability to quickly adapt its supply chain to market trends keeps it relevant to consumers. By keeping up with consumer preferences faster than the competition, TJ is able to achieve an inventory turnover rate of 9.0 times. This is significantly higher than competitors such as Nordstrom and Kohl's which have inventory turnover rates of 7.3 and 4.8 times, respectively. Higher inventory turnover rates result in better cash flow and fewer inventory write-downs, both of which are crucial to financial success. Moreover, product selection differs across TJ stores as inventory is filled in varying quantities based on local market trends and consumer preferences. This practice helps reduce inventory carrying costs and potential product obsolescence.

Sail the High Seas in Troubled Waters

TJ's current treasure hunt model relies heavily on its in-store experience to attract customers. Strict social distancing measures, as a result of COVID-19, have discouraged consumers from shopping in-person, decreasing retail foot traffic and ultimately preventing TJ from operating stores at full-capacity. This trend, combined with the accelerated

shift towards e-commerce catalyzed by the pandemic, significantly hampers TJ's current strategy of focusing on in-person retailing. The new reality foreshadows digital solutions as a competitive advantage for retailers.

Despite its current misalignment with market trends, TJ has the capabilities to differentiate itself against other traditional off-price retailers and new e-commerce entrants. With its robust operations systems, TJ can demonstrate far greater flexibility in its supply and distribution chains. Its large base of operations allows it to achieve economies of scale, and its strong relationships with more than 17,000 vendors give the company a differentiated selection of products with cost savings of 20 to 60 percent passed on to the consumer. Lastly, TJ's strong cash position enables it to weather financial challenges far better than competitors. TJ is on strong footing to shift its strategy to e-commerce and should do so quickly before it faces significant declines in its customer base and financial health.

Weather the Storm and Find the Treasure

To combat declining in-store sales and stimulate future growth, TJ should reduce its reliance on its declining brick-and-mortar segment and translate its strengths to a complementary digital solution, Maxx Discovery. This solution would encompass a rebranding of its existing online platform. The platform would be designed to target Millennials and would complement the in-store experience, providing shoppers with a unified journey throughout all

touchpoints with the brand.

For the e-commerce solution to succeed, it must leverage the core strengths of TJ. Currently, TJ's website resembles that of a traditional e-commerce store; instead, the website should revolve around the treasure hunt model, emphasize TJ's pricing advantages relative to competitors, and incite a sense of urgency within the shopper to either "buy now or cry later."

The treasure hunt model has been core to the historical success of TJ. Popular online "thrift" style platforms such as Depop and Thredup have adopted the treasure hunt model to great success. TJ should strive to mimic a similar experience, where shopping is focused on promoting discovery rather than systematic filtering, as seen on traditional e-commerce sites such as Amazon and Walmart. Customers browsing the website would be able to scroll through a feed of clothing items and click on those that interest them. Moreover, TJ can utilize the customer's purchasing data to power its discovery system, providing relevant, uniquely tailored recommendations that go one step beyond the in-store experience.

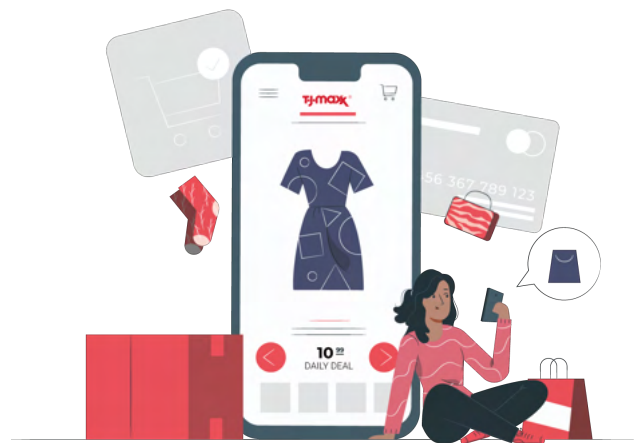
TJ's pricing advantages are a key component of its business offering to consumers. It is imperative for customers to know the discounts they are receiving relative to the full price they would pay at competitor stores. In addition to TJ displaying its low price benchmarked against the average competitor price for similar products, Maxx Discovery should personalize information to the customer by listing cumulative dollars saved through their past purchases. Both figures reinforce TJ's value to the customer and encourage them to continue to shop at TJ.

Offering "deals-of-the-day" would not only instigate urgency for the shopper but could also create new shopping experiences not possible in brick-and-mortar. This could be incorporated through a step-structured discounting model. For instance, the first 200 users would be able to purchase clothing at 60 percent off, the next 400 users can purchase at 40 percent off, continuing until the base discount level is reached. Even if shoppers miss out on the first tier of discounts, they would still be able to participate in the deal, allowing TJ to maximize revenue from discounts. This model continues to instill urgency but does not completely penalize the shopper for missing out on the deeper discounts.

TJ's discovery system should consist of a three step process: gathering all products listed on the website, generating recommendations based on the customer's purchasing history, and presenting them to the shopper in a random order. The algorithm should be outsourced to a technology company that has experience with data analysis and ecommerce. Moreover, the algorithm should

be based on the inventory available in geographically close stores, allowing for in-store pick-up or fast shipping using TJ's robust online delivery system.

MOCK E-COMMERCE APP PLATFORM



Products that will soon be out of season should be selected as "deals of the day." By prioritizing items that will soon see a decline in sales, TJ would be able to write down as little inventory as possible and maintain its high inventory turnover ratio. Overall, this would allow it to maintain its strong balance sheet while driving sales.

Board the Ship or Walk the Plank

TJ, while a quintessential name in the U.S. retail industry, is missing the mark on an industry-wide shift to digital adoption. Management has failed to recognize the importance of incorporating elements of discovery, price-discounting, and urgency into its online platform. With e-commerce only comprising two percent of TJ's total sales, TJ is severely underperforming compared to peers. Successful implementation of the e-commerce strategy should level TJ with peers and help catapult growth. Ultimately, TJ should be preemptive in preparing for the future and adapting to changing retail trends.

SIMON PROPERTY GROUP: EMBRACING RETAIL DYNAMISM

In light of falling foot traffic, Simon Property Group should look to embrace pop-up shops and short-term tenancies in its malls.

Zuhayr Abbas & Areeb Athar



Simon Says Success?

Generating over \$60 billion in annual sales through its 209 properties and 23,000 specialty stores, Simon Property Group (Simon) is a giant in the real estate space. Since its initial public offering in 1993, Simon has tripled in size to become the largest owner and operator of shopping centers in the U.S. Structured as a real estate investment trust (REIT), its portfolio includes traditional retail centers such as regional malls and premium outlets. Simon is known for its high-end tenants such as Louis Vuitton and Valentino and premier real estate locations in Boston, Las Vegas, and more. Despite its long history of retail success, Simon faces unprecedented new challenges as retail shifts to favour digital experiences.

The Fall of the Mall

While shifting consumer preferences for a convenient shopping experience have driven e-commerce growth, brick-and-mortar retail faces an uncertain future. Currently, Amazon dominates the online retail space, with individual retailers scurrying to catch up with their own improved online platforms. COVID-19 has exacerbated this trend by accelerating the shift to e-commerce by an estimated five years. With the rise of e-commerce, Simon and other commercial real estate companies are facing an existential threat: consumers no longer need to visit physical stores to purchase products. As a result, both foot traffic and occupancy rates are in decline. Simon's occupancy rates had already fallen by two percent in the six years preceding 2020, and are now at risk of falling further. Beyond just Simon, 25 percent of American malls are forecasted to close in the next three to five years.

Simon's malls are also threatened by their reliance on anchor tenants to drive foot traffic. Anchor tenants are prominent retailers that comprise malls' largest leases. These tenants are typically situated at opposite ends of the mall and are mostly apparel-based department stores. Traditionally, these stores have been marquee attractions for shoppers, with smaller retailers capitalizing on consumers flowing between them. Given Simon's heavy reliance on anchor stores, their impending closure could prove fatal to the REIT. Beyond losing major drivers of foot traffic, the departure of anchor tenants would likely trigger co-tenancy clauses within retail leases, which allow smaller commercial stores to bargain for substantial rent decreases or even a full dismissal of the contract. Despite these systemic issues plaguing antiquated retailers, Simon has doubled-down on the traditional retail experience, acquiring significant ownership stakes in Brooks Brothers and Lucky Brand during both companies' Chapter 11 processes.

Pop-ups Popping Up

While anchor tenants and legacy brands are in decline, customers have been drawn to a new kind of emerging brand: direct-to-consumer (D2C) companies. Compared to legacy brands like J.C.Penney or Winners, these e-commerce players focus on maximizing control of their entire value chain, and often manufacture, market, and distribute their own products. These brands, which include Glossier, Dollar Shave Club and Casper, have been on an explosive trajectory and are forecasted to grow 24 percent on average in 2020 alone. Their specialized focus on a narrow range of products appeals to consumers' desire for authentic brands that emphasize quality. Generation Z consumers in particular favour D2C brands: 50 percent of this younger demographic consider them more authentic than their legacy counterparts. Since D2C brands control the entire value chain, consumers can trust that products will be of higher quality. Further, the benefits of an integrated value chain extend to product pricing, with D2C brands passing along cost savings from the elimination of middlemen to consumers.

Despite the rise of e-commerce, online retail still does not fully replicate all the elements of in-person shopping that consumers enjoy. Among Generation Z consumers, 81 percent still prefer to shop in stores rather than online, with 73 percent stating that they like the experience of discovering new products in stores. To appeal to consumers, the most successful D2C brands have capitalized on the unique qualities of in-person shopping—interactivity, personalization, and most importantly trust in the product—to augment their online presence. The result has been a rise in pop-up stores, a new alternative to permanent physical locations. Unlike permanent retail locations, temporary pop-up stores last anywhere from a few days to several months. Their temporary nature enables brands to draw in new consumers by creating a sense of exclusivity.

SAMPLE D2C E-COMMERCE POP-UP SHOP



CONSUMER

The most successful pop-ups have not eschewed technology; rather, they have found new ways to integrate it into the retail experience. Given as many as 76 percent of Millennials have placed an order online while in-store, physical and online retail are no longer separate silos, but an integrated experience. Customers use technology most frequently to price-check, obtain additional information, and peruse customer reviews when shopping in person. This process of viewing products in-store and then purchasing these same items online is referred to as showrooming. Capitalizing on this trend, dedicated retail showrooms stock no inventory for sale, and instead offer a compelling experience for consumers to interact with merchandise prior to making a purchase online. Pop-ups are no strangers to showrooming, with mattress startup Casper running a pop-up showroom to offer napping sessions in one example. In another example, the meal-box brand Blue Apron created a pop-up offering grab-to-go meals and cooking classes. Ultimately, not only have online retailers that adopted showrooming and pop-ups benefited from the absence of overhead expenses, they also see a financial benefit: pop-ups generate 3x more revenue per square foot than traditional retail stores.

Simon's Solution: A Cutting-Edge Flea Market

With the decline of the traditional mall, Simon must decrease its reliance on anchor tenants and find new ways to drive foot traffic. In contrast to the current rental revenue model where leases span several years, Simon should offer shorter-term rental agreements that suit the needs of D2C brands. The REIT should reimagine malls as a hub for constantly changing storefronts where e-commerce companies can host pop-ups and provide the in-person experience that consumers seek. This new

strategy capitalizes on the increasing popularity of both showrooming and pop-up stores to combat falling foot traffic in malls. Furthermore, it creates an incentive for consumers to visit malls more regularly to discover new brands and build ongoing, personalized relationships with their favourite D2C retailers. At the end of the day, partnering with e-commerce brands can reduce Simon's reliance on anchor tenants while providing emerging D2C e-commerce brands with a physical outlet without the hassle of operating permanent retail locations.

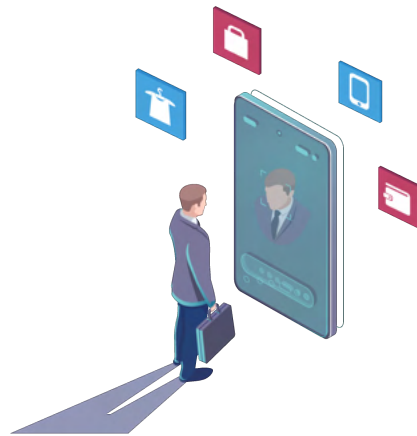
Simon should capitalize on the timed exclusivity of temporary pop-ups by offering three-to-six month lease options to D2C brands. While the shorter terms of these leases sacrifice the security offered by multi-year tenancy contracts, prioritizing temporary leases enables Simon to charge higher rental fees to tenants. Subsequently, Simon also can reduce its exposure to antiquated retailers facing impending closures. When implementing this strategy, Simon can subdivide its existing large-scale blocks leased to big-box retailers into several smaller units that can each be rented at a premium, further improving economics and diversifying risk.

Given the experiential nature of pop-up showrooms, D2C retailers would be responsible for designing, developing, and managing the shopping environment throughout the duration of their tenancy. E-commerce brands would be able to benefit directly from the interactivity afforded by physical retail while leveraging the strengths of the online retail model. The interactive elements of each showroom would be augmented by a kiosk to process product purchases, and retailers would be incentivized to use QR codes to facilitate online transactions smoothly.

EXAMPLES OF APPLICABLE TECHNOLOGY IN-STORE



Foot Traffic Data



Consumer-Facing Kiosk



Data Analysis for Business Decisions

TECH-ENHANCED IN-STORE CUSTOMER JOURNEY



1. Customer checks into store through digital kiosk - knowing online preferences, they are suggested new collections which they can scroll through

2. Their movement is tracked by retailers, to understand which products and store areas are generating the most interest

3. Screen displays new lifestyle advertisements and changing outfit ideas, to provide more dynamic engagement

4. Customer checks out without a cashier, using their phone at a digital point-of-sale system

Connecting E-Commerce Brands and Simon

One challenge posed by the short-term nature of Simon's pop-up tenancies is the need to persistently recruit a variety of e-commerce brands to replace outgoing tenants. Fortunately, Simon can mitigate this issue on two fronts: first, by capitalizing its diverse geographic presence; and second, by partnering with a firm specializing in the management of landlord-tenant relations for prospective pop-up developers.

For one, Simon can build long-term partnerships with e-commerce brands by offering them an opportunity to cycle between properties when hosting pop-ups. This transition strategy enables brands to reuse existing assets to effectively target customers across multiple locations. Thus, the breadth, diversity and quality of Simon's portfolio would enable e-commerce brands to maintain the exclusivity associated with temporary retail while building a long-term relationship with a single landlord.

Moreover, given the challenge of recruiting new e-commerce brands, Simon can leverage its existing partnership with Appear Here, a U.K.-based online marketplace for entrepreneurs and niche retailers looking for short-term rental units. Launched in 2012, Appear Here has partnered with over 200,000 brands and entrepreneurs, including Nike and Kanye West, though it primarily works with small independent businesses. Thus, the firm provides an opportunistic connection to a global portfolio of D2C brands that would benefit significantly from the premium real estate Simon has to offer. Furthermore, the collaboration would build upon an existing relationship that began with the two companies' co-development of 'The Edit' in 2017, a curated and evolving selection of independent brands in Long Island's Roosevelt Field Mall. Given Appear Here's expertise on trending D2C brands, it

is a prime candidate to mediate Simon's relationship with these retailers for long-term partnerships.

When introducing this new offering, Simon should start with malls that have already lost their anchor tenants. One example is the Smith Haven Mall in Lake Grove, New York, which currently only has two anchor tenants out of four available locations. The departures of JCPenney and Sears in 2019 and 2020 respectively have left the mall in need of new ways to drive foot traffic. To tackle this gap, a potential pop-up partner could be Glossier, a D2C makeup brand that strives to create "beauty products inspired by real life". Glossier has seen previous success with the pop-up model, with locations in London, Paris, Toronto and across the US. In New York, its showroom achieved \$5,300 in sales per square foot, far higher than normal retail, and more generally, the brand's retail sales have seen conversion rates as high as 50 percent for sustained periods of time.

Saving Simon Property Group

With declining foot traffic and floundering anchor stores, traditional malls and their retail tenants face a difficult path to sustaining their success. In contrast to legacy brands, D2C e-commerce companies have risen to the top, sustaining impressive growth in recent years. These brands have embraced new strategies such as pop-up shops and a showroom-oriented retail experience. In light of these changes, Simon should target D2C brands with short-term leases to host pop-ups within prime Simon mall locations. Not only will this strategy help Simon by establishing a new revenue stream in malls, but having limited-time pop-ups can help draw out new customers to increase foot traffic. With its commercial shopping centers ready and available, Simon Property is well-positioned to revitalize the in-person shopping experience

MINORITY CREDITORS: MANAGING DEBTS OUT OF THEIR DEPTHS

Minority creditors, facing overwhelming pressure from loophole investing and majority creditors, must cooperate to protect their collective interests.

Roy Zhang & Peter Matthews



MINORITY CREDITORS: MANAGING DEBTS OUT OF THEIR DEPTHS

A Broken Covenant

As interest rates fall globally and the United States Federal Reserve continues to emphasize expansionary monetary policies in the wake of the COVID-19 pandemic, investors have become desperate to find attractive yields in the credit markets. Since 2005, the private credit market has expanded dramatically. Regulations imposed on banks following the crisis limited their ability to distribute capital to companies, forcing businesses to seek out alternative forms of financing. These factors culminated in the expansion of the private credit market from approximately \$300 billion in 2010 to over \$750 billion in 2018. Today, the private credit market is estimated to exceed \$1 trillion, and this growth is expected to persist indefinitely as risk continues to shift off the balance sheet of regulated banks. However, with over \$250 billion in uninvested capital sitting in private credit funds, it will be difficult for these firms to find returns that justify their fee structure.

Over the past decade, these factors have led creditors to become more flexible in structuring debt. Adam Cohen, Managing Partner at Caspian Capital, remarked that funds were so focused on growth that they often neglected the structure of the credit documents—legal documents outlining the term, cost, structure and covenants of the debt. This is evident through the expansion of covenant-lite loans since 2012. The LCQI score is a proprietary Moody’s measure of covenant protections provided to investors in the leveraged loan market. It scales from 1 to 5, with 5 denoting the greatest disregard for covenants; this indicator has risen from 3.2 in 2012 to over 4.0 in 2020. Additionally, a Bain Capital report in 2019 observed that 80 percent of outstanding loans by market value were deemed covenant-lite, compared to just 20 percent in 2012.

Another contributing factor to changes in debt structuring is the current market stage of the credit cycle. The expansion of credit markets following the financial crisis has been robust, and as a result of the liquidity crisis caused by the global pandemic, corporate and high-yield debt issuances have continued to achieve record highs. As the volume of debt issuances increases, the opportunities to invest credit in the future with a reasonable risk-return profile will become less prevalent. Therefore, credit investors are being compelled to infringe on the value of other creditors’ stakes to enhance their returns. This environment has made “loophole investing,” a phenomenon coined by Adam Cohen, possible.

Jumping Through Loops

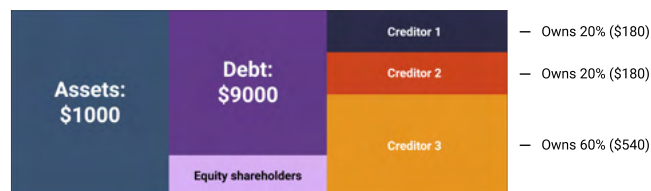
Before understanding how creditors use these loopholes to generate returns, it is important to understand the mechanics of bankruptcy. Bankruptcy occurs when a company faces a liquidity event in which it cannot make

the required payments such as principal on debt or interest payments. When a company declares bankruptcy, it enters into an automatic stay, which prevents creditors from taking action to retrieve value from the debtor. Bankruptcy gives companies the opportunity to “restructure” their capital structures by eliminating debt to remain operational. In restructuring procedures, a plan of reorganization that outlines the company’s recovery strategy and new capital structure must be presented and approved by creditors. This plan will always involve Debtor In Possession (DIP) financing. If the plan of reorganization is approved, the company emerges from bankruptcy with a capital structure that can support the future operations of the business.

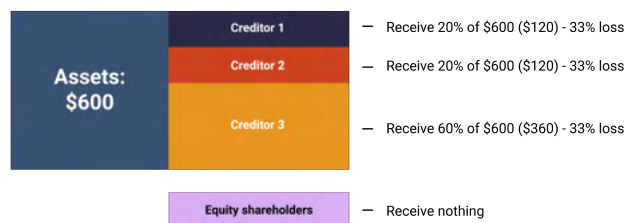
Loophole investing occurs during a bankruptcy restructuring process when credit investors abuse the lack of covenant protection or use creative interpretations of credit documentation to force their capital into a more senior position within the capital structure. In these

DEBT RECOVERY SCENARIOS

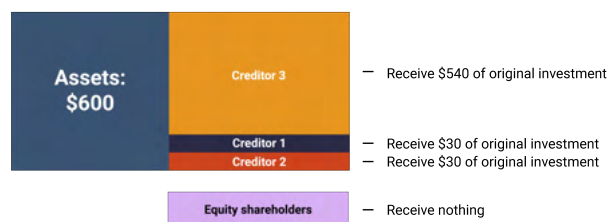
Scenario 1



Scenario 2



Scenario 3



scenarios, credit investors in a company bear the risk of being wiped out, creating incentives for them to find ways to move up the capital structure and artificially increase the seniority of their debt. Loophole investing allows investors with equivalent levels of seniority to obtain collateral or additional rights at the expense of other creditors. Similarly, many debtors have also been actively seeking creative means to deprive creditors of value. Cohen suggested that investing in credit right now focuses more on legal loopholes than value investing—a viewpoint that is becoming common sentiment within the credit investing industry.

This practice is evident in several high-profile debtor-creditor and creditor-creditor disputes, including those surrounding J. Crew, NYDJ Apparel (NYDJ), TravelPort and Serta Simmons. In the case of J. Crew, the debtor moved the J. Crew brand name and several other intangible assets to a subsidiary in the Cayman Islands and was subsequently issued a \$300 million loan from Blackstone with these assets serving as collateral. The original creditors, who believed they were entitled to the J.Crew brand name, were shocked to see they no longer had access to these assets, and consequently were forced to settle for a deal with J. Crew. NYDJ, Travelport and Serta Simmons are more recent examples of right infringements in bankruptcy events.

Ultimately, loophole investing has created an unhealthy environment within the credit community that prevents investors from seeking collaboration and mutual benefit. These developments could have important consequences for all stakeholders, as this form of investing often leads to time-consuming procedures within restructurings that put the company's actual recovery at risk. Instead of working together to create solutions for a troubled business, investors focus on esoteric legal maneuvers to increase the value of their investments at the expense of others. These practices have led to reputational damage among investors that hinders cooperation and returns in future investments.

Minority creditors are particularly exposed to these risks because of their lack of power—they have less influence on any voting processes that occur throughout the restructuring. However, there remains viable strategies for minority creditors to pursue which can protect them from loopholes and the unreasonable demands of majority creditors. Minority creditors need to be proactive in partnering with other stakeholders to prevent their value from being eroded in a restructuring. By effectively aligning all creditor and debtor interests together during these processes, all parties can and will benefit in a restructuring.

NYDJ: Debt Used to it

The NYDJ restructuring of 2017 is an iconic example of how covenant-lite developments have allowed loophole investors to infringe on the value of other creditors. Two creditors that held a majority of the debtor's term loans presented a deal that additional financing would be given, provided that their repayment was prioritized before the others within the same term loans. Many of the minority creditors were not even aware of this change until after the transaction had already taken place. By that point, the value of their debt investment had changed and they were forced to sell their stakes at a discount to the majority creditors.

There are two important things to note from this restructuring. The first is that it would have been illegal if stricter provisions were in place. NYDJ's provisions could be described as a form of "populism" where a majority of creditors strip a minority of creditors of important rights through voting. Additionally, since the majority creditors offered the debtor a deal that would alleviate their situation, the debtor acquiesced to their demands. Hence, NYDJ provides a model for understanding factors minority creditors must consider. Namely, whether they have the backing of the credit documents on their side, and whether they can offer the debtor a better proposal that could protect them from attempts from others to bully them into submission. In general, this type of situation—where a majority creditor uses voting power and loopholes to strip value away from minority creditors—has become known as non-pro rata treatment.

In the event that minority creditor groups are unable to propose a better solution due to limited economic capacity, they should consider reaching out to unsecured or junior creditors. In most situations that deal with non-pro rata treatment, the unsecured and junior creditors are insulated from the conflict. This is because any dispute over the distribution of the collateral assets would not affect them regardless, as they would not have had access to the value of the collateral assets. However, if a minority secured creditor can offer any value to the unsecured or junior group in their proposal, it would involve them in the discussion and offer additional allyship to the minority secured creditors.

Travelport: Combatting Debt-trimental Practices

Recently, Travelport Worldwide Ltd. (Travelport), a U.K.-based travel booking company owned by private equity firms Elliott Management (Elliott) and Siris Capital Group (Siris), entered into a restructuring agreement. Initially, Elliott and Siris attempted to move Travelport's valuable

MINORITY CREDITORS: MANAGING DEBTS OUT OF THEIR DEPTHS

intellectual property and brand through a “trap door” to become collateral for the \$1 billion rescue loan. However, lenders including Blackstone, Bain Capital and Mudrick Capital believed this action violated the terms of the loan agreement and that they were entitled to the intellectual property as collateral. In response, Travelport sued its creditors with Kirkland & Ellis, a prominent law firm, eventually resigning as a result of hostile negotiations. Amidst this, Travelport warned that it may be forced into a defensive bankruptcy. However, the company reached a deal with existing creditors to pledge its intellectual property and brand that had been collateral for Elliott and Siris’s rescue financing. This resulted in a \$500 million capital injection by existing creditors.

This process was significant as it reflects how, by taking proper measures to protect their investments, creditors have the ability to enforce their rights against loopholes. Had the creditors not stepped in, they would have lost key collateral and seen their loans plummet in value. When entering covenant-lite investments, credit investors need to weigh the risk of other parties using loopholes to steal value and identify opportunities where their rights will be protected.

Serta Simmons: Cooperation is a Credit

Serta Simmons presents a third situation where the lack of strict covenant documentation sparked a legal conflict over creditor value. For the restructuring of the struggling American mattress maker, financing proposals were offered by two distinct groups of creditors: the smaller group was led by Apollo Global Management, a firm known for its shrewdness in capturing covenantal loopholes, while the larger group was led by a collection of mutual funds. The company went with the latter proposal, even though it would infringe the value of Apollo and other excluded creditors by letting the mutual funds skip to the front of the repayment line. While this proposal violated commonly-held conventions to payment priorities in a restructuring, the court denied Apollo’s request to terminate the proposal, as it was legally permissible.

It is unclear why Apollo was excluded from taking part in the proposal of the latter group of creditors, but its reputation as being an uncollaborative creditor ally may point to the reason why. Because the credit investing community is so tight-knit, actions pertaining to one investment will lead to consequences with another. This case study presents an uncomfortable and yet important truth: the minority creditor cannot always rely on legal protection, as much of that has been stripped away. Moreover, negotiation and reputation management can be extremely important. Achieving consistent returns over a long period of time might require compromise and cooperation since selfish

acts are not forgotten.

Minority Strategies That Will Pay Off

As funds continue to flow into the private credit markets, it is unlikely that market forces will drive out loophole investing. This trend has created an environment that favours self-preservation over mutual collaboration. However, as investors seek out returns through legal maneuvers and loopholes, the industry as a whole could pay the price. Reduced collaboration and longer periods of time spent in bankruptcy will significantly decrease a company’s chances of recovery, resulting in lost value for all parties. In addition, such actions have deteriorated the reputations of investors and have impeded future investments, as seen in the case of Apollo. The recommendations presented outline practices that, if made commonplace, could ultimately reverse this hazardous trend of loophole investing.

GLOSSARY OF TERMS

Expansionary monetary

Policies enacted by a country’s central bank that aim to increase money supply faster than usual and lower short-term borrowing costs (i.e. interest rates).

Private credit market:

Direct non-bank lending that is not traded or issued on the public market.

Covenant-lite loans

Loans where the rights and protections given to creditors are significantly reduced. Trending in credit markets, as there has been a high supply of capital in the credit markets since the financial crisis.

Debtor In Possession (DIP)

A special loan given to the bankrupt company to allow it to continue operating.

Seniority

The order of repayment in the event of a sale or bankruptcy of the issuer; “junior” or “subordinated” debt is repaid after more senior tranches.

Minority creditors

Creditors that hold only a very small portion of a certain tranche of debt, and thus may not have their voices heard in situations where larger creditors intentionally strip away their value for personal gain.

Non-pro rata treatment

In a pro rata debt payout, creditors holding the same piece of debt receive payment and rights proportional to the amount they hold. In pro-rata payouts, a few creditors receive a much larger share of payouts, while stripping out minor creditors of their rights.

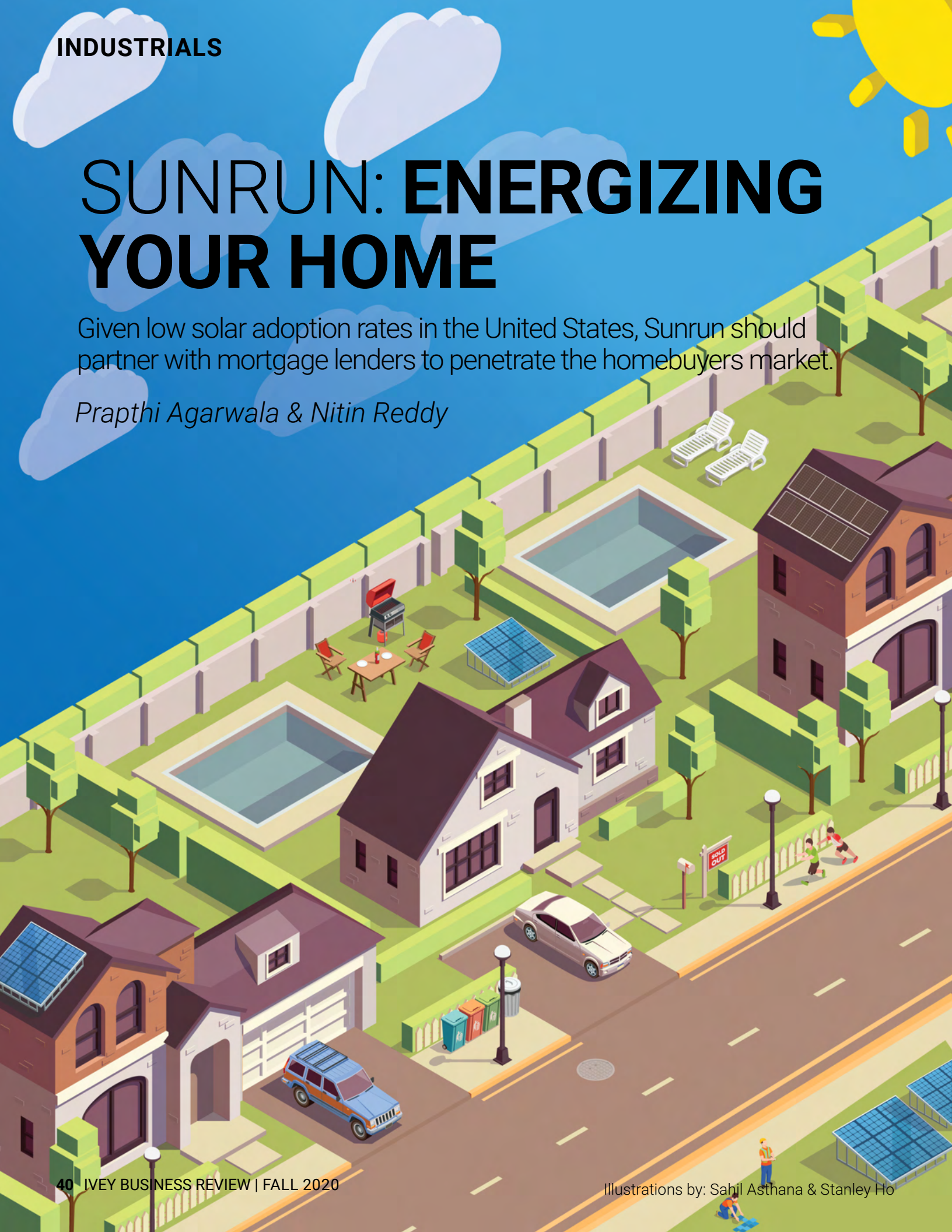
Unsecured or junior creditors

Those who do not have collateral and have agreed to receive payout after creditors with collateral (secured creditors). Unsecured or junior creditors usually cannot receive any money from bankruptcies so long as senior secured creditors have not been paid.

SUNRUN: ENERGIZING YOUR HOME

Given low solar adoption rates in the United States, Sunrun should partner with mortgage lenders to penetrate the homebuyers market.

Prapthi Agarwala & Nitin Reddy



Behind the Sun

In the largest acquisition to date in the residential solar power industry, Sunrun Inc. closed its purchase of Vivint Solar (Vivint) on October 8th, 2020 for \$3.2 billion. Prior to the acquisition, Sunrun and Vivint were the leading players in the industry, together accounting for a 17.5 percent share of the U.S. residential solar market in 2019. Despite being the largest industry players, both companies were unprofitable, with Sunrun losing \$391 million and Vivint losing \$396 million in 2019. The combined company, operating under the name Sunrun, aspires to become a global leader in solar installation.

Cost synergies and an expanded customer base were the primary motivators for Sunrun's acquisition of Vivint. Sunrun projected \$90 million of annual cost synergies, largely attributable to eliminating redundancies in marketing costs. The combined company also has an expanded customer base of nearly 500,000 households in the U.S. However, it is likely that Sunrun will be unable to make up its losses from these cost synergies alone. Sunrun continues to face challenges in customer acquisition, arising from the highly fragmented market in which it operates. The fragmentation of the market means that there is no clear go-to for residential solar installation for Americans; this creates an opportunity for Sunrun.

It is clear that Sunrun's customer acquisition spending is eating away at its margins. Prior to the acquisition, these costs amounted to \$5,219 per customer, comprising 27 percent of the average revenue per installation. Moreover, while its strategy of establishing marketing booths within Home Depot is successful within smaller geographies, it will become difficult to scale as Sunrun expands its domain. COVID-19 has also impeded the success of this strategy in the short-term amid store closures and enforcement of social distancing measures. Ultimately, to reach a broader market and grow in the residential solar markets, it is clear that Sunrun must reduce customer acquisition costs.

Brighter Days Ahead with Renewable Energy

Transitioning to renewable energy in the residential sector is significantly beneficial for consumers. One of the primary incentives of switching to solar energy is environmental solar power can supplement and even replace fossil fuels for residential energy use, reducing the carbon footprint of the home. Homeowners with solar panels also receive financial benefits in the U.S., including a 26 percent federal tax credit against the cost of installation, solar rebates, and state-level renewable energy credits. Finally, direct savings exist due to reduced utility expenses for households, with solar energy devices resulting in average savings of \$1,100 per year. However, the extent of actual savings is dependent on a number of variable factors; namely, the

hours of direct sunlight, size and angle of the roof, and local electricity rates.

When consumers install solar panels, the value of their homes also increase. On average, homes with solar panels sell 20 percent faster at a 4.1 percent premium compared to those without solar panels. For each additional kilowatt of solar energy generated, studies have found a corresponding increase in home resale value ranging from \$4,020 to \$5,911. This translates to a market value increase of at least \$24,120 for a mid-sized US home and a typical six-kilowatt solar panel installation. Thus, the cost of an average rooftop solar installation and battery can be easily recouped from the appreciation in property value. This provides incentives for consumers to seek ways to integrate renewable energy into their homes.

An attractive option for homebuyers to finance the installation of solar panels is the Energy Efficient Mortgage (EEM) program enacted by the Federal Housing Administration. EEMs allow borrowers to finance energy-saving measures along with the purchase of their home. The savings realized from the energy-efficient measures are classified as additional income for the borrowers, helping them qualify for larger loans and more favourable financing terms. State and local governments incentivize mortgage lenders to partake in this program by "buying down," or reducing, the interest charged to borrowers in exchange for cutting their home energy consumption. While the program benefits both the bank and the homeowner, U.S. institutions that offer EEMs or equivalents remain scarce. However, this program has successfully scaled in Europe: over 50 banks have joined the initiative and these banks account for 55 percent of all European mortgages.

Lending a Shining Light

The U.S. mortgage industry is one of the largest revenue segments for financial institutions, with a market size of \$11 trillion. In 2020, 4.8 million homes were sold, of which 33 percent were to first-time homeowners. This number is expected to increase as interest rates remain at record lows, while young professionals, namely Millennials, start moving into suburbs amidst the new virtual work environment. In addition to being the most prominent demographic taking out mortgages, Millennials are also the most environmentally conscious, with 70 percent extremely worried about climate change and its effects. Over half of this demographic is also expected to install solar panels in the next five years, compared to only 18 percent of Generation X.

Although over 10,000 companies offer solar installations in the U.S., only six percent of U.S. homes currently have solar installations. Since there is no industry go-to for residential solar panels, particularly for new homebuyers, leaving an

open net for Sunrun and its competitors. To capitalize on this opportunity, Sunrun should partner with a major American mortgage lender to pursue new homebuyers. In this partnership, Sunrun should launch EEM products with the lender, specifically targeting first-time Millennial homebuyers. Not only would this partnership appeal to Millennials' favourable attitudes towards solar panels, but the convenience of purchasing a new home and installing solar panels in the same transaction removes yet another hassle for the consumer.

The partnership would complement Sunrun's existing strategy of advertising within Home Depot. While the company's previous strategy aimed to service existing homeowners interested in improving their house through renovations, partnering with mortgage lenders would target first-time homebuyers. The partnership would also raise awareness for solar power, as Sunrun's existing marketing materials could be distributed through the partner company's digital platforms. Examples include distribution through the partner's mailing list to mortgage clients and content on the EEM segment of the partner's website. Above all, as the residential solar panel market is still emerging, Sunrun should use this partnership to help achieve growth and increase brand awareness.

Reenergized: Building a Productive Partnership

Given its position as the largest commercial bank by mortgage originations in the US, Wells Fargo would be the ideal partner for Sunrun. The breadth of Wells Fargo's outreach is especially beneficial in this partnership as it would give Sunrun access to a large pool of new potential consumers. The bank has also committed \$200 billion from 2018 to 2030 to finance sustainable projects, with 50 percent allocated towards investments in renewable energy that directly support the transition to a low-carbon economy. Sunrun's product offerings can assist with Wells Fargo's mission of combating climate change and moving the country towards mass adoption of renewable energy.

Wells Fargo is also poised to profit from this partnership. Sunrun should pay the bank up to \$2,600 for every customer referred by the mortgage lender, which is less than half of Sunrun's current customer acquisition cost of \$5,219. In the short term, Wells Fargo can generate revenue from customer referrals without significant costs or effort beyond the initial launch of the partnership. In the long-term, Wells Fargo's partnership with Sunrun could also help raise awareness for solar financing in general, thereby increasing exposure and demand for other solar financing options offered by the bank.

For pricing, Sunrun and Wells Fargo should collaborate to design mortgage bundles that include solar panel installation. This mortgage bundle would group solar

panel and installation costs in the mortgage payment plan. The plan would spread these costs over the term of the mortgage, making it easier for homeowners to opt into solar-powered energy. While residential solar panel installations are costly—typically ranging from \$11,144 to \$14,696 after solar tax credits—spreading it over a longer horizon will make the cost more digestible.

Growth on the Horizon

As Sunrun expands its operations in hopes of capturing a larger portion of the growing residential solar panel market, a partnership with Wells Fargo would allow it to tap into a well-aligned customer base. This strategy will increase the number of residential solar panel users and decrease customer acquisition costs; all of this in turn can help Sunrun move towards profitability. Looking forward, Sunrun could expand its partnership to include other banks to further capitalize on this mutually beneficial strategy. With no industry go-to for residential solar panels, Sunrun has a unique opportunity to be the guiding light in this market.

SUNRUN CUSTOMER JOURNEY



Wells Fargo customers learn about Sunrun when going to the bank for a mortgage



Customers engage with promotional material to learn about the benefits of solar energy

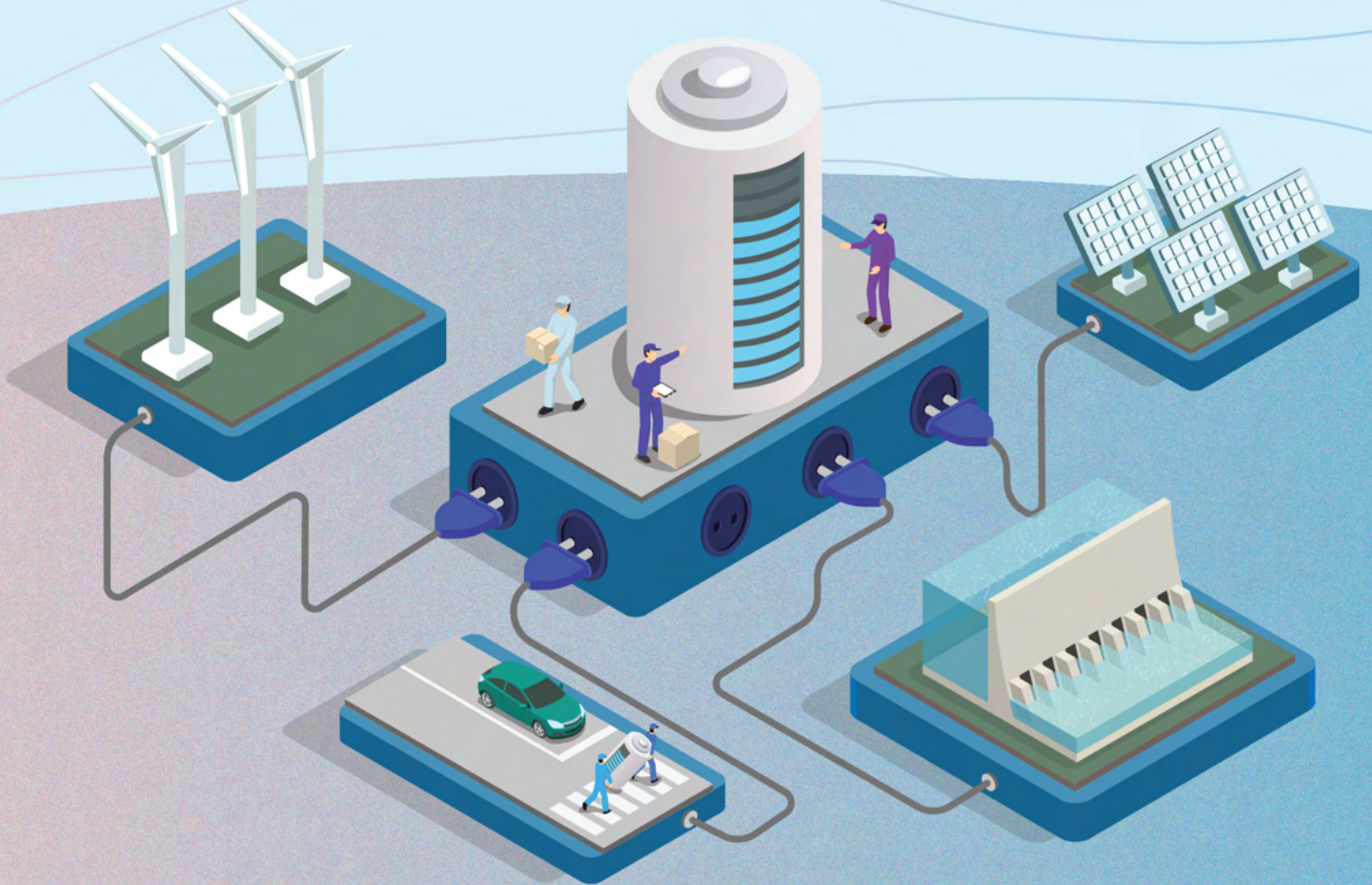


Homebuyers get solar panels as part of a mortgage bundle with their home

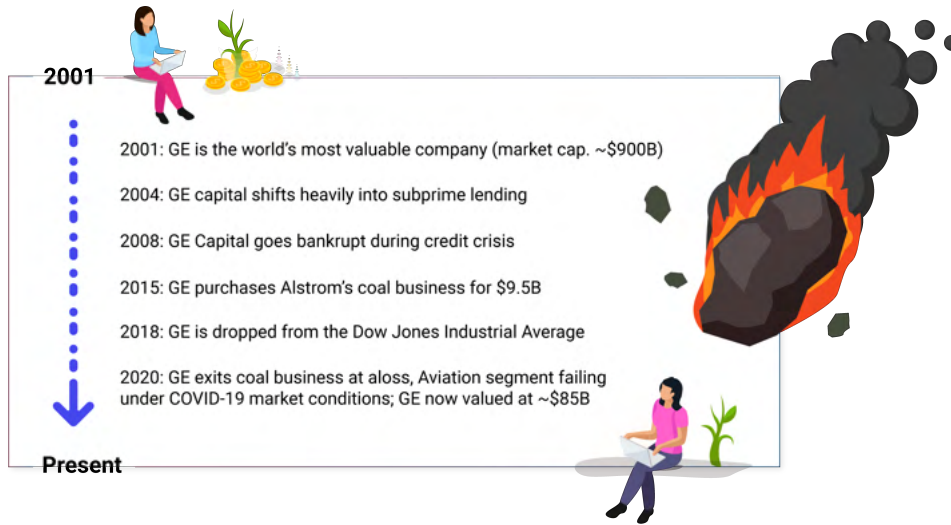
GE: AMPING UP ENERGY STORAGE

GE should prioritize investments in innovative forms of long-term energy storage, rather than production, as the future of sustainable energy becomes clearer.

Ryan Cheng & Ben Ballyk



GE COMPANY TIMELINE, 2001-2020



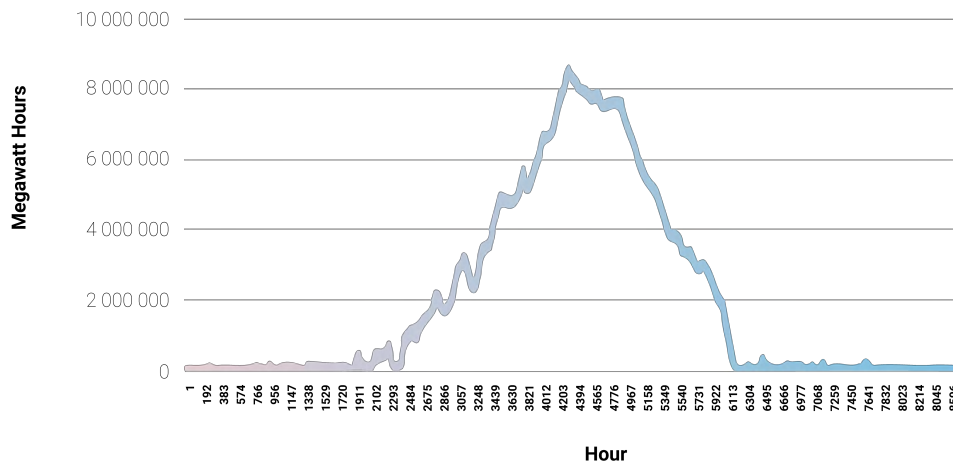
The Fall of GE

In August 2000, General Electric (GE) was the world's most valuable company, with a market capitalization of approximately \$900 billion in today's dollars. However, due to a number of poor strategic decisions and difficult external circumstances, their current valuation is just \$85 billion. When chronicling GE's downfall, several key events emerge as drivers of decline. GE Capital was a leading driver of revenues leading up to 2008, but the financial crisis nearly bankrupted the company due to its high risk exposure. Later down the road, GE's acquisition of Alstom's coal power business for \$9.5 billion in 2015 was largely seen as a strategic failure, as GE exited the coal power business five years later. In September 2020, given the downturn of its aviation segment and the struggles of its coal-focused power segment, GE announced plans to focus on wind power.

GE's Strategy and the Winds of Change

GE's decision to pivot from coal to renewables is supported by the industry's anticipated growth: the renewable energy market is poised to grow 6.1 percent annually from \$928 billion in 2017 to \$1.5 trillion in 2025. This growth is largely attributable to declining costs and rising generation capacity. The wind turbine market is positioned to grow even faster at 7.2 percent annually from 2017 to 2023. GE's renewable energy segment is predominantly focused on onshore and offshore wind turbine manufacturing, and the company recently sold its solar energy business to streamline operations. GE is relatively well-positioned within the industry, ranking fourth in market share with 10 percent.

DEMAND DISTRIBUTION FOR ENERGY STORAGE, CALIFORNIA



To grow its wind turbine market share, GE's main strategy has been to make improvements to the size and efficiency of its turbines. However, potential growth in efficiency is limited as existing wind turbines have already reached 80 percent of the maximum theoretical limit on energy efficiency. In addition, current trends indicate that global renewable energy generation is increasing faster than global renewable energy use. GE has cited increasing competition and the resulting pricing pressure as a root cause for the decline in the profitability of its renewable energy unit from a \$728 million profit in 2017 to a \$666 million loss in 2019. Technological limits have also severely constrained GE's growth potential within the market. Given these constraints, as well as management's commitment to the renewable energy unit, GE should look to explore new, high-potential renewables markets.

Energy Storage: An AAA Market

In recent years, the energy storage market, including utility-scale batteries, has seen considerable growth and investment. The market is projected to grow from \$2.9 billion in 2020 to over \$103 billion in installation revenues by 2030. The main market drivers have been economies of scale and the popularity of electric vehicles, which have led to a drop in lithium-ion battery prices by over 80 percent from 2010 to 2019. Demand for energy storage has also increased significantly due to growing interest in renewable energy sources as well as grid modernization and stabilization.

Energy storage products help store energy during periods of peak generation and subsequently release energy as it is demanded. They stabilize the volatility of renewable energy generation and allow utility companies to avoid expensive curtailments. Typically, curtailments occur when producers limit energy production to either bring supply closer to demand or to handle grid congestion, where the amount of power transmitted from one line to another needs to be controlled. This costly process is implemented when there is more electricity being produced than can feasibly be stored in batteries or consumed.

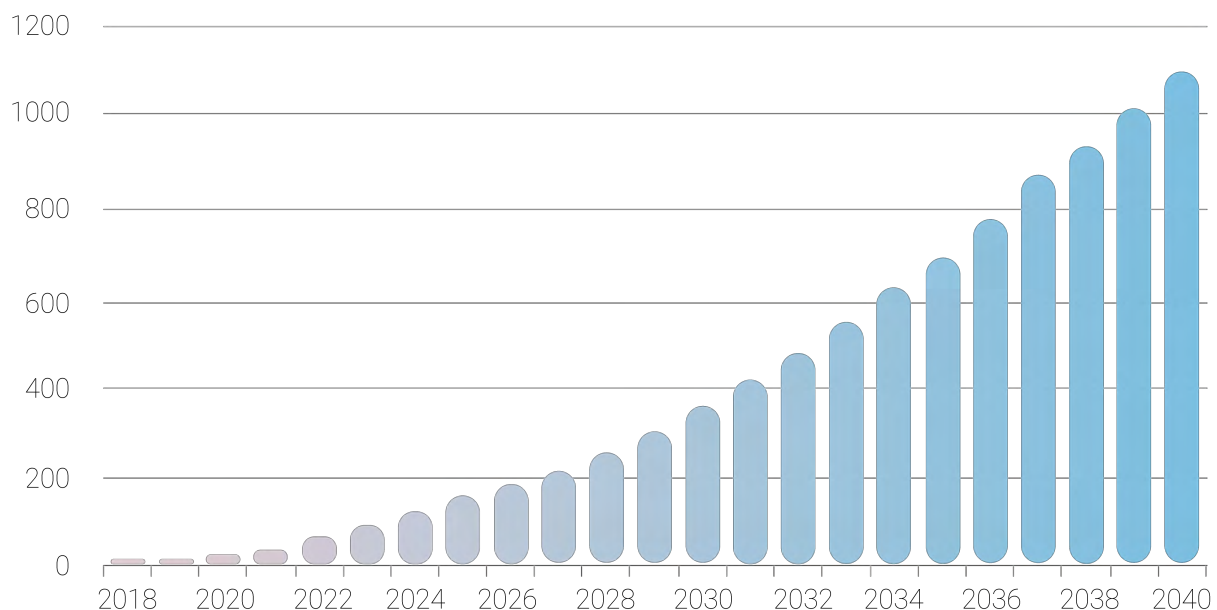
The Short-Comings of Short-Term Batteries

While companies like Tesla, Samsung, and LG Chem have doubled down on their commitment to lithium-ion batteries, experts predict that lithium is not economically efficient enough to operate on the growing grid. As these batteries can only provide six hours of electricity, they are ultimately short-duration energy storage systems. In comparison, emerging, long-duration storage systems such as flow batteries and thermal storage provide over 10 hours of energy.

Another important characteristic of grid-scale batteries is the energy capacity cost, measured in dollars per kilowatt-hour (kWh). When comparing batteries, these costs tend to be significantly higher for short-duration batteries relative to long-duration. A study conducted in the *Energy & Environmental Science* journal shows that powering 80 percent of the U.S. grid with wind and solar would require

GLOBAL CUMULATIVE ENERGY STORAGE INSTALLATIONS

Gigawatts



either an expensive nationwide high-speed transmission system, or it would limit the whole system to just 12 hours of energy storage. If this transition to renewable energy was implemented with lithium-ion batteries, it would cost over \$2.5 trillion, or 12 percent of the U.S. GDP. In the state of California, if the share of renewable energy increases from 50 to 100 percent by 2045, the cost per megawatt-hour (MWh) would rise exponentially from \$49 to \$1,612 per MWh given today's short-duration lithium-ion prices.

Fortunately, awareness about the importance of long-duration energy storage is on the rise. Recently, the California Energy Commission established a \$20 million fund for investing in non-lithium-ion long-duration energy storage. The U.S. Department of Energy also announced a \$30 million project to fund battery research projects, citing a need for technologies that cost less and last longer than lithium-ion. Globally, Bloomberg predicts that 305 gigawatt-hours of energy storage will be installed between 2016 and 2030, which would be 2,364 times the size of Tesla's world-record-breaking installation in Australia.

Long Duration, Long Overdue

Currently, GE's main energy storage product is Reservoir, a lithium-ion battery. However, given lithium-ion's inability to meet the storage needs of the future, GE should shift its focus from lithium-ion to a greater, sustainable opportunity: long-duration energy storage systems. Currently, the most prominent long-duration battery type is vanadium flow, which is forecasted to account for 30 percent of the storage market by 2025. In comparison to lithium-ion batteries which degrade after a few thousand charging cycles, vanadium flow batteries can be recharged up to 20,000 times without performance declines and are expected to last decades.

Batteries Not Included

Long-duration storage start-ups have struggled due to significant capital requirements for R&D. This lack of capital means that many of these companies have gone out of business before getting a chance to prove their concept in the market. This is where GE, with its significant size, capital and manufacturing scope can step in.

In 2019, GE sold off various poorly performing business segments to strengthen its balance sheet. As of September 30th, 2020, GE boasted nearly \$40 billion in cash with 91 percent of its \$80 billion in bank loans maturing after 2021. GE, with nearly \$3.5 billion worth of investments in its GE Ventures portfolio as of 2019 has the capacity to make significant investments in various long-duration storage startups. Flow battery makers such as ESS and Primus Power have each raised \$47 million and \$110 million,

respectively, and are actively seeking investments. GE can act as a strategic partner for such startups, supporting their manufacturing and R&D needs, while hedging against the risk of a single technology failing. If an investment successfully demonstrates a powerful proof of concept, GE can help finance manufacturing costs to establish a dominant industry player.

Tailwinds Ahead

As a leading manufacturer in the wind turbine market, there is an opportune case for vertical integration by pairing a long-duration storage system with GE's existing onshore wind turbines. Large-scale wind-plus-storage and solar-plus-storage have typically faced challenges due to the constraints of lithium-ion batteries. In particular, curtailments are becoming a significant issue for governments committed to renewable energy. For one example, the U.S. had to curtail about two percent of wind generation in 2018. Within the U.S., Texas had to curtail an astounding eight percent of solar generation in 2018. Emerging long-duration technology would change the scope of the market by reducing expensive energy curtailments and decreasing installation costs for producers.

Charging for a Brighter Future

As pricing pressures and market saturation look to threaten its position in the wind turbine market, GE is once again at a key strategic fork in the road. Investing in the saturated wind turbine market will have diminishing returns, and targeting short-duration lithium-ion batteries would be expensive and difficult. However, capitalizing on its size and expertise, GE should look to the promising future of long-duration energy storage systems. While long-duration storage startups lack the infrastructure to prove commercial viability, GE can utilize its asset base and manufacturing capabilities as a launchpad for these technologies. Whether it is pairing wind and solar with storage, or improving grid reliability and stability, the robustness of a long-duration storage system will allow for a wide range of uses. As governments aggressively pursue agendas of climate sustainability and clean energy, the need for long-duration storage is not a question of if, but when.



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ALBEMARLE: GEARING UP FOR A LITHIUM-DRIVEN FUTURE

Presented with the opportunity to become the world's largest lithium producer, Albemarle must reinvent its operations to grow in an environmentally-conscious world.

Armin Buijs & Faizan Basharullah



ALBEMARLE: GEARING UP FOR A LITHIUM -DRIVEN FUTURE

Albemarle

Since its inception as a paper manufacturing company in the late 1800s, Albemarle (NYSE: ALB) has grown to become a multinational manufacturer of specialty chemicals and the world's largest producer of lithium for electric vehicle (EV) batteries. Albemarle's success as a lithium miner and producer is rooted in its global presence, stemming from its appetite for strategic acquisitions.

Currently, Albemarle extracts lithium in Australia, Chile, and the United States. A significant amount of Albemarle's lithium is located in Chile's Salar de Atacama (Salar), an arid salt flat that hosts one of the world's largest lithium reserves. Albemarle also wholly owns a chemical production plant in Langelshiem, Germany. This site further processes previously extracted lithium into products that can be used in pharmaceuticals, refrigerating machines, and importantly, lithium-ion batteries.

Albemarle is well-situated to compete in the landscape of lithium production and manufacturing due to its established global presence and low-cost operations. However, the lithium market is changing. Demand is expected to increase due to growth in downstream markets, primarily electric vehicles. Capitalizing on this lithium demand will prove challenging as environmental regulators oppose current business activities. If done hastily, lithium extraction comes with a high environmental price: ecological devastation, toxic waste sites, community disturbances, and excessive water usage, all of which could lead social and political agents to oppose the expected supply increases. Moreover, the threat from foreign competition in China dominating the lithium supply chain means Albemarle must strategically develop regional

supply chains closer to automobile manufacturers.

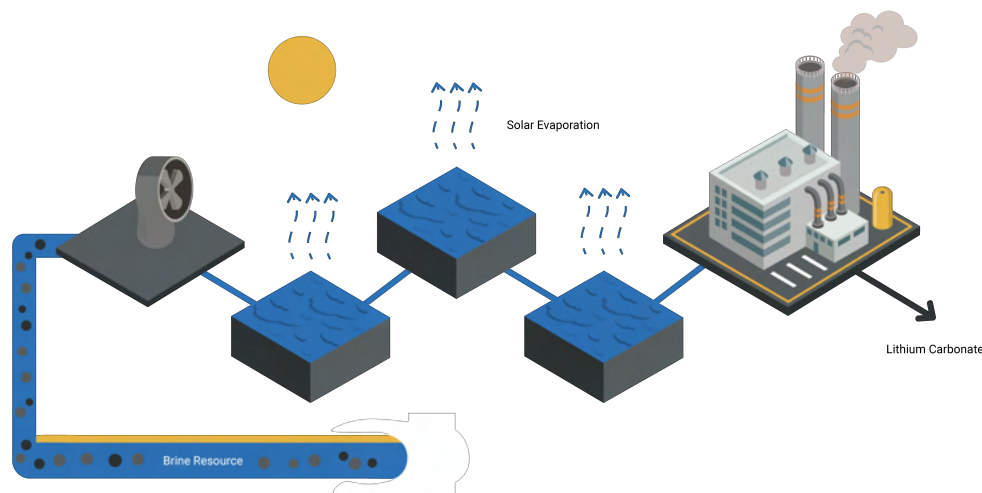
What Do Flamingos, EVs, and Chile Have in Common?

Consumer demand for EVs has skyrocketed in recent years, with the number of EVs on roads across the world climbing 40 percent from 2018 to 2019. Although the industry only represented 2.6 percent of global car sales in 2019, the International Energy Agency (IEA) foresees EVs commanding a substantial global presence by 2030 with a 7 percent market share in its base case. The proliferation of EVs has been largely driven by stronger consumer sentiment regarding climate change. For the foreseeable future, the main constituent in EV batteries is expected to be lithium and the IEA estimates the EV wave will lead to a ten-fold increase in demand for lithium materials by 2030.

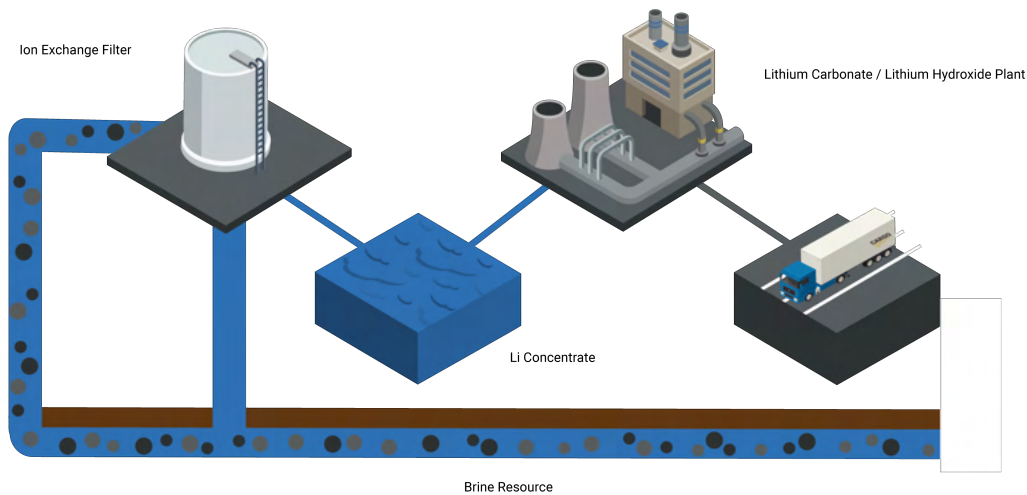
After a period of slumped lithium prices, the strong outlook for lithium is a welcome change for producers. It is estimated that the projected three-fold increase in lithium supply by 2025 will undershoot demand, and even meeting this increase in supply is not guaranteed.

Albemarle's lithium brine facility in the Salar is an example of unsustainable extraction. In 2017, the facility represented 36 percent of global demand, but it is facing regulatory headwinds as it aims to increase production. In this region, Albemarle extracts lithium through an evaporative process where 95 percent of the groundwater cannot be recycled back into the earth (see figure 1). Making matters worse, the Salar's water reservoirs are considered a nonrenewable resource as recharging them takes centuries to millennia; thus, extraction by evaporation places a significant strain on the local ecosystem. For example, increasing levels of toxicity in lagoons have impacted the health and stability

SOLAR LITHIUM EXTRACTION PROCESS



DIRECT LITHIUM EXTRACTION PROCESS



of the Andean flamingo population. These flamingos help control bacteria levels in the water and without them, the local communities face contamination and other health risks.

Such water-related issues pose a severe threat to Albemarle's ability to increase production. In 2018, an expansion attempt was blocked by regulators due to ramifications for soil, water, and air quality. While Albemarle has the opportunity to become the world's largest producer of lithium for energy storage, its use of evaporation ponds to extract lithium in the Atacama region is not suitable for growth in an increasingly environmentally conscious world.

Capturing the Li-ion's Share of the Market

In recent years, China has taken a global lead in the lithium industry by developing capacity across the lithium battery supply chain. In 2019, Chinese chemical companies represented 74 percent of the world's lithium-ion battery plants in the pipeline into 2029. Moving upstream, Ganfeng Lithium, the world's largest lithium miner by market capitalization, is set to overtake Albemarle to become the world's largest lithium hydroxide producer by the end of 2020 after an acquisition of three lithium processing plants.

Albemarle must defend against China's increasing interest in end-to-end control over the lithium battery supply chain. Failure to do so may limit growth opportunities, cut pricing power, and ultimately hinder the company's chances of survival over the long-term.

Treating Chile's Water Crisis with DLE

Direct Lithium Extraction (DLE) is a radically different

operation than the solar evaporation process Albemarle uses in Chile. DLE is defined as the process of adding chemicals to a pool of lithium brine, heating the solution, and separating the desirable lithium salts from the brine (see figure 2). DLE better preserves natural resources because less water is lost in the process. Instead of letting the water evaporate into the atmosphere, almost all of the brine extracted is injected into a nearby water reservoir and returned to the local ecosystem.

Despite the existence of the DLE process, major industry players have opted to pursue evaporation ponds as an easier alternative. Historically low lithium demand and weak societal pressures did not incentivize producers to improve this practice. With growing demand pushing lithium prices higher and building environmental pressures, competitors like Orocobre and E3 Metals are beginning to recognize DLE as an economical, smarter alternative. While SQM and Albemarle, the two dominant players in the Salar, still employ the solar evaporation techniques that were popular in the mid-90s, newer lithium companies are entering South America's lithium-rich areas with cost-effective DLE technologies. Orocobre recently partnered with EnergyX to implement proprietary Lithium-Ion Transport and Separation (LiTAS) DLE technology in its Argentina operations. Such an extraction method will enable Orocobre to obtain lithium more cleanly, more quickly and more efficiently.

Evaporating Evaporation Ponds with Direct Lithium Extraction

The replacing of water-intensive evaporation ponds in the Salar with a DLE process has profound effects on Albemarle's value chain in terms of both sustainability and efficiency. DLE could remedy Albemarle's water

ALBEMARLE: GEARING UP FOR A LITHIUM -DRIVEN FUTURE

consumption by reinjecting similar amounts of water into nearby basins. This would help Albemarle to prevent legislative backlash or further production limitations imposed by the Chilean government.

DLE also reduces extraction time from the 12 to 18 months needed with evaporation methods down to a few days. This shortens the delay in the asset's cash flows, thereby lowering risk. Additionally, lithium extraction rates using DLE are almost twice as high as traditional evaporation ponds. The combination of more efficient processes and healthier relations with the regulator will prove useful when expanding lithium output. This will allow Albemarle to grow market share in preparation for heightened uptake in EVs, garner long term investor support and customer loyalty, and strengthen its defensibility against China's growing dominance in the lithium battery market.

DLE is a complex process that hinges on intense research and development. In order to reduce the risk in changing extraction methods, it is in Albemarle's best interest to invest in financial and human capital towards the technical development of DLE within the Salar.

A Vulcan-ic Opportunity

Vulcan Energy Resources (ASX: VUL) is an exploration-stage natural resource company aiming to become the first zero-carbon lithium producer. Vulcan holds rights to Europe's largest lithium resource in Germany's Upper Rhine Valley that is JORC-Compliant—indicating it meets required environmental standards of the Australasian Joint Ore Reserves Committee. The deposit would be extracted using DLE technology and harbours significant geothermal potential as it would provide a regional lithium supply chain geared towards German automakers. However, the commercial viability of the lithium resource remains speculative as commercial operation isn't expected to begin until 2023 at the earliest.

Salar Synergies

While lithium prices are depressed and Vulcan's commercial operations remain uncertain, Albemarle should use this opportunity to acquire Vulcan with its sizable cash balance. Albemarle would immediately benefit from informational synergies for its suggested implementation of a DLE process within the Salar. While the type of deposit in Germany is structurally different from Atacama, Vulcan's technical expertise and investor relationships will be a critical component in successfully implementing the DLE process in the Salar.

Vulcan's management team is equipped with seasoned experts in geothermal technology, direct lithium extraction, and lithium chemistry. This mitigates management's lack

of experience with DLE and allows for the two teams to work together to fund sustainable growth in the region. Even in the event that Vulcan's riskier geothermal deposit in Germany cannot be developed, with a cash balance roughly four times Vulcan's market capitalization, Albemarle is in a strong financial position to sustain the financial impact, while it can still retain the team's intangible assets and vision for sustainability and apply it within the Salar.

German Upside

Assuming commercial viability, extracting lithium in the region aligns operationally with Albemarle's existing lithium processing infrastructure in Langelshiem, Germany, located approximately five hours away from Vulcan's deposit. Controlling a full supply chain near progressive automakers could minimize transportation costs, reduce sourcing risk, and appeal to automakers.

Germany is an ideal place to capture the growing EV segment for a few reasons. Firstly, Albemarle has pre-existing relationships with some car manufacturers already pushing for "sustainable" lithium practices. Further, the German government and automotive industry players are keen on incentivizing EV growth. Establishing lithium sourcing that is both local and sustainably produced would align well with the strategic vision of Albemarle's German automotive manufacturers.

Charging into the Future

The lithium industry is changing, and Albemarle needs to prepare itself for a new market dynamic. Explosive downstream demand due to the pivotal role EVs are playing in the fight against climate change is generating a renewed need for lithium. This is compounded by dominant Chinese companies threatening Albemarle's position as an industry leader due to their growing end-to-end control over the lithium supply chain.

To prepare for the inevitable spike in lithium demand, Albemarle needs to move in the direction of sustainability so it can increase its output capacities and entice automakers. An adoption of DLE processing in its Atacama operations will achieve these sustainability goals. Furthermore, an acquisition of Vulcan Energy Resources, a zero-carbon lithium project in Germany, will create informational synergies for the Atacama's DLE operations as well as aid in establishing regional supply chains, thus combating the threat from Chinese lithium companies controlling the supply chain. If Albemarle intends to power the future, it will first need to embrace the sustainable practices needed to survive the present.

FACEBOOK: OCULUS FOR EDUCATION

To reach the critical mass needed to effectively roll out a VR social media platform, Facebook's Oculus should target the post-secondary market.

Charlie Mortimer & Turner Tobin



Facebook: A Social Media Dilemma

Facebook's mission is to "give people the power to build community and bring the world closer together." With over 2.7 billion monthly active users, the social network is well on its way to achieving this goal. Facebook's last major strategic update occurred in 2016 with the unveiling of its ten-year strategy, which signalled Facebook's core focus on three pillars: connectivity, artificial intelligence (AI), and virtual reality (VR).

From a financial perspective, Facebook's revenue is driven by three factors: the number of users on the platform, user engagement, and monetization. It has become progressively harder for Facebook to grow its core user base as the platform has lost its appeal towards younger demographics that generally favour platforms like Snapchat, TikTok and Instagram. Facebook must therefore look to bolster its other two revenue drivers to continue pursuing its mission.

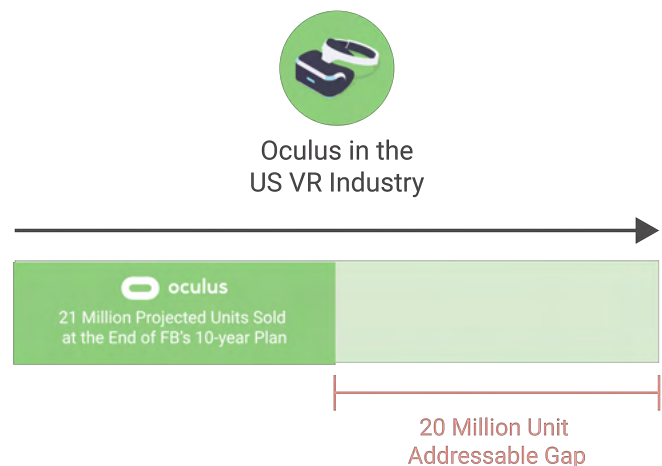
Engagement and monetization are closely tied together: the more time spent on a platform, the more advertisements users can be exposed to. Simultaneously, the more engaging the platform, the higher the clickthrough rate. In a play to increase engagement, Facebook has turned to improving content delivery through its VR platform Oculus. Originally developed as a Kickstarter project for gaming, Oculus is a VR headset development company that was acquired by Facebook for \$2 billion in 2014. Oculus' main product offering, the Quest 2, sells for a base price of \$350. To encourage VR adoption, Facebook is currently building a Facebook Horizon: an interactive VR-based social media platform powered by Oculus.

Virtual Reality's Catch-22

One of the greatest drivers of new users for social media platforms is perceived critical mass, the idea that a platform has a large number of other users to engage with. Perceived critical mass influences up to 38 percent of a user's decision to join a social media platform, second only to user enjoyment. To make an effective VR social media platform, Facebook needs to prioritize user engagement and ultimately increase the number of Oculus users. However, given the upfront cost of purchase for the headset, Facebook must first create a compelling value proposition for users to purchase Horizon. Their past strategy has been driving down prices and producing more accessible standalone units via the Quest line. However, six years post-acquisition, it is clear that Facebook must adjust its strategy to drive adoption and achieve the required critical mass.

When a critical mass of users is achieved, a rapid acceleration of adoption occurs to the point of plateau. This point occurs once 15 percent of a community has converted. In Facebook's case, the number of total US smartphone users can be used as a proxy for the size of America's tech-savvy "community". Reaching the goal of 15 percent adoption within the community would require a total of 41 million VR users. Currently, Facebook's Oculus VR device ships 38.7 percent of VR headsets; if this market share were to remain constant, Oculus will have sold roughly 21 million units by the end of Facebook's ten-year strategy. Without a change in the status quo, Facebook would be 20 million units short of achieving the 15 percent adoption threshold. Fortunately, a sizable end market exists which offers a compelling opportunity for Facebook to make up this shortfall: higher education.

OCULUS ADDRESSABLE MARKET GAP



COVID-19 and Zoom University

COVID-19's impact on schooling has seen institutions forced to adopt online applications such as Zoom to recreate the classroom environment. In April 2020, Zoom saw an average of 300 million daily meeting participants, a drastic increase from just 10 million in December 2019. Among the newly-added users were 90,000 schools located in 20 countries around the world. Post-secondary institutions, many of whom strategically position themselves through offering unique campus experiences, can adopt VR as an avenue to differentiate themselves in the race to adopt more novel, innovative platforms and services for their students.

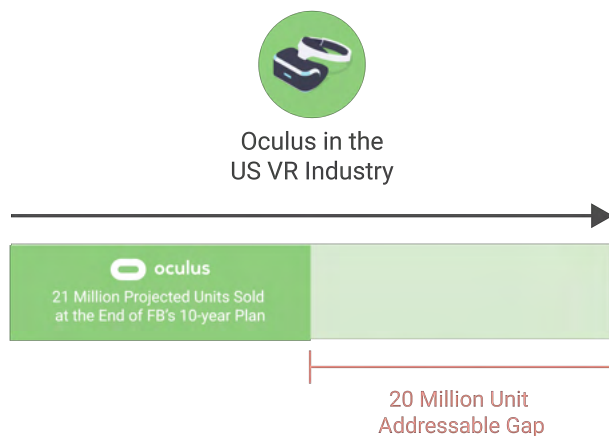
The education sector has historically been one of the least digitized in the United States. However, institutions

TECHNOLOGY

have been progressively ramping up their investments in technology to better meet the needs of their student population. The first half of 2020 saw the second-largest six months for global ed-tech investment, totalling over \$4.5 billion. Institutions are now looking towards VR technology in particular to transform the educational experience. Educational content designed for VR headsets is already being created by Oculus for a wide range of academic subjects and “field” trips. Increased investment in digitization within the world of education represents an opportunity to tap into a large and growing market.

Furthermore, VR has already seen some success in the education sector, as demonstrated by Labster, a developer of virtual science labs. Historically, Labster partnered with institutions such as Harvard University, MIT and ETH Zurich to provide lab experiments in VR using Daydream, Google’s smartphone-enabled VR headset. However, as Google recently halted the Daydream venture citing the limitations of its technology, Labster’s VR technology has now become software searching for a new host platform. Ultimately, the existence of VR educational tools demonstrates an interest in the technology being used in a post-secondary context.

OCULUS ADDRESSABLE MARKET GAP



Oculus’ Greatest Quest

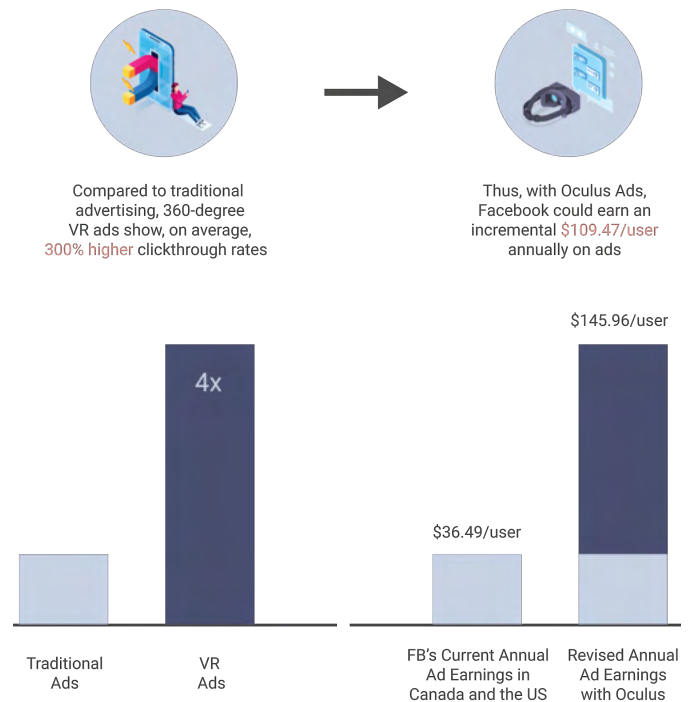
Facebook should position Oculus as an educational tool for post-secondary institutions. Capitalizing on an opportunity provided by COVID-19’s disruption, Oculus’ presence in educational institutions could increase visibility and accessibility to VR while demonstrating VR’s value-add even after the impact of COVID-19 has waned. Having already partnered with Osso VR to develop professional surgical training and assessment using Oculus, Facebook could use its existing connections with past partners to build a wide variety of applications that meet the needs of

its prospective educational customers. Ultimately, in order to drive adoption, Facebook should partner with post-secondary institutions to distribute and sell headsets for students to own.

Phase 1: The Medical Community

Facebook should partner with Labster by providing its Oculus headset as a platform for the company’s software. Bolstered by Osso’s medical expertise and background, Oculus for Education should immediately target leading institutions such as Stanford and Clemson which have already demonstrated interest in VR as a tool for education. Oculus could foster the creation of lesson plans and lab exercises hosted on its hardware platform to enhance the

EARNABLE ANNUAL REVENUE PER USER



educational experience. Facebook could then use their adoption as a selling feature to other top U.S. medical schools in an effort to capture a broad market of 278,000 medical students, medical residents and medical graduate students in the U.S.

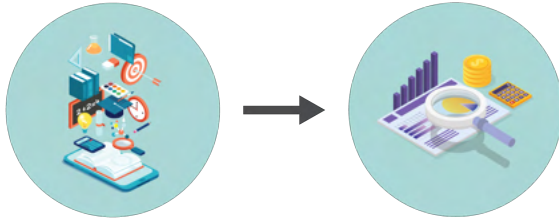
Phase 2: STEM and Business Programs

To expand Oculus adoption into a significantly larger market, Facebook should next target undergraduate, college, and diploma STEM and business programs. Developing tools and use cases for STEM students will be simplified by the overlap with existing applications for

MONETIZABLE UNITS FOR AD REVENUE

Once adoption within STEM and business programs grows to 32%

Oculus would have 2.5 million units monetizable for \$272 million of yearly ad revenue



medical students, including virtual environment rendering. There is already demonstrated demand within business schools; institutions such as MIT and Stanford have begun to use the technology to enable virtual interaction and case simulations, which can easily be applied at an undergraduate level as well.

Phase 3: Achieving Critical Mass

Achieving critical mass in the United States requires leveraging the STEM and business community to penetrate the undergraduate market. Cumulatively, each user needs to bring in on average 1.03 new users per year for three years. For context, between 2013 and 2015, Zoom's user base on average added an incremental 4.77 users annually to grow from 3 million users to 100 million users in just two years. If successful, Oculus would obtain the 21 million users required to get Oculus to the U.S. critical mass point of 41.3 million users.

OCULUS ADDRESSABLE MARKET GAP

Oculus would be able to achieve its goal if, cumulatively, each user brings on average 1.03 users/year for 3 years



Facebook's Next Horizon

As Facebook's flagship platform continues to struggle

with attracting younger users, the company's long-term pillar of connectivity leans on expansion into the VR space. Implementing Oculus for Education in a phased approach would allow Oculus to make up the current 20 million user deficit by the end of its current ten-year strategy. By offering VR in post-secondary institutions, Facebook's Oculus would become the answer to universities and colleges searching for differentiation in unique educational offerings. In the future, other universities and colleges may increasingly see VR as a mandatory investment as larger portions of their student population begin adopting Oculus. Since the future of education is not only digital but also virtual, Facebook should position themselves to capitalize on the education market to fuel its own social media ambitions.

LYFT: LEVERAGING PARTNERSHIPS FOR THE “NEW NORMAL”

Facing disruption and financial upheaval in the wake of the COVID-19 pandemic, Lyft and Cadillac Fairview should partner to enable same-day retail delivery to consumers.

Caitlin Robinson



LYFT: LEVERAGING PARTNERSHIPS FOR THE “NEW NORMAL”

Almost no industry or individual has been left untouched by COVID-19. Lyft and Cadillac Fairview (CF) have been no exception to heightened turbulence over the past ten months. Opportunity, however, lies in the wake of challenge.

Lyft provides ride-hailing services, capitalizing on a North American shift away from car ownership. In the face of COVID-19, however, transportation volume has declined substantially, as working from home has become the new normal and large social gatherings are in many instances illegal. Lyft has fully felt these impacts, reporting a 61 percent year-over-year decline in Q2 revenue, with active riders dropping 60 percent from 21.8 million to 8.7 million in the same period. Since Lyft has not diversified revenue streams outside of ride-hailing—unlike competitor Uber, which offers other services such as UberEats—Lyft has faced a uniform decline in demand.

CF, valued at more than \$30 billion, maintains a Canadian portfolio covering over 35 million square feet of leasable space at 69 properties. For years, e-commerce has left CF’s brick-and-mortar retailers rethinking how to reach consumers, with COVID-19 increasing the urgency of achieving this goal. In response, CF has introduced LiVE by CF, an app that allows shoppers to search stores for products and offers ahead of time, with the goal of enabling customers to efficiently plan shopping excursions. However, declining foot traffic and organic shifts to e-commerce prevent this initiative from reaching its full potential.

Retail Before and After COVID-19

Prior to COVID-19, demand was growing for the convenience of same-day delivery. The global e-commerce market grew from \$1.3 trillion to \$3.5 trillion from 2014 to 2019,

with COVID-19 recently accelerating this shift. Conversely, mall foot traffic was already declining in Canada even before the crisis hit, with the country’s top ten malls seeing 22 percent declines from 2018 to 2019. Of these top ten malls, CF owns five.

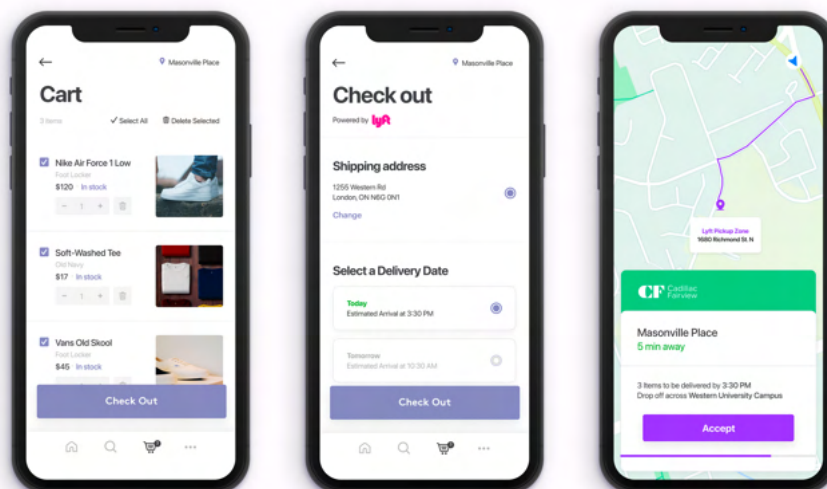
Post-Pandemic Shopping

Reacting to COVID-19, retailers have adapted the layout of their stores and imposed capacity restrictions. Consequently, the incentive to make in-person purchases has declined sharply. As a solution, some stores have offered increased checkout options like self-checkout, curbside pick-up, and streamlined return processes. CF’s initiatives have included increased cameras and digital directories to monitor capacity, CF Guest List to aid with curbside pick up processes, and the aforementioned LiVE by CF app. However, as stores have introduced reduced hours of operations and various capacity protocols, the general consumer response has been a shift to online shopping.

Lyft: COVID Response

In response to COVID-19, Lyft has implemented various initiatives to diversify revenue. Among these initiatives is the LyftUp Driver Community Task Force, designed for drivers to make essential deliveries to support their communities in Ottawa, Toronto and Vancouver. Over 120,000 drivers signed up to be a part of this initiative. More recently, the Essential Deliveries initiative allows drivers to deliver essentials to government agencies, local non-profits, businesses and healthcare organizations in the U.S. Both of these initiatives are limited to delivering cleaning supplies, groceries, and other essentials to select groups and regions.

CF AND LYFT CUSTOMER APP JOURNEY



A Partnership to Lyft Up Retail

Given their past experience with the LyftUp Driver Community, it is clear that Lyft is capable of mobilizing its drivers to deliver goods in a similar way to competitors like Uber. Applying the same framework for CF's retail goods is an untapped opportunity that will diversify Lyft's revenue streams and position the company to succeed in the long-term as e-commerce becomes increasingly prominent. Lyft's delivery infrastructure and the LiVE by CF database are well-poised to meet increased demand for courier services in Canada. By bringing together a disruptor with the disrupted, Lyft and CF could diversify revenue streams, offset losses, and capitalize on e-commerce trends.

This would not be the first time Lyft and CF have come together for a powerful partnership. In 2018, an exclusive new collaboration with CF and Lyft was established by designating a pick-up and drop-off zone at the Toronto Eaton Centre during the holiday season. As a leader in digital innovation, CF has repeatedly invested in initiatives that allow shoppers to be rewarded and efficient in their purchasing. At the time of the partnership, Jose Ribau, EVP Digital & Innovation at CF, stated the importance of "adapt[ing] as needed to always reflect what shoppers are looking for." Lyft has helped CF accomplish this goal in the past, and now both organizations can work together again to achieve their needs by introducing Lyft x LiVE by CF: delivery courier services in Canada for participating merchants at CF shopping centers.

Putting it Together: Pricing

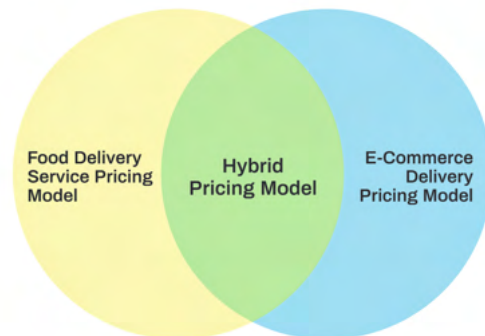
CF and Lyft should pursue a hybrid pricing model composed of a predetermined base rate and additional charges depending on the distance travelled. The last-mile delivery cost will be transferred to customers, with no cost to the retailer to participate; however, retailers will have the choice to subsidize part of the delivery cost to encourage purchases. Typically, Lyft charges C\$12 – 15 for a six-kilometre, 15-minute drive in Toronto during standard demand levels. A pricing model that would optimize revenues for Lyft and participating CF retailers could include the same base rate delivery fee of C\$2.75 for ridesharing services in Toronto. Following the current pricing model, each kilometre will be priced at a base rate of an additional C\$0.75, dynamically changing depending on the availability of drivers. Drivers can also do multiple deliveries located in similar areas to maximize earnings. On top of this fee, Lyft will also collect a service fee of C\$2.75 per delivery. Consequently, retailers derive increased margins through cost savings on delivery and packaging fees.

There are a potential 26.1 million e-commerce shoppers

to be captured through this service; within this broader market, the college and university population is a prime target, presenting huge spending potential despite only constituting under seven percent of each region. Among 15 to 24-year-olds in Canada, the demographic most likely to be students, over 88 percent shop online. Students have long been targeted by ride-sharing programs, as many students do not drive or own a car.

Since the adoption of a new service requires a certain level of familiarity and a high level of convenience, a partnership with familiar brands would address current consumer needs in university and college vicinities. Lyft represents one of the first ridesharing services available in Canada and currently boasts 250,000 annual users throughout the country. Though the platform currently has under 50,000 drivers in Canada, the effects of COVID-19 have accelerated the shift to "gig" employment; many new drivers will be ready to join Lyft as unemployment and furloughed labour increase. Meanwhile, LiVE by CF already has approximately 65,000 monthly downloads. Mobile app downloads are projected to increase by a predicted 25% annually into 2022 as the world becomes more digitized.

CF AND LYFT HYBRID PRICING MODEL



Pricing shipping cost as a function of kilometers travelled and driving time, on top of a base rate.

Hybrid Pricing Model

A Test Drive Before Hitting the Road

Lyft should begin its roll-out with smaller locations close to student demographics to collect data testing demand, supply and delivery processes. These could include London's Masonville, Hamilton's Lime Ridge and Markham's Markville. Following this, more urban malls in densely populated areas could begin to host the service, including CF's Toronto Eaton Centre, Sherway Gardens, Vancouver's Richmond Centre, Ottawa's Rideau Centre and Galeries d'Anjou in Montreal.

LYFT: LEVERAGING PARTNERSHIPS FOR THE “NEW NORMAL”

APP INITIAL ROLLOUT LOCATIONS



Getting retailers on board is vital to Lyft’s strategic success; many brands have developed their own shipping processes, investing millions into dispatch centers and warehouses. Additionally, many have implemented various value-adds into their pricing, such as free delivery promotions. LiVE by CF’s immersive app has already partnered with H&M, Saks Fifth Avenue, Roots, Hudson’s Bay, and Banana Republic; these partners represent retailers looking to take the next step in bringing the mall experience to shoppers virtually.

CF should develop the capability to make purchases through LiVE by CF. After customers locate the items they would like to purchase and pay for them through the app, the app will contact local Lyft drivers to set up the delivery. Once orders are placed, malls could designate a Lyft pickup zone, where purchases are funnelled into and organized in a way that they are bundled by vicinity to similar neighbourhoods. Shoppers would be able to select their optimal delivery time, with same day or next day delivery guaranteed, depending on the time the order is placed.

Driving On the Road to the Future

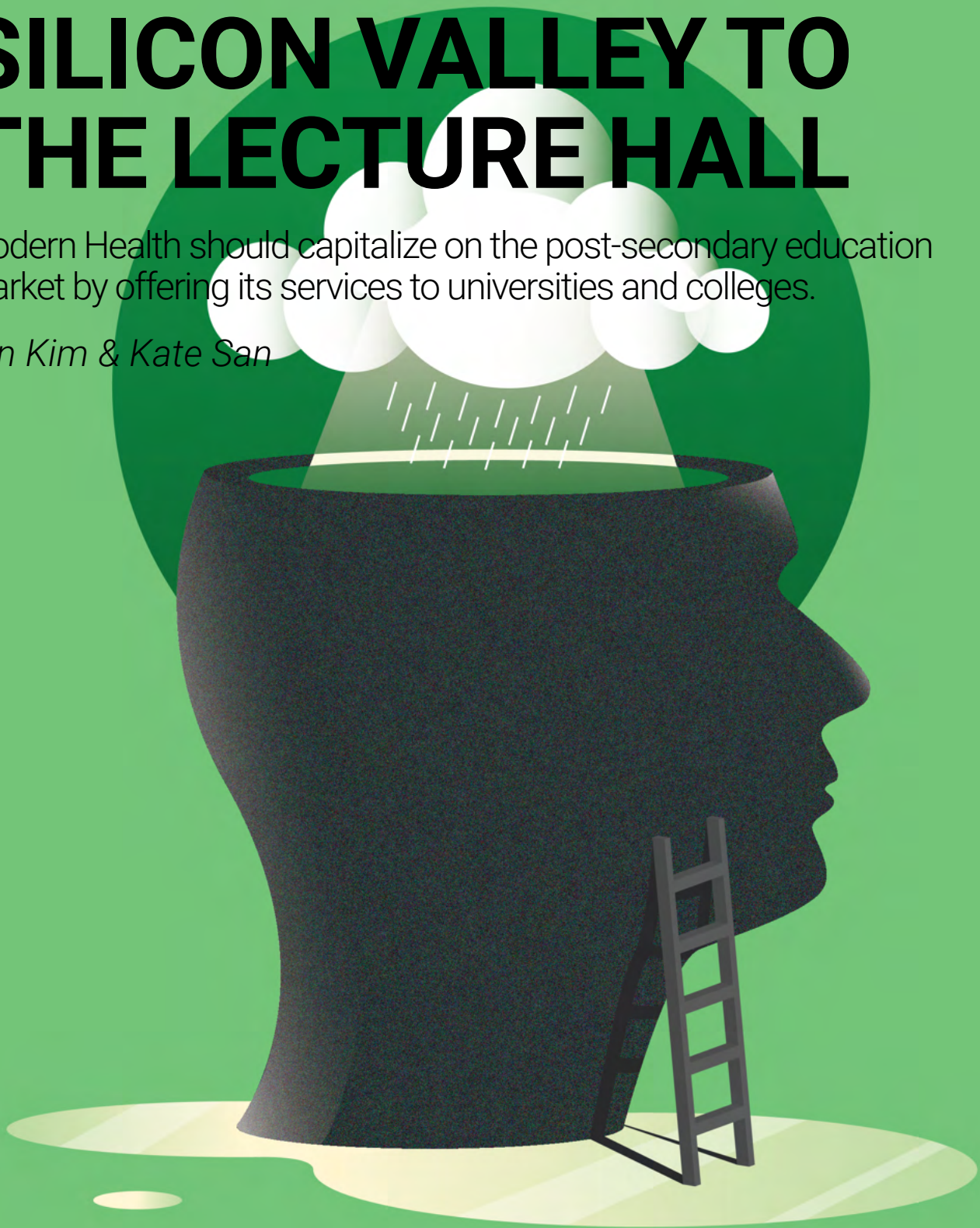
Lyft and CF both face acute, existential challenges in the wake of COVID-19. The pandemic has severely dislocated both companies’ business models while reinforcing and accelerating existing trends toward e-commerce. Fortunately, through the benefits of their

existing relationship and the logistical support provided by LiVE by CF, Lyft and CF can effectively reimagine the value proposition of the shopping mall for customers and retailers alike and deliver a robust, price-competitive last-mile delivery solution. Taking the mall experience virtual while catering to the needs of all stakeholders will not come without headwinds. However, by continuing to view challenge as a window for opportunity, the months ahead under the cloud of COVID-19 begin to look a little less grey.

MODERN HEALTH: FROM SILICON VALLEY TO THE LECTURE HALL

Modern Health should capitalize on the post-secondary education market by offering its services to universities and colleges.

Jun Kim & Kate San



The Diagnosis

There are one billion people worldwide suffering from mental, neurological or substance (MNS) disorders, with mental illness accounting for 30 percent of the non-fatal disease burden. These mental health issues are widespread and pervasive, impacting people regardless of age, sex, socioeconomic status, and ethnicity. They have been exacerbated by the COVID-19 pandemic, which has negatively impacted the mental health of over half of Americans.

In the workplace, employees are beginning to see mental health as an important issue that needs to be prioritized as an element of culture, training, and on-going support. Despite this, seeking support for mental health issues is a challenge for most employees, with 80 percent of workers reporting that shame or stigma stop them from seeking mental health treatments. Moreover, a 2019 study revealed 60 percent of American workers had experienced symptoms related to mental health, but nearly all of them refrained from speaking to colleagues about their discomfort. Ultimately, while employees want more mental health support, seeking help is a challenge due to cultural stigma.

When employees lack enough support for mental health issues, companies also lose out. A report by the Lancet Commission discovered that mental disorders pose a significant economic burden, and are projected to cost the global economy \$16 trillion by 2030. This loss will be attributed to the early onset of mental illness and lost productivity, including 12 billion working days forgone to mental illness each year. At the end of the day, companies that fail to invest in mental health initiatives are missing out on the profound economic upside of investing in mental health. According to the WHO, for every \$1 invested in treatment for common mental disorders including depression and anxiety, there is a corresponding return of \$5 through employees' improved health and work abilities.

A Cure for Enterprise

Founded in 2017, Modern Health is a software-as-a-service ("SaaS") business that provides mental wellbeing software to enterprises. Modern Health's app includes digital content such as videos and audio and covers topics such as financial wellbeing, healthy lifestyles, mindfulness, and anxiety in a centralized dashboard. Users can also take mental wellbeing assessments and connect with licensed therapists who best suit their needs. Ultimately, while the product itself is similar to blue-chip telemedicine businesses such as Teladoc and Doctor on Demand, Modern Health is a distribution platform focused solely on mental health professionals. This specialized focus allows it to work towards capturing the 80 percent of workplaces

currently planning to increase their mental wellbeing support initiatives and growing their Total Addressable Market ("TAM").

However, what stands out the most about Modern Health's product is the high level of employee engagement. While regular Employee Assistance Programs have two to three percent employee usage rates and competitor Lyra sports 15 percent engagement, Modern Health boasts over 30 percent engagement. For one example, within one month of beginning its Modern Health subscription, the startup Zendesk saw 20 percent of employees engaging with the Modern Health app and completing an average of 8.2 digital "programs" including assessments and videos.

One potential explanation for this is Modern Health's digital content collection, which spans a much wider range of topics than competitors. Generic telemedicine companies like Teladoc have scarce content on their apps, and Lyra's content only focuses on general mental health issues. Modern Health, on the other hand, covers topics such as work performance, relationships, diversity, meditation, and financial wellbeing. CEO Alyson Watson explains that Modern Health, as a result, "covers the full spectrum" of mental health issues and can engage a wider range of employees within an organization.

Moreover, unlike consumer-facing SaaS products including Headspace, Calm, and Teladoc, Modern Health is designed to provide solutions that work across an organization. By functioning at scale, Modern Health helps enterprises track employee engagement and measure their return on investment. Although Modern Health has focused on corporations in Silicon Valley thus far, its organization-wide mental health approach could work for any large group or institution.

The Patients

According to the National Institute of Mental Health, young adults aged 18 to 25 have the highest prevalence of any mental illnesses. In particular, 39 percent of college students report some kind of mental health issue, many of which are developed during their undergraduate careers. Given the prominence of this issue for undergraduate students, it is imperative that academic institutions are large proponents of the solution.

On campuses, student bodies have increasingly pressured administrators to spend more on mental health resources. This has translated to 72 percent of university presidents in the U.S. allocating more funds towards mental health initiatives between 2016 and 2019. However, these investments have done little to support students. Reports show that only 26 percent of students are aware of on-campus services or how to access them; the number who

actually use the services is likely much lower.

At present, academic institutions have one powerful resource: on-site counsellors and therapists. However, wait-times to see a counsellor range from a few weeks to several months. In recent years, the rise in demand for counselling services has outpaced enrollment growth by five times and is not matched by the hiring of new staff. Mental wellbeing is one of the strongest predictors of academic performance, and universities are observing fatal consequences such as self-harm, substance abuse, and suicide. Universities need better processes to ensure their investments in mental health are effective and meet student needs.

The Treatment

Given Modern Health's core competencies and students' mental wellbeing issues, it is clear that Modern Health's product-market fit in university campuses is strong. Modern Health has an organization-focused software product with 30 percent engagement rates and a large library of digital content. Meanwhile, universities are suffering from the increased prevalence of mental wellness issues, low levels of engagement, and outdated infrastructure to facilitate counsellor-student relationships. With Modern Health, universities can finally invest mental wellbeing budgets more effectively, and Modern Health will have a quickly-scalable SaaS product that introduces its product to the workforce of tomorrow.

To address universities' ongoing struggles of managing demand for mental health services, Modern Health should establish client relationships with universities. University administrations would gain access to the Modern Health app through an enterprise subscription paid for using student fees. Then, students would be granted access to the digital content library with existing courses on financial wellbeing and anxiety. Providing access to this content

library will help universities support the large number of students struggling with their mental health.

The Beneficiaries

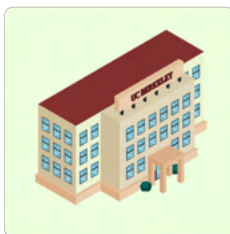
University administrations stand to benefit from introducing Modern Health as their centralized mental wellbeing dashboard. Almost immediately, administrators would benefit from higher student engagement, less-bureaucratic counsellor interactions, and reduced wait-times. Not only would scheduling be streamlined, but meetings themselves would also be more efficient. Telemedicine visit times have proven to be about 20 percent shorter than in-person appointments while maintaining the quality of care, allowing counsellors to reach more students and better meet growing demand.

In the long-term, administrators stand to gain powerful data that can inform countless decisions. For instance, universities could use the data to adjust the annual scheduling of major academic events, such as mid-semester breaks and exam periods. With the wellbeing assessment tools, students can be given a wellbeing "score" to track their mental wellbeing progress and monitor their health throughout a stressful academic career. Additionally, administrators can use Modern Health to collect direct feedback from students. The app can include a feedback form to help universities understand current problems while giving students an outlet to discuss problems.

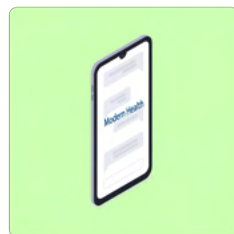
Exam-ining Value to Students

To enhance its existing content library, Modern Health should add new digital courses that would specifically benefit university students. This can include content on "Dealing with Exam Anxiety" and budgeting for tuition and housing costs. By tailoring the content library to students, Modern Health and institutional partners can maximize the value students receive.

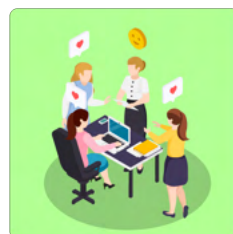
MODERN HEALTH PROCESS



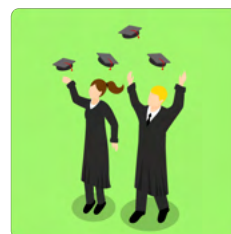
Modern Health partners with U.C. Berkeley.



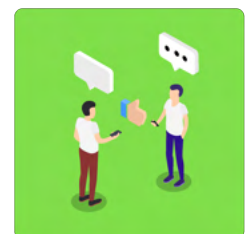
Modern Health tailors existing app to universities.



Application is used as primary well-being manager on campus.



Students stay on for subscription after graduation.



Students go on to encourage employers to partner with Modern Health.

MODERN HEALTH: FROM SILICON VALLEY TO THE LECTURE HALL

MODERN HEALTH APP MOCKUP



Modern Health should also create a post-graduation subscription option to increase the lifetime value of student customers. This would allow graduated students to access the app's digital content library by paying a monthly subscription fee. By capturing students early on and creating a reliance on the curated content and measurement tools, Modern Health can create sustainable demand that spans longer than a four-year degree. These students would eventually encourage their employers to invest in the app, resulting in further opportunities for Modern Health.

Making an Impact

To implement their solution, the company should begin with U.C. Berkeley, which is located close to Modern Health's offices and spends more than \$11 million in annual student fees on mental health. After a successful implementation at Berkeley, Modern Health can quickly expand the program to other academic institutions in California and, eventually, across the U.S.

Each year, Berkeley spends an estimated \$282 per student on mental health, well above the national average of \$70 per student. Additionally, with colleges like Berkeley raising mental health-related fees by up to five percent per year, Modern Health should price its university solution at \$7 per student. This annual cost is easily coverable by student tuition fees.

With implementation at Berkeley alone, Modern Health can generate \$293,000 in annual recurring revenue, complementing existing sales growth. Assuming Modern Health is able to capture 20 percent of existing academic institutions in California within the next few years, the firm can generate \$2.4 million in annual recurring revenue. In reality, the financial opportunity could be much larger, as Modern Health's strong recognition among young employees will better position it to capture new enterprise clients.

Final Review

To improve quality of life and avoid trillions of dollars of lost economic potential, workplaces and academic institutions must accelerate investments in mental wellbeing. Modern Health should adapt its existing mental wellbeing solution to suit the needs of undergraduate students in the U.S. By doing so, the company will find a stronger product-market fit with universities while educating future employees about enterprise mental wellbeing software. This is an opportunity for Modern Health to increase its annual recurring revenue by \$2.4 million within a few years while also solving an imminent health issue.

LIVE NATION: THE SHOW MUST GO ON

As the COVID-19 pandemic rages on, Live Nation should partner with game publishers to expand marketing initiatives and engage fans virtually.

Jessica Shao & Lucy Tan



Tuning in Live

Since 1996, Live Nation has been committed to providing the best live concert experience for fans across the world. Following its merger with global ticket sales and distribution leader Ticketmaster in 2010, Live Nation has dominated the center stage as the world's largest ticket seller and promoter of live entertainment. Despite 14 years of growth, the COVID-19 pandemic caused a 98 percent drop in Live Nation's 2020 Q2 earnings. With 68 percent of consumers developing new purchasing behaviours as a result of COVID-19, Live Nation must explore strategies to mitigate the decline in demand and strengthen its position as an industry leader.

Media and Entertainment: From Box Office to Home Office

COVID-19 has pushed the media and entertainment (M&E) industry in the direction of digital disruption and emphasized the need to be more remote, virtual, streamed, and personal. In particular, the live entertainment segment of the M&E industry has experienced a 66 percent drop in revenues. Given that Live Nation can no longer depend on its traditional model of in-person concerts, it is crucial for Live Nation to incorporate new, digital trends into its service offerings.

Gaming Industry, Rise Up!

In contrast to the broader M&E space, esports and gaming are continuing to grow at 15.7 percent and 6.9 percent year-over-year, respectively. By 2025, the gaming industry is projected to be valued at over \$300 billion with a CAGR of 13 percent. The rise of features enabling player interaction and new free-to-play business models have popularized online multiplayer games. This growth is expected to

persist as the virtual world becomes inseparable from—and naturally integrated with—reality.

Game publishers now derive a considerable portion of their revenue from in-game microtransactions, which are minor purchases by players for in-game tools, cosmetics, and character skins, giving players the freedom to change the appearance of their characters. In fact, the financial success of popular free-to-play games such as League of Legends, Fortnite, and Call of Duty: Warzone are attributable largely to the scale of their microtransactions. Their success has only grown during COVID-19: 75 percent of gamers have increased their spending on video game content since the beginning of the pandemic. The rising consumer demand in the gaming industry represents an attractive market for Live Nation to pursue.

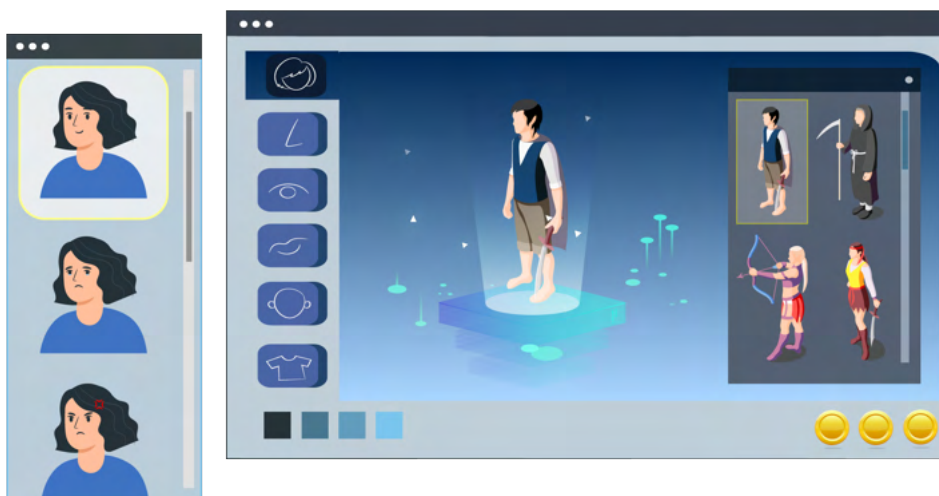
Take-Two for Live Nation

As the M&E industry awaits the reopening of concert and event venues, an opportunity arises to capitalize on continued interest in the gaming industry triggered by the pandemic. Live Nation should partner with Take-Two Interactive (Take-Two), a leading video game publisher, to provide its artists with expanded marketing initiatives for new releases, concerts, and events through Take-Two's multiplayer online games. By integrating marketing elements into games, both parties stand to benefit from drawing in new fans and engaging current ones.

Case Study: Astronomical Profits

Travis Scott's recent concert in Fortnite garnered 45.8 million views and attracted 27.7 million unique players. This elevated online event differed from the traditional live recordings by exposing consumers to a unique concert experience, where players could move around the in-game

SAMPLE IN-GAME PURCHASE CUSTOMIZATION SCREEN



world and interact with a digitally enhanced avatar of Scott. For context, the largest music festival in the world, Donauinselfest, regularly attracts no more than 3.3 million people each year. Hence, offering virtual events provides an unparalleled opportunity to reach millions of individuals worldwide.

The virtual concert also incorporated a key element of touring revenue: merchandise sales. Exclusive Travis Scott player skins sold for between 1,500 to 2,000 V-bucks in the Fortnite store, equivalent to \$15 to \$20 each. Even if only three percent of players present purchased the lowest-price skin, Fortnite would have realized \$12.5 million in revenue. Assuming the 30 percent standard cut, \$3.7 million would have gone directly to Cactus Jack, Scott's record label. These virtual merchandise sales ultimately have higher profit margins than traditional concert merchandise, with very low marginal costs.

Bound to be a Hit

Currently, Live Nation's business model encompasses exclusive partnerships with over 4,000 artists globally through its event promoter business. It also manages over 500 artists through its artist management companies, including a partnership with Roc Nation, a full-service entertainment agency founded by Jay-Z. For Live Nation and its partner artists, a partnership with a gaming publisher like Take-Two would enable access to player bases of at least 150 million at a relatively inexpensive cost. Furthermore, for artists, it eliminates much of the time and effort required to find a suitable one-off deal with a particular video game. Take-Two's immense library of games would allow artists to quickly find a game partnership that works best for their size, target audience,

and budget. For example, a country artist such as Blake Shelton could partner with Red Dead Redemption 2, a blockbuster role-playing game set in the Wild West. In contrast, hip hop artists like J. Cole and Lil Uzi Vert could integrate new album releases with Grand Theft Auto Online (GTA).

Like Travis Scott with Fortnite, there is an opportunity for Live Nation to diversify its merchandise revenue by offering artist-themed virtual merchandise in Take-Two's games. Live Nation should work directly with Take-Two's development studios to create marketing for in-game merchandise. Faithful representations of apparel, themed items, or creative interpretations of an artist's style and iconography could naturally lead to cross-sales between real-world merchandise and in-game equivalents. This benefits both parties and provides more touchpoints of engagements between artists and fans.

From the artists' perspective, video games not only provide an opportunity to remain relevant but also a way to increase popularity and brand recognition amongst their fan base. For global artists, in particular, video games provide additional touchpoints to connect with and develop a fan base within the international gaming community. Long-lasting partnerships with game studios have the potential to yield recurring benefits as an artist's career develops.

Not Playing Games Anymore

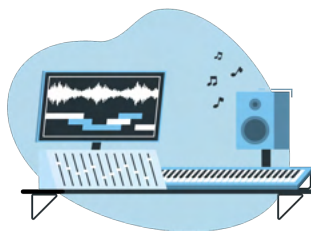
Previous integrations of M&E content with video games have proven wildly successful for both the artist and the game publisher. Specifically, limited-time microtransactions offer excellent unit economics, given the lack of any variable costs. To put this idea into

TIERS OF PARTNERSHIPS



1. No additional artist involvement

This tier purely involves using artist resources that have already been produced. For instance, this could be an artist's soundtrack from their latest album that is simply inserted as music in the video game.



2. Minimal artist involvement

The next tier would involve some additional commitment on the artist's end. For example, they may need to go into the studio to record a voice-over segment to be inserted into the game.



3. Intensive artist involvement

This tier would require the artist to go into the studio for multiple recording sessions. For instance, dance moves could be captured through video recordings, then graphically produced in-game for the artist's avatar. This tier could also feature merchandise integration, in which players who buy a physical item in real life also get a digital version in-game.

perspective, a conservatively-priced \$10 microtransaction marketed to the 140 million GTA V players would need a conversion rate of just six percent to equal the gross revenue of Drake and Migos' 43-show tour in late 2018. This figure is also before accounting for the microtransactions' vastly superior margins relative to in-person events. Game studios can also develop multiple offerings to effectively price discriminate and maximize the average spend per user.

Take-Action with Take-Two

Although the nature of creative marketing campaigns means that no two partnerships between artists and games will look the same, Live Nation and Take-Two can look at a basic structure of the partnerships to streamline and standardize the development process. The first step would consist of matching artists with the Take-Two game. When an artist indicates interest, Live Nation would work with Take-Two to find a game that is best-equipped in terms of player demographics, art direction, and fanbase overlap. Following that, Live Nation would serve as an agency through which the artist and the game studio negotiate on the terms of the agreement and details of the campaign. Many forms of monetization are possible: simpler deals might allocate revenue streams to one party or another, while highly integrated campaigns could necessitate a more complex profit-sharing agreement. The degree of involvement by the artist must also be considered. If the initiative includes putting the artist in-game, they may be required to visit the studio for motion capture and voice acting.

Entertaining the Future

Although Live Nation is a leader in the M&E industry, its traditional model is not sustainable given the shifts in consumer demand and limiting conditions of COVID-19. A strategic partnership between Live Nation and Take-Two would be mutually beneficial in helping Live Nation restore profitability and capitalize on a rapidly-growing industry. Gaming publishers like Take-Two would benefit from valuable access to artist collaborations that will fuel microtransactions and engage players. At the end of the day, Live Nation should turn the challenges presented by the pandemic into an opportunity: a path forward to entertaining the future.

EQUITY CROWDFUNDING: THE FUTURE OF IMPACT INVESTING

Creating opportunities for equity crowdfunding can help accelerate impact investing progress in Canada.

Madison McNeivitts



EQUITY CROWDFUNDING: THE FUTURE OF IMPACT INVESTING

An Impact(ful) Investing Trend

In recent years, there has been a far-reaching shift towards sustainable finance and long-term value creation in business. This is evident in the broader adoption of Environment, Social, and Governance (ESG) factors, a measurement system that scores investments on environmental, social, and governance criteria to determine their overall societal impact. The broader ESG market is forecasted to reach \$45 trillion in assets under management (AUM) in 2020 and ESG-specific funds now account for over \$1 trillion of global funds under management.

The Canadian government has recognized the potential of impact investing as a tool to enact social and political change. In 2018, the government developed the Social Finance Fund (SFF) which includes over C\$755 million that will be deployed to Social Purpose Organizations (SPOs) over the next decade. SPOs, which include nonprofits, foundations, and social enterprises, use these funds to help grow their businesses while solving complex social and environmental issues. It was estimated that the Social Finance Fund will ultimately generate C\$2 billion in economic activity, increase private market capital flows, and create 100,000 jobs over 10 years. In addition, the government has allocated C\$50 million through its newly-created Investment Readiness Program which specifically aims to help small and medium-sized SPOs participate in the social finance market. However, while considerable progress has been made in terms of government support, regulatory gaps still exist that continue to hinder the growth of Canadian impact investing.

Past critiques of impact investing have resulted in improvements in impact measurement, management practices, and the proliferation of industry research. Despite these improvements, there remain opportunities for refinement. In the Canadian impact investing space, the biggest obstacles facing the industry are the capital

gap for small- and medium-sized SPOs, and a lack of ready-made impact investing opportunities.

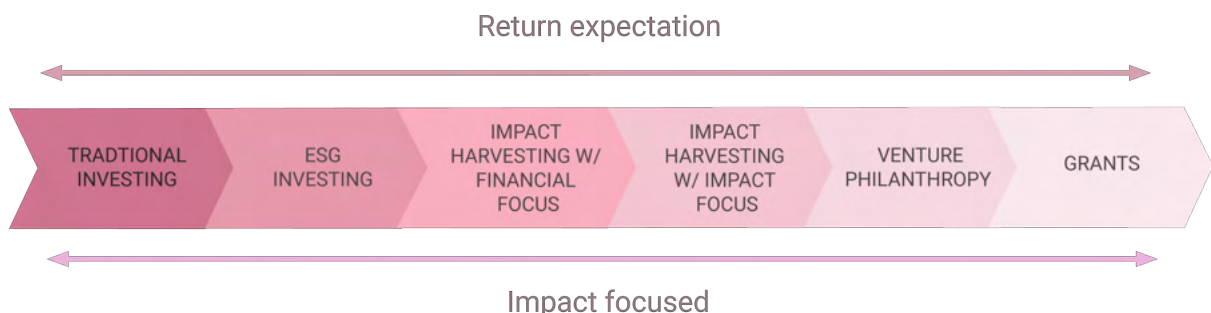
The Capital Gap

While public ESG investments are more popular than ever, the private impact investing market for early-stage ventures is severely underfunded. Currently, impact investors focus on organizations in the scaling stage: lower-risk ventures with semi-proven business models that are looking to grow. Conversely, only eight percent of early-stage venture capital investors adopt active ESG management into their allocation strategies. This leaves early-stage ventures lacking the capital needed to turn their research and development efforts into a proof of concept. This capital gap appears on a global scale—it is estimated that only a few hundred million dollars globally are earmarked to serve these emerging ventures.

In addition to the capital gap, one of the most significant barriers to widespread adoption of impact investing is the inaccessibility of existing investment opportunities. It can be difficult to find prospective early-stage ESG investments that meet investors' social and financial return preferences given the lack of information available for these companies. Hence, while impact investing overall is on the rise, connectivity gaps have made it difficult for capital to be effectively distributed, especially to early-stage ventures.

There is also an underserved market of retail investors, particularly Millennials. Though over 86 percent of Millennials are interested in sustainable investing, they lack meaningful opportunities to participate beyond public market retail ESG investments. Consequently, although gaps exist between current investors and early-stage ventures, there is a broad group of interested potential investors that want to participate in impact investing. There needs to be a solution that supports companies at various stages of maturity, works in tandem with other financing

CLASSES OF INVESTING IN RELATION TO IMPACT



mechanisms, and increases access to opportunities for both investors and entrepreneurs.

Letting the Crowd in with Equity Crowdfunding

One nascent solution to the capital gap and other structural barriers is equity crowdfunding. The traditional crowdfunding market, including platforms like Kickstarter or Indiegogo, allows the public to contribute to the development of new products. Similarly, equity crowdfunding platforms like FrontFundr and Vested would enable companies to sell equity to a broad range of smaller investors.

While Canada has made significant improvements in establishing and regulating equity crowdfunding from a legislative perspective, the market is still underdeveloped. As a result, there remain significant market barriers for both investors and entrepreneurs. Other countries such as the U.K. and U.S. have found great success in using these models to catalyze capital fundraising for small-to-medium enterprises (SMEs), including underserved early-stage social impact ventures. In Canada, supporting SMEs is especially important because they make up 41.7 percent of national GDP. The capital gap shows that there are high potential businesses that require capital but have few means of accessing that capital from the private market. Equity crowdfunding would help bridge this gap while providing additional opportunities to retail investors, who care for social impact investments.

Making an Impact for Dummies: Three Key Steps

There have been several legislative changes that support equity crowdfunding in provinces like Ontario and British Columbia. However, significant challenges still inhibit investor participation, including the high costs of due diligence, transaction and investment limits, and lack of market liquidity. The Canadian government should work to implement tax incentives, regulatory changes, and support the broader ecosystem. With these recommendations, it can increase investor participation, solve the capital gap, and create wider support for organizations looking to raise capital.

Tax Incentives

To support the equity crowdfunding market and improve accessibility for both ESG investors and SPO entrepreneurs, the Canadian government must address structural and financial barriers to raising capital. Capital raising costs on equity crowdfunding platforms are affordable for established revenue-generating companies, but pose a significant constraint for cash-starved early-stage businesses because a considerable portion of

raised capital will be lost to fees. Government tax credits or rebates can cover these expenses for SPOs, which would enable them to more easily solicit funding from potential investors.

Another tax credit should be available to retail investors who invest in SPOs. The success of equity crowdfunding in the U.K. was largely driven by the Enterprise Investment Scheme, Seed Enterprise Investment Scheme and Social Investment Tax Relief. These are tax incentives that allow investors to claim 30 percent of the amount invested against their income tax for up to £300,000. Investors can also sell shares in small businesses without capital gains tax. Tax credits such as these would effectively reduce the cost and risk of early-stage investing, which in turn would increase the funds available to these businesses.

More Investors, No Problems

Currently, retail investors in Ontario can invest no more than C\$2,500 into a single investment through crowdfunding, for a total of C\$10,000 annually. The amount available to invest increases for accredited investors—those meeting a minimum requirement of C\$1 million in net worth or C\$200,000 in annual income in the last two years. Accredited investors can invest up to C\$25,000 per single offering with a maximum amount of C\$50,000 annually.

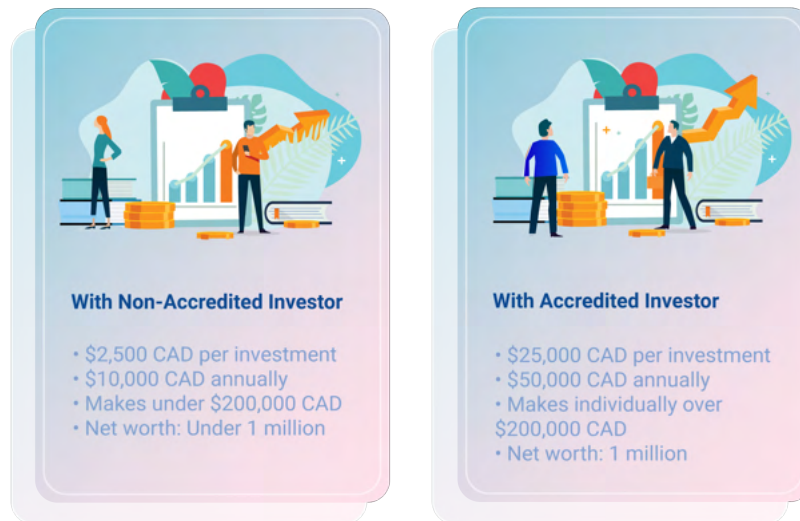
The definition of an accredited investor is significantly less flexible in Canada than in other countries like the U.K. and U.S. While investor risk and safety are important, easing regulations would increase the amount that investors are able to allocate, allowing entrepreneurs the ability to raise much-needed capital. Furthermore, various countries have begun looking at other criteria for accredited investors, such as professional designations. Allowing those with professional designations that demonstrate knowledge of the financial and their risks—such as Chartered Financial Analysts—would allow more investors to access the market without endangering unknowledgeable investors. More importantly, relaxing strict restrictions democratizes access to early-stage impact investments, allowing everyday investors to participate in the space and invest in meaningful causes.

Supporting the Ecosystem

Besides regulatory barriers, it is also important for equity crowdfunding platforms to accurately represent the environmental or social impact that aspiring ventures are seeking to make. There is an opportunity for these platforms to improve sourcing and visibility for SPOs that meet certain due diligence and impact measurement criteria. Doing so may require hiring additional human capital and investing in impact tracking methodology, but it has the potential to attract the underserved impact investor

EQUITY CROWDFUNDING: THE FUTURE OF IMPACT INVESTING

PROFILE COMPARISON - NON-ACCREDITED VS. ACCREDITED INVESTORS, ONTARIO



pool. This will in turn grow the equity crowdfunding market as increased transparency and the potential for higher returns will draw more capital towards the ESG early-stage ventures.

Above all, equity crowdfunding can unlock capital from the private sector and develop much-needed infrastructure for the impact investing space. Rather than replacing other investing channels, it complements the pre-existing private market by helping more organizations reach the growth capital stage. As this channel matures, it will be able to spur secondary markets and encourage more people to invest, resulting in a virtuous cycle for ESG investments. At this critical time, support for ESG investments not only enables innovation and entrepreneurship, but also helps organizations advocate for social and environmental change.

