April 2019

Dear Fellow Investors,

Net returns for the partnership in the 1st quarter were in excess of 16%. Please check your individual statement as returns will vary based off of the timing and share class of your investment.

As you likely remember, the end of last year was a brutal period for the partnership and for a good portion of the market. It felt like we lost money every day. When I say "we," I really do mean we. This is not an anonymous pool of capital. My parents lost money; my wife lost money; my kids lost money, as did my in-laws, cousin, best man, college roommate, mentors, former bosses, and friends. As the partnership has grown, it now also includes people that I have never actually met in person. I knew we would encounter challenging periods eventually. What I did not know was how everybody would react. How strong would the partnership be? How patient? How much time would I spend talking people off the ledge? We have always sought to build a base of likeminded limited partners, but it can be difficult to keep your eye on the long term when the market is highly volatile today.

In every letter, I try to emphasize that short-term returns are not meaningful. We will have losing months, quarters, and years. I know that our best chance of success is to ignore the short term, hunt for asymmetric opportunities, be unafraid of looking different, and be unafraid of being wrong. If we select our investments wisely and size them properly, we still will have periods where we lose money, but this is our best chance for long-term outperformance. These are really easy words to write, but they are harder to live by. Nobody likes opening (or sending) a negative quarterly statement.

The last six months have confirmed that I could ask for no better group of people to invest alongside. Unlike many managers, I was not facing a wave of redemptions just as buying opportunities were created. We actually had investors add capital in every month. Also unlike many managers, I was able to focus my time on investing as opportunities were emerging. Our LPs fell into two camps: the majority simply remained silent, which is appreciated, but there was an equally appreciated group that emailed and texted thoughtful ideas as the markets were deteriorating. Investing is hard, but I know that having a very smart, patient, philosophically aligned group of LPs is an enormous advantage, and it was on full display at the end of last year and the beginning of this one. Thank you.

NEW INVESTMENT – PAR TECHNOLOGY

I am very attuned to the power of a good storyteller. At night I read the Harry Potter series to my six-year-old daughter. We are currently on book six. J.K. Rowling has turned a story about an orphan boy into an all-encompassing world. It is not simply the twisting plot that has kept our attention; it is how she tells the story. There are not fights, there are epic battles. Characters are not simply good or bad, they are epically good or bad. There is a wizarding world with its own language, customs, and social structure. In my opinion, anybody who can keep a six-year-old's attention for 2,500 pages and counting (without pictures!) deserves to be a billionaire.

In the stock market, it is often "the story" that can drive changes in share price. Sometimes there are companies (such as Enron or Theranos) that are all story and no product. These, of course, are dangerous investment set-ups. From an investment perspective, it can be far more attractive when companies are just starting to effectively tell their story. It is far easier and less capital intensive for a company with strong products that resonate with customers to improve communications and positioning than it is to have strong communications but weak products. Often, with improved storytelling comes multiple expansion. For example, the PE ratio may go from 8 to 12, and even though the fundamentals of the company have not changed, the share price has increased 50%. Outsized returns come from revenue growth, margin expansion, and multiple expansion. A path to multiple expansion helps.

I first became aware of PAR Technology (PAR) a few years ago when Travis Cocke of Voss Capital laid out the collection of company assets in great detail. (Full disclosure: the Greenhaven Road Partners Fund is invested in Voss.) He clearly had found a "50 cent dollar." I just could not get comfortable with the management team. The founder's daughter was the CEO, and, in my opinion, the management and execution risks outweighed the siren song of assets selling at a discount.

PAR Technology was started more than 40 years ago and is a hodge podge of assets today. The original defense contracting business, near a military base in upstate New York, generates cash that has funded other businesses. There is also a technology hardware business that has been around since the 1970s when PAR's founder, John Sammon, created point of sale (POS) hardware systems for McDonald's. The company did a good job of growing its POS hardware business and has significant penetration in the largest fast food restaurants such as McDonald's, KFC, Taco Bell, Subway, and Jack in the Box. Still, this type of hardware business is mediocre, as it is lower margin and "chunky" because there are long replacement cycles for the systems. If this was that the sum of PAR Technology, it is highly unlikely that we would invest.

However, in 2014, the previously-mentioned founder's daughter had the foresight to purchase a small California-based company called Brink that developed a cloud-based POS software system for restaurants. While POS hardware is a low margin, one-sale-every-few-years-type business, the cloud-based POS software business has high-margin recurring revenue.

At the time of the acquisition, Brink had approximately 400 installed units. Fast forward to the end of 2018, and the company has compounded installs by more than 100% a year to 7,700 units. Notably, this growth came with minimal resources, zero logo churn, and without converting any of their legacy hardware customers to the cloud-based Brink software.

Last year, at the urging of Adam Wyden of ADW Capital, I looked at PAR Technology again. (Full disclosure: the Partners Fund is also invested in ADW.) Again, I could not get there. It was almost as if the PAR was hiding the software business – there was no investor presentation mentioning Brink. At the product level, there was also untapped low-hanging fruit for the company to grab, such as incorporating payments (credit card processing) into the Brink System. While many POS systems such as Square, LightSpeed, or Toast actually make the majority of their revenue off of their payments business, PAR has none.

There was an enormous amount of potential in the software business, but it was not clear whether PAR could or would realize it. The company was being led by a manager in his 70s with decades of experience in the defense industry but none in software. While competitors were financing their software companies with mounds of capital, PAR was restricted to the cash its defense business was generating. In summary, the company was under-resourced, had the wrong CEO, and a history of poor capital allocation decisions that had effectively led to zero investor returns since going public decades ago.

In today's stock market, the majority of shares are purchased by computers that scan press releases and use quantitative data. PAR's earnings releases had no breakout of the software business. The only time the company even discussed Brink was on the earnings calls where one could triangulate the unit's installation and revenue growth. At a time when SAAS businesses are getting very attractive multiples of sales, PAR's management was not breaking out any of the company's metrics, failing to tell the story of their software business in the language of software investors. They were treating Brink more like an asbestos liability than the crown jewel. I was concerned that the opportunity would never be properly articulated and more importantly never executed on. I passed again.

Fast forward a few more months when, at the urging of ADW Capital and others, PAR's CEO retired and was replaced by interim CEO Savneet Singh. Savneet had recently joined the Board of Directors as an experienced software investor and an operator. The hiring of Savneet was the turning point.

Savneet got to work very quickly. For the first time in years, PAR (Savneet) presented at an investor conference. In his first interaction with investors at the Needham Investors Conference, he touted Brink as the crown jewel of the company. He correctly stated that, historically, PAR had been run as a hardware business that happened to have a software asset, but going forward, the emphasis would be on building the software business. He also said they would launch a payments product in the second half of the year and laid out math that showed that payments could in fact be the biggest part of the business over time. The company laid off 8% of the corporate staff to free up dollars for Brink.

Savneet was saying all the right things; however, at this time he was still in an interim role and faced significantly better-resourced competitors. Thus PAR joined our portfolio as a "starter" position. Near the end of the first quarter, Savneet was made the permanent CEO, and shortly thereafter the company announced a $60m convertible senior notes offering at attractive terms. The change in management and improved resources substantially de-risked the situation, and we increased our investment.

So what have we bought? Brink Software can be used by almost any restaurant, but the company is focused on larger quick service and fast casual chains. In fact, Brink is the only proven enterprise cloud POS solution that has successfully integrated a large scale, multi-unit chain. The POS system is the spine of these larger chains, interfacing with inventory management, loyalty programs, accounting, payroll, and, increasingly, food delivery platforms such as Uber Eats and Seamless. For a large chain, building all of these connections is complex, time consuming, and important. Brink has been very successful penetrating and retaining such customers, including Five Guys, Arby's, and Sweetgreen. The investor deck lays out a lot of the details (link halfway down page). There are opportunities to expand internationally and, to date, the large hardware customers still have yet to upgrade to

cloud-based solutions. When these massive organizations do decide to upgrade, the only cloud-based system to ever sign up a 1,000 location+ restaurant will at least be in the conversation.

So, what are we paying for Brink? What could it look like? Our cost basis is in the low $20s. There are 16M shares outstanding, a government business that is likely worth in excess of $100M and a hardware business that is worth something north of $50M, plus as a hodgepodge of other assets, which means we paid on the order of $200M for Brink Software. But what could it be worth? There were 7,700 software installations at the end of 2018 with average recurring revenue per location of $1,870. If you run the math, we paid a lot for Brink… call it 14X trailing recurring revenue. No, I did not put a decimal in the wrong place. However, given the stated backlog, recent customer wins including Dairy Queen (7,000 locations), and the forthcoming introduction of the payments business, this is a forward-looking business. I believe there is a very tangible path to almost tripling locations to 20,000 by the end of 2020.

There is also a straightforward path to substantially increasing ARPU (Average Revenue per User), led by the expected rollout of the new payments product. Channel checks have indicated that Dairy Queen locations will be paying a substantially higher per-user costs as well, so ARPU will rise as they are blended into the base. With a much larger base of stores and a higher ARPU, very rough math gets us to less than 4X next year's revenue for Brink for a company that will still be growing 100% and have just increased ARPU 50%+. SAAS companies growing on the order of 100% per year with rising ARPU trade for much higher than 4X revenue. Lightspeed, which just recently completed its IPO in Canada, sports a valuation of roughly 30x run-rate revenue with inferior growth to Brink!

Yes, there is execution risk here, but the product is built and the pipeline is built. Unfortunately, due to the lack of disclosures, the extraneous defense business, and other holdings, PAR Technology is not viewed as a software company today. I believe that Savneet will both simplify the corporate structure by selling or spinning off the defense business and explicitly lay out the Brink SAAS business. For those interested in learning more about Savneet's background and getting a sense for how strong of a communicator he is – and how he is likely to approach the CEO role – Patrick O'Shaugnessey's podcast (link) provides an excellent foundation, as does his presentation at the Roth conference.

Over time, I think PAR's business will be helped by the new products such as payments, increased investments in software, and reduced lead times for installation. Over time, I think the multiple will be helped by a communications strategy that includes spoon-feeding investors key metrics, allowing PAR to easily be compared to other more richly-valued software companies. Savneet may not be J.K. Rowling, but unlike his predecessors who were silent about their greatest asset, sometimes just talking is enough.

NEW INVESTMENT – DIGITAL TURBINE

Digital Turbine (APPS) is an interesting platform company. As you have likely never heard of it or its business model, the write-up is longer and I have included it as an appendix to the letter. Suffice it to say, I think APPS has the opportunity to appreciate substantially.

GREENHAVEN
ROAD CAPITAL

TOP 5 HOLDINGS

KKR & Co. (KKR): This $12.7B market cap alternative asset manager was covered in great detail in the last letter. The company continues to have a very strong balance sheet with two-thirds of the share price covered by cash and investments and a very stable earnings stream from management fees. In fact, excluding the balance sheet, the shares trade on a low single-digit multiple of earnings. Employees own more than 40% of the company and have an excellent track record of generating returns and growing assets. KKR operates in an industry with tailwinds and is growing faster than the industry. While the firm has been in existence for 42 years, they have more than a dozen strategies that are less than 10 years old and still have the opportunity to grow AUM and earnings substantially.

Etsy (ETSY): The two-sided artisan marketplace has spurred revenue growth through improved pricing. Going forward, there is an opportunity to increase frequency of purchase and improve product discovery (search). Etsy is intentionally investing to grow the buyer base, improve the shopping experience, and provide tools for sellers to grow their businesses and run them with less friction. The valuation has become more stretched as the share price is up more than 6X from our initial purchases, but the company has a long runway for growth with no additional capital required.

SharpSpring (SHSP): This SAAS business sells marketing automation tools, acquiring customers at a fraction of their expected long-term value (LTV/CAC > 6) with a flagship product that is growing well in excess of 40% per year and maintains a long runway for growth. We added to our holdings in the first quarter by participating in their secondary offering. The company is adequately capitalized to invest in both customer retention and new products to sell into their existing base of digital advertising agencies.

Box, Inc. (BOX): Box has a unique combination of a sticky customer base (sub-5% churn), a 20% growth rate, a number of upcoming products, and one of the lowest EV/sales multiples for a SAAS business.

EnviroStar (EVI): This remains a controversial holding that comes in and out of the Top Five as short sellers intermittently attack and beat down the shares. The company is executing a buy-and-build strategy, acquiring others in the commercial laundry distribution space using a combination of cash and stock to fund the transactions. With shares trading in excess of 15X EBITDA purchasing companies at 5X EBITDA, the numbers can get very attractive. There are two key questions for EVI. The first is: Will corporate costs moderate so that the growing site-level contributions translate into earnings growth and cash flow? It makes sense that they should, as public company costs and a strengthened central office are spread over a greater base of acquisitions. The second question is: Can EnviroStar generate organic growth at the acquired businesses? The early indications are that they can. According to the company's filings, site-level organic growth for companies owned over a year was in excess of 5%. EnviroStar has completed more than a dozen acquisitions on favorable terms and has recently lined up a $140M line of credit, which may portend a large acquisition within commercial laundry or an adjacent industry. The CEO, Henry Nahmad, spent eight years doing acquisitions in the HVAC space for the most successful buy-and-build company, Watsco. He also helped build a company in the chemicals space, which is to say that he is not limited to commercial laundry equipment distribution. With almost no debt, operating in a non- cyclical industry with little risk of obsolescence, short sellers are betting on multiple compression. We are betting on continued acquisitions and improving margins. Time will tell.

OTHER NOTABLE INVESTMENTS

Fiat Chrysler (FCAU): This is the first quarter I can remember where Fiat Chrysler is not a Top 5 holding. I replaced our stock holdings with long-term options. These options tie up less capital, but still allow us to benefit if and when Fiat Chrysler is sold and/or gets a reasonable multiple of earnings. Typically, I am happy to hold shares of a company until value is realized. A long time horizon is one of our advantages. However, I don't love the auto industry – it is low margin, capital intensive, and cyclical, and the manufacturers are unlikely to benefit from electrification as the useful life of the vehicles should be extended dramatically. I don't want to hold Fiat Chrysler through the next recession, and every day where there is not a sale and/or valuation is not realized, we are one day closer to that time. But, with the special dividend coming, the Jeep Gladiator launch, and earnings growth on the horizon, it is not a company I want to be fully out of either. Our long-dated options allow us to extend our exposure.

Chicken Soup for the Soul Entertainment (CSSE) is outside of the Top Five holdings but worth a brief discussion. I think it is fair to say that this media company is our least popular and least "consensus" holding. If you exclude the Royce Funds and an index fund, we own several times more shares than the next largest holder. I understand some of the reticence. The company does not have the right pedigree, having gone public in an unconventional fashion through raising $30M in a Reg. A financing. Additionally, the CEO formerly ran WinStar, which created a lot of shareholder value… until it didn't. I personally think that, thus far, Bill Rouhana has built a really interesting collection of assets at CSSE with a thimble full of capital.

Bill's Chicken Soup for the Soul Entertainment is hovering around $100M market capitalization. On a trailing basis, last year they had $27.8M in revenue (up 2.5X), a net loss of $.8M, and adjusted EBITDA of $11.3M. There is also a content library valued in the tens of millions of dollars. On a backward-looking basis, CSSE is a modestly interesting set-up from a cash flow and revenue perspective. What is more interesting is that the pieces were put into place with a series of small asymmetric investments. Bill has done a series of deals, generally with little to no cash down and payouts contingent upon profitability. He is not betting the farm. The growth is consuming very little capital and generally adds to profitability.

At Chicken Soup, Bill is building an advertising-supported video-on-demand business. The beauty contestant winners of this cord-cutting bonanza are, of course, Netflix and Amazon. Yes, these are great businesses with massive subscriber bases and more original content than the world has ever seen. They also have massive valuations. At the very end of the first quarter, Bill struck a deal with Sony to combine its existing on-demand business with Sony's Crackle, which is a massive step forward for the company. Chicken Soup will put in no capital, yet own the majority of the joint venture, which should be immediately accretive. After one year, Sony will either own 49% of the joint venture or "put" their portion to Chicken Soup for $4M in preferred shares. In addition, Sony will have the right to buy up to one-third of CSSE over the next five years at prices generally higher than where shares trade today. So, for effectively no cash down, Sony could buy into Chicken Soup, or the company could possibly issue $4M in preferred shares. The following is from the press release: "The combination will lead Crackle Plus to become one of the largest ad-supported video-on-demand platforms in the U.S. with nearly 10 million monthly active users and 26 million registered users. The new service will also have access to more than 38,000 combined hours of programming, more than 90 content partnerships and more than 100 networks."

On a combined basis, the company will be streaming more than 1.3 billion minutes per month. The deal gives access to portions of the Sony library, Sony technology that costs tens of millions of dollars to develop, and their user base.

Like most of Bill's bets, Chicken Soup feels asymmetric here. Should 1.3 billion minutes of streaming, 10M monthly active users, a library, a content creation business, and a content distribution business be worth more than today's share price? I think so. Downside could be 100%, but it is likely a lot smaller, and if Bill continues to grow profitably with limited capital, upside could be very substantial. Heads we lose a little, tails we win a lot alongside an operator who owns the majority of the company and has exceeded expectations over the last two years.

SHORT POSITIONS

The fund remains short ETFs targeted at short-term traders, a bond fund where the underlying interest rates received relative to the risk assumed do not pass my common-sense test, and two indices. As I indicated in the last letter, the increase in volatility and stocks no longer marching higher in lockstep has created a better environment for shorting. We initiated three new short positions in the first quarter and have since exited them all with reasonable profits. One was a REIT where it did not look like the market was appropriately anticipating a dividend cut. Another was a cannabis-related stock where any sober analysis of the fundamentals did not support the share price. Finally, we were short an automobile manufacturer with management and production issues. While we will undoubtedly remain a very long-biased fund, it would not surprise me if we added a few more shorts over the coming quarters.

OUTLOOK

The good news is that I don't think that human nature is going to change a lot in the intermediate term. At a high level, this will mean that markets will continue to overshoot and undershoot fair value by wide margins as the primal tug of war between greed and fear continues. Unfortunately, I don't have a strong sense of the overall market direction in the short term. Fortunately, at a company level, some will continue to be led by A-players and some will continue to be led by C-players. Some management teams will have incentives aligned with common shareholders and some will not. If we select wisely, we will have enough A-players and enough alignment of incentives to grow our capital over the intermediate and long terms. We only need a few opportunities to make the difference.

Just as I ended the last letter, as volatility arises, I will attempt to take advantage of the opportunities it creates. We will continue to invest with a long time horizon, and we will continue to invest like it is our own money – because it is. Thank you for the opportunity to grow your family capital alongside mine

Sincerely,

Scott Miller

APPENDIX – NEW INVESTMENT – DIGITAL TURBINE (APPS)

I wish all investments were linear, but often there are a few data points which individually are just interesting, but when combined start to create a mosaic that underpins an investment. Here are a few data points that will hopefully provide the context for our recent investment.

Positioning Matters: Netflix drove 45 million views of the movie *Bird Box* in its first week post-release. Many factors drove the record viewing numbers – a marquee star, a marketing push, and a viral meme – but, importantly, Netflix also gave the film top billing when users logged into the service. I think it is safe to say that, if not given front-and-center placement for all users, viewership would have been significantly lower. Similarly, what happens to businesses when they drop off of the first page of Google search results because of an algorithm change? It can be disastrous. The first page of a Google search result is significantly more valuable than the third page, or even the second page. The most valuable real estate in the world is not in Hong Kong or New York City, but rather on our phone and computer screens.

Virtual Real Estate Is Valuable: In another indication of the value of screen space, Goldman Sachs estimates that Google will pay Apple $12B to be the default search engine on Apple iPhones and Safari browsers. This is just for directing traffic to Google, and Apple does nothing else but provide the screen space/access to its phone owners. The settings can even be changed – the payment is just to be the installed default search option. Apple's "search" revenue is bigger than the real number two and three search businesses combined, and it is virtually 100% profit. In contrast, Microsoft has an actual search engine business, Bing, which generated $3B in revenue last year but had $4B in costs.

Apps Have Long Lives: An app can have a much longer and more profitable life than I would have predicted. None of the top 10 grossing third-party apps for Android have been created in the last year. In fact, the majority of apps are more than three years old. Here is a breakdown by launch year of the current top 10 grossing apps according to Apptopia:

2014 – Clash of Clans, Candy Crush Saga, Pandora, Tinder, Slotomania

2015 – Dragon Ball

2016 – Empires and Puzzles, Coin Master, Pokémon Go

2017 – Toon Blast

Despite ongoing innovation, displacing popular apps is difficult and acquiring a user can pay dividends for years.

Customer Acquisition Costs Are Rising: Incremental purchases are incremental revenue, which for tech companies can be very, very high margin. Thus it makes sense for these tech companies to acquire customers aggressively. This pursuit of customers has led to an across-the-board increase in customer acquisition costs, which can be seen not only in the price of google AdWords, but also in the offline world. New York City subway ad rates are up 7X as companies struggle to find ways to reach these potentially valuable customers. Tech companies are spending aggressively to acquire users and eager to get out of the Google/Facebook vortex.

LONG DIGITAL TURBINE

How does all this play into an investment thesis? There is a small company that sits between many app makers and new smartphone owners. The history of this company is not a pretty one. It has included several acquisitions, divestitures, a name change, and an accounting issue with the SEC regarding compliance with Sarbanes Oxley. It is fair to say that there is some hair here, and if they were not in a position to be the exclusive broker of some very valuable phone screen real estate, we would not be involved.

Digital Turbine (APPS) works on behalf of cell phone carriers to monetize a portion of their screen space by automatically placing apps on customers' phones. The app developers pay Digital Turbine for placement on the phone, and this revenue is split approximately 50/50 with the carriers. Digital Turbine has multiple app install-related products, but the primary one is called "out of the box." When a person buys a new phone, they go through a set-up process. The carrier typically has personal information about the subscriber such as their address and age, and if the customer is upgrading from an existing phone, the carrier will also know about the apps being ported over to the new from the old. Based on this data, Digital Turbine will select 4-6 apps to load onto the new phone during the porting process and then make recommendations for other apps the new phone buyer may want to download as well.

For the phone buyer, the experience is virtually painless. Since installation happens in the background during set-up, the 4-6 apps selected by Digital Turbine appear as if they were preloaded onto the phone. A few pre-loaded apps plus other recommendations may enhance the ownership experience and increase the utility of the newly purchased phone. Carriers participate in order to generate high margin revenue. Digital Turbine is responsible for developing the technology and negotiating with the app developers to optimize the revenue from the installed apps.

Digital Turbine serves as the broker of these app slots for large carriers trying to maximize the monetization. For developers, Digital Turbine provides access to potentially valuable customers. The brokerage business for app slots should exist. Digital Turbine is removing friction from the monetization process, sitting between a very large fragmented supply of apps/developers and a worldwide constellation of carriers. It is logical that a third party sits in the middle, providing an efficient way to deal with multiple carriers as well as thousands of app developers. Digital Turbine is running a marketplace where they help to curate and sell the marketing placements. For Digital Turbine to be successful, they need to both build the number of carriers/devices that they will work with, as well as get enough app developers to pay for those slots.

This is a simple business. Revenue is a function of the number of devices for which Digital Turbine serves as an app install broker and the revenue generated for each device. It would appear that there is an opportunity to grow each substantially. The expansion of the number of devices and revenue per device over the next five years is uncertain, but there are a number of data points to suggest that they will both increase.

Devices

On the device front, Digital Turbine has done an excellent job of lining up carriers. In the United States, they have the two best accounts, Verizon and AT&T Wireless. There is still enormous opportunity as they are starting from a very small base. Digital Turbine's software is currently installed on fewer than 10% of all Android

phones. Historically, Samsung – which sells approximately 20% of Android phones worldwide – had been a stumbling block for Digital Turbine since they would not pre-install the software for small carriers. This changed at the end of 2018, and Digital Turbine will now be preinstalled on Samsung phones. This should facilitate deals with smaller carriers, while allowing a "BYOD" (bring your own device) solution, where Samsung and Digital Turbine could share in the economics for Samsung devices that an end user brings to a carrier that does not have a deal with Digital Turbine. In the last quarter, Digital Turbine generated 15% of revenue internationally. Given the Samsung deal and a partnership with the largest Latin America carrier, América Móvil, there is an opportunity to grow the device base substantially.

Revenue Per Device (RPD)

Digital Turbine's revenue per device (RPD) has been rising but is still very low, coming in at less than 40 cents per device in the past quarter. If one assumes an average of 6 apps installed per device, we calculate less than seven cents per installed app. The data is skewed, because the company generated on average $2 per device or more than 30 cents per app in the United States. While international revenue grew more than 100% last quarter, it is starting from a very low base.

Given that the number of available app slots to broker is generally fixed for each carrier, the path to increasing RPD is to increase demand and/or improve pricing. The company has been effective at lining up large apps, but it is an inefficient market and an inefficient process. There are sophisticated digital marketing platforms where bidding happens real time electronically. Digital Turbine is not one of those. Their process is far less sophisticated, and far more phone-based. The company was living hand to mouth not too long ago. Buyers are not sophisticated because it is a one-off "niche" market, and there is more friction in the system than there should be. The good news is that these are fixable problems. They have all of the ingredients for a successful marketplace, including a supply of spaces from a growing list of carriers, and dozens of major apps including Lyft, Amazon, AccuWeather, and Groupon. With limited supply and growing demand, there is the potential for significant RPD growth.

Digital Turbine currently has two pricing models. Pay per install is the primary, and the secondary is a more recent revenue sharing model. The revenue sharing model has real potential, as Digital Turbine can get paid even beyond the life of the phone, and at substantially higher rates than current RPD. The lifetime value of a customer can be very substantial for certain businesses. Take Uber. These days, I rent far fewer cars when I travel, I usually take an Uber to the airport, and my kids love ordering food on Uber Eats. It has become a go-to for us. I don't know what my ultimate lifetime value will be to Uber, but the Miller family collectively has spent a lot of money with them already, and we are not alone. Clearly for us, just about any revenue sharing percentage would be better than a straight 40 cents for install (the other model). Of course, if a phone user does not use the app, no revenue is generated and the value to Digital Turbine is zero … but with enough apps and enough customer data, Digital Turbine should be able to pair apps and users in a way that can increase revenue.

When Disney launches its streaming service next year, it is logical that they would be eager to get on as many smartphones as possible. Digital Turbine would offer the clearest path to achieving that. Similarly, for a number two player like Lyft, it would make sense for to pay for placement on phones where users are porting over the Uber app but don't currently have Lyft. Presumably as a non-Lyft user, any revenue generated would be

incremental. Digital Turbine is in its first months of revenue sharing agreements with a very limited number of apps, and generated 5% of overall revenue from this pilot in the most recent quarter. This is encouraging, as the revenue-sharing from installs should be recurring. As a result, it should lead to not only higher monetization, but also a more stable revenue stream and a potentially higher multiple.

Valuation

Digital Turbine grew revenue year over year at 34% this past quarter. Like many "growth" companies, they are reinvesting into growing the business and profits are negligible. The good news is that they are generating a modest amount of cash, or to put it another way, have enough scale with the apps business that they can choose between profits and investing in growth. That is not always the case for $200M market capitalization companies. I would typically value a platform company at this stage on Price to Sales or EV/Sales. Digital Turbine is currently selling for approximately 2X Price to Sales – which in this world is very inexpensive, but it is also a bit misleading because Digital Turbine has much lower gross margins than the vast majority of platform/marketplace type companies. The low gross margins are a function of the approximately 50% split of revenue with carriers. Thus, it is trading at approximately 4X net revenue (excluding payments to carriers), which still leaves some opportunity for multiple expansion, particularly as the recurring revenue grows as a percentage of overall revenue grows. There is also the opportunity for significant increases in both the number of devices and revenue per device.

End Game

Digital Turbine is improving its nascent monetization strategies, but, ultimately, I believe it should be acquired by any number of advertising/ad tech players better positioned to drive monetization, as the company occupies a very valuable space in the app ecosystem and therefore the digital economy. The good news is that an acquisition premium is not built into the share price today.

Risks

The largest risk in my opinion is that Google steps in and creates a competitive offering. They already have relationships with app developers through the app store, they control the Android OS, and, if they are smart enough to teach a car to drive, they could build comparable technology. They also are the world's best company in maximizing dollars from putting advertisers in the right slots. Now this is a very small market, and it is not clear that the carriers want to work directly with Google, but it is certainly a risk. A second risk is that carriers negotiate a more favorable revenue split for themselves. Digital Turbine does add value to the process – they line up the advertisers, collect the payments, maintain the technology, etc. This is all worth something, but 50% is a high revenue share percentage and not a sacrosanct number. It could decline over time.

Attribution: I became aware of Digital Turbine from a write-up by Jeff Meyers of Cobia Capital.

Disclaimer:

This document, which is being provided on a confidential basis, shall not constitute an offer to sell or the solicitation of any offer to buy which may only be made at the time a qualified offeree receives a confidential private placement memorandum (“PPM”), which contains important information (including investment objective, policies, risk factors, fees, tax implications and relevant qualifications), and only in those jurisdictions where permitted by law. In the case of any inconsistency between the descriptions or terms in this document and the PPM, the PPM shall control. These securities shall not be offered or sold in any jurisdiction in which such offer, solicitation or sale would be unlawful until the requirements of the laws of such jurisdiction have been satisfied. This document is not intended for public use or distribution. While all the information prepared in this document is believed to be accurate, Greenhaven Road Capital Partners Fund LP and MVM Funds LLC makes no express warranty as to the completeness or accuracy, nor can it accept responsibility for errors, appearing in the document.

An investment in the fund/partnership is speculative and involves a high degree of risk. Opportunities for withdrawal/redemption and transferability of interests are restricted, so investors may not have access to capital when it is needed. There is no secondary market for the interests and none is expected to develop. The portfolio is under the sole investment authority of the general partner/investment manager. A portion of the underlying trades executed may take place on non-U.S. exchanges. Leverage may be employed in the portfolio, which can make investment performance volatile. An investor should not make an investment, unless it is prepared to lose all or a substantial portion of its investment. The fees and expenses charged in connection with this investment may be higher than the fees and expenses of other investment alternatives and may offset profits.

There is no guarantee that the investment objective will be achieved. Moreover, the past performance of the investment team should not be construed as an indicator of future performance. Any projections, market outlooks or estimates in this document are forward-looking statements and are based upon certain assumptions. Other events which were not taken into account may occur and may significantly affect the returns or performance of the fund/partnership. Any projections, outlooks or assumptions should not be construed to be indicative of the actual events which will occur.

The enclosed material is confidential and not to be reproduced or redistributed in whole or in part without the prior written consent of Greenhaven Road Capital Partners Fund LP and MVM Funds LLC. The information in this material is only current as of the date indicated, and may be superseded by subsequent market events or for other reasons. Statements concerning financial market trends are based on current market conditions, which will fluctuate. Any statements of opinion constitute only current opinions of Greenhaven Road Capital Partners Fund LP and MVM Funds LLC, which are subject to change and which Greenhaven Road Capital Partners Fund LP and MVM Funds LLC do not undertake to update. Due to, among other things, the volatile nature of the markets, and an investment in the fund/partnership may only be suitable for certain investors. Parties should independently investigate any investment strategy or manager, and should consult with qualified investment, legal and tax professionals before making any investment.

The fund/partnership is not registered under the investment company act of 1940, as amended, in reliance on an exemption thereunder. Interests in the fund/partnership have not been registered under the securities act of 1933, as amended, or the securities laws of any state and are being offered and sold in reliance on exemptions from the registration requirements of said act and laws.