GREENHAVEN
ROAD CAPITAL

January 2020

Dear Fellow Investors,

In the fourth quarter, Greenhaven's fund returned in excess of 30%, bringing full-year 2020 returns to more than 105% after fees and expenses. Please check your individual statements as returns are impacted by investment date, share class, etc.

Given the large, positive difference between our 2020 performance and that of the major indices, one might question if we are using excessive leverage or excessive concentration to achieve those results. The short answer to both is no. 2020 returns were driven by stock-picking across a range of securities that were all shared in previous letters. Digital Turbine (APPS), PAR Technology (PAR), Elastic (ESTC), and Roku (ROKU) were our largest contributors during the year.

Our net exposure has ranged from below 80% to slightly above 100%, and our gross exposure is typically between 120% and 140%. As there were many interesting investment opportunities and such a wide range of outcomes due to the pandemic, I found myself making more and smaller "bets," and our concentration actually came down over the course of the year. I do not plan for Greenhaven to gorge on leverage or put the vast majority of my life savings into just one company in the pursuit of incremental returns. I did not do that in 2020 and I don't plan on ever doing it – you cannot play the long game if you blow up.

10-YEAR ANNIVERSARY

2020 marked the tenth year of Greenhaven's investment partnership. I can still remember the first days. My father-in-law committed capital over a dinner at Gus's (I later learned my mother-in-law told him he had no choice), followed by my college roommate at a coffee shop on Madison Avenue. I was in the basement of a rental house in Colorado avoiding a gaggle of children when the first non-friend/family member decided to join the partnership. Each of the early investors came in with a hope of making money, but also as an act of generosity to support my efforts and change the path of my life – thank you.

Through a combination of luck, timing, skill, and the reach of the internet, Greenhaven Road has grown to more than 100 limited partners hailing from six continents. Our investors come in many shapes and sizes, including current and former portfolio managers, entrepreneurs, professors, and charitable foundations. What unites us all is a belief that with the right manager, the right incentives, a broad mandate, and an acceptance of volatility, it is possible to achieve very attractive risk-adjusted returns over time.

Over the past 10 years, we have compounded capital after fees and expenses at over 21% per year. Those of you who invested after the first year have enjoyed even higher returns: $100 invested on day one of the partnership is now worth $685 after all fees and expenses at the end of 2020[1]. These returns were generated despite having two years where we lost more than 10% (2011 and 2018) and two years where we were effectively flat. Thank you for your confidence and your patience. I could not ask for a better group of limited partners.

[1] Net Performance from 2011 to present (i) is representative of a "Day 1" investor in the domestic limited partnership "Greenhaven Road Capital Fund 1, LP", (ii) assumes a 0.75% annual management fee, and (iii) assumes a 25% incentive allocation subject to a loss carry forward, high watermark, and 6% annual (non-compounding) hurdle. Fund returns are audited annually, though this information contained has been internally prepared in order to represent a fee class currently being offered to investors.

FIGHT CLUB

In these letters, I spend time explaining what we own and why we own it. Typically, the narrative is focused on the company level, discussing an individual company's product risks, market risks, team risks, and execution risks. Occasionally, I rise up to the 50,000-foot level to discuss frameworks that I may be applying across many investments, such as why platform businesses are attractive. This is one of those letters. One framework that has come into more focus for me over the past year is what I call "Fight Club." I believe the first user of this metaphor was Dan McMurtrie, Founder & CEO of Tyro Capital Management. As most of you will know, Fight Club is a reference to the Ed Norton movie that features bloody hand-to-hand fighting scenes. Instead of thinking of a company as a group of assets managed by people, I think we are actually investing in a group of people managing assets. Those people are engaged in a series of fights with competitors while trying to scare off potential new entrants. Handicapping the fight is highly dependent on management, but also on existing assets, product positioning, balance sheets, and industry structure. These fights can be lopsided or can drag on, leaving both parties bloodied to a pulp. We want to own the strongest fighters in the easiest fights or the most underrated fighter with the best chance of surprising the lumbering, over-confident incumbents.

How does fight club decision-making work in practice? We owned shares of Nautilus Fitness (NLS), which I wrote about in the last letter, as part of a Covid recovery-themed basket of stocks. The valuation was reasonable, and they have been migrating towards selling exercise equipment – such as stationary bikes and Bowflex exercise machines – that is increasingly "connected" and therefore has the potential to add streaming subscriptions. Selling a bike with a high-margin subscription revenue stream attached is a much more interesting business than selling just the low-margin hardware. When I made the investment in Nautilus, I knew that they had under-invested in their technology platform and were playing catch-up, but I believed they had excellent distribution, solid brands, and would continue benefiting from changes in consumer behaviors (e.g., not going to gyms). I sold the shares when Nautilus announced their new head of digital initiatives. The gentleman hired came from Dell, which is the source of several of my worst customer experiences. Going up against Peleton or Tonal with their product leads and balance sheet strength was going to be hard, but when I envisioned the fight led by this digital leader, all I could see was a lot of blood on a ratty Dell t-shirt. I hate to generalize and promote stereotypes, but our investment was predicated on being able to increasingly capture high-margin digital revenue streams, and going into a consumer-focused fight club with a Dell guy leading the charge made me nauseous. Since we typically own 15 companies, we have the luxury of being able to pick our fights. I sold and went searching for a better one.

In other cases, the fight club perspective has driven the decision to remain invested. Par Technology (PAR) has been a top holding for two years. CEO Savneet Singh is one of the smartest executives – and one of the smartest people – I have come across. I believe he will be the smartest and most resourceful participant in most fights. PAR's main competition, Micros and Aloha, are owned by Oracle and NCR, respectively – large, publicly traded companies with decades of experience and strong balance sheets. However, after examining the past five years of transcripts for everywhere Oracle's CEO and CFO have spoken publicly – including conferences and quarterly earnings calls – across thousands of pages, Micros was mentioned only once, and that was only in passing. The restaurant point-of-sale (POS) business is not Oracle's focus, but rather a line item in a budget that gets rolled up into a bigger group, which gets rolled up into an even bigger group. Oracle's best and brightest are working on the database business. Getting restaurant POS right is not a matter of survival at Oracle; however, it is for Savneet and PAR. Fight club. In one corner, we have Savneet Singh, who relocated his family to upstate New York, recruited team members, strengthened the balance sheet, put together an acquisition strategy to greatly improve functionality, and is introducing a payments processor to improve the economics. In the other corner, we have Micros, which was gobbled up by Oracle and receives zero attention. I will take Savneet and PAR in that match-up. The fight against NCR may be more difficult as its restaurant POS business is more material (and was dedicated 7 of the 59 slides on NCR's investor day presentation), but it is not their primary focus as they are betting the company on an ATM acquisition, Cardtronics.

Fight club is really a mental shortcut. *People* build businesses, especially technology businesses, and from an investing standpoint, having a few really great people in leadership positions makes for a pretty interesting starting point. Rather than prioritizing the lowest P/E or the best price to book ratio, I am increasingly basing my portfolio choices on team and competitive landscapes and looking for fights we can win.

TOP 5

We continue to own zero companies in the S&P 500. This will likely change in 2021 as KKR is working towards inclusion in the index and there are wonderful businesses in the S&P 500 that we may choose to own. I mention the absence of S&P 500 companies as a shorthand for highlighting the fact that our portfolio is fairly unique and likely has minimal overlap with your other holdings. The 2020 year-end top five largest investments should look familiar, as three were in the top five at the end of 2019 and four were in the portfolio at the end of 2020. Extensive discussions can be found in previous investor letters (on our website), so I will focus on what 2021 might hold for the companies, rather than repeating the full investment thesis.

PAR Technology (PAR) – 2021 should be an interesting year for PAR. They began the year announcing that CKE Restaurants, which operates Carl's Jr. and Hardee's, had selected their Brink POS (point of sale) system. CKE's nearly 4,000 restaurants would represent a 30% increase in Brink's store count. 2021 should see an acceleration of growth in installs, rising ARPU from pricing and payments, the sale of their legacy defense business, and a large acquisition utilizing the cash raised in October. There remains a very long runway for growth and the opportunity to leverage the strategic positioning of the POS as the spine of a restaurant to add adjacent software products for the hospitality space. PAR is our largest holding.

KKR (KKR) – In 2021, KKR will close on their purchase of General Atlantic insurance company, substantially increasing their permanent capital from 9% to 33% of AUM. 2021 should also see continued asset growth as they are in fundraising mode for their three largest strategies. Historically, KKR has been excluded from the S&P 500 for governance reasons but the company will likely make changes to qualify for inclusion, which would bring a large forced buyer to the stock. With its ballast of stable, locked-up management fees, KKR is designed to survive market fluctuations and economic cycles. The desire for pension funds and endowments to have a path to 8% returns in a zero-interest rate world should drive continued demand for KKR's services. Quite frankly, I believe that 2022, 2023, and 2024 look rosy for KKR as well.

ELASTIC (ESTC) – This open-source software company monetizes a very small subset of their users. Therefore, CEO Shay Bannon is fighting a different fight than most software entrepreneurs. Elastic's open-source model provides the community far more value than it extracts. Earlier this month, the company made a change to their licensing agreement, which will make it more difficult for others to commercialize Elastic's software. The EV/sales multiple has clearly risen over the past year as the share price has roughly tripled our initial purchases at the end of 2019. The company prices software based on usage and benefits from the continued growth of data as well as their expanding product lines. With net revenue retention (purchases from their existing base of customers) remaining above 130% since before their IPO, Elastic has a long runway of 30%+ growth that should mute the impact of multiple compression when it occurs.

Digital Turbine (APPS) – 2021 will be a year of increased penetration for Digital Turbine, which provides "a platform for simplified app and content discovery." Digital Turbine software is installed on over 500M phones, and this total is increasing by 20M phones per month. Beyond getting paid for installing apps upon phone activation, the company is increasingly building additional revenue streams, such as providing content for carriers like Sprint. Signing on Verizon or AT&T for content or Sprint/T-Mobile for app installation would bring a substantial growth. In November, Digital Turbine noted, "[t]he Company currently has more than 10 million monetizable daily active users (DAUs) for its Content Media products and is actively in the process of extending the reach to additional carrier partners." The growth in the content business, addition of new carriers, and further penetration into existing hardware manufacturers such as Samsung bode well for Digital Turbine.

ROKU (ROKU) – Roku is well on its way to becoming the go-to operating system for connected televisions as it continues to benefit from being built into roughly one in three televisions in the United States while international expansion (Mexico, Canada, Brazil, Great Britain) increases as well. According to the recent Trade Desk white paper on connected TVs (link),

> "A staggering 27 percent of consumers, for instance, said they intend to ditch their cable subscriptions this year, up from 15 percent in 2020…. Such is the extent of this shift that advertisers can now reach more U.S. households via connected, streaming TV than via traditional linear TV. And many of them are embracing the opportunity to rethink decades-old TV ad processes, such as the 'upfront' ad buying model, the 30 second ad-spot, and TV targeting and measurement."

Roku is ideally positioned to benefit from the continued transition to connected TVs given its role as a must-have platform, as evidenced by HBO Max and Peacock abandoning their go-it-alone strategies to partner with Roku instead. Roku provides the consumer with a superior experience to linear TV. Streaming allows "time shifting," and shows streamed on Roku typically carry ¼ of the advertisements shown on linear TV. From an advertiser's perspective, Roku allows for superior targeting as much more is known about the Roku viewer when the ad is purchased and served. Roku can monetize their strategic position through advertising and revenue sharing agreements on subscriptions and streaming services carried on the platform. The Roku business model has similarities to John Malone's TCI without the required capital expenditures.

SHORTS

2020 was an unusual year during which many of the companies that I thought had the weakest fundamentals rose the most. There will be a time when the myriad of electric vehicle (EV) SPACs and today's fads will be a fertile ground for shorting, but Q4 was not that time. I try to be in the business of "doing what works" and making money for our investors. The partnership ended 2020 short major indices and no individual companies.

NEW INVESTMENTS

Our partnership made two significant investments during the fourth quarter. The first was the communications platform Slack (WORK), which agreed to be acquired by Salesforce. We had a very nice time-adjusted return, but I would have preferred to own the shares for the next five years.

The second significant investment that we made during the quarter was in *The New York Times* (NYT). The newspaper business is very challenged; in fact, industry wide revenues are hovering somewhere around the 1980s' level and circulation sits at multi-decade lows. The NYT's revenue rose by 14% from 2015 to 2019 (last full years available). No, that is not 14% per year, but rather 14% total over those five years. For many years, digital advertising was to be the savior of media companies, but this has not proven to be the hoped-for panacea as Google and Facebook have taken content from publishers under very depressed economics and digital ad rates have declined. *The New York Times'* print subscriptions are down more than 50% from their peak and will likely trend to zero in the next decade.

While the top line quantitative data is underwhelming, the business is transitioning away from an advertising-supported to a subscription-supported model. In 2000, *The New York Times'* revenue was made up of approximately 25% subscription and 75% advertising/other. Today those numbers are flipped, with approximately 75% of revenue earned from subscriptions.

The transition to a subscription-based business has been a gradual one for which *The New York Times* was ill-prepared. In 2011, the Times instituted a paywall to limit individuals' monthly readership in order to drive heavy online consumers to begin to pay for continued access. In the decade since, they have gone through an iterative process of enhancing the marketing team, improving the technology, and experimenting with pricing tiers, products, and offerings. A subscription-focused business requires different skills than an ad-supported organization. The latter is focused primarily on traffic, while the former is much more focused on customer acquisition costs, retention rates, and lifetime value of subscribers. Subscribers are grouped into cohorts and segmented by areas of interest, frequency of consumption, type of content consumed, and breadth of content consumed. Over time, the tracking and marketing has gotten more sophisticated – figuring out better ways to nudge registered users to become subscribers and getting existing subscribers to renew. A registered user who only reads political articles may be sent targeted emails highlighting other types of content since people who come to the site for two or more content areas subscribe at much higher rates. Other tactics include varying introductory pricing by user type and adjusting renewal rates based on each individual user's data profile. These changes have required the *Times* to improve technology and personnel at all levels of the company, including the board of directors, which is surprisingly tech savvy.

The New York Times actually gets better as it gets larger. There is a flywheel in effect: quality content drives subscriptions, which provide more resources for better content, which drives additional subscribers, which provides again more resources for content. *The New York Times* pays starting reporters two to three times the industry average, and, given they have four times the number of subscribers as their next-largest peer, they can hire the best talent. Recently, they have hired notable journalists Ezra Klein, Ben Smith, and Kara Swisher from small upstart competitors. The strong have gotten stronger. With their scale, they can provide more and better coverage on international events and other special topics, helping to attract more subscribers. Scale also allows them to devote quality resources to complicated, drawn-out research on issues such as Donald Trump's taxes, and fosters access to "exclusive" stories because they can provide reach, which drives subscribers, which provides resources.

The New York Times has also benefited from consumers' increasing willingness to pay for content. While hidden under the decline in print revenues and digital ad revenues, *The New York Times* has built the world's largest subscription news business with 25%+ growth per year over the past five years. Their financials are starting to reach an inflection point where the growth in digital subscribers is larger than the print and digital ad declines, allowing the profitability of the subscription model to become more evident as fixed costs are spread across a larger customer base with effectively zero incremental costs for distribution. As a result, *The New York Times* should be able to continue building their news organization and still benefit from operating leverage as their revenue should grow far faster than their fixed costs from this point forward.

The future for the Times is interesting, in part, because the competitive landscape is so challenged. Humans have a natural desire to know and understand what is going on in the world. To push the fight club metaphor to its breaking point, in 2000 *The New York Times* was a disoriented, over-privileged child giving product away to Google and Facebook in pursuit of digital revenue dreams. Through a lot of hard work, strategic personnel changes, and a paywall, the organization built a sustainable subscription business. *The New York Times* is now one of a very small group of trusted national and international news providers. For digital news subscriptions, their primary competitor is a bundle, and given consumers propensity for multiple subscriptions, it is highly likely that *The New York Times* will be one of the last papers standing.

The digital platform of The New York Times provides optionality, with opportunities to offer additional products and services to an engaged and educated audience. To date, progress includes their flagship podcast, *The Daily*, which gets four million listens per day. The catalog of old content is being monetized through subscription offerings for both crosswords and recipes – these high margin subscription products have over 1.3M subscribers. The company has also grown its product recommendations hub, Wirecutter, into a standalone website that generates in excess of $50M a year in revenue. There is also a TV show that airs on Hulu. With the brands, traffic, and data generated, NYT is well-positioned to continue building complimentary revenue streams.

Despite being arguably the best-known newspaper in the world, *The New York Times* is still in the early stages of building its subscription business. In the third quarter of 2020, the company ended with 6M digital subscribers after adding 2M in the last year alone. They have stated a goal of 10M digital subscribers, and I believe they can grow well beyond that. At 12M with an average revenue per user of $200, NYT should generate roughly $3B in revenue and $1B in pre-tax earnings. At a multiple of 20X pre-tax earnings for a growing media business with operating leverage and a lot of optionality, the value of our investment would be more than a double and on its way to a triple. Holding a position in the media ecosystem as the paper of record and a daily visit for tens of millions of educated readers provides several paths to success in a decimated competitive landscape.

Despite being in the storytelling business, *The New York Times* has no investor presentation and has done a poor job of communicating the transformation of its revenue model and potential of the business. The best public resource is an anonymous blogger by the name of Mine Safety Disclosure. Before you roll your eyes, look at his work (link). My research was also assisted by William Faulkner, a recent Stanford Business School graduate who is launching a new fund, Aurora Capital.

ANNUAL MEETING/SPECIAL PURPOSE VEHICLE

In the next month, we will likely be raising a "Special Purpose Vehicle." This opportunity will only be open to existing limited partners (not going outside the partnership). I think the risk/reward is very attractive, but the liquidity profile of the target investment (3-year+ lock-up) is such that I think it is better to "size up" outside of the main funds. My family will be participating. LPs should keep an eye out for a separate email from investorrelations@greenhavenroad.com.

GREENHAVEN
ROAD CAPITAL

For obvious reasons, this year's annual meeting will be moved online. It will be scheduled for the end of February, held in conjunction with the Partners Fund, and recorded so that those who cannot participate can watch at their convenience. LPs should keep an eye out for a separate email from investorrelations@greenhavenroad.com about this as well.

OUTLOOK

The printing presses are whirring. Five trillion here, a trillion there, two more trillion coming… the numbers are staggering. Pumping that much money into an economy has to have an impact on demand. On the other side of the ledger is a pandemic that is dramatically altering daily life and reshaping the contours of commerce. I was very surprised to see holiday sales in the United States up 3% despite the rise in unemployment figures (link), but the fiscal stimulus undoubtedly provided a tailwind. My expectation for 2021 is that the economy generally strengthens as the world increasingly reopens. The greatest risk that I see for the market is multiple compression. A recent Goldman Sachs study showed that 9% of U.S. equity market capitalization comes from companies trading with a price-to-sales ratio greater than 20X. Any company valued at 20X sales has a great deal of optimism baked in. The challenge for 2021 will be navigating the tailwinds and euphoria that come from the growth that we are likely to see bumping up against the reality of stretched multiples.

For us, the path forward is built bottom up, company by company, with attractive risk/rewards. From a top-down perspective, we need to be assuming a variety of risks; our portfolio cannot and should not be (and is not) one massive bet on online advertising spend continuing or the strength of the U.S. consumer. There are numerous categories of business that are impaired, but we have the flexibility of not having to own them. Nobody says we have to invest in retailers or sit-down restaurants – those are "fights" I am happy to avoid.

Just as I have ended many of our letters... 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

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, MVM Funds LLC and Greenhaven Road Capital Partners Fund GP LLC make 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 MVM Funds LLC and Greenhaven Road Capital Partners Fund GP 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 MVM Funds LLC and Greenhaven Road Capital Partners Fund GP LLC, which are subject to change and which MVM Funds LLC and Greenhaven Road Capital Partners Fund GP 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.