April 25, 2016

Dear Fellow Investors,

It was another productive quarter in the maturation of Greenhaven Road. We continue to grow our assets at a measured pace while remaining committed to staying small enough to invest across market caps in off-the-beaten-path value opportunities. We feel many larger funds are struggling to perform because size has limited their opportunity set. At Greenhaven Road, we have long-duration capital that allows to patiently find asymmetric opportunities where the long-term rewards are the greatest, and through our partnership with Stride Capital Group, we have the back office and infrastructure capabilities of an institutional fund. The fund's performance in the first quarter was -3%. This is compared to a gain of 1.4% for the S&P500 and a decline of less than 2% for the Russell 2000. While we do not spend a great deal of time comparing our results to a benchmark, preferring to focus our energies on the fundamentals of each investment, it is notable that none of our top five positions are in the S&P 500, making the Russell 2000 a better point of comparison. I think you will also find we own a very compelling collection of companies that over time have the potential to appreciate significantly. Our three- and five-year returns are above all relevant benchmarks. The headline number is not indicative of the volatility experienced during the quarter. Limited Partners, please reference the Halpern and Associates statement for your actual performance.

**TOP 5 POSITIONS**

When I look at our portfolio, I see several companies that could easily be up 20%, 30%, or even 50% and I would not bat an eye. For example, if you walked into my office and said Fortress Investment Group is now a $7 stock (or up 50% from where the quarter ended), my reaction would be that the company is still reasonably priced. My reaction would be the same with Halogen Software, Fiat, or Diamond Resorts. Let's look at each of the top five in a bit more detail. Careful readers will note that four companies are discussed below. Diamond Resorts is a top five position that is discussed in detail later in the letter.

**Halogen Software**: Halogen is a Canadian-based software company, trading on a Canadian exchange, selling talent management software to mid-sized companies, primarily in the U.S. Later in the letter, we discuss the importance of simple math. In the case of Halogen, part of the simple math relates to currency conversion. Halogen's share price is denominated in Canadian dollars; with today's exchange rates, a Canadian dollar equates to around 80 U.S. cents. Other than share price, every other number for Halogen – including cash on the balance sheet and revenues – is valued in U.S. dollars. When converting the currency properly (not clear that everyone does this basic math correctly), Halogen has just about the lowest Enterprise Value (Market Cap less Cash)/ Revenue of any company we know of that is not facing some sort of terminal decline. Specifically, at $7 (CAD) – where we bought a lot of additional shares – the company had an EV of less than $85M USD and revenue (growing 10%+) of $65M, so it was effectively at an EV/Rev of 1.3X when SAAS companies will typically trade anywhere from 2X-8X depending on growth rates, margins and the competitive landscape. We would typically focus on cash flow, but in the case of a growing SAAS software company with strong unit level economics (positive lifetime value of a customer), sales and marketing to acquire even more customers is expensed immediately (not capitalized) and distorts the Price to Earnings and Price to Cash Flow metrics. The valuation is not demanding. The largest problems with Halogen are that customer acquisition costs have

GREENHAVEN ROAD CAPITAL

risen and growth has slowed. By my estimates, which I shared with management, Halogen is paying approximately $55K to acquire each new customer, but the company was only being valued at less than $40K per existing customer when using the public market enterprise value/# of customers. My argument to management was that it is cheaper to buy back stock than go and acquire new customers. The company has since put in place a large buyback for 1.2 million shares (5% of the outstanding shares), and fortunately, given the large cash balance, Halogen can buy back shares and still acquire new customers. The new CEO is outstanding and has embraced a partnership model to acquire customers more efficiently. I think he is making very sound decisions and look forward to the progress the business makes. The combination of a low multiple and improved marketing efficiency could be a powerful catalyst for future returns. The HR software space is undergoing consolidation as companies go from offering piecemeal solutions, such as payroll, benefits management, or talent management, to offering a complete suite of solutions. Given the current valuation, the corporate overhead that could be stripped out by an acquirer, and the lowered customer acquisition costs if folded into a larger company with an existing customer base to sell into, the economics for an acquirer would make sense even at twice today's share price.

**Fiat Chrysler**: This was an interesting quarter for Fiat Chrysler because they completed their spin off of Ferrari on the first day of the quarter. We sold our shares in Ferrari shortly after the spinoff. There is a strong case to be made for Ferrari to grow earnings through increased volumes, pricing, licensing, and reduced R&D. There is also an argument that the company is a luxury goods company and should command a luxury multiple. I think they are both valid, but when I am honest with myself, I am not comfortable owning a luxury goods company at a luxury goods multiple. Recognizing this bias meant that if and when the multiple was ever tested, I would throw in the towel and sell on the weakness. The price decline would test my skepticism of the multiple and I would inevitably sell. Given that Fiat itself is so inexpensive, I put additional funds into Fiat. I think Sergio Marchionne has made the right move at just about every turn – from acknowledging that auto companies need to be better stewards of capital, to calling for industry consolidation, to emphasizing the higher margin Jeep products. In the first quarter, the company gained access to Chrysler's cash, which had previously been "ring fenced," creating a situation where the company was paying interest on more than 20 billion euros in debt while simultaneously having billions in Chrysler cash earning virtually nothing. When the ring-fenced cash is accessed, the debt significantly reduced. Just accessing the Chrysler cash will save the company several hundred million euros per year, which is meaningful for a company with adjusted EBIT of €4.8 billion in 2015. The company is nearing the end of a long investment cycle and is making significant operational improvements. The shares are trading at less than 2X earnings management put forth in their 2018 plan. We are caught in a situation with short-term earnings improvement from all of management changes, which are very positive, but at the end of the day it remains a cyclical business with compressing multiples as investors fear the inevitable "end to the cycle" and begin to factor in those losses. Due to the capital intensity of the business, the cyclicality, our being closer to the end of the cycle than the beginning of the cycle, and a desire not to own the shares through the next recession – our time horizon is more limited on Fiat Chrysler than it is on most companies that we own.

**Fortress Investment Group**: This is a long-time holding for Greenhaven Road, and our thesis remains the same. Fortress is an asset manager focused on private equity and credit funds. The quality of the

business is very high with "sticky" assets in the permanent capital vehicles as well as the private equity vehicles. We believe the market is ignoring the balance sheet, which has $3 in cash and investments and roughly $1 in net incentive fees. With a stock in the $4s, we are getting the asset management business almost for free, while it has consistently generated earnings north of $.50 per share. There is a long presentation on our website that I did for The Manual of Ideas Best Ideas conference (www.greenhavenroad.com). This is one of the most asymmetric investments in our universe, and management appears to agree. They issued a tender offer for $100M worth of shares over the course of the quarter.

**Interactive Brokers**: Interactive Brokers is the firm Greenhaven Road has used to custody all of our assets, serve as our prime broker, and execute our buy and sell orders. Interactive Brokers has consistently grown its customer base between 1% and 2% per month for the last several years, growing profitably with minimal marketing spend. Interactive Brokers has both the lowest costs for customers and the highest margins of any of the brokers, including E-Trade and Ameritrade. This is accomplished through automation. Whatever piece of the investment and asset custodian businesses can effectively and responsibly be accomplished through software, Interactive Brokers has written the code. In many ways, this is a software company masked as a financial services company. With 75% insider ownership, I expect to own this as long as growth continues and management stays in place. There are also strong secular tailwinds as larger banks continue to step away from prime brokerage for smaller funds. With just over 340,000 customers, there is a long runway for growth. This quarter witnessed more continued execution by the company with strong trading volumes and customer additions. On any traditional valuation metric, the stock is expensive; however, they are consciously and materially under-earning. Interactive Brokers' prices are so far below the competition. they could easily raise them 10% or more to see a material improvement in profits as it would all be incremental profit. Low prices allow them to add new accounts at a rate of 15%+ per year with minimal marketing spend. There are some concerns about Net Interest Margins, but if Interactive Brokers continues to add profitable customers at this rate, the company will compound revenue, earnings, and share price at attractive rates for a long time.

**SHORT SIDE**

The fund grew assets over the course of the quarter on a percentage basis, resulting in cash balances. As a result, we closed out all of our index short positions. We also covered our short position in Code Rebel, which we described as the "world's worst" company in our Q3 2015 letter. Code Rebel remains a company with remarkably poor prospects, but with a borrow rate approaching 80% per year, a share price hovering above $2, and getting close to cash on hand, the easy money was made, so we closed out the position. A few interesting Code Rebel facts: The share price actually went up when they announced they would be unable to file their financial statements (10K) in time. This is usually viewed as a negative, but with Code Rebel shareholders, it was somehow celebrated as the stock was up double digits the day after the news was announced. Once filed, their annual report revealed that the company had $500K in revenue for 2015 and $1.3M in director compensation. It is never a good sign when director compensation runs more than 2.5X revenue of the entire company. Code Rebel is in the process of merging with another company, which will more than double the share count and halve the cash per share. This other company is in such dire straits that it needed a bridge loan from Code Rebel to remain solvent until the merger can be consummated. We may revisit the "world's worst" company before its

final demise. The fund currently holds four small individual shorts that are each less than 1% positions. These include a company that is about to lose its largest contract, a company that has been unable to file financial statements, a company facing intense pricing challenges, and a company with an unrealistic growth story.

**THE POWER OF STORIES**

In Yuval Noah Harari's recent bestselling book "Sapiens: A Brief History of Humankind," the author writes a tour de force that covers the history of mankind from our evolution two million years ago to the modern day. The entire book is well worth a read. With regards to investing, there is one section that is especially poignant, where Harari highlights the power of stories or myths. He writes:

> "How did *Homo sapiens* come to dominate the planet? The secret was a very peculiar characteristic of our unique Sapiens language. Our language, alone of all the animals, enables us to talk about things that do not exist at all…. Fiction is nevertheless of immense importance, because it enabled us to imagine things *collectively*. We can weave common myths such as the biblical creation story, the Dreamtime myths of Aboriginal Australians, and the nationalist myths of modern states. It is these myths that enable Sapiens alone to cooperate flexibly with thousands and even millions of complete strangers….
>
> True, ants and bees can also work together in huge numbers, but they do so in a very rigid manner and only with close relatives. Wolves and chimpanzees cooperate far more flexibly than ants, but they can do so only with small numbers of individuals whom they know intimately. If you tried to bunch together thousands of chimpanzees into Wembley Stadium, Oxford Street, St Paul's Cathedral or the House of Commons, the result would be pandemonium. Sapiens, in contrast, gather there by the thousands and together they organize and reorganize trade networks, mass celebrations, and political institutions. That's why we rule the world, whereas ants eat our leftovers and chimps are locked up in zoos and research laboratories…"

He goes on to discuss how, in fact, companies are really "stories" that are built on top of a legal code, which in itself is a story, and how they rely on money/currency, which is yet another abstraction that only works upon our collective embrace.

What does Harari highlighting the human species' unique ability to buy into stories have to do with investing? In effect, the investment business is stories on top of stories on top of stories. As a fundamental bottoms-up investor trying to find undervalued and overvalued companies, the primary "story" that we pay attention to is that of company-specific operations. Our story has characters like new products, market share gains, and regulations. In essence, my job is to find situations where the collective story is either too optimistic (short the company) or too pessimistic (buy shares).

**MR. MACRO – A MASTER STORY TELLER**

To complicate matters, we currently live in a risk on/risk off environment where there are persuasive storytellers weaving tales of doom at a "macro level." These stories are so large that they envelop even the most boring of companies. When a story is told well, a listener will conclude that no company is worth owning at any price. In

his last investor letter, Chris Mittleman of Mittleman Brothers gave these doomsayers a name I love – Mr. Macro. As he wrote,

> "We all know about Mr. Market, that manic-depressive business man who Ben Graham described as offering to buy or sell shares in his business at widely disparate prices from one day to the next based on his mood of the moment. Ben Graham and Warren Buffett advised us to take advantage of Mr. Market when the price he offers is attractive, and ignore him when it's not. There is another character out there, to be more ignored than taken advantage of; and that is Mr. Macro. Mr. Macro reads everything worth reading and knows every macro-economic indicator worth tracking, including the price of tea in China, and where the unsustainable imbalances are, and he plans to grab that next big asymmetric risk/reward payoff so *The Big Short II* will be about him. He even goes to Davos. He speaks of new normals, zero bounds, contagion, contango, unintended consequences, risk premia, risk parity, risk-on/risk-off, Abenomics, QE, BRICs, PIIGS, Grexit, Brexit, and Mr. Macro is the one who whispers in your ear at each sell-off, "*Don't do it. It's different this time*" For long-term value-oriented investors like us, Mr. Macro is to be ignored with extreme prejudice. Because, as history has proved, opportunities for successful investment outcomes exist in even the most hostile macro environments imaginable…"

When I sit back and think about companies simply being a function of our species' ability to buy into a collective story, and their short-term value (price) being driven by Mr. Market and Mr. Macro, it sounds arbitrary and haphazard. How can somebody be good at anticipating Mr. Market and Mr. Macro? The short answer is that we are not even trying to. Instead, we use tools for addressing and limiting the noise created by Mr. Market and Mr. Macro. The first is our work environment, which is designed to limit their presence, with a reading room and no CNBC blaring. The long-term nature of our capital limits the need to react to every blip of the market. Rather than trying to anticipate every zig and zag, we try to create value in periods measured in years, not days. In addition, I have sought out a network of fellow investors who worship at the altar of fundamentals, not Mr. Macro. The network helps to highlight situations where the largest gaps between reality and valuation exist. I am also comfortable being slow, methodical, and patient and not participating in an arms race of trying to be the busiest analyst following the most companies. We only need a couple of great investments to achieve material returns. Avoiding the busy trap is a differentiated approach that can yield a differentiated outcome. Lastly, 20 years of studying companies has also provided a deep data set that enables pattern recognition. I put a greater emphasis on certain variables such as insider ownership, recurring revenue, and product value proposition as they have been present in many of my most successful investments. Please note that GDP growth and the number of Fed tightenings this year were not on the list of variables I focus on. Our environment, sources of information, and areas of focus reduce the noise and allow me to create my own stories. However, all of the tools above would be useless without the one superpower that we all possess: basic math.

**THE POWER OF MATH**

Value investor Seth Klarman is the source of one of my favorite investing quotes, "Value investing is at its core the marriage of a contrarian streak and a calculator." The types of investments we pursue are those that are so off the beaten path that there is no real collective story, or those where the "story" is not supported by the fundamentals. To put it another way, aided by basic numbers such as cash flow, cash on hand, customer

retention, and revenue growth, we can construct an alternate story to the consensus. In the best cases, we have a "variant perception" and we actually can articulate what the market is missing or overemphasizing. The path to arriving at a variant perception often involves looking past the distortions of GAAP accounting and interpreting the numbers through the context of management incentives. One of the reasons that spinoffs are an interesting area to invest in is that often the "story" of the stock is still evolving and we can apply pattern recognition, basic math, and an analysis of incentives to make predictions. If there is enough of a discrepancy between our range of outcomes and the current share price, an investment may be in order.

In the past quarter, Greenhaven Road made three new investments. This is the most we have ever made in a single quarter and is partly a reflection of the market's volatility and growth in available funds. I would expect a slower pace over the course of the year. All of our new investments are the application of a contrarian streak, pattern recognition, and math. In essence the fundamentals reveal an alternate narrative. The largest investment was in Diamond Resorts, so let's start there.

**INVESTMENT #1: DIAMOND RESORTS INTERNATIONAL (DRII $21)**

Diamond Resorts is in the timeshare business. There, I wrote the dreaded word: T-I-M-E-S-H-A-R-E. The company both manages resorts and sells interests in timeshares. The story here is clear – the company is a predator. Timeshares are terrible products that people only buy after being tricked into attending a sales pitch. Every parent who loves their child should emphasize brushing teeth and warn their babies to never, ever, ever buy a timeshare. We could argue where timeshare companies sit in the hierarchy of corporate sleaze. Conventional wisdom has them above tobacco and guns and about even with gambling. Conventional wisdom also holds that this industry will grind to a halt either through the government finally putting an end to it or consumers just waking up. There is no doubt that the "ick" factor is high with timeshares. So how and why did we end up buying shares in Diamond Resorts? Are we on our way to investing in the seven deadly sins? The short answer is that I think the numbers reveal something very different than the popular story. The power of math leads us to a non-consensus conclusion. Let me also mention that Adam Wyden of ADW Capital helped me understand the company. Adam is as sharp as they come and has a fantastic track record. We both own Fiat and were introduced by a mutual friend.

Let's start with a few basics. The timeshare industry has grown every year but two since the 1970s, so this "terrible industry" has had a growth trajectory that just about every other industry would envy. Moving to Diamond Resorts, in particular, there are two numbers that I think are particularly telling. Would you have guessed that the largest purchaser of timeshares for Diamond Resorts is existing customers? Sixty-five percent of sales are made to families who already own at Diamond Resorts; this is arguably the most informed customer on the planet – an existing customer who chooses to buy more. Another 15% of customers are time shareholders at resorts that Diamond has purchased – so their initial purchase was not with Diamond Resorts, but now that Diamond owns their resort, they are purchasing more weeks (or points). Combining these figures, 80% of sales are to customers who are intimately familiar with Diamond Resorts and own a timeshare/points for one of their resorts. This does not sound predatory to me.

So, if the people purchasing these timeshare interests are informed (since they are typically already an owner), they just must be financially irresponsible – sub-prime borrowers drunk on easy credit, right? For the company to be predatory, this must be a simple case of a big, bad company repeatedly taking advantage of overwhelmed

consumers like payday loan companies. Here again, the numbers tell a different story. The average credit score (FICO) for a Diamond resorts customer is 756. For our international limited partners that may not mean much, but take my word for it -- it is far higher than anybody has guessed when I have discussed the company with them. A 756 FICO score is well into the upper half of consumers and miles away from sub-prime.

With Diamond Resorts, we have addressed the “ick” factor and some misconceptions about who the customers are and why they are buying. That is a start, but Diamond has become a top five position in the fund. What else is there? Why such a large investment? For starters, as with many of our investments, the stock shows high insider ownership of more than 30%. These insiders have a history of treating shareholders fairly; management incentives are aligned and the team has avoided dilutive transactions in favor of preserving equity over the years.

The customer value proposition is another criterion I find important. Given that 80% of Diamond Resorts buyers are existing customers, they must believe the value proposition holds up. As an outsider looking at the product and the industry, I came to the conclusion that the emotional benefits of “owning” a piece of vacation has great psychological value. People love being able to give weeks to their children and grandchildren. Financially, larger families can find savings when compared to renting multiple hotel rooms and eating out every meal. There are also opportunities to make exchanges, which can be attractive to owners, as well as the ability to monetize years that a family cannot use their interest/points. Diamond Resorts claims the payback on a timeshare is 8-10 years. Reasonable people can differ on the assumptions to reach the 8-10 year number, but overall I believe that there is a reasonable value proposition for their customers. The largest downside to the customer that I see is the undeveloped secondary/resale market for all timeshares. There are a few websites and specialized brokers in timeshare hotbeds like Maui, but timeshares are hard to sell in general, and when they do sell, it is often at a very significant discount to the original price paid. In summary, customers experience a reasonable value proposition tempered by the lack of a secondary market.

The secondary market has undoubtedly had its growth stunted because the absence of the market creates an opportunity for the timeshare companies. The secondary market is the primary place where the interests of the company and customer diverge. Diamond Resorts and the other major companies, such as Marriot and Wyndham, have the right of first refusal on every timeshare resale. Every year 3-4% of property owners walk away from their timeshare because of a change in financial circumstances, death, divorce, or lack of usage and an inability to navigate the secondary market. Diamond Resorts will typically repurchase these units for maintenance fees owed, which is a tiny fraction of what it would cost to build a new unit. For example, a timeshare interest that would sell for $25,000 can often be purchased by the company for $3,000 in back maintenance fees. A robust secondary market would clearly yield higher resale values. For Diamond Resorts, it is cheaper to recapture inventory than to build new projects. This practice of “recapturing” inventory is done across the industry, and in the case of Diamond Resorts allows them to keep their current rate of sales without building new properties. They don’t have to build another resort to maintain current sales and profitability levels. This low-cost source of inventory does come at the expense of those who no longer value their timeshare, but is beneficial for the company since it improves the margins and lowers the capital intensity of the business.

Diamond Resorts is well positioned within the timeshare industry and has opportunities for continued growth through acquisitions. Timeshare management and sales are businesses where there are economies of scale and network effects. For example, a sales office in a mountain location becomes more productive when it can sell the

dream of vacationing in the mountains and at the beach as opposed to just the mountains. There are also economies of scale in the back office, state regulations and compliance, and in IT systems. I was surprised to learn that the software used to manage the timeshare interests and exchanges of weeks cost $50M to develop. Despite there being network effects and economies of scale, the industry is very fragmented and has evolved with entrepreneurial developers developing single properties or small clusters of properties. This leaves a large opportunity for consolidation. Diamond Resorts has been an active acquirer and can effectively execute acquisitions at 8X existing EBITDA, which becomes 4-5X EBITDA after realizing synergies. In a zero interest rate environment, a long profitable growth trajectory at 4X EBITDA is attractive. Diamond Resorts has recently completed such an acquisition with the InterWest timeshare properties in Banff, Alberta, Canada. These are high-end, attractive properties. A path to sustained growth through synergistic acquisitions at reasonable multiples is not emphasized in the story of a predator.

A well-aligned management team, history of growth, clear runway to additional growth through acquisition, and asset light model would lead many to believe that the shares must be expensive. However, thanks to aggressive and vocal short sellers, they are not. The short thesis has several variants but two primary themes. The first is that this is a good industry that looks cheap until the financing for timeshares disappears. Most buyers secure mortgages for their interests, and the company packages these loans and resells them twice a year. If they cannot resell the loans, the machine grinds to a halt. I believe this is a very unlikely scenario given the fact that timeshare mortgages actually performed very well in the financial crisis and the credit profile of borrowers is excellent. In addition, demand to purchase timeshare loans from the company is strong in this zero interest rate environment. Therefore, I personally discount the likelihood of the loan securitization market halting in the fashion that short sellers would like you to believe. In addition, the loan securitization market could close for a year or potentially longer without dramatically impacting the company. Diamond Resorts has levers to pull, such as changing the amount of financing available by requiring larger down payments or changing the terms such that they are more attractive to note buyers. The other short seller theme is that government regulation is imminent; the Consumer Finance Protection Board (CFPB) should gut the industry. However, the industry is 40+ years old and has significant regulation at the state level. Consumers have a cooling off period that allows them to exit the transaction, for any reason, several days after the purchase is made in the timeshare offices. The notion of the CFPB gutting the Diamond Business is fighting the fights of yesteryear. The current business practices, in my opinion, do not need additional regulation. The magnitude of price decline caused by CFPB rumors relative to the likelihood of action and damage caused by CFPB action to Diamond Resorts and their current business practices creates an interesting buying opportunity.

Management has been very conservative in guidance and has a long history of exceeding it. When I consider management guidance as well as the improved economics from the new acquisitions, we acquired our shares in Diamond Resorts for approximately 3X EBITDA, which is growing double digits per year. This affords a lot of flexibility to continue to aggressively buy back stock.

Where does this all end? I believe that Diamond Resorts eventually will become a private company and will continue to prosper outside of the spotlight. There is little reason for the company to be public. They do not need capital. Given the strong cash flows and high insider ownership, the current management team can pursue an LBO. When does it happen? Timing is hard to predict. However, when connecting the dots, I think there is a reasonable likelihood it occurs in the next three months. There are obviously dozens of impediments to a

transaction happening at all, let alone in the next three months, but several data points point to the possibility. Diamond Resorts announced the initiation of a strategic review, the Board has formed a special independent committee, and Centerbridge Partners has been engaged to oversee a process. These actions mean there is at least some heightened potential for a transaction. This is well understood by the investment community and was announced on the last earnings call. What is less well understood, and appears in no sell side research, is something called 1818 Partners.

1818 Partners should really be called "Management has options for 5 million shares (6% of the company) struck at $12.56 that expire in July 2016." I told you Adam Wyden was bright. As someone who focuses on insider ownership and management incentives, this is a nice cherry on top. Given that management already owns almost 30% of the company and that the options are currently "in the money" and can be exercised, these options are meaningful but not the sole driver to consummate a sale. However, in the absence of a transaction, management will have to come up with more than $60M and will incur a tax bill to exercise the options. If they pursue a "cashless" exercise, their ownership in the business will decline. Therefore, their optimal scenario is a transaction before the expiration. When we factor in the benefits of being private, the valuation, the ownership, the options, and the announced process, I would not bat an eye if this company was sold for $30 per share (almost a 50% premium to our purchase) before the options expire in July.

**INVESTMENT #2: NUVECTRA (NVTR $4.50)**

Approximately half of our portfolio is higher-quality companies that should compound growth over multiple years, "generals," as Buffett would call them. The other half are special situations such as spinoffs or rights offerings; Buffet would call these "workouts." Spinoffs are a constant source of opportunity as the story is often non-existent or, as in the case of Associated Capital (discussed in the last letter), untold. Associated Capital has no investor presentation, no investor relations activity, no sell side coverage, no conference calls: effectively no awareness at all.

Our second new investment in Q1 was Nuvectra, which was off the beaten path like Associated Capital. I became aware of Nuvectra when one of the spinoff notification sites that I follow pointed out that there may be "uneconomic" selling at a recent spinoff. Those words are like catnip to me. As a person focused on fundamentals, selling unrelated to fundamentals = potential opportunity. That tiny kernel of information set off a treasure hunt for facts and basic information to construct a narrative of what could be driving the selling and why it could be misguided. These hunts typically lead nowhere, but we have to look under a lot of rocks and always learn along the way.

Nuvectra had recently spun off from Greatbatch (GB), an outsourced contract manufacturer in the medical device space. Greatbatch itself is a small company with a $1B market capitalization. As small as Greatbatch is, the spinoff is far, far smaller. By the time I became aware of NVTR, shares were down 40% and trading at just over $4 with a market capitalization below $50M. This is where the math starts to enter the picture. The spinoff ratio was such that for every 3 shares of the parent company (GB) an investor owned, the investor received 1 share of the spinoff (NVTR). This 3:1 ratio, when combined with a $4 share price for the spinoff and a $30+ price for the parent company, meant that for every $90+ an investor held in the parent company, they now held a $4 stake in the spinoff. For any investor who was not purchasing Nuvectra, it was less than 1/20 the size of their Greatbatch investment. In addition, at $4 per share, NVTR had a sub-$50M market capitalization and might not be allowable

in certain funds with restrictions against owning such small companies. Those funds would be forced sellers due to their mandate/rules, not their assessment of the situation. Other funds' constraints help to create our opportunities. Lastly, Nuvectra has an FDA-approved medical device that needs to go to market, and Greatbatch's core business is contract manufacturing of medical devices. These are quite different businesses that can attract different shareholders. Thus, there were several conditions in place for uneconomic selling. Greatbatch shareholders were presented with a tiny stake in a tiny company in a different business than what attracted them to Greatbatch. To add credence to the uneconomic selling thesis, the company had done virtually nothing to tell its story since spinning off, based on observations from repeated website visits. At the time, there was no company presentation on the website, no management bios, and no history. To want to own this company, an investor had to do work; there was no spoon-feeding by a promotional management team.

Given Nuvectra shareholders likely did not know what they were actually selling, a little detective work could bear fruit. There were no indications of any material changes in the company. No press releases, no seismic shifts in the competitive landscape. What about the fundamentals? The company had two salient financial facts. The most important one was a strong balance sheet – Greatbatch had stuffed $7 per share in cash into Nuvectra. For a company selling at only a little over $4 per share, to have $7 per share in cash and no debt is quite remarkable. In other words, shares could appreciate more than 50% and still be valued at less than cash. The second salient number is the burn rate, or how fast the company is consuming cash. Unfortunately, Nuvectra will likely need all of the cash it has and more over time. The company has a medical device that received FDA approval and is now building out a sales force and will burn $25M this year. They look to have about three years of cash on the balance sheet and, if all goes well, that will be enough to become a healthy and prosperous company. This is by no means assured. There is a lot of execution risk with Nuvectra. However, the discount to cash at the time of our investment was certainly very attractive.

When I started working on Nuvectra, I happened to be at Farnam Street's Think Week with Chuck Royce. As you might imagine, when two stock geeks are stuck on an island reading all day, a stock trading at a significant discount to cash is a welcome distraction. Chuck kept asking, "why the spinoff?" In essence, he was asking how confident we could be that this was not a "garbage barge" where the parent shipped the liabilities off of its balance sheet. After running through a dozen scenarios we came to believe that the most likely reasons were twofold: The primary one was that Greatbatch wanted to remain a manufacturer and did not want to compete with its customers' products. If Nuvectra's product was going to be successful, they would by definition compete with Greatbatch customers. The second reason was, again, math-related. Nuvectra is in a growth phase, attempting to gain acceptance for its devices. If the company remained part of Greatbatch, their $25M+ loss would result in a 40 cents per share drag on earnings. If you apply a price to earnings multiple of 10X to that 40-cent drag on earnings, it adds up to $4 in share price. The stock price should increase just by subtracting the money-losing division. In addition, during the course of diligence, we were able to speak with Greatbatch's investor relations team and get a copy of an unposted investor slide deck, providing a degree of asymmetric information. Even though we were new to the story, we now had more information than most in the marketplace. We understood the motivations, the economics, and the incentives, and we had a plausible explanation for the uneconomic selling.

The final piece of math for the Nuvectra investment was related to position sizing. A careful reader will notice that absent from any of the analysis above was an understanding of the quality of the product, the value proposition to patients or doctors, or where the company fit in the competitive landscape. These factors were

either negative, in the case of insider ownership, or unknowable/outside my circle of competence. As a result, I made the position very small (approximately 2.5%) and decided to hold until the shares approached the level of cash on the balance sheet. The further shares trade above the cash on hand, the more it becomes an investment in the future of the company as opposed to an opportunistic special situation. Fortunately, the share price rose relatively quickly and we were able to exit after the quarter ended. Subsequently, Nuvectra has started to tell their story and there is some rosy sell side research that has pegged the value at $25 per share. My ability to predict market adoption on medical devices is limited, so we are happy with the return we had. We had a greater than 40% return on our investment in well under a month, making it one of the highest IRR investments we have ever had. With our small size and flexible mandate, if we continue to look off the beaten path at small spinoffs, we will find others spinoffs that are in more attractive industries and make far larger investments over time. This business rewards patience, persistence, and pattern recognition to connect the dots when there is not story being told.

**INVESTMENT #3: RMR GROUP (RMR $24)**

Asset managers can be wonderful businesses that benefit from recurring revenue and operating leverage. The biggest risk with an asset manager is that when assets decline, the operating leverage works in reverse. In other words, if assets decline by 50%, often earnings will decline by more than 50% because there is a base level of fixed costs. Asset managers that are unlikely to lose their assets should be highly prized and trade at a premium. RMR Group is an unusual situation with many ingredients for meaningful appreciation. Let's start with what they do.

In the company's words, "RMR is an alternative asset management company with $21.0 billion of assets under management, including more than 1,300 real estate properties. RMR's business primarily consists of providing management services to: Four publicly traded REITs, three real estate operating companies, and one real estate securities closed end fund. RMR has over 400 professionals in its corporate headquarters in Newton, MA and 25 offices throughout the U.S." I love asset managers and I had never heard of RMR Group before reading about the company in David Brown's "Value Investor Insight" January interview, since the company did not exist in its present form before December 2015.

Let's turn back the clock just a little bit to 2007… I was working in an operating business and having a lot of success investing in a personal account. I had decided that I wanted to work at a hedge fund to better monetize my skills and learn from others. Because of the laws of supply and demand, this is easier said than done. There are a lot of people who want to work in potentially high-paying places, and there are just not that many hedge funds that are hiring. After months of looking, a college roommate (and current investor in Greenhaven Road) got me in for an interview with a fund in which he was invested. I knew it was essentially a courtesy interview, but it was a foot in the door, and the only door that was opening even a little bit. As part of the interview process, the portfolio manager asked me to analyze TravelCenters of America (TA). This company is a truck stop operator recently spun off from a REIT. I spent an enormous amount of time visiting truck stops, learning the ins and outs of the truck stop business, and looking at TravelCenters of America from top to bottom, which was about as sexy as it sounds. I then began looking past the numbers and started to think about the motivations of the different parties, concluding that TA was burdened with leases that were very favorable to the parent company. It was as if the REIT wanted as much of the economics as possible to flow back to the parent company at the expense of the

newly public company. If I had to invest, I was more interested in the parent company than the spinoff. I also learned the fund I was interviewing with was a top 5 holder of TravelCenters of America, and it was one of their largest positions. It did not take a genius to figure out the portfolio manager liked the company. The portfolio manager did not agree with my analysis, and I did not get the job. The stock later went from $30 to $2, and the leases were renegotiated. The reason I bring up this anecdote is that the holders of those leases, the people who structured the deal, are the same people who created RMR Group – the Portnoys. These are smart people with shrewd deal-making skills.

RMR Group came public in a highly unusual manner. In 2014, the Portnoys lost a REIT management contract they had with Commonwealth REIT to two activist investors. There were multiple lawsuits and a lot of mud was slung. If there is a "story" on the Portnoys, it is that they managed the REIT for their benefit, not that of the REIT shareholders. The incentives were such that the larger the REIT was, the more the Portnoys made. Their incentives were to grow the REIT larger and larger, managing more and more properties. They were taking home $50M+ management fees annually while the REIT was dramatically underperforming its peers. To simplify, the narrative is Portnoys = greedy at the shareholders' expense. Remember, they may be greedy, which is legal last time I checked, but they are also clever. They were managing four more REITS and they were rightfully concerned about losing the contracts for these as well. I have never written these words before, but whatever they paid their lawyers, it was worth it. The Portnoys and their legal team came up with a way to not only protect their REIT management contracts, but also to effectively make the management contracts permanent. RMR Group engaged in an "Up-C" transaction where the owners of the REITS were given shares in RMR in conjunction with their agreeing to new management contracts. This was effectively a tax efficient IPO of RMR Group that placed the shares with the owners of the managed REITS. When shares were distributed on December 14, an investor who owned $1,000 worth of REIT shares received approximately $10 worth of RMR stock – an immaterial amount. The Portnoys gave up ownership in half of their company but got shares in the managed REITS, ironclad management contracts on the REITS, and a tax asset that increases in value if the share price rises.

Let's look at these one at a time. The shares in the REIT are straightforward and align the Portnoys and the REIT holders. The contracts have a 20-year duration that renews every year, so they are effectively perpetual contracts. The fees to break a contract are onerous, as you would expect when shrewd negotiators are putting together contracts they never want cancelled. The contracts pay both management and incentive fees, and like the truck stop contracts from years ago, are favorable to the Portnoys/RMR Group at every turn. Lastly, the tax asset created by the Up-C transaction is such that it increases in value as the shares of RMR Group increase in value. The Portnoys should care about RMR share price because they own half of the company and because it increases the value of their tax asset. In the Portnoy universe of the REITs they manage through RMR and the operating companies, RMR Group is the crown jewel; it is how they get paid, and we get to sit alongside the Portnoys.

This is a wonderful business with incredible contracts and a history of growth and aligned interests between the Portnoys and RMR holders. In essence, our investment came down to basic math and three numbers. The first is the length of the contracts – 20 years self-renewing is virtually unheard of. The second was the valuation of approximately 4X EBITDA for a high quality money management business with strong contracts. Lastly, the ratio of approximately $1 of RMR stock for every $100 of REIT stock owned creates conditions for indiscriminate sellers. More complicated math is required to understand the true tax benefits that accrue to the Portnoys because of RMR share price increases, but their 50% ownership combined with the tax benefits portend

well for our investment. I believe that the conventional wisdom that Portnoy = greedy is now actually Portnoy = greedy for RMR shareholders. Given their history of entrepreneurship and creating value over time, we should have the opportunity to make money alongside them.

**CHUCK ROYCE AS SEEDER**

I love my wife, but calling her cell phone repeatedly in rapid succession is just not something I do absent a medical emergency. If I get her voicemail once, I might try again, but eventually I switch to texting or wait until I see her at home. When I left Chuck Royce's office for the first time, I called her four times in a row until she picked up. I would have kept going. Her immediate questions were, "Are you ok? Why do you keep calling?" I was momentarily lost for words, finally managing, "I'm not sure, but I think something special happened in there. He just understood me." I have had thousands of professional meetings and never made a call like that before or since. Chuck has become a friend, advisor, mentor, colleague, landlord, thought partner, and sanity check. I am also quite proud to say that, through his personal family investment vehicle, he joined Stride Capital Group as part of the seed for Greenhaven Road. I as an individual and we as a partnership are lucky to be in Chuck's orbit and benefit from his wisdom. I am thrilled to formalize what has been a wonderful relationship and look forward to the years ahead.

**CLOSURE OF THE FOUNDERS CLASS**

As discussed in the last letter, the founders class has closed. However, for the next two years you will be able to add incremental funds on the same terms in increments of $25,000 if desired.

**OPERATIONAL UPDATE: OFFSHORE FUND, NEW SERVICE PROVIDERS**

One of the most pleasant surprises with Greenhaven Road has been the number of limited partners from outside the United States, including Canada, South America, the Caribbean, Europe, and Africa. It turns out that our investment approach resonates across the globe. As such, we are in the process of setting up an offshore fund. The fund will be domiciled in the British Virgin Islands and will be structured as a limited partner in the current fund, invested alongside all current investors. There are a number of benefits to this arrangement. For example, there are certain nonprofit investors, endowments, and other non-U.S. investors that require an offshore fund for tax purposes. In addition, for IRAs and retirement funds, an offshore entity can remove the risk of triggering UBTI taxes (we have not done so to date). My wife and I plan to move our retirement funds into the offshore vehicle. For our existing investors, depending on your situation, there can be modest benefits to converting your investment into the offshore fund. I will reach out to you over the coming month to discuss. Because the offshore fund will be a limited partner in the existing fund, it will have all of the same investments and exposures as the current fund. The only "downside" will be very minimal additional administrative expenses in the form of an extra audit and country filing fees. In many instances, this is a worthwhile tradeoff.

The timing of the offshore fund follows a confluence of two events. The first is interest from investors who require offshore vehicles, the second is our decision to change service providers (lawyers and auditors). As part of the Stride seed deal, I committed to reviewing our service providers to ensure Greenhaven Road was on track to build an institutional-quality firm. For 2016, we have engaged Spicer Jeffries, a top 10 firm, as our auditor. Our experience to date has been outstanding, and the fee arrangement they required for the offshore fund was a

fraction of our old firm's, making an offshore offering economically viable with a relatively low level of assets. The second change we made was to engage Marino Partners as our counsel. Working with Paul Marino and his team, we were able to create an offshore fund that would have reasonable filing and operating expenses. The end-game here is to deliver returns minimally impacted by filing fees, taxes, and audit fees. The combination of Marino's legal work and Spicer Jeffries' fee structure has created a robust fund with all of the relevant legal protections that LPs deserve with minimal costs to drag returns down. It is also not a coincidence that we set up the offshore fund after our partnership with Stride Capital Group. Stride does not just send a check; they were involved in every step of the process, from identifying the new legal counsel to evaluating the tradeoffs of different countries and legal structures. We could not have set up the offshore fund, revised the legal documents and made the types of investments we made this past quarter without their assistance. Stride, and in particular their CFO Mark Rubin, did all of the heavy lifting and added enormous value along the way. For that I am thankful.

Mark will have another large job in front of him in the coming quarters. We will be switching our fund administrator from Halpern and Associates to SS&C. Halpern and Associates has been nothing but professional and helpful from the first day we have worked with them. Leaving is not easy, but all of the Stride Capital Group seeds are administered by SS&C (as well as hundreds of other hedge funds). We are still working through the timing and logistics, but SS&C is a top tier provider and Mark has a close working relationship with their team, so we are in good hands.

**OUTLOOK**

Given the vagaries of Mr. Market and Mr. Macro, I am not going to attempt to prognosticate where the overall market is headed over the short term. I continue to like our chances if we apply basic math and seek out situations where the valuations are reasonable, the management teams are aligned, and we understand the business. This may take us to Canada for software companies, to recent spinoffs, or to unloved businesses with a high "ick" factor. We have created a fund that allows us to go places other funds cannot go, and we have set ourselves on this course on a perpetual basis, so we will not narrow the opportunity in the future. Looking at the investments made just this year, you will find an "Up-C" transaction, a spinoff selling for 70% of cash on hand, and a hated company in a hated industry. My belief is that these investment are "good different" and should bear little correlation to the overall market when measured in years and decades. Over time, if we set aside the noise and take advantage of the opportunities provided by Mr. Market and Mr. Macro, I believe we can generate real returns that will provide real capital appreciation and the resources to write our own stories.

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 offering memorandum ("CPOM") / confidential explanatory memorandum ("CEM"), 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 CPOM/CEM, the CPOM/CEM 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 Fund 1 LP and MVM Funds 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 trading authority of the general partner/investment manager. A portion of the 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 Fund 1 LP and MVM Funds. 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 Fund 1 LP and MVM Funds, which are subject to change and which Greenhaven Road Capital Fund 1 LP and MVM Funds do not undertake to update. Due to, among other things, the volatile nature of the markets, 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.

The S&P 500 and Russell 2000 are indices of US equities. They are included for informational purposes only and may not be representative of the type of investments made by the fund.