



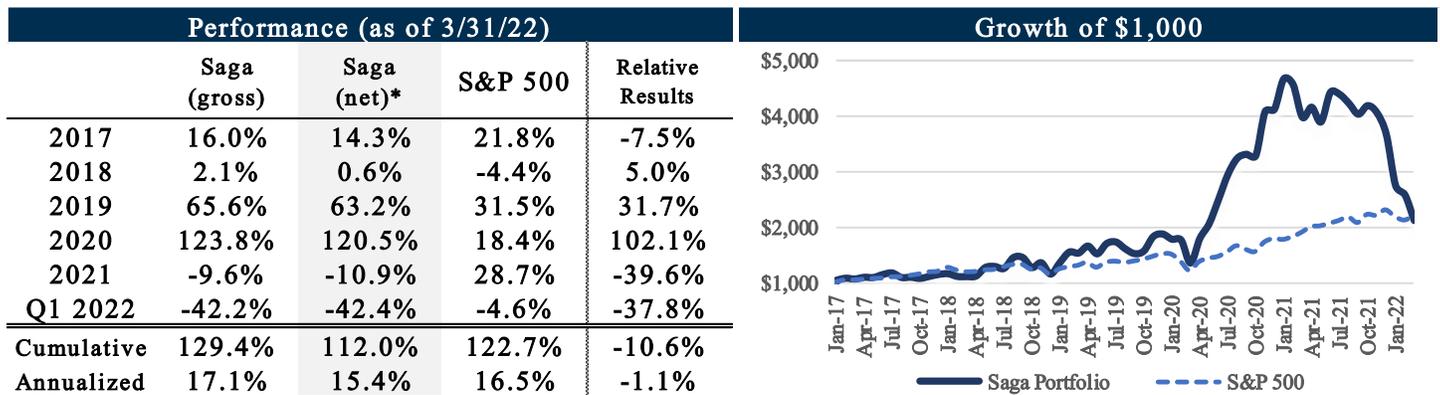
QUARTERLY UPDATE

FIRST QUARTER 2022

Q1 2022 Results

During the first quarter of 2022, the Saga Portfolio (“the Portfolio”) declined 42.4% net of fees. This compares to the overall decrease for the S&P 500 Index, including dividends, of 4.6%.

The cumulative return since inception on January 1, 2017, for the Saga Portfolio is 112.0% net of fees compared to the S&P 500 Index of 122.7%. The annualized return since inception for the Saga Portfolio is 15.4% net of fees compared to the S&P 500’s 16.5%. Please check your individual statement as specific account returns may vary depending on timing of any contributions throughout the period.



*Saga Portfolio serves as a model for client accounts. Net returns assume 1.5% AUM fee, or 0.375% applied to account balance at beginning of each quarter.

S&P 500 performance includes dividends.

Source: S&P Dow Jones Indices LLC

Interpretation of Results

I was not originally planning to write a quarterly update since switching to semi-annual updates a few years ago but given the current drawdown in the Saga Portfolio I thought our investors would appreciate an update on my thoughts surrounding the Portfolio and the current market environment in general.

The Portfolio’s drawdown over the last several months has been hard not to notice even for those who follow best practices of only infrequently checking their account balance. Outperformance vs. the S&P 500 since inception has flipped to underperformance on a mark-to-market basis and the stock prices of our companies have continued to decline into the second quarter.

In past letters I have spent a lot of time discussing the Saga Portfolio’s psychological approach to investing to help prepare for the inevitable chaos that will occur while investing in the public markets from time-to-time. It’s impossible to know why the market does what it does at any point in time. I would argue that the last two years could be considered pretty chaotic, both on the upside speculation and now what appears to be on the downside fear and panic.

I will attempt to give my perspective on how events played out within the Saga Portfolio with an analogy. Let’s say that in 2019 we owned a fantastic home that was valued at \$500,000. We loved it. It was in a great neighborhood with good schools for our kids. We liked and trusted our neighbors; in fact, we gave them a spare key in case of emergencies. It was the perfect home for us to live in for many years to come.

Based on the neighborhood becoming increasingly attractive over time, it was likely that our home may be valued around \$2 million in ~10 years from now. This is strong appreciation (15% IRR) compared to the average home, but this specific home and neighborhood had particularly strong long-term fundamental tailwinds that made this a reasonable expectation.

Then in 2020 a global pandemic hit causing a huge disorientation in the housing market. For whatever reasons, the appraised value of our home almost immediately doubled to \$1 million. Nothing materially changed about what we thought our home would be worth in 10 years, but now from the higher market value, the home would only appreciate at a lower 7% IRR assuming it would still be worth \$2 million in 10 years.

What were our options under these new circumstances?

We could move and try to buy a new home that provided a higher expected return. However, the homes in the other neighborhoods that we really knew and liked also doubled in price, so they did not really provide any greater value. Also, the risk and hassle of moving for what may potentially only be modestly better home appreciation did not make sense.

We could buy a home in a less desirable neighborhood where prices looked relatively cheaper, but we would not want to live long-term. Even if we decided to live there for many years, the long-term fundamental dynamics of the crummy neighborhood were weak to declining and it was uncertain if the property would appreciate at all despite its lower valuation.

We could sell our home for \$1 million and rent a place to live for the interim period while holding cash and waiting for the market to potentially correct. However, we did not know if, when, or to what extent the market would correct and the thought of renting a place temporarily for our family was unappealing.

For the Saga family, we decided to stay invested in the home that we knew, loved, and still believed had similar, if not stronger prospects following the COVID-induced surge in demand in our neighborhood. Now, for whatever reason, the market views our neighborhood very poorly and the appraised value of our home declined to \$250,000, below any previous appraisals. It seems odd because it is the exact same home and the fundamentals of the neighborhood are much stronger than several years ago, suggesting that the expected \$2 million value in the future is even more probable than before.

It is a very peculiar situation, but the market can do anything at any moment. Fortunately, the lower appraisal value does not impact how much we still love our home, neighborhood, schools, or what the expected future value will be. In fact, we prefer a lower value because our property taxes will be lower!

One thing is for certain, we would never sell our home for \$250,000 simply because the appraised value has declined from prior appraisals. We would also never dream of selling in fear that the downward price momentum continues and then hopefully attempt to buy it back one day for \$200,000. We can simply sit tight for as long as we want while the neighborhood around us continues to improve fundamentally over time, fully expecting the value of our home to eventually go up with it.

It just so happens humans are highly complex beings and do not always react in what an economist may consider a rational way. Our emotions are highly contagious. When someone smiles at you, the natural reaction is to smile back. When someone else is sad, you feel empathy. These are generally great innate characteristics for helping to build the strong relationships with friends and family that are so important throughout life. But it also means that

when other people are scared, it also makes you feel scared. And when more and more people get scared, that fear can cascade exponentially and turn into panic, which can cause people to do some crazy things, especially when it comes to making long-term decisions. As fear spreads, all attention shifts from thinking about what can happen over the next 5-10+ years to the immediate future of what will happen over the next day or even hour. Of course, during times of panic, “this time is always different.” It may very well be the case, but the world can only end once. Historically speaking, things have tended to work out pretty well over time on average.

I am by no means immune to these contagious feelings. My way of coping with how I am innately wired is by accepting this fact and then trying to know what I can and cannot control. A core part of my investing philosophy is that I do not know what the market will do next, and I never will. Inevitably the market or a specific stock will crash, as it does from time-to-time. This “not timing the market” philosophy or treating our public investments from the perspective of a private owner may feel like a liability during a drawdown, but it is this same philosophy of staying invested in companies we believe to have very promising futures which positions us perfectly for the inevitable recovery. Eventually, emotions and the business environment will normalize, and the storm will pass. It could be next quarter, year, or even in several years, but we will be perfectly positioned for the recovery, at which point the stock price lows will likely be long gone.

The whole investing process improves if one can really take the long-term view. However, it is not natural for people to think long-term particularly when it comes to owning pieces of publicly traded companies. It is far more natural to want to act by jumping in and out of stocks in an attempt to outsmart others who are trying to outsmart you. When the market price of your ownership in a business is available and fluctuating wildly every single day, it is hard to ignore and not be influenced by it. While one can get lucky through speculation, the big money is made by investing, by owning great businesses and letting them compound owner’s capital over many years.

As the market has evolved over the last few decades, there appears to be an ever-increasing percent of “investors” who are effectively short-term renters, turning over the companies in their portfolios so quickly that they never really know the business that lies below the surface of the stock. While more of Wall Street is increasingly focused on the next quarter, a potentially looming recession, the Fed’s next interest rate move, or trying to time the market’s rotation from one industry into another, we are trying to think about what our companies’ results will be in the year 2027, or better yet 2032 and beyond.

The most significant advantage of investing in the public market is the ability to take advantage of it when an opportunity presents itself or to ignore the market when there is nothing to do. The key to success is never giving up this advantage. You must be able to play out your hand and not be forced to sell your assets at fire sale prices. Significant portfolio declines are a good reminder of the importance of only investing money that you will not need for many years. This prevents one from being in a position where it is necessary to liquidate when adverse psychology has created unusually low valuations.

However, we do not want to simply turn a blind eye to stock price declines of 50% or more and dig our heads into the ground believing the market is just being irrational. When the world is screaming at you that it believes your part ownership in these companies is worth significantly less than the market believed not too long ago, we attempt to understand if we are missing something by continually evaluating the long-term outlooks of our companies using all the relevant information that we have today from a first principles basis.

Portfolio Update

Instead of frequently checking a stock's price to determine whether the company is making progress, I prefer looking to the longer-term trends of the business results. There will be stronger and weaker quarters and years since business success rarely moves up and to the right in a perfectly straight line. As a company faces headwinds or tailwinds from time-to-time, the stock price may fluctuate wildly in any given year, however the underlying competitive dynamics and business models that drive value will typically change little.

Regarding our companies as a whole, first quarter results reflected a general softness in certain end markets, including the used car, real estate, and advertising markets. However, the Saga Portfolio's companies, on average, provide a superior customer value proposition difficult for competitors to match. Most of them have a cost advantage compared to competitors; therefore, the worse it gets for the economy, the better it gets for our companies' respective competitive positions over the long-term.

For example, first quarter industry-wide used car volumes declined 15% year-over-year while Carvana's retail units increased 14%. Existing home sales decreased 5% during the quarter while Redfin's real estate transactions increased 1%. Digital advertising is expected to grow 8-14% in 2022 while the Trade Desk grew Q1 '22 revenues 43% and is expected to grow them more than 30% for the full year 2022. While industry-wide TV volumes remain below 2019 pre-COVID levels, Roku gained smart TV market share sequentially during the quarter, continuing to be the number one TV operating system in the U.S. and number one TV platform by hours streamed in North America.

Weaker industry conditions will inevitably impact our companies' results; however, our companies should continue to take market share and come out on the other side of any potential economic downturn stronger than when they went in.

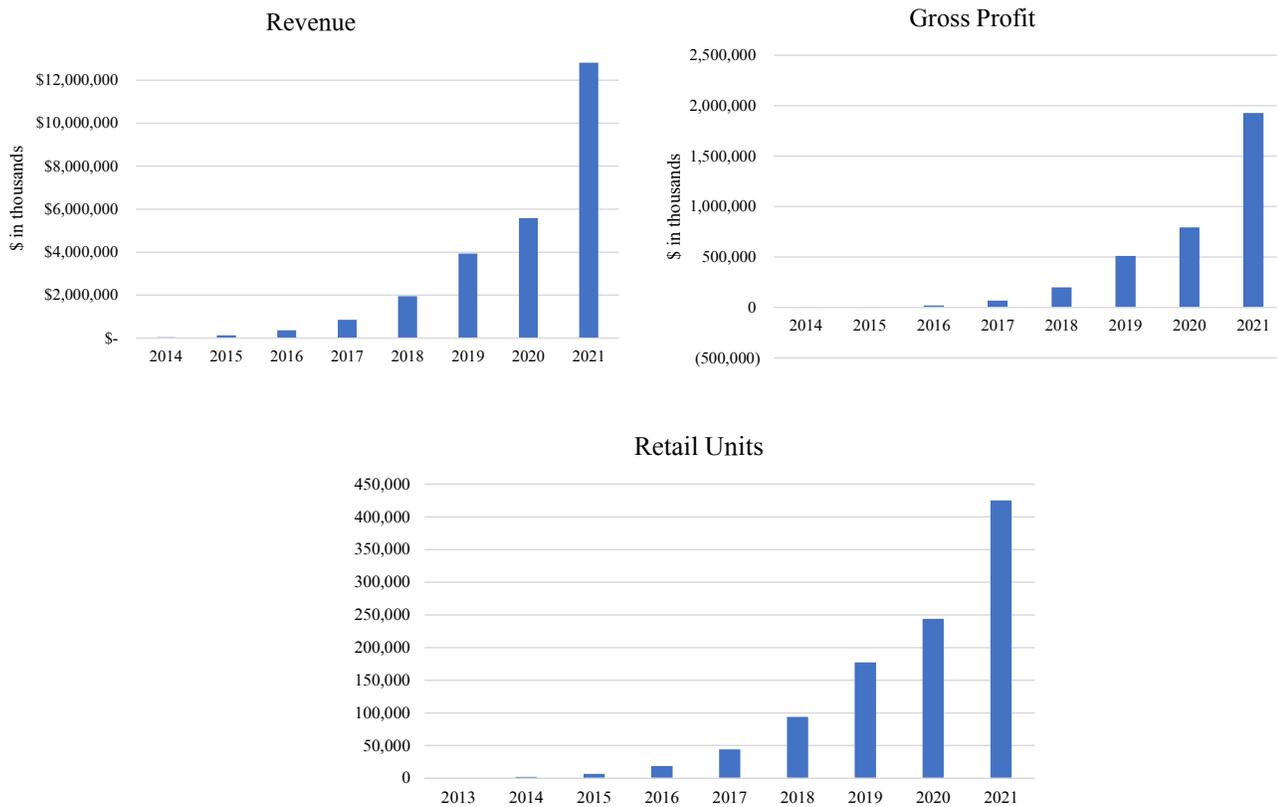
For the portfolio update, I wanted to provide a more in-depth update on Carvana and Redfin which have both experienced particularly large share price declines and have recent developments that are worth reviewing.

Carvana

I first wrote about Carvana in this 2019 [write-up](#). I initially explained Carvana's business, superior value proposition compared to the traditional dealership model, attractive unit economics, and how they were uniquely positioned to win the large market opportunity.

Since then, Carvana has by far exceeded even my most optimistic initial expectations. While the company did benefit following COVID in the sense that customers' willingness to buy and sell cars through an online car dealer accelerated, the operating environment over the last two years has been very challenging. Carvana executed exceedingly well considering the shifting customer demand in what is a logistically intensive operation and what has been a tight inventory environment due to supply chain issues restricting new vehicle production.

Sales, gross profits, and retail units sold have grown at a remarkable 104%, 151%, and 87% CAGR over the last five years, respectively.



Source: Company filings

Shares have come under pressure following their first quarter results, which reflected larger than expected losses. The quarter was negatively impacted by a combination of COVID-related logistical issues in their network that started towards the end of the fourth quarter as Omicron cases spread. Employee call off rates related to Omicron reached an unprecedented 30% that led to higher costs and supply chain bottlenecks. As less inventory was available due to these problems, it led to less selection and longer delivery times, lowering customer conversion rates.

Additionally, interest rates increased at a historically fast rate during the first quarter which negatively impacted financing gross profits. Carvana originates loans for customers and then sells them to investors at a later date. If interest rates move materially between loan origination and ultimately selling those loans, it can impact the margin Carvana earns on underwriting those loans.

Industry-wide used car volumes were also down 15% year-over-year during the first quarter. While Carvana continues to grow and take market share, its retail unit volume growth was slower than initially anticipated, up only 14% year-over-year. Carvana has been in hyper growth mode since inception and based on the operational and logistical requirements of the business, typically plans, builds, and hires for expected capacity 6-12 months into the future. This has historically served Carvana well given its exceptionally strong growth, but when the company plans and hires for higher capacity than what occurs, it can lead to lower retail gross profits and operating costs per unit sold. When combined with lower financing gross profits in the quarter from rising interest rates, losses were greater than expected.

In February, Carvana announced a \$2.2 billion acquisition of ADESA (including an additional \$1 billion plan to build out the reconditioning sites) which had been in the works for some time. ADESA is a strategic acquisition to help accelerate Carvana’s footprint expansion across the country, growing its capacity from 1.0 million units at the end of Q1’22 to 3.2 million units once complete over the next several years.

It is unfortunate the acquisition timing followed a difficult quarter that had greater than expected losses, combined with a generally tighter capital market environment. Carvana ended up raising \$3.25 billion in debt (\$2.2 billion for the acquisition and \$1 billion for the buildout) at a higher than initially expected 10.25% interest rate. Given these higher financing costs and first quarter losses, they issued an additional \$1.25 billion in new equity at \$80 per share, increasing diluted shares outstanding by ~9%.

Despite the short-term speedbumps surrounding logistical issues, softer industry-wide demand, and a higher cost of capital to acquire ADESA, Carvana’s long-term outlook not only remains intact but looks even more promising than before. To better understand why this is the case and where Carvana is in its lifecycle, it helps to provide a little background on the history of retail.

While e-commerce is a more recent phenomena that developed from the rise of the internet in the 1990s, the retail industry has undergone several transformations throughout history.

Starting Period	Retail Model	Examples
1700s-1800s	Mom & Pop Stores	Small local general stores owned & operated by individuals
Mid 1800s - Mid 1900s	Department Stores	Macy's (1858), Bloomingdales (1861), Sears (1886)
1960s	Big Box Retailers	Walmart, Target, & Kmart (all opened first store in 1962)
1990s	E-commerce	Amazon (1995)

In retailing, profitability is determined by two factors: the margins earned on inventory and the frequency with which they can turn inventory. Each successive retail transformation had a similar economic pattern. The newer model had greater operating leverage (higher fixed costs, lower variable costs). This resulted in greater economies of scale (lower cost per unit) and therefore greater efficiency (higher asset turnover) with size that enabled them to charge lower prices (lower gross margins) than the preceding model and still provide an attractive return on capital.

The average successful department store earned gross margins of ~40% and turned inventory about 3x per year, providing ~120% annual return on the capital invested in inventory. The average successful big box retailer earned ~20% gross margins and turned its inventory 5x per year. Amazon retail earns ~10% gross margins (including fulfillment costs in COGS) and turns inventory at a present rate of 12x times annually.

The debate that surrounds any subscale retailer, particularly in e-commerce, is whether they have enough capital/runway to build out the required infrastructure and then scale business volume to spread fixed costs over enough units. Before reaching scale, analysts may point to an online business’ lower price points (“how can they charge such low prices?!”), higher operating costs per unit (“they lose so much money per item!”), and ongoing losses and capital investments (“they spend billions of dollars and still have not made any money!”) as evidence that the model does not make economic sense. Who can blame them since the history books are filled with companies that never reached scale?

However, if the retailer does build the infrastructure and there is sufficient demand to spread fixed costs over enough volume, the significant capital investment and high operating leverage creates high barriers to entry. If

we look to Amazon as the dominant e-commerce company today, once the infrastructure is built and reaches scale, there is little marginal cost to serve any prospective customer with an internet connection located within its delivery footprint. For this reason, I have always been hesitant to invest in any e-commerce company that Amazon may be able to compete with directly, which is any mid-sized product that fits in an easily shippable box. As it relates to used car retailing, the infrastructure required to ship and recondition cars is unique, and once built, the economies of scale make it nearly impossible for potential competitors to replicate.

Carvana is in the very early stages of building out its infrastructure. There is clearly demand for its attractive customer value proposition. It has demonstrated an ability to scale fixed costs in earlier cohorts as utilization of capacity increases, providing attractive unit economics at scale. Newer market cohorts are tracking at a similar, if not faster market penetration rate as earlier cohorts. Carvana is still investing heavily in building out a nationwide hub-and-spoke transportation network and reconditioning facilities. In 2021 alone, Carvana grew its balance sheet by \$4 billion as it invested in its infrastructure while also reaching EBITDA breakeven for the first time.

The Amazon story is a prime example (pun intended) of a new and better business model (more attractive unit economics) that delivered a superior value proposition and propelled the company ahead of its competition, similar to the underlying dynamics occurring in the used car industry today. Amazon invested heavily in both tangible and intangible growth assets that depressed earnings and cash flow in its earlier years (and still today) while growing its earning power and the long-term value of the business.

The question is, does Carvana have enough capital/liquidity to build out its infrastructure and scale business volume to then generate attractive profits and cash flow?

Following Carvana's track record of scaling operating costs and reaching EBITDA breakeven in 2021, the market was no longer concerned about its liquidity position or the sustainability of its business model. However, the recent quarterly loss combined with taking on \$3 billion in debt to buildout the 56 ADESA locations across the country raises the question of whether Carvana has enough liquidity to reach scale.

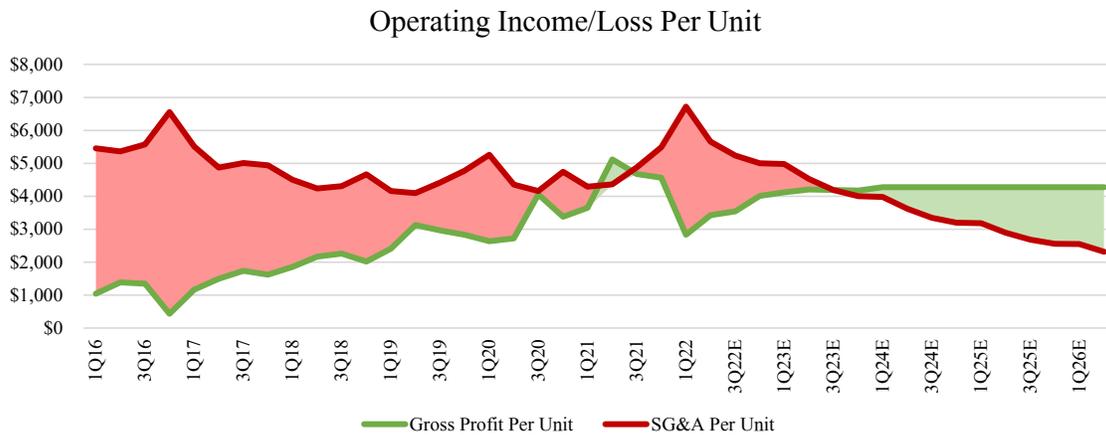
Carvana's current stock price clearly reflects the market discounting the probability that Carvana will face liquidity issues and therefore have to raise further capital at unfavorable terms. However, I think if you look a little deeper, Carvana has clearly demonstrated highly attractive unit economics. It has several levers to pull to protect it from any liquidity concerns if needed. The \$2.6 billion in cash (as well as \$2 billion in additional available liquidity in unpledged real estate and other assets) it has following the ADESA acquisition, is more than enough to sustain a potentially prolonged decline in used car demand.

The most probable scenario over the next several quarters is that Carvana will address its supply chain and logistical issues that were largely due to Omicron. As the logistical network normalizes, more of Carvana's inventory will be available to purchase on their website with shorter delivery times, which will increase customer conversion rates. This will lead to selling more retail units, providing higher inventory turnover and lower shipping costs, and therefore gross profit per unit will recover from the first quarter lows. Other gross profit per unit (which primarily includes financing) will also normalize in a less volatile interest rate environment. Combined total gross profit per unit should then approach normalized levels by the end of the year/beginning of 2023 (~\$4,000+ per unit).

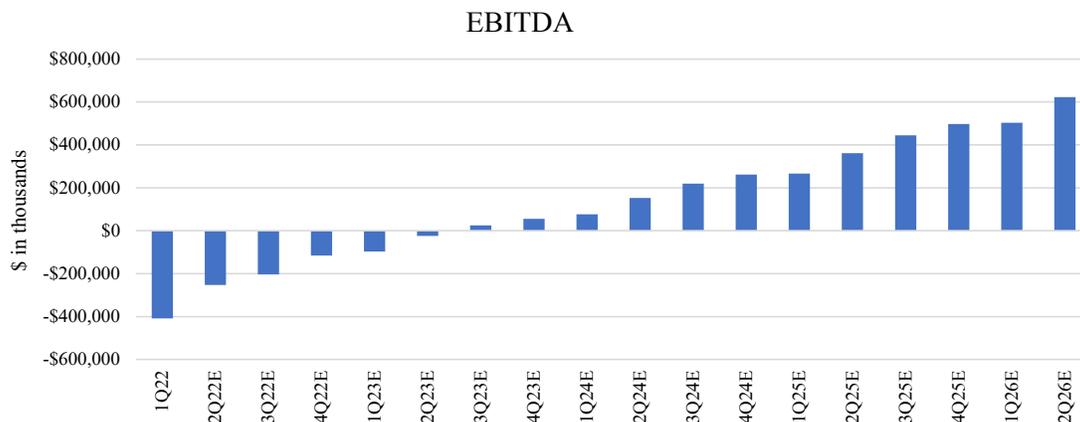
Like all forms of leverage, operating leverage works both ways. For companies with higher operating leverage, when sales increase, profits will increase at a faster rate. However, if sales decrease, profits will decrease at a faster rate. While Carvana has high operating leverage in the short-term, they do have the ability adjust costs in

the intermediate term to better match demand. When demand suddenly shifts from plan, it will have a substantial impact on current profits. First quarter losses were abnormally high because demand was lower than expected. Although, one should not extrapolate those losses far into the future because Carvana has the ability to better adjust and match its costs structure to a lower demand environment if needed.

As management better matches costs with expected demand, operating costs as a whole will remain relatively flat if not decline throughout the year as management has already taken steps to lower expenses. As volumes continue to grow at the more moderate pace reflected in the first quarter and SG&A remains flat to slightly declining, costs per unit will decline with Carvana reaching positive EBITDA per unit by the second half of 2023 in this scenario.



Source: Company filing, Saga Partners

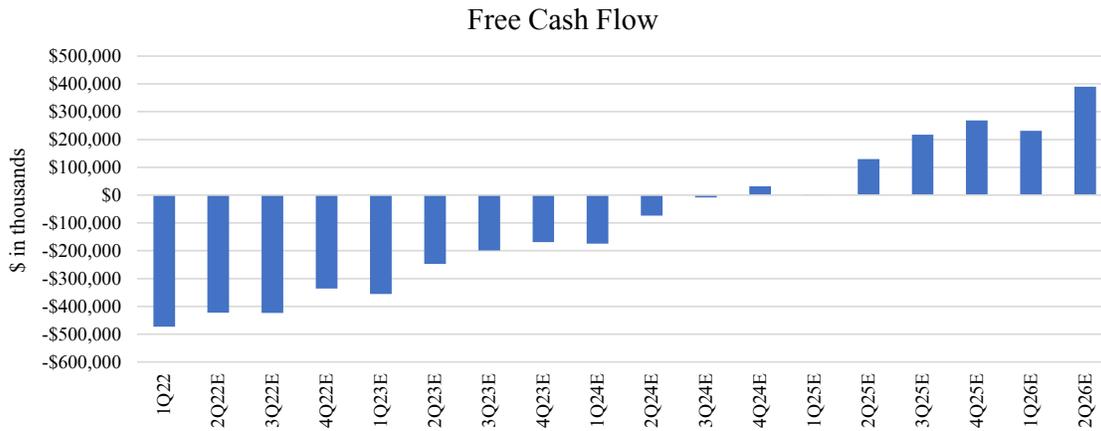


Source: Company filing, Saga Partners

With the additional \$3.2 billion in debt, Carvana will have a total interest expense of ~\$600 million per year, assuming no paydown of existing revolving facilities or net interest income on cash balances. Management plans on spending \$1 billion in capex to build out the ADESA locations. They are budgeting for ~\$40 million in priority and elective capex per quarter going forward suggesting the build out will take ~6 years. Total capex including maintenance is expected to be \$50 million a quarter.

Carvana would reach positive free cash flow (measured as EBITDA less interest expense less total Capex) by 2025. Note this assumes the used car market remains depressed throughout 2022 and then Carvana’s retail unit growth increases to 25% a year for the remainder of the forecast and no benefit in lower SG&A or increased gross

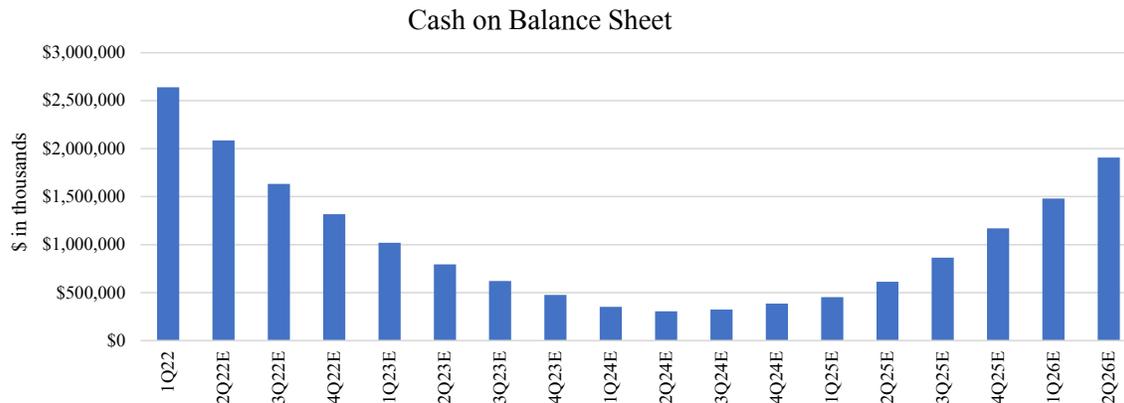
profit per unit from the additional ADESA locations was assumed. Stock based compensation was included in the SG&A below so actual free cash flow would be higher than the chart indicates.



Source: Company filings, Saga Partners

Note: Free cash flow is calculated as EBITDA less interest expense less capex

After the close of the ADESA acquisition, Carvana has \$2.6 billion in cash (plus \$2 billion in additional liquidity from unpledged assets if needed). Assuming the above scenario, Carvana has plenty of cash to endure EBITDA losses over the next year and a half, interest payments, and capex needs.



Source: Company filings, Saga Partners

The above scenario does not consider the increasing capacity that Carvana will have as it continues to build out the ADESA locations. After building out all the locations, Carvana will be within one hundred miles of 80% of the U.S. population. This unlocks same-day and next-day delivery to more customers, leading to higher customer conversion rates, higher inventory turn, lower risk of delivery delays, and lower shipping costs, which all contribute to stronger unit economics. Customer proximity is key. Due to lower transport costs, faster turnaround times on acquired vehicles, and higher conversion from faster delivery speeds, a car picked up or delivered within two hundred miles of a recondition center generates \$750 more profit than an average sale.

It is possible that industry-wide used car demand remains depressed or even worsens for an extended period. If this were the case, management has the ability to further optimize for efficiency by lowering operating costs to better match demand. This is what management did following the COVID demand shock in March 2020. The

company effectively halted corporate hiring and tied operational employee hours to current demand as opposed to future demand. During the months of May and June 2020, SG&A (ex. advertising expense and D&A) per unit was \$2,600, far lower than the \$3,440 reported in 2020 or \$3,654 in 2021. Carvana has also historically operated between 50-60% capacity utilization, indicating further room to scale volumes across its existing infrastructure without the need for materially greater SG&A expenses. Advertising expense in older cohorts reached ~\$500 per unit, compared to the \$1,126 reported for all of 2021, while older cohorts still grew at 30%+ rates. If needed, Carvana could improve upon the \$2,600 SG&A plus \$500 advertising expense (\$3,100 in total) per unit at its current scale and be far below gross profit per unit even if used car demand remains depressed for an extended period of time.

When management optimizes for efficiency as opposed to growth, it has the ability to significantly lower costs per unit. Carvana has highly attractive unit economics and I fully expect management will take the needed measures to right size operating costs with demand. They recently made the difficult decision to layoff ~2,500 employees, primarily in operations, to better balance capacity with the demand environment.

If we assume it takes six years to fully build out the additional ADESA reconditioning locations, Carvana will have a total capacity of 3.2 million units in 2028. If Carvana is running at 90% utilization it could sell 2.9 million retail units (or ~7% of the total used car market). If average used car prices decline from current levels and then follow its more normal longer-term price appreciation trends, the average 2028 Carvana used car price would be ~\$23,000 and would have a contribution profit of ~\$2,000 per unit at scale. This would provide nearly \$5.6 billion in EBITDA. After considering expected interest expense, maintenance capex, and taxes, it would provide over \$4 billion in net income. If Carvana realizes this outcome in six years, the company looks highly attractive (perhaps unreasonably attractive) compared to its current \$7 billion market cap or \$10 billion enterprise value (excluding asset-based debt).

Redfin

I recently wrote about Redfin in this December 2021 [write-up](#). I explained how Redfin has increased the productivity of real estate agents by integrating its website with its full-time salaried agents and then funneling the demand aggregated on its website to agents. Redfin agents do not have to spend time prospecting for business but can rather spend all their time servicing clients throughout the process of buying and selling a home.

Since Redfin agents are three times more productive than a traditional agent, Redfin is a low-cost provider, i.e., it costs Redfin less to close a transaction than a traditional brokerage at scale. It is a similar concept as the higher operating leverage of e-commerce relative to brick & mortar retailers. Redfin has higher operating leverage compared to the traditional real estate brokerage.

Real estate agents are typically contractors for a brokerage. They are largely left alone to run their own business. Agents have to prospect for clients, market/advertise listings, do showings, and service clients throughout each step of the real estate transaction. Everything an agent does is largely a variable cost because few of their tasks are automated. Redfin, on the other hand, turned prospecting for demand, marketing/advertising listings, and investments in technology to help agents and customers throughout the transaction into more of a fixed cost. These costs are scalable and become a smaller cost per transaction as total transaction volumes grow across the company.

Because Redfin is a low-cost provider, it has a relative advantage over traditional brokerages. No other real estate brokerage has lowered or attempted to lower the costs of transacting real estate in a similar way. This cost

advantage provides Redfin with options about how to share these savings on each transaction. Redfin has primarily shared the cost savings with customers by charging lower commission rates than traditional brokerages. By offering a similar, if not superior, service to customers compared to other brokerages yet charging lower fees, it naturally attracts further demand which then provides Redfin with the ability to scale fixed costs per transaction even more, further widening their cost advantage to other brokerages.

So far, the majority of those cost savings are shared with home sellers as opposed to homebuyers. Sellers are more price sensitive than homebuyers because the buyer's commission is already baked into the seller's contract and therefore buyers have not directly paid commissions to agents historically. Also, growing share of home listings is an important component of controlling the real estate transaction. The seller's listing agent is the one who controls the property, decides who sees the house, and manages the offers and negotiations. Therefore, managing more listings enables Redfin to have more control over the transaction and further streamline/reduce inefficiencies for the benefit of both potential buyers and sellers.

Redfin also spends some of their cost savings by reinvesting them back into the company by hiring software engineers to build better technology to continue to lower the cost of the transaction. This may include building tools for agents to service clients better, improving the web portal and user interfaces, on-demand tours for buyers to see homes first, automation to give homeowners an immediate RedfinNow offer, etc. Redfin also invests in building other business segments like mortgage, title forward, and iBuying which provide a more comprehensive real estate offering for customers which attracts further demand.

So far, the lower costs per transaction have not been shared with shareholders in the form of dividends or share repurchases, and for good reason. In theory, Redfin could charge industry standard prices and increase revenue immediately by 30-40% which would drop straight to the bottom-line assuming demand would remain stable. However, giving customers most of the savings through lower commissions has obviously been one of the drivers for attracting demand and growing transaction volume, particularly for home sellers. The greater the number of transactions, the lower the fixed costs per transaction, which further increases Redfin's cost advantage compared to traditional brokerages, which provides Redfin with even more money per transaction to share with either customers, employees, and eventually shareholders. With just over 1% market share, Redfin should be reinvesting in growing share which will increase the value of the business and inevitably benefit long-term owners of the company.

Redfin's stock price has experienced an especially large decline this year. I typically prefer to not attempt to place an explanation or narrative on short-term stock price movements, but I will do it anyways given the substantial drop. There are primarily two factors contributing to the market's negative view of the company: first, the market currently dislikes anything connected to the real estate industry and second, the market currently has little patience for any company that reports net losses regardless of the underlying economics of the business.

Real estate is currently a hated part of the market, and potentially for good reason. It is a cyclical industry, and the economy is potentially either entering or already in a recession. Interest rates are expected to continue to rise, negatively impacting home affordability, while an imbalance in the housing supply persists with historically low inventory available helping fuel an unsustainable rise in housing prices.

From a macro industry-wide perspective, the real estate market will ebb and flow with the economy over time, but demand to buy, sell, and finance homes will always exist. I do not have the ability to determine how aggregate demand for buying or selling a home will change from year-to-year, but I do know that people have to live

somewhere and if Redfin is able to help them find, buy or rent, and finance where they live better than alternative service providers, then the company will gain share and grow in value overtime.

Redfin has also reported abnormally high losses of \$91 million in the first quarter for which the current market has little appetite. It feeds the argument that Redfin does not have a sustainable business model. While losses can be a sign of unsustainable economics, that is not the case for Redfin. There are several factors that are all negatively hitting the income statement at the same time, and all should improve materially over the next year or two.

Higher first quarter losses largely reflect:

1. **Agent Productivity:** First quarter brokerage sales increased 7% year-over-year, but lead agent count increased 20%, which meant agents were less productive, leading to real estate gross profits declining \$17 million from the prior year.

Lower productivity was a result of a steeper ramp in agent hiring towards the end of the year against lower seasonal transaction volumes. It typically takes about six months for new agents to get trained and start closing transactions and then contributing to gross profits. Any accelerated hiring, particularly during a softer macro environment, will be a headwind while Redfin is paying upfront costs before any revenue is being generated.

Further, closing transactions has been difficult particularly for buyers, which is where most new agents start. The housing market has been unbalanced where there is not enough inventory. A home for sale will typically receive many competing offers which makes it difficult for a buyer to win the deal. Since Redfin agents are mostly paid on commission (~20% salary plus the remainder being commission), it has been more difficult for new agents to earn a sufficient income in the current real estate environment. In response, Redfin started paying \$1,500 retention bonuses for new agents who could guide customers to the point of bidding on a home, regardless of whether those bids win. While the bonus may impact gross profits in the near-term before a customer closes a transaction, it will not impact gross margins in the long-term when a transaction eventually takes place. Going forward, agent hiring will return to more normal rates and the larger number of new hires from recent quarters will ramp up which will improve productivity and gross profits.

2. **RentPath:** Redfin bought RentPath out of bankruptcy for \$608 million in April 2021, primarily to incorporate its rentals on its website which helps Redfin.com show up higher on Internet real estate searches. Prior to the acquisition, RentPath had no leadership direction for several years and declining sales and operating losses.

RentPath had new management start in August 2021 and was integrated into Redfin.com in March. It finally started to see operational improvement with sales increasing in February and March year-over-year for the first time since 2019 despite a significant decrease in marketing expenses. While RentPath had \$17 million in losses during the first quarter and is expected to have \$22 million in losses in the second quarter, operations will improve going forward. Management made it clear that RentPath will be a contributor to net profits in its own right and not just a driver of site traffic and demand to Redfin's brokerage business.

3. **Mortgage:** A recent major development was the acquisition of Bay Equity for \$135 million in April. Redfin was historically building out its mortgage business from scratch but after struggling to scale the operation decided to buy Bay Equity. Redfin was spending \$13 million per a year on investing in its legacy

mortgage business but going forward, mortgage will now be a net contributor to profits with Bay expected to provide \$4 million in profit in the second quarter.

The greater implication of having a scaled mortgage underwriter that is integrated with the real estate broker is that they can work together to streamline and expedite the transaction closing which has become an increasingly important value proposition for customers.

Looking just a little further into the future, having a scaled and integrated mortgage underwriter can provide Redfin with the capability of providing buyers with the equivalent of an all-cash offer to sellers. Prospective homebuyers who offer all-cash offers to sellers are four times as likely to win the bid and sellers will often accept a lower price from an all-cash buyer vs. one requiring a mortgage.

A common problem that many homeowners face is that when they are looking to move, it is difficult to get approved for a second mortgage while holding the current one. Much of their equity is locked in their current home. Frequently, a homebuyer wins an offer on a new home and then is in mad dash to sell their existing home in order to get the financing to work. It is not ideal to attempt to sell your home as fast as possible because it decreases the chance of getting the best price possible.

A solution that Redfin could offer as a customer's agent and underwriter is provide bridge financing between when a customer buys their new home and is then trying to sell their existing home and is therefore paying on two mortgages. Redfin would be able to make a reasonable appraisal for what a customer's existing home will sell for (essentially what Redfin already does with iBuying) and underwriting the incremental credit exposure they are willing to provide the buyer. The buyer would then have "Redfin Cash" which would work like a cash offer. If this service helps buyers win a bid four times more often, it would even further differentiate Redfin's value proposition and attract further demand.

At least in the near-term, the mortgage segment will go from being a loss center to a contributor to net profits as well as further improving Redfin's customer value proposition.

4. Restructuring and transaction costs: Redfin had \$6 million in restructuring expenses related to severance with RentPath and the mortgage business as well as closing the Bay Equity acquisition. \$4 million in restructuring expenses are expected in the second quarter but these expenses will go away in future quarters.

The combination of the above factors provided the headline \$91 million net loss for the first quarter. Larger than normal losses between \$60-\$72 million are still expected in the second quarter. However, going forward losses are expected to continue to improve materially.

While Redfin is not done investing in improving its service offerings, it should benefit from the significant investments it has already made over the last 16 years. Redfin has been building and supporting a nationwide business that only operated in parts of the country and had to incur large upfront costs. Going forward, it will benefit from the operating leverage baked into its cost structure with gross profits expected to grow twice as fast as overhead operating expenses. Redfin is expected to be cash flow breakeven in 2022 and provide net profits starting in 2024.

Redfin has built a great direct to consumer acquisition tool that is unmatched by any real estate broker. It has spent the costs to acquire the customer and has now built out the different services to provide customers any of the real estate services that they may need, whether that is one or a combination of brokerage services, mortgage

underwriting, title forward, iBuying, or rental search. Being able to monetize each customer that it has already acquired by offering them any of these services provides Redfin with a better return on customer acquisition costs that no other competitor is able to do to the same extent. Additionally, these real estate services work better when they are integrated under the same company.

One does not have to dig very deep to see how attractive Redfin's shares are currently priced. Shares are now selling around all-time historic lows since its IPO in August 2017. The prior all-time lows were reached during the COVID crash which was a time the world was facing an unknown pandemic that would shut down the economy and potentially put us through a great depression.

At its current \$1.2 billion market cap, Redfin is selling for 3x expected 2022 real estate gross profits, or 4x its current \$1.7 billion enterprise value (excluding asset-based debt). Both are far below the historic average of 15x (which excludes peak multiples reached towards the end of 2020 and early 2021), or the previous all-time low of 6x reached in the depths of March 2020.

If we assume Redfin can raise brokerage commissions by 30%, in line with traditional brokerage commission rates, and it does not lose business, Redfin would be able to provide ~20% operating margins. If we take a more conservative view and say Redfin can earn 10% net margins on its 2022 expected real estate revenues of \$990 million, it would provide \$99 million in net profits, providing a current 12x price-to-earnings ratio. This is for a company that has a long track record of being able to grow 20%+ a year on average, consistently gains market share each quarter, and has barely monetized its significant upfront investments and fixed costs with a long runway to continue to scale. This also does not place any value on its mortgage or iBuying segments which are now contributors to gross profits.

There may be macro risks as well as other concerns today, however Redfin's business and relative competitive advantage have never been stronger. The net losses reported are not representative of Redfin's true underlying earning power. Redfin has untapped pricing power, an increasingly attractive customer value proposition, and a growing competitive advantage compared to alternative brokerages, which will help Redfin to continue to grow and take market share in what is a very large market.

Conclusion

Of course, the future can look scary, as it often does when headlines jump from one risk to the other. Despite what may be happening in the macro environment, our companies on average are stronger than they have ever been and are now selling for what we believe are the most attractive prices we have seen relative to their intrinsic value.

I have no idea what shares will do in the near-term and I never will. Stock prices can swing wildly for many reasons, and sometimes seemingly for no reason at all. They can diverge, sometimes significantly from their true underlying value. I have no idea when sentiment will shift from optimism to pessimism and then back to optimism. This is what keeps us invested in both good times and in bad.

The current selloff can continue further, but assuming our companies continue to execute over the coming years by winning market share and earning attractive returns on their investment spending, the market's sentiment surrounding our portfolio companies will eventually reflect their underlying fundamentals. I will continue to look towards the longer-term operating results of our companies and not to the movements in their stock price as feedback to whether our initial investment thesis is playing out as expected. While the market can ignore or misjudge business success for a certain period, it eventually has to realize it.

During times of greater volatility and periods of large drawdowns, I am reminded of how truly important the quality of our investor base is. It is completely natural to react in certain ways to rising or declining stock prices. It takes a very special investor base to look past near-term volatility and to trust us to make very important decision on their behalf as we continually try to increase the value of the Saga Portfolio over the long-term.

As always, I am available to catch up or discuss any questions you may have.

Sincerely,

Joe Frankenfield

Appendix 1

Year	Monthly Performance (gross of fees)*												Annual Performance			
	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Saga (gross)	Saga (net)	S&P 500	Relative Results
2017	3.9%	3.8%	-1.2%	3.2%	-0.3%	4.9%	2.9%	-7.0%	0.4%	-1.5%	3.4%	3.2%	16.0%	14.3%	21.8%	-7.5%
2018	1.5%	-4.3%	-0.2%	1.3%	13.9%	1.4%	-2.4%	15.7%	0.1%	-12.1%	6.8%	-15.1%	2.1%	0.6%	-4.4%	5.0%
2019	18.7%	13.9%	-1.2%	8.7%	-8.5%	12.2%	2.1%	-7.1%	-5.5%	3.6%	16.5%	2.6%	65.6%	63.2%	31.5%	31.7%
2020	-4.7%	-1.0%	-23.5%	33.5%	14.9%	21.2%	18.6%	10.0%	2.3%	-0.4%	24.3%	1.0%	123.8%	120.5%	18.4%	102.1%
2021	13.8%	-2.1%	-13.0%	4.9%	-6.4%	13.7%	-0.4%	-3.7%	-4.6%	4.2%	-3.1%	-9.6%	-9.6%	-10.9%	28.7%	-39.6%
2022	-25.0%	-6.0%	-18.1%										-42.2%	-42.4%	-4.6%	-37.8%
Cumulative return since inception												129.4%	112.0%	122.7%	-10.6%	
Annualized return since inception												17.1%	15.4%	16.5%	-1.1%	

*Saga Portfolio serves as a model for client accounts. Net returns assume 1.5% AUM fee, or 0.375% applied to account balance at beginning of each quarter.

S&P 500 performance includes dividends.

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Saga Partners LLC is an independent registered investment advisory, providing portfolio management to individuals, retirement plans and institutional investors.

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