

## Columbia Heights Partners, LP

### 2022 Update Letter

February 23, 2022

Dear Partners,

Columbia Heights Partners LP returned -3.6% for the year ended December 31, 2021.

Inception to date cumulative return since January 1, 2019 is 125.4%.

	<b>Columbia Heights Partners, LP</b>	<b>S&amp;P 500</b>
<b>2019</b>	<b>72.0%</b>	<b>31.5%</b>
<b>2020</b>	<b>35.9%</b>	<b>18.4%</b>
<b>2021</b>	<b>-3.6%</b>	<b>26.9%</b>
<b>Annualized</b>	<b>31.1%</b>	<b>25.5%</b>
<b>Total Return</b>	<b>125.4%</b>	<b>97.6%</b>

I will provide market commentary, information on current positions and potential positions.

Through November 2021, performance was strong. Since November, the stock market has been volatile through February of 2022 primarily driven by potential interest rate increases, inflation and a conflict in Russia/Ukraine.

The growth sector has been especially weak. Many companies are down as much as 50-80%. This includes some SPACs with suspect business models, valuations and management teams – including Nikola, Archer, Owllet and many others. These companies went public during a SPAC boom in early 2021.

Strong companies like TSM, ASML, ADBE and Zoom have also sold off during this downturn. There have been few places to hide. This is very likely a good opportunity to buy strong franchises for the long term and I would recommend considering an allocation or beginning to average in small amounts on the monthly basis. Some of my positions are as low as 4x EBITDA and 0.3x revenue for businesses with the potential to grow 50-100% per year for many years into the future.

I will discuss some fund positions below.

## **Tesla**

Tesla is actually growing and maturing as a company. In Q4 of 2021, the company did \$5 billion of operating cash flow. The company also is growing 50-75% per year top line and bottom line with runway for at least 5-25 years.

The current market cap is around \$800 billion with a \$20 billion run rate of operating cash flow based on last quarter annualized. That is a roughly 40x multiple. That is a high multiple but for a company that has 1% of its market penetration, that is quite cheap. More importantly, that EBITDA/Cash Flow could be as high as \$30-\$67.5 billion over the next few years based on my projections of unit growth, operating leverage and vertical integration. The company has 4 massive factories that will be online and producing cars at scale in Austin, California, Berlin and Shanghai. Based on that projected cash flow the multiple quickly goes down to 11-26x. Again, quite attractive for a business that will still barely penetrate its market at 1-3%.

Each car has a margin of roughly \$10-\$20k per car today. However, as prices comes down for batteries, that cash margin number will increase. In addition, we are long a massive call options that Tesla figures out Self Driving cars and AI and becomes a software company.

Another insight I had in 2019 was that a proxy for ROE could be the amount of capital Tesla put up for the Shanghai factory. Tesla put up zero equity as Shanghai and China provided a cheap loan for the whole factory. China clearly sees the potential for Tesla. That factory is now producing close to 1 million cars and as much as 10 billion of cash flow per year. 10 billion of cash flow with zero equity put up sounds pretty good to me. Even more exciting, that factory could eventually do 15 million cars per year and is expanding.

With a car sticker price of \$50k, margin of \$10-\$20k and self-driving, there is potential additional pricing power in the software. Projections on AI self-driving software value per car vary widely from as low as \$10k per car to as high as \$150k per car. The variable cost to the software will be zero so Tesla could very quickly become a software cash flow machine. At 1 million cars and 150k of software revenue, we get to 150 billion in cash flow. At 10 million cars we get to 1.5 trillion in annual cash flow. Even if I am off by a factor of 10, there is a lot of upside here. There are 3 billion cars in the world!

As Elon said on his last call, these numbers begin to get 'nutty'. I don't think people globally truly appreciate how society will transform over the next 5-20 years with automated logistics and self driving cars.

## **Dojo SuperComputer / AI**

As part of Tesla Self Driving, Tesla is developing a DOJO chip that has the potential to perform better for AI / Neural net tasks than current solutions offered by Nvidia, Google, Amazon Web Services and others. Tesla may find ways to monetize their AI chips and systems if Dojo can prove to have 10x superior performance. Long term, this could be a threat to Amazon Web Services, especially if combined with Starlink or SpaceX.

## **Tesla Bot**

As Tesla develops the Neural Net software for the Full Self Driving Software stack, they can use the learning and software to build a Tesla Bot that can do human labor. Theoretically, solving repetitive factory type job tasks should be an easier AI / Neural Net problem to solve than full self driving which requires interacting with millions of real world drivers, pedestrians and constantly changing road conditions. The human labor market may be as large at \$60 trillion. We are long this call option by owning Tesla. This is likely a more 2025-2035 event or product but has some embedded optionality and upside. I feel like we are buying Tesla as a car company with free call options on Self Driving software, Ai Software, vertically integrated Battery technology, Solar and Energy Technology, Electricity Trading potential, Robots, HVAC technology and many other incubated projects. Some analysts have said there may be as many as 42 startups or value engines in Tesla that could be integrated or spun off in the long term.

## **SpaceX**

Columbia Heights Partners, LP made a small allocation to a SpaceX SPV via a side pocket investment. I am positive on the long term outlook of SpaceX. A financial model projection is attached at the end of this letter.

My underwriting in the bull case sees the market cap going from \$100 billion today to as high as \$30 trillion. This is an upside case but SpaceX is the market leader with a 10 year technology lead.

The current business plan revolves primarily around Starlink and Starship

Starlink is a global internet service that will provide 100-500Mbps download internet service anywhere in the world. This technology has the potential to change the world and SpaceX is the clear leader. The company raised a primary round in Q4 2021 from Sequoia Capital and Fidelity and there are rumors of an IPO valuing Starlink at \$100-300 billion sometime in 2023-2025.

Starlink over the long term can also increase the download speeds to as much as 1Gpbs-10Gbps. At that point, Starlink could be a serious threat to the global telecom industry. The global telecom industry consists of many local monopolies with poor customer service and likely an inability to compete with SpaceX.

Some of the projections have SpaceX having a capital expenditure per user once the network scales to as low as \$5 per subscriber! It will be very difficult for incumbent telecom to compete.

In addition, SpaceX will have a huge edge as Starship will launch the 30,000 satellites necessary for Starlink to be operational. Once Starlink is operational, those satellites will also have the potential to use lasers to send data in space in a vacuum with low latency and help with back haul internet data and maybe even cloud services in the long term.

One projection I read has Starlink adding 500-1600 Tbps of global telecom capacity alone as compared to the current total global capacity of 600 Tbps.

### **Starship**

Starlink will be made possible because of Starship. Starship itself is possibly one of the more important innovations in a long time. Starship is a reusable rocket and ship that can make space travel and launch costs much more economical. My math has incumbent players having launch costs of \$1-\$3 million per ton of payload. Starship, which is almost complete, can take that cost to a range of \$3,000 - \$100,000 per ton. For context, SpaceX currently charges customers in a ride share program as much as \$4 million per ton of payload. Starship is truly a game changing innovation.

Starship is 100-1000x cheaper than the competition.

SpaceX is projecting 1000 Starships to be built and for each ship to launch 3 times a day. That is 3000 launches per day and 1,095,000 launches per day. For context, SpaceX will do 52 launches this year. We are truly at Day 1 for SpaceX.

Each Starship will have a payload of 100-200 tons. At 1.1 mil launches and 100 tons per launch, we are talking about 110 million tons of payload to space.

Our imagination cannot quite grasp what innovative concepts entrepreneurs will come up with cheap access to space but some of the potential use cases include Global Telecom (Starlink), Manufacturing in Space (Varda Industries), Logistics, Travel (1 hour NYC to Tokyo), 3D printing of kidneys in space. Combining SpaceX innovation with potential AI innovations and Tesla Bot innovations could increase the potential business models.

I am excited to have you come to space with us.

## Opendoor

Opendoor is an interesting but misunderstood company that recently went public.

Market cap today is around \$6 billion and the stock has been very volatile since going public. Moving from \$10 to \$40 to \$15 to \$24 to \$8 to \$11.

In the meantime, the CEO Eric Wu has brought in one of the most senior partners from Texas Pacific Group as CFO and consistently executed on his revenue growth plan. He hit his 2023 revenue run rate in 2021 for example.

The business did \$1.2 billion of revenue in Q2 2021 and \$2.3 billion in Q3 2021. The company reports Q4 2021 on Thursday and the revenue could be as high as \$3.2-\$3.7 billion. The company will also likely guide for \$4-\$5 billion of Q1 2022 Revenue. That is an almost \$20 billion run rate for revenue in 2022. For a company at \$6 billion market cap, that implies 0.3x EV/ Revenue. In a market where some companies trade at 30-100x revenue, 0.3x Revenue is not bad.

The US Housing market is huge with 5 million transactions and as much \$2-\$3 trillion of volume.

At \$20 billion of revenue, Opendoor would represent as little as 1% market share.

Opendoor currently operates in 44 markets. The top 3 markets are Phoenix, Dallas and Atlanta. Each of those markets are at \$2 billion per year run rate.

That is \$6 billion per year for the top 3 markets. Opendoor also recently launched the San Francisco market.

I have read figures that Phoenix is 10% market share so applying that to the US market gets Opendoor revenue potential in excess of \$200 billion.

It is not inconceivable that Opendoor could get to 5-40% market share long term.

Opendoor reviews are mostly 5 star from a customer perspective and they seem to have found real product market fit for consumer pain points when selling a house in terms of closing uncertainty, burdensome house showings, repairs, expensive broker fees, expensive title fees and expensive loan fees.

In both the case of Carvana and Opendoor, the prospect to cut out the 'used car dealer' or 'real estate broker' seems to be resonating with some customers – especially younger customers.

Much like Carvana and even Amazon to some extent, it takes time for both consumers and the market to get comfortable with idea of making small, medium and even large ticket (\$25k cars, \$400k houses) entirely online. However, the ability to use AI software to streamline the experience for customers is proving to be a big win.

Opendoor reminds me of Amazon in the early days both in terms of the quality of management, massive market, low penetration and also volatile stock price.

If Opendoor can continue to execute in 2022, they may even get to as high as 12b quarterly run rate which would \$48b annualized. It is also not inconceivable that market will decide to value this business at 1-5x revenue for a potential upside market cap of \$250 billion as compared to \$6 billion today.

This could be a volatile investment but there is asymmetric upside payoff here.

One of the insights I had with Opendoor is the banks are lending them 100% LTV at L+250bps to buy the houses and they hold the houses for 90 days of which 45 days the house is under contract. This implies the company doesn't even have to use equity to buy the houses to flip them. It could be very hard for sub scale players to compete with that cost of capital in the future. Part of the secret sauce is Opendoor's AI house valuation algorithm and experience and scale.

### **Tremor International**

Tremor is a small position in the growing connected TV advertising marketplace business. Tremor is a London listed company based in Israel that recently did a US IPO. The US Comps sell at 10-50X EBITDA and Tremor sells at 5X EBITDA. Tremor did the US listing IPO with the idea to get a stock currency and to be valued similar to the US comps.

However, the stock has not performed well since the listing for a variety of reasons including a volatile macro environment, less coverage by brokerage houses and a less aggressive management team guidance. The ad tech sector for connected TV could compound at 20%+ growth for many years so at 4-5x EV/EBITDA or cash flow Tremor seems like a very cheap valuation. The company also 350 million of cash on hand that could be used for buybacks and the company could generate as much as 200 million per year in cash on a \$1.2 billion market cap and \$850 million Enterprise Value.

### **Bitcoin**

Bitcoin acts as unique store of value and hedge on inflation and also as a base technology layer for money. I see many similarities to TCP/IP for the internet but also

even similarities to FICO, MSCI, S&P, Moody's and even MA, V which also act as 'top of the capital stack' or 'base layers' to human ingenuity.

When El Salvador adoption Bitcoin we have seen remittance increase and instead of 50% transaction fees for migrants, fees are now 0%.

At this point hundreds of billions of dollars of venture capital and millions of users and programmers have entered the ecosystems and will build upon the 'money protocol' and increase the value of Bitcoin.

One thought experiment I like to do is the ROE of the 8 page white paper of Satoshi was able to result in an 800 billion asset and 2-3 trillion asset class. If that isn't a moat, I don't know what is. Literally anyone can copy the whitepaper and code, but somehow no one has been able to beat Bitcoin.

I also do feel that we me might be at a natural end game where western governments will keep printing capital into a deflationary or inflationary spiral and the world slowly transitions to a Bitcoin standard. The transition will be similar to email in that it just all happens in the background.

Bitcoin also have very asymmetric upside that if it works it can have upside of 1000-10,000x.

I look for scarce assets and similar to natural monopolies like Moody's and S&P, Bitcoin, SpaceX and Tesla all feel like they are 'scarce assets' to me.

### **Moody's and S&P Global**

I remain invested in Moody's and S&P Global and quite pleased with the performance of the companies in terms of cash flow, growth and capital allocation. In a world of low interest rates and potentially low growth, Moody's and S&P act like bond like equities with income, growth, pricing power and stability.

### **Potential Positions**

I am looking at several new potential positions with the market correction, but they may require a longer write up. Some names include: ASML, TSM, Neuralink, Sourcegraph, Gitlab, Gains Network, CDLX, CVNA.

It is unclear if any of the positions will enter the portfolio.

Gains Network is intriguing with 100% dividend yield, 2x P/E and 50% monthly growth. However, because these numbers seem too good to be true, I wonder if there is a catch I am missing!

Carvana is at about 1-2% market penetration of the used car market and selling at 1-2x Revenue.

ASML and TSM are effectively monopoly businesses that are a 'base layer' or 'top of the capital stack' in the semiconductor industry. They make virtually every high end chip in the world and are an irreplaceable part of the supply chain for such high growing firms as Tesla, Amazon, Nvidia, Google, Apple, AMD and many others.

ASML is the only company to make \$150-\$300 million semiconductor equipment machines. They have no competition. TSM competes with Samsung and Intel but is the only independent third party semi fab at scale.

### **Veda Global LP**

The General Partner has also launched a new fund focused on buying credit rating agencies in India. These are primarily subsidiaries of S&P Global and Moody's. Interested investors can reach out to me. Columbia Heights Partners has not allocated to Veda Global yet but may in the future as the India credit rating market matures over the long term. Currently, per capita credit spend is as low as \$0.02-\$0.04 vs. \$12-\$18 in the US. I am quite optimistic about the long-term growth of these businesses, their capital efficient business model and natural monopoly market structure.

As always, please reach out to me for any questions.

Gorav Khanna  
Managing Partner  
Columbia Heights Partners, LP





## Tesla – Bull Case

<u>Tesla - Bull Case</u>	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
<b>Tesla</b>											
Cars Sold	1.00	1.75	3.06	5.36	9.38	13.13	15.76	18.91	22.69	27.23	32.67
ASP	50.00	51.00	52.02	53.06	54.12	55.20	56.31	57.43	58.58	59.75	60.95
Revenue	50.00	89.25	159.31	284.37	507.60	724.85	887.22	1,085.96	1,329.22	1,626.96	1,991.40
FCF Per Car	10.00	10.20	10.40	10.61	10.82	11.04	11.26	11.49	11.72	11.95	12.19
Car FCF (Hardware)	10.00	17.85	31.86	56.87	101.52	144.97	177.44	217.19	265.84	325.39	398.28
<b>Software Business</b>											
Cars Sold	1.00	1.75	3.06	5.36	9.38	13.13	15.76	18.91	22.69	27.23	32.67
Software FCF	0.00	0.00	0.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Software FCF	0.00	0.00	0.00	267.97	468.95	656.52	787.83	945.39	1,134.47	1,361.37	1,633.64
Total FCF (Billion)	10.00	17.85	31.86	324.84	570.47	801.49	965.27	1,162.59	1,400.32	1,686.76	2,031.92
											3%
											67,730.67
FCF	-800.00	17.85	31.86	324.84	570.47	801.49	965.27	1,162.59	1,400.32	1,686.76	69,762.59
IRR	66%										
MOIC	95.9x										