



## Third Quarter 2021

December 31, 2021

Dear Client:

As the table at the end shows, most of our accounts lost ground in the quarter and we ended the quarter up just a smidge for the year. The broad market did much better with the indexes up double digits. We don't try to track an index and especially after the last two years, we aren't surprised that our stocks did not do as well as the broad market.

Unfortunately the world continues to wrestle with the pandemic. As we write this, the number of infections of the new Omicron variant is increasing quickly around the world. Thankfully, the vaccines appear to prevent most people from becoming severely ill and there is evidence that, while more transmissible, the Omicron variant is less likely to send someone to the hospital than previous variants.

### Into the Metaverse

In March, the tech industry journal *The Information* published their updated organization chart for the company Facebook (-2.4% in the quarter).<sup>1</sup> They estimated that as many as one in six of the company's sixty thousand employees were working on Facebook's virtual reality efforts. Then, with their Q3 earnings report on October 28th, Mark Zuckerberg announced they would change the name of the company from Facebook to Meta and it has become popular for other companies to discuss their "Metaverse strategy." It is easy to understand why Facebook is pushing hard on their own VR hardware. Facebook has amazing engagement: 1.93bn of the world's ~8bn people use a Facebook service to connect with other people every day. However, for the most part, they are connecting to a Facebook service on a device or browser controlled by Apple or Google (+6.3% in the quarter), leaving Facebook exposed to the whims of companies that they compete with.

The idea of a Metaverse originates from Neal Stephenson's 1992 anarcho-capitalist science fiction novel *Snowcrash*. The book describes a future where life exists both in the real world and in a rich online world, where humans, connected by virtual reality, live a second life. Most of the book takes place in the real world but virtual reality enables the main plot: in a world dominated by powerful corporations headed by demagogues, the characters face a viral pandemic that, in addition to being bloodborne, has a linguistic form that reprograms the brain like computer viruses affect the software of a computer. In the book, denizens of the Metaverse can become infected with the Snowcrash virus just by looking at a specially encoded image in virtual reality. What we realized as we reread the book last month is how prescient Stephenson was -- not about the pandemic, not necessarily about the power and reach of huge online corporations or demagogues (we hope), and not even about virtual reality itself --

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<sup>1</sup> <https://www.theinformation.com/articles/the-people-with-power-at-facebook-as-its-hardware-commerce-ambitions-expand>

more than anything, we were impressed by how much of what Stephenson described in 1992 as the future online world has become manifest. The rich, connected, social, user-generated, interactive services that prefigure the deep immersiveness of the Metaverse in *Snowcrash* are the foundational innovations that will continue to change the way we live, work, exercise, and play.

Perhaps Stephenson will be right about virtual reality as well, and we are excited to see if huge investments in VR by Facebook, Apple, Microsoft, and startups like MagicLeap and others create a great device that can support compelling applications. However, if it doesn't succeed, it won't be the first time that a massive tech company reached to create a new computing platform and failed. For example, in 2014, Amazon's Alexa was supposed to herald an era of voice-based computing. Fast forward seven years and almost nobody uses Alexa for anything beyond playing music and getting the weather.

### **Metaverse for Kids**

Regardless of virtual reality's success as the next computing platform, we think that media is going to continue to become more interactive, more user-generated, and more social. We bought shares of Roblox (-16% in the quarter) when they went public in March. Roblox is a world of interactive games in a persistent shared online reality. The difference between Roblox and massively multiplayer online games like Fortnite or World of Warcraft is that while Fortnite and WoW were created by middle-aged (mostly) dudes, Roblox is a platform that allows anyone to create simple games, enabling kids to create games for other kids, and in this, it is a pure digital expression of the imagination and emotion of kids, both created by them and curated by them as they rank and share with their friends. Roblox has allowed kids to engage online as their IRL interactions are limited by the pandemic. As a manifestation of the metaverse, we think Roblox has an exciting opportunity to enable people to engage as they explore this new form of entertainment.

### **Exercise in the Metaverse**

The company Peloton (-29.8% in the quarter) had extraordinary success in 2020, as they launched their connected, social, interactive exercise bikes, treadmills, and workout classes into the homes of millions of users homebound by the pandemic. Then, as the economy re-opened, sales of new bikes slowed dramatically, leaving Peloton our second largest loser during the quarter. However, if you look at the company as a subscription media company rather than an exercise equipment company, by our math, they only need about 3mm users at \$50/month to generate significant earnings relative to the stock price, and we think that they have a pretty good shot at getting there.

### **Metaverse in Your Living Room**

We bought Roku (-31.8% in the quarter) when the company first went public in the Fall of 2017. Since then, the company has done well, expanding their users from 15mm active accounts to 56mm active accounts at the end of Q3. As Facebook hopes to do with virtual reality, Roku has created a platform that increasingly has a shot at becoming the operating system for the living room, connecting TV makers, streaming content owners, and advertisers with users. Unfortunately, supply chain disruptions due to the pandemic slowed the purchase

of new TVs, and investors, worried about a slow down in new accounts, sold Roku's stock. As with Peloton, however, we think that the short term slowdown in hardware sales is less important than the recurring revenue from the media business.

### **Hardware for the Metaverse**

While we know that creating a new platform, as Facebook is trying to do with VR, is not a sure thing, we have been tracking developments. We invested in Enovix (+6.8% in the quarter), which has developed a revolutionary battery with higher energy density, enabling technology for, among other things, wireless virtual reality goggles, and we understand that both Facebook and Snapchat have also invested in the company and we think this investment underscores their plans to use Envoix batteries in next generation wireless VR headsets.

Further, our largest winner during the quarter was the computer chip company Ambarella (+46% in the quarter). They started life making the best chip for converting analog video information to compressed digital files. It was Ambarella's chips that enabled the GoPro cameras and Drones like the DJI Phantom. Five years ago, as the market for action cameras and drones slowed, Ambarella made a bet that they could turn their position as a video processing engine into an AI company that sells chips packed with deep neural nets to extract insight from video while turning it from analog to digital. We bought the stock in January of last year when they announced significant new customers for the vision platform they had been working on for five years. Since then, we learned they are a key enabling technology for a number of car companies including Rivian's autonomy platforms.

As we finished Stephenson's novel, we found great satisfaction in following the aptly named katana-wielding hacker "Hero Protagonist" as he saves humanity from the Snowcrash virus. While the more dystopian aspects of anarcho-capitalist abuse of power remain haunting, we were left with a deep appreciation for the author's prescient vision of the rich, connected, online world we see manifesting today, and we continue to see great opportunity in this connected world, regardless of whether virtual reality becomes a significant platform.



Alex Derbes

We have always reported a single performance statistic, summarizing a range of results. Many factors affect where your account landed in that range. Accounts that missed one or more top performing stocks, or had a larger position in a poorly performing stock, can land at the bottom of the range. The performance of new accounts, smaller accounts and accounts that had significant deposits or withdrawals during the period is particularly variable. Even among the remaining accounts, there is a wide range from the aggregate performance we report<sup>2</sup>.

We derive aggregate performance by totaling the equities in all of the accounts under management and calculating performance (net of commissions or wrap fees) as if we managed one account. This methodology weights large accounts more heavily and is not representative of any particular account. Therefore, we provide the worst performing account<sup>3</sup> in the relevant period to give an indication of the potential range in investment performance. Please look at your account statement for changes in value from one period to the next<sup>4</sup>.

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	<b>Q3 2021 aggregate</b>	<b>Q3 2021 worst</b>	<b>FY 2021 aggregate</b>	<b>FY 2021 worst</b>
<b>Margin</b>	-4.9%	-10.2%	3.3%	-6.7%
<b>Cash</b>	-6.0%	-7.2%	2.5%	-0.4%
<b>Retirement</b>	-6.2%	-9.0%	1.5%	-2.6%
<b>S&amp;P 500</b>	0.6%		15.9%	
<b>Nasdaq</b>	-0.2%		12.7%	

The companies discussed in this letter were selected because they are representative of our thinking. Since GGHC manages individual accounts, some of the companies discussed in the letter are not necessarily held in every account.

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<sup>2</sup> All accounts, except for non-commission and non-fee paying accounts, are included in the calculation of aggregate performance. Past performance is not indicative of future results. Aggregate performance and the worst performing account are net of all fees, commission and expenses and includes the positive impact of reinvestment of dividends. At the end of Q3 2021, Alex Derbes managed 151 margin accounts, 13 cash accounts, and 86 retirement accounts.

<sup>3</sup> The worst performing account excludes accounts opened within the period, accounts with an equity of \$1,000 or less, accounts that transferred between GGHC money managers during the period, and uninvested accounts.

<sup>4</sup> Non-retirement accounts pay a commission rate of 1.5% per equity trade. Retirement accounts pay an annualized wrap fee of 2.5% to 3% based on account size. See GGHC ADV for details.

Please remember our goal is to build your wealth by aggressively investing your capital over the long term. This approach carries considerable risk and is not for everyone. It requires tremendous patience and commitment in the face of large swings, and has the possibility of failure. At the same time, success can only be measured on an absolute basis. We do not invest with any particular benchmark in mind. While we provide comparative performance of various widely-reported indices to give you a sense of the overall market environment, you should not expect our results to track any one of them. There are material differences between GGHC accounts and the indices shown, as volatility, investment objectives and types of securities differ.

The NASDAQ Composite is a market-weighted index that measures all stocks listed on the NASDAQ Stock Market. All index results shown are calculated on a total return basis with dividends reinvested. Index results do not reflect the deduction of any fees or expenses.

You can access the GGHC Privacy Policy and our Firm Brochure, Part 2A of Form ADV and our Form CRS on our website at [www.gghc.com](http://www.gghc.com). This letter is intended for you, our client. If you would like to share it, please contact us and we will gladly provide a copy to the intended person.