2020 2H Investor Letter:

	1Q	2Q	3Q	4Q	Full year	S&P 500 (including dividends)
2015	NA	NA	-4.42%	9.51%	4.67%	1.40%
2016	0.39%	-0.07%	1.95%	10.03%	13.87%	11.96%
2017	3.82%	5.45%	6.32%	9.75%	27.77%	21.87%
2018	-0.58%	5.08%	1.05%	-10.05%	-4.54%	-4.39%
2019	12.86%	1.36%	0.01%	10.65%	26.6%	31.49%
2020	-11.78%	15.90%	16.51%	5.85%	26.14%	16.03%
Total Return					132.1%	99.9%
Annualized Return					16.5%	13.3%

The stock market was strong during the second half of 2020, and all our holdings contributed positively to the portfolio. Berkshire and Bank of America recovered some of the yearly losses as the economy recovered from the pandemic. Our mega-tech holdings' performance was better than the S&P 500, but less than the Nasdaq index, as investors piled into risky, smaller tech names. Our new holdings initiated in the first half of 2020, including AMD and Meituan, outperformed the market by a wide margin. We also started new positions in Netflix, PayPal, and WUGI. As usual, we provide an update on our existing and new holdings. In addition, we share some of our recent thoughts on technology trends.

Existing Holdings:

- **Financial holdings:**

Berkshire Hathaway:

Berkshire again underperformed the S&P 500 by 16% in 2020. Adding to the 20.5% underperformance in 2019, Berkshire has trailed the broader market by 40% in the last two years. Our holding in Berkshire is a significant reason why our portfolio has lagged in the broader tech index for the last two years. Despite the underperformance, we did not lose faith in Berkshire. We think a significant re-rating of Berkshire is long overdue.

Berkshire's equity holding appreciated $40.7 billion in 2020 despite some early losses in bank and airline stocks, thanks largely to its successful bet on Apple. By the end of 2020, Berkshire's equity portfolio alone was worth $281 billion, accounting for more than half of Berkshire's market cap. Many of Berkshire's equity holdings, such as banks and industrial companies, are well-positioned to benefit from the economic recovery.

In 2020, Berkshire's operating businesses only saw a minor -7.8% decline in pretax income of $26.9 billion despite the worst economic downturn in history. Many of Berkshire's operating

businesses, from railroad to manufacturing, service, and retailing, will reap the benefits of the reopening of the economy and the potential US infrastructure bill. Berkshire's large utility business (BHE) is also a surprising winner from the EV revolution. One of the largest renewable energy companies in the US, Buffett vowed to put all of the BHE's retained earnings into transforming it into a clean energy leader. Through BHE, Berkshire also has exposure to BYD, a leader in China's EV and battery industry.

Lastly, Berkshire repurchased a record $24.7 billion of its own stock in 2020, a five-fold increase from 2019. Buffett clearly thought that the company was severely undervalued. Buffett continued to repurchase in 2021. Many of Berkshire's equity holdings are buying back their own stocks aggressively, such as Apple and banks. Along with Berkshire's own buyback, investors is getting a double benefit of owning Berkshire shares.

Bank of America:

It must have been bizarre for banking investors for a few months. Everything that went against banks in 2020, such as low-interest rates, macroeconomy crashes, flat yield curves, and suspended buybacks, has reversed to another extreme in 2021. Investors are now expecting a higher interest rate due to inflation, rapid economic recovery, a steepening yield curve, and large buyback after Fed approval.

On the back of investor optimism, our BAC share has rallied significantly since the start of 2021. We were fortunate to hold onto BAC throughout an extraordinary volatile period in 2020. While we expect that a steepening yield curve and potential rate increase will increase BAC’s earning power, the near-term loan demand (bank's largest profit center) has not recovered. We recently trimmed some of our BAC holdings and moved the proceeds into more attractive names.

- **Tech holdings:**

Our mega-tech holdings, Amazon/Microsoft/Google, saw their cloud and non-cloud business prosper. All three US cloud vendors (AWS/Azure/GCP) show no signs of slow down despite operating at an enormous scale. On aggregate, the three cloud giants have an annual revenue run rate of $125 billion, with a growth rate of 29%. Revenue, however, only tells a part of the story. Enterprises are rushing to sign long-term contracts with these cloud giants. The AWS backlog is up 69% at $50 billion; Google Cloud backlog tripled from $10 billion to $30 billion in 2020. We think there is reasonable probability that cloud giants can accelerate growth post-pandemic.

On the non-cloud side, Amazon's FBA revenue tops $80 billion, with a growth rate of 50% with expanding margins. Amazon's subscription and advertising businesses are also prospering. Google's YouTube has grown by 46% in the recent quarter as direct advertising has taken off. Microsoft has seen a resurgence in its Windows and Gaming businesses. Despite reporting stellar earnings, our mega-tech holdings, AMZN/GOOG/MSFT, underperformed the Nasdaq in the second half of 2020. We think that mega-tech companies were considerably cheaper, not only compared to the tech sector, but also compared to the broader market. We added evenly across our mega-tech holding at 2H/2020.

Our two SaaS holdings, Salesforce, and Workday saw their deal pipelines build up as enterprises pushed for digital transformation post-pandemic. In 2H/21, Salesforce bought Slack in an expensive stock/cash deal to expand into the enterprise workflow market. We agree with the Wall Street view that Salesforce needs to prove that it sustainably improved its operating margin before the stock moves meaningfully higher. We trimmed some of Salesforce's holdings.

We substantially added to our position in Workday at an average price of $191.9, in 2H/21. Workday's HCM continues to take market share from legacy players, as large enterprises adopt Workday's cloud HCM to meet new workforce demands. Workday FINS plus solutions continue to grow rapidly and will be a crucial part of Workday's reaccelerated story. Management now expects that after a trough growth in 2022 FY due to SaaS accounting rules, the company will reaccelerate topline growth in 2023 FY.

AMD, our new holding initiated in 1H/2020, saw its share price advance 74% in the second half. All AMD products continue to show strong adoption in 2H/2020, from PC processors to consoles to server chips. Many AMD products (Ryzen 5000/Big Navi/Epyc Milan) are still early in their life cycle. We expect AMD to continue its market share gain, even if its competitor Intel begins to outsource some of their leading edge products to TSMC in 2021. However, Intel's recent $20 billion plan to build its own foundry business may antagonize TSMC. We expect that AMD will be able to secure its TSMC supply. More importantly, AMD made a landmark deal by acquiring the leading FPGA maker Xilinx through an all-stock deal. The deal will open two essential markets for AMD, edge-compute, and datacenter DPU, which we think has enormous market potential.

Meituan, our other new holding, saw its price advance to 72% in the second half. We substantially added to our position, pushing our average price to 237 HKD. Meituan's "food delivery" business is growing rapidly at an enormous scale and its "In-store/Hotel" segment continues to recover from the pandemic. Meituan is investing heavily in the new "community group buying", which is a new type of e-commerce that emerged in China in 2020. All Meituan's community group buying initiatives, such as "Meituan select," "Meituan Instashopping," and "Meituan Grocery," released solid operating metrics. Meituan's ability to scale the "community group buying" across China in a short period of time, despite many rivals (PDD/Xinsheng), is an excellent testimony of the company's offline execution ability. The e-commerce format is rapidly changing in China, and companies that invest in new infrastructure usually benefit the most. Meituan is clearly the "new Amazon" in China and we are not particularly concerned about Meituan's short-term earnings as it goes after large new markets. Meituan's yearly operating cash flow grew 52% to 8.5 billion despite heavy investments.

- **Other portfolio adjustments:**

We substantially reduced our exposure to Alibaba as antitrust concerns mount. Although the company currently faces serious antitrust issues in both the Ant Financial and e-commerce platforms, we still believe in Alibaba's long-term prospects especially its cloud-computing units. In contrast to Ant Financial, which may cause authorities to worry about its impact on the nation's financial stability, Alibaba's long investment in cloud and self-built semiconductors is of national interest. We are actively monitoring the situation and adjusting our position accordingly.

New Holdings:

Netflix：

We initiated a mid-sized position in Netflix at an average price of $492 during 2H/20. Netflix stock was under pressure in the second half for several reasons: lower-than-expected subscription net adds in 3Q/20, intensified competition especially from Disney+, and more general pessimism toward work-from-home stocks as the economy reopened. Despite these concerns, we believe that the global shift toward streaming media consumption is still in its early stages. Throughout the pandemic, we believe Netflix has further distinguished itself from other competitors in at least three ways:

First, high consumer engagement. While competitors are proudly showing off subscription net adds largely because of the stay-at-home trend, Netflix is busy boosting user engagement. Netflix's lead in general entertainment is substantial, with its extensive slate of new original TV series and films. In 2020, "Netflix series" accounted for nine out of 10 most searched shows globally in 2020, and "Netflix films" represented two out of the top 10. As the company kicks-off 2021, it plans to release a new movie every week, featuring some of the biggest Hollywood stars. Every incremental minute will give Netflix more pricing power down the road.

The second, technology leadership. Netflix's long-term commitment to digital technology paid off in 2020. Netflix started using the cloud (AWS) in 2006 and initiated global Open Connect (CDN) in 2011; both attribute to Netflix's uninterrupted operation during the pandemic. In recent years, Netflix has also leveraged artificial intelligence (AI) technology to build a better recommendation engine, source best-relevant content talent, and increase production efficiency.

Finally, strong cash flow generation. Netflix's financial profile changed fundamentally after the pandemic. The company announced no need for external financing in the 2021 plan. Success in media is certainly not easy. It took Netflix 10 years and $75 billion in content spending (2011-2020) to build its lead. Netflix can now efficiently outspend its competitors, while generating substantial cash flow for stock buybacks.

- **Paypal:**

We initiated a mid-size position in PayPal at an average price of $187.8, during 2H/2020. PayPal is a global online platform that serves both consumers (PayPal and Venmo) and merchants (Braintree and iZettle), which creates a powerful network effect. PayPal's 348 million consumer base attract more merchants, and its 29 million merchant base enables better service for consumers. PayPal is one of the biggest beneficiaries of the shift toward online and contactless payments brought on by the pandemic, adding 72 million new accounts and growing its TPV by 36% in 2020.

Compared to fintech startups that emerged in the last decade, such as Square and Stripe, PayPal historically has been slower in rolling out new functions. Some investors may wonder how PayPal could attract millions of consumers and successfully roll-out new fintech products simultaneously. We believe PayPal has done two things right in the past that has helped set the foundation for its current success:

i. State of the art security: PayPal has invested heavily in new risk management technologies, such as AI monitoring and network tokenization. Advanced security has earned PayPal invaluable customer trust. On investor day, the PayPal management revealed that its risk management team has over 4000 members that monitor 500 petabytes of transaction data. Its risk loss at 12 basis points is the lowest in the payment industry. PayPal currently has 400 million tokenized cards within payment vaults and is expected to reach 750 million by 2021. Robust security also helped PayPal increase its authorization rates by 400 bps from 2018 to 2020, enabling merchants to increase revenue and customer satisfaction.

ii. Global Partnership: Since the spin-off from eBay in 2015, the company decided to partner rather than compete with card networks. The huge Visa/Master deals PayPal began in 2016, have helped PayPal significantly increase its consumer adoption. In addition to partnering with card networks, PayPal has also formed hundreds of partnerships worldwide, such as with Union Pay in China, MercadoLibre in South America, and Gojek in Southeast Asia.

While foundational work in security and partnership look straightforward, they are very complex to execute. PayPal has performed well on both. Today, armed with millions of new consumers, PayPal is now on its most exciting journey of growth. The company is expanding aggressively into three large markets: a) Install payment, b) QR code, and c) cryptocurrency. Outside of the three major growth areas, by partnering with financial institutions, PayPal also plans to integrate direct deposit, high-yield saving, and stock trading, making it a genuine fintech super-app.

As the management stated on investor day, the goal of rolling out new functions is to increase customer engagement. More engagement means more monetization. Recent statistics have shown that customers adopting "install payment" have increased its TPV by 12%, customers choosing "QR code" have increased TPV by 19%, and customers embracing "crypto" have a staggering 2X engagement. Encouraging data has allowed the PayPal management to increase its 2025 revenue target to $50 billion, representing a CAGR of 20% from 2020, which is a rare growth rate given its already large scale.

Other new holdings:

We also initiated a position in WUGI, an actively managed technology ETF, which I launched along with several partners in March/2020. The WUGI focuses on the new digital economy. We carefully select leading companies across four technology stacks: semiconductor, cloud, SaaS, and consumer services. WUGI returned 96.4% from March/20 to the end of the year, leaving our LP return in dust. While an active technology ETF can be choppy in the short term, we firmly believe that on aggregate, it will have good performance in the long term. For more information, please check: https://www.esotericacap.com/our-solutions/exchange-traded-funds/wugi.

Thoughts on Technology Trends

In past letters we intensively discussed the technology trend of each stack (semi, cloud, SaaS, and services). More recently, there are two emerging technology trends, which we believe are on the

verge of infection point, that will profoundly change our lives over the next few years: AI and virtual reality. We want to briefly share our thoughts on these two emerging technology trends.

Trends in AI:

In 2012, Google X Lab created a neural network that could find cats. Since then, AI/machine learning (ML) has been widely adopted by large technology firms to build better consumer applications and services (ToC). However, AI in enterprises (ToB) has yet to hit mainstream adoption because of the costs/complexity of both hardware and software. Since 2020, we have seen three encouraging technology trends that can help accelerate the adoption of AI.

i. **Breakthrough in semiconductors:** In 2020, Nvidia debuted the concept of "Data Processing Unit" a new class of programmable processors that combine high-performance CPUs with SmartNiC (network interface controller). DPUs can be deployed in data centers to optimize compute offloads and free up CPUs to focus on intended tasks, such as ML. DPUs helped solve a significant bottleneck for ML training, where models, sometimes with billions of parameters, are too large for traditional CPUs and GPUs to handle. Other leading semiconductor players, such as Marvell and Xilinx, followed suit by introducing in-house or partner designed DPUs. Bernstein forecasted that the market size for DPUs in data centers alone could reach $50 billion by 2025.

ii. **Breakthrough in software**: In 2020, we witnessed major advances in "Conversational AI," a new form of AI that can understand and speak with human-like accuracy. Conversational AI allows two-way interaction and provides a much better user experience than traditional AI-powered chatbots, which are mostly a one-way response system. The secret of conversational AI is its ability to handle many human conservation variances. Developers have designed innovative algorisms, such as “switch transformers” and “sparse training” to enable the model to handle vast amounts of data. The size of conversational AI training models is enormous and continues to expand. For example, in Feb/2021, Google Brain announced a model with 1.6 trillion parameters, which is nine times the size of the famous Open AI GPT-3(175 billion) that was unveiled in July/2020. GPT-3 was more than 100X larger than GPT-2 introduced in 2019.

iii. **Cloud giants expand ML developer platform:** At AWS reinvent 2020, AWS’s Andy Jassy quoted that "AI is shifting from a niche experiment inside technical departments to become more mainstream in business processes.” AWS rolled out many AI products across the technology stack, including AI chips (AWS Trainium), database (Aurora Machine Learning), and vertical solutions (Amazon Healthlake). Among them, the most important is the expansion of "Amazon SageMaker,” one of the biggest cloud ML platforms. In 2020, AWS Sagemaker dramatically expanded its features to make it easier for developers to automate all steps of the ML workflow. Microsoft Azure and Google Cloud are also growing their ML developer platforms.

We believe that because of breakthroughs in semiconductors and software, coupled with cloud giants' efforts to democratize AI, there will be an infection point AI adoption not only in ToC areas, but also in the ToB market. How do we benefit from the AI adoption trend? For semiconductors,

we started tracking semiconductor companies with DPU exposure, such as a high-end FPGA company called Archonix. In the AI development/processing area, we are studying new multi-cloud AI platforms, such as Databrick. Lastly, in enterprise software, we believe there will be a wave of new AI enterprise apps that can be creative and efficient in solving real-world problems. We are actively building our knowledge of this space.

Trends in AR/VR：

In early 2016, when we first attended the CES event in Las Vegas, virtual reality hype was at its peak. Facebook showed off its first Oculus headsets, Microsoft introduced Hololens, and hundreds of startups joined the VR headset manufacturing businesses. Since then, the industry has gone through a classical tech boom/bust cycle due to a lack of hardware advancement and software ecosystem support. Only a handful of AR/VR makers still exist today. After years of boom and bust, we think there are early signs that AR/VR is finally ready to enter mainstream adoption. There are at least two encouraging developments.

i. **Technology leaders rush to build the next computing platform:**

To have a first-mover advantage for the next computing platform, leading tech companies invest aggressively in AR/VR hardware and software. For example, Facebook has put nearly one-fifth of its employees to work on the project. From building energy efficient SoC/optics for VR headsets, to designing an advanced "neutral interface" for AR glass. Facebook is determined to create an in-house end-to-end solution for AR/VR. Another tech giant, Apple, is also rumored to introduce its own VR headset with advanced eye-tracking technology by the end of 2022. Historically, Apple's introduction of new hardware has significantly enhanced the supply chain quality.

ii. **Variety of software ecosystems to support AR/VR development：**

Over the last few years, AR/VR development platforms have become more sophisticated. Leading tech platforms, such as Apple/Google, to offer AR/VR SDK, which integrates the new technologies, Lidar and AI SoC. Game engine companies, such as Unity and Unreal, leverage their decades of experience in real-time 3D to expand AR/VR offerings into industries beyond gaming. Industries in architecture, engineering, and construction (AEC) and auto, transport, and manufacturing (ATM) are among the first adopters of AR/VR tools.

We are exploring ideas across different technology stacks that might benefit from mainstream adoption of the AR/VR trend. Most companies are still building blocks for the AR/VR world. So, what might an AR/VR world look like, and who might be the biggest beneficiaries? We can only take a wild guess and make bold predictions:

We believe that a few large technology companies will become gateways to the virtual world. If we can count on the creativity of human beings' collective dilution, there will most likely be millions of virtual worlds inside the gateways. Jonathan Lai, a venture partner at Andressen Horowitz, published an excellent article called "**Meet me in the metaverse**." People in the virtual

world will discover new people, an experience entirely unplanned. In the future, "user-generated content" will not be sufficient to power countless virtual worlds because of the need for large amounts of real-time graphic data. AI-generated content is a natural solution. We may be able to enter a virtual world fully rendered by AI. We may even make AI friends. Our previous research in "conversational AI" gives us more confidence in this direction.

In the real world, it is very likely that over time, there will be many MR user cases in the enterprises market. Microsoft is presently leading MR development with Hololens. The company also recently previewed Microsoft Mesh, an MR development platform for all types of industries. Startups, such as Spacial, are trying to leverage MR technology to transform the office environment. We believe that MR's broad adoption will occur later than that of AR/VR due to higher hardware requirements.

Conclusion

After a strong 2020 finish, the stock market is again volatile in 2021. We have already experienced Black swan events, such as the GME short squeeze and Archegos fund forced liquidation which caused wild market swings that hurt many funds and retail investors. Worries about inflation trends and rate increases have also triggered rotation in the US stock market, with some deep value stocks seeing their price surge, while many high-growth technology companies saw sharp selloffs. Although the process is ongoing, we think the rotation has made some value stocks "risky," and some high-growth companies "value." We trimmed some of our banking stocks and moved the capital into secular growth stocks, as we saw their price become more attractive. We continue to hold a cash position of over 10% and actively search for long-term compounding ideas. We look forward to reporting back to you in a few months.