

2022 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%
2021	3.67%	11.15%	0.71%	3.56%	20.18%	28.71%
2022:	-12.32%	-25.24%	(QTD: -2.9%) (YTD: -36.7%)		-34.70%	-19.9%
Total Return						
Annualized Return since Inception					9.42%	10.96%

Our portfolio declined 25.2% in 2Q/2022 and 34.7% in 1H/22. Some of our core holdings that held up well in the first quarter, such as those in financial services (BAC/BRK) and core technology (AMZN/GOOG), also suffered a big drawdown in 2Q/22 along with the market. Our annualized return since inception is now 9.42%, below the S&P 500 (including dividends) total return of 10.96%.

During 1H/22, the value of nearly all asset classes, particularly equities, declined significantly for two reasons: rise in interest rate and fear of economic recession. To put things in perspective, the S&P 500 has shown the worst first-half performance in five decades. Nasdaq's performance is at its lowest since the tech bubble in 2001. The top 10 tech companies have lost 1/3 of their value. The market value of SaaS companies declined more than 60% from its peak, with the price-to-sales ratio collapsing from 17X to 5X.

Throughout the market turmoil, we increased exposure in our top holdings such as AMD/AMZN/BAC. We think their risk/reward profiles are better than many alternatives. Our top five holdings accounted for 57.4% of our portfolio as at the end of June 2022. We also injected more capital into the fund. At the end of 2Q/22, cash accounted for 13.7% of our portfolio. We believe that the recent market turmoil represents one of the best buying opportunities in the last decade. We should, therefore, put our money to work. The biggest mistake we can make is panic selling.

During this period of significant volatility, we would also like to take the time to re-examine and stress-test our portfolio. In addition, we wish to share some business updates on our core holdings.

Part 1): Recessing the portfolio:

Today, investors are facing two issues: a) the proper long-term discount rate for valuing assets, and b) how the economy will perform under a higher rate environment.

The rise in long-term discount rates has been a paradigm shift for nearly all investors. Investors can base their discount rates on various metrics, such as the Fed interest rate, ten-year treasury, or "real yield." But they all rose significantly in 2022. For example, the Fed lifted its interest rate from 0% at the beginning of the year to 3.25% in September/22, and is expected to further raise it to 4.25% by the year-end. In the meantime, the ten-year treasury yield has jumped from 1.5% to 3.8% in less than a year. The "real yield," measured by 10-year TIPS, has surged from -1% to 1.7% during 2022.

In a typical discounted cash-flow model, a one percent rise in the discount rate will result in a mid-teens percentage decline in valuation of "short-duration assets" (assets with meaningful earnings currently) and a significant valuation contraction in "long-duration assets" (assets with earnings far out). The impact of an increase of several percentage points in the discount rate on valuation is enormous. The rise in the long-term discount rate is the primary reason behind the drop in asset prices worldwide.

Going forward, the long-term interest rate trajectory will largely depend on inflation in the next few years. While there are encouraging signs of inflation easing, such as a dramatic fall in commodities and logistics prices, it is too early to telegraph how quickly this supply-side pricing will translate into a fall in prices for the consumers. In addition, many of the inflation components in core services were sticky, such as rental and healthcare costs. Persistently high wage inflation is another headache for the Fed.

As inflation appeared to be stickier than expected, the Fed officials have announced that they will not cut interest rates dramatically until 2024. As a result, a high interest rate will likely put a cap on stock multiples at least in the near- to mid-term (1–3 years).

In the longer term (>3 years), a successful inflation control will be favorable to stock valuation. Let us suppose the inflation is under control and the interest rate drops under 2% beyond 2025. In this case, the present value of the corporation's cash flow will be substantially higher than the interest rate to stay above 4% for the foreseeable future. Investors also will not see their real earnings being eaten away by the persistently high inflation rates.

In short, the sooner the Fed ended inflation, the better it is for assets like equities. We think that the Fed's decision to front-load the interest rate rise is the right thing to do. Market participants will have to decide on a reasonable long-term discount rate for assets depending on their view of the inflation trajectory. Short-term investors likely use a higher risk premium, whereas long-term investors use a smaller discount risk premium.

It is also too early to quantify the demand destruction caused by the higher interest rates on the economic front. So far, corporate earnings are mixed after rate hikes. Moreover, while consumer

spending seems to be resilient, there are cracks many industries such as the housing, advertising, and retailing. As a result, many economists are forecasting at least a mild recession in the near term. Globally, the economy was even weaker. Nearly all developed countries were dealing with higher inflation and weak growth simultaneously. The rise geopolitical conflicts also impact economic growth greatly.

During these problematic times for the macro economy, we have streamlined our portfolio and focused more on the stocks that have two simple characteristics: a) an inflation-proof business, and b) a reasonable valuation with large buyback programs.

a. Inflation-proof businesses:

Buffett once commented that the best businesses to own during a high-inflation period are the ones that a) require little capital investment to facilitate inflationary growth (low CAPEX) and b) are in strong positions to increase prices without losing share (pricing power). Our portfolio holdings can be divided mainly into financials, core technology, and consumer brands. Let us examine how each group will perform under a high inflation environment:

- Our financial holdings were natural inflation hedges. Bank of America, for example, is likely to see a larger than 25% increase in the net interest income due to Fed rate hikes. In the meantime, BAC's operating expense is projected to stay flat, resulting in most of the incremental revenue translating directly into an operating profit.

Berkshire has acquired many inflation-proof businesses over the past few decades. Many of these were, in fact, benefiting from an inflationary environment. For example, Berkshire's insurance/utilities/manufacturing/consumer staple operations have a strong pricing power that allows them to quickly pass on the price increase to consumers without hurting the sales volume.

- Our core technology holding was not immune to the inflationary pressure. Nearly all tech giants were dealing with high salary costs. Responding to a potentially slower growth and higher operating expense period, most tech giants have taken swift actions to slow their hiring and expansion plans. Fortunately, these companies have a near-monopoly pricing power on their core products. For example, Microsoft raised prices of its office suites, and Amazon raised prices of prime memberships and FBA programs.

Furthermore, despite the macro challenges, most of our core technology holdings were in cloud computing businesses, which are still in the early innings of growth. For example, AWS/Azure/Google cloud each grew 33%/46%/36% in the most recent quarter. Moreover, backlogs at these cloud companies were growing faster than their revenue, an encouraging sign that these enterprises were sticking to their digital transformation plans amid macro weakness. Our position in AMD will likely continue to benefit from cloud computing expansion, despite facing some fears of a near-term data center CAPEX cut. WDAY/ESTC offered critical enterprise applications. Both businesses have not seen a material impact from the weak macro economy.

- The impacts of inflation on our holdings in companies in consumer goods and services are more dynamic. For example, we like RH's ability to stay away from promotion, and even introduce a high-end product line (RH contemporary). However, we were unsure how a prolonged downturn in the housing market would impact luxury furniture demand. In the consumer-internet business, Netflix and PayPal had a tough period post pandemic as demand slowed. However, both companies have begun to recover recently as their strong brand recognition allows them to either a) raise prices of core services (PayPal's Venmo raise merchant fee), or b) expand into new markets (Netflix's advertising)

b. Reasonable valuations with large buy-back programs:

We have generally avoided investments in "long-duration assets." While we have a sizable exposure to technology brands; we largely stayed away from the unprofitable ones. Most of our holdings are generating substantial cash flows at present.

For example, all our top five holdings were cash generating machines. On aggregate, their free cash flow generation was over 6% of the market cap. Further, we expect their FFCF generation to grow significantly over the next few years, driven by the growth and operating leverage.

In addition, all except Amazon have large buy-back programs. As the valuations became more attractive during the current market downturn, we think their extensive buy-back programs will benefit shareholders well.

Unfortunately, we did overpay for a few consumer brands in 2021, such as Netflix/PayPal/RH. These names dropped significantly in the 1H/22. However, we do not believe their long-term thesis has broken. After the recent market crash, these companies generate significant earnings relative to their market value. Paypal and RH were strong cash flow businesses. And both were using the current market turmoil to repurchase their stock. Paypal board recently approved a \$15 billion buyback program, which equals 18.5% of its total market capitalization. RH board initiated a \$2 billion repurchase program, equivalent to 30% of its market value. Netflix also signed one of the largest advertising deals with Microsoft, which we expect will significantly boost its cash flow.

In addition, we exit long-duration assets such as Meituan and SEA. Both positions were very small(<2%) in portfolio.

In billions	Market Cap as of 06/30/22	2022 Estimated Free Cash Flow Generation	2023 Estimated Free Cash Flow Generation	2019-2021 Accumulated Buy-back	Current Buyback programs
Berkshire	\$603B	>35B	>35B	\$56.6 B	NA
AMZN:	\$1,081B			\$NA	\$2B
GOOG	\$1,435B	>70B	>75B,	\$99.8 B	\$70B
AMD	\$125B	>4.5B	>7.5B	\$NA	\$8B
BAC:	\$251B	>35B	>40B	\$60.3B	NA
RH	\$6B	>800M,		\$NA	\$2B

Part 2) Update on existing holdings:

Amazon:

Amazon's share price tanked during 1st half of 2022 on investor concerns over the health of eCommerce businesses. In 2022, operating environment has been harsh for the entire retail industry. There were multiple headwinds, such as supply chain disruptions, inventory overbuilding and a shift in consumer behavior to services among others.

Despite the well-known pessimism, we think that Amazon's gap with its retail competitors has widened since the pandemic. For example, Amazon's top online competitor Shopify had financial issues scaling its logistics network, and its online businesses slowed down sharply. Moreover, in competing with Walmart and Target, Amazon does not have inventory overbuilding problems due to its sizeable third party businesses.

Amazon overbuilt its logistics network during the pandemic. However, acknowledging the slowdown in eCommerce growth, Amazon's management teams have taken shift actions to curb costs, such as reducing warehouse footprints and workforce. As a result, Amazon now expects its quarterly extra expense of \$6 billion in fulfillment (1Q/22) to unwind in 2022. On the positive side, freight expenditure and supply chain disruptions have eased significantly throughout 2022, allowing Amazon's third party merchants to operate in a more normalized environment.

Amazon's cloud unit was firing on all cylinders despite the macro weakness. AWS grew 33% in the most recent quarter at a \$79 billion revenue run rate. Backlog climbed 65% YoY to \$100 billion. As AWS integrates more self-designed chips into its data centers, we think AWS will achieve more operating efficiency. AWS will likely follow Microsoft's step into a longer depreciation schedule. (5 to 6 years).

In short, with Amazon's fulfillment investment reduced, third party businesses turnaround, and AWS growing at scale, we think that Amazon's cash flow will improve substantially. Our math suggests that Amazon could make >\$100 billion in operating cash flow in the next two years. Furthermore, given Amazon's market cap sits only slightly above \$1 trillion, we think the management will follow its tech peers and significantly expand its buy-back program.

AMD:

We continue to increase our position in AMD during this volatile period. AMD is now our 3rd largest holding. During the 1st half of 2022, AMD's share price declined from \$150 to the \$70 range on fears of a) a deteriorating PC market and b) potential CAPEX cut from cloud vendors. However, the latest earnings proved investors' concerns were overblown.

AMD has maintained its full-year outlook in the 2Q/22, with revenue projected to grow 60% in 2022, or 34%, excluding the Xilinx businesses. In the PC business, AMD is weathering the downturn in the PC market better than its competitors due to a) less exposure to the low-end PC market, and b) fewer channel inventory problems.

In the data center businesses, AMD will introduce its 5nm "Zen 4" server products in 4Q/22, whereas its competitor, Intel, is still struggling with the volume production of its 7nm products (Sapphire Rapids). We expect AMD to gain even more share against Intel in 2023, not only in the Hyperscale cloud segment but also in the enterprise market. While there was mounting concern about a potential data-center CAPEX cut, we think the market has already priced it in stock price.

The Xilinx business also grew 20% in the latest quarter, led by a robust demand for FPGAs. On the June analyst day, the management identified greater than \$10 billion in long-term revenue synergy opportunities as they bring AMD and Xilinx assets together. To put things in perspective, this is nearly 40% of the combined companies' sales in 2022.

We think AMD has one of the business models in the tech world. On the growth side, its vision of "heterogeneous computing," which leverages the CPU/GPU/FPGA to power modern tech stack, is only in its preliminary stages. On the margin side, AMD has almost monopoly-like pricing power on the core products. Its fabless model allows the company to generate very high operating margins. In the most recent quarter, AMD's operating margin increased to 30% compared to 24% a year ago. With a significant cash flow, AMD is ramping up its repurchase program. The company repurchased over \$2.8 billion worth of shares in 1H/22, and we expect the buyback to ramp up much more significantly in the future.

Bank of America:

We saw an attractive opportunity to increase our position in BAC in 2Q/22. The company's shares were largely down in 2Q/22 on recession fears, even though money centers will benefit significantly from the rising interest rates, higher loan volumes, and excellent credit profiles.

As the Fed is likely to raise the rate to above 4% by the year-end, BAC will likely see its current year NII (net interest income) increase by a whopping \$9 billion and by another \$5–6 billion in 2023. The management signals the majority of the NII will trickle down to the bottom line, thanks to lower deposit betas (in the lower 20s).

Most importantly, the top money centers like BAC represent the "prime part" of credit customers, with an average customer credit score above 770 across business segments. As a result, we think that banks are unlikely to see elevated provision costs even with a mild recession.

While near-term buy-backs would likely be small due to regulatory requirements, BAC will have much more dry powder to repurchase its shares beyond 2023 as earnings pile up. It is interesting to note that under the leadership of the CEO Brian Moynihan, BAC has been one of the largest purchasers of its shares across the US corporations over the last decade. BAC has shrunk its shares from 11.5 billion in 2013 to 8.5 billion in 2021; in the meantime, pre-tax, pre-provision (PTPP) earnings have grown from \$19.7 billion to \$29.3 billion. We expect the management to further reward its shareholders through buy-backs as earnings jump after rate hikes.

Part 3) Conclusion:

Looking back, I did make two mistakes managing the portfolio. One did not anticipate a substantial rise in the interest rates. Consequently, our tech exposure was a bit too large, which caused our loss to be greater than that of the S&P 500. Secondly, I paid too much for some consumer brands despite a smaller exposure to them having a disproportionately large impact on our portfolio.

Over the long run, we do not think all our current losses will be permanent. I believe our strategy of holding on to a bracket of inflation-proof businesses with solid growth, reasonable valuations, and extensive buy-back programs will eventually offer us market-beating returns regardless of the interest rate and economic outlook. We will remain focused on owning equities we understand well, and stay away from popular market themes. We look forward to reporting back to you by the year-end.