Durable Growth Portfolio
1H 2022 Letter

Long-Term Opportunity Remains Intact, Despite Near-Term Challenges

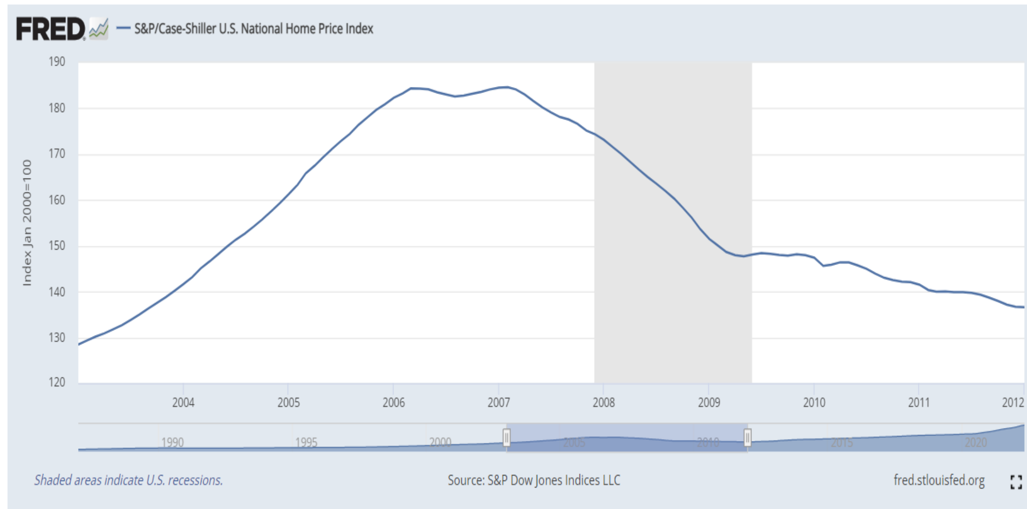
We created the Durable Growth Portfolio to capitalize on the mispricing of fast growing companies. We continue to believe that this is the best public equity space to invest long-term for those seeking returns superior to that of the broad market. It'll come with bigger ups and downs, though in the past 3 years we've seen the biggest boom and bust in prices of growth companies since 1999 – 2002. There are numerous reasons this is not like 1999-2002, with the three biggest ones being (1) the companies we own are much higher quality than the dotcom companies that had very little revenue and astronomical valuations, (2) valuations have collapsed quickly and current valuation multiples are attractive, and (3) companies are still growing at a strong pace, unlike 2000 – 2002 when revenues crashed for dotcom companies.

As we mentioned in our 2020 year-end letter, we are not as smart as we looked when we were up triple-digits in a year; we benefited from an unprecedented surge in valuation multiples of hypergrowth companies. However, we also aren't as dumb as we look when we have experienced significant valuation multiple contraction in our companies. In hindsight, however, there were several companies we should have sold based on valuation in 2021.

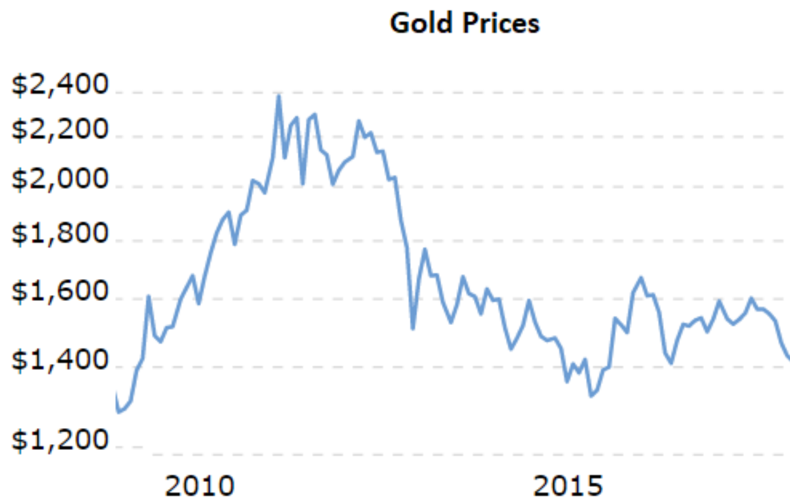
Boom and bust cycles are never good for markets and investors, whether it was…

…SPY (S&P 500 ETF) from 1998 – 2002

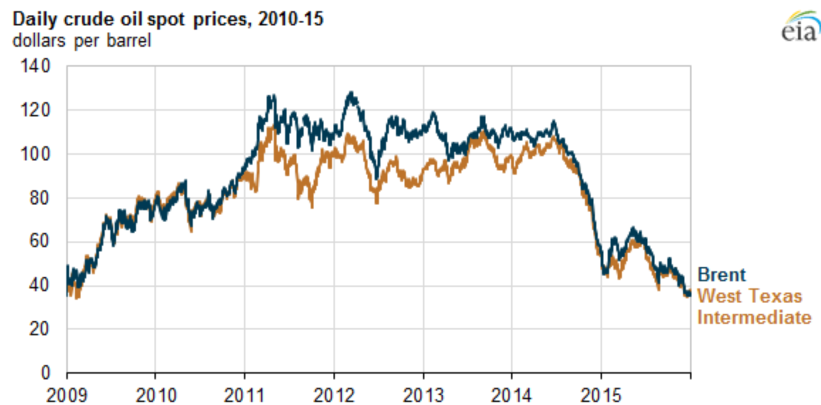
…residential real estate from 2004 – 2009



…gold from 2010 - 2015



…or oil prices from 2009 – 2015



Why Was There a Boom and Bust in Prices of Companies?

There doesn't need to be Congressional hearings about why there was a boom and bust in stocks, especially hypergrowth stocks, from 2020-2022. It is widely known, in hindsight, that the Federal Reserve, U.S. Treasury, Congress, and the Executive Office overstimulated the economy in 2020-2021.

In late 2021 the Federal Reserve and U.S. Treasury both said that inflation was "transitory" and predicted it would flatten and come down soon. In hindsight, they were clearly wrong about how high inflation would get and how long it would persist. By the time it was evident the economy was overstimulated and supply chain issues would persist longer than expected, inflation was accelerating to levels not seen in 40 years.

Inflation is not necessarily bad for our companies; our companies are still growing revenue at high rates and maintaining or expanding margins. What it does impact, however, are their valuation multiples.

When the government wants to stimulate the economy, usually during a recession when there are fears of deflation, they use Fiscal Policy and Monetary Policy. With fiscal policy, government spending is increased, typically with policies intended to incentivize consumers and businesses to spend more money and quickly. With monetary policy, the Federal Reserve lowers its Fed Funds Rate to make borrowing cheaper.

Conversely, when there is high inflation, economists want deflationary policies. With fiscal policy, the government should tighten its spending and with monetary policy, interest rates should be raised. The Federal Reserve is doing their job by aggressively raising interest rates, but there has not been an equally strong fiscal policy response since inflation showed its teeth. In fact, policy decisions by the current administration regarding energy companies have discouraged investment by oil & gas companies, as they fear investments to increase supply might be wiped out after Biden shut down the Keystone Pipeline his first day in office, resulting in the loss of an estimated $9 billion of capital invested by energy companies. This, combined with the Russia invasion of Ukraine, have created the highest gasoline prices we've ever seen in the U.S.

Keystone Pipeline

U.S. All Grades All Formulations Retail Gasoline Prices (Dollars per Gallon)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	2.420	2.587	2.898	2.948	3.076	3.157	3.231	3.255	3.272	3.384	3.491	3.406
2022	3.413	3.611	4.322	4.213	4.545	5.032	4.668					

Russia Invasion

Source: US Energy Information Administration

Where Do We Go From Here?

While there is encouraging data that signals inflation may have peaked in June 2022, inflation is still very high, and the Federal Reserve has reiterated the importance of taking a tough stance by aggressively raising interest rates. There is a possibility of a "soft landing" in the economy, but the most probable scenario is a "hard landing", which means a recession and higher unemployment.

While interest rates will continue to rise, inflation will likely continue to be far above the Fed Funds target of 2% through 2023, and the economy may fall into a recession. However, the one positive is that valuations have come down so much and so quickly that a tough economic environment is already being priced in. While the market can reach new lows, so far in 2022 the market (and the Durable Growth Portfolio) bottomed at the end of the second quarter and has been slowly clawing its way back.

Controlling the Controllables

While we can't control the market or prices, we are focusing on controlling the controllables.

Just as the stock market recovered after 2002, the housing market recovered after 2009, gold prices have increased since 2015, and oil prices are now back near $100, we firmly believe the Durable Growth Portfolio will be much higher several years from now.

We've made some errors in valuation, qualitative analysis, and allocation since inception. We've worked tirelessly in 2022 to make sure we minimize mistakes in the future. Specifically, we've begun a process of more conservatively underwriting our investments and changing our policy towards allocation.

From a valuation perspective, below is a chart showing the Enterprise Value of our companies divided by the Gross Profit. Gross Profit is just one measure of valuation, but it is a steadier one than Net Income, EBITDA, and FCF so it is useful for comparing valuations over time.

As you can see in the table below, valuations skyrocketed from 2018 – 2020, then began to crash in 2021-2022. Today, valuations are more attractive than they were in 2018-2019, prior to the boom in prices. Stock prices can always go lower, but we feel confident our portfolio is going to provide strong returns over the next few years as companies continue to grow gross profit and valuations are maintained or expanded.

We've strengthened our valuations models and our underwriting discipline. Our models are now updated weekly with changes in enterprise value. When a company's price increases and we can no longer conservatively underwrite a 20% future IRR, we will likely significantly trim or exit the position.

EV/Gross Profit by Year					
Position	2018	2019	2020	2021	LTM
AI			108.5	13.9	5.7
AMZN	8.5	8.7	11.9	9.2	6.9
CVNA	11.3	13.8	26.7	14.1	6.5
FLT	10.5	13.7	13.6	10.6	8.7
FTCH	15.4	7.9	31.1	12.5	4.5
GOOGL	8.4	9.5	11.7	13.4	8.5
PAGS	12.6	17.2	36.9	11.4	4.9
PANW	9.3	10	13.7	17.4	15.7
PRM				16	14.9
ROKU	10.8	35	62.5	21.7	5.5
SHOP	25.7	55.6	102.7	72.7	13.6
SNOW			254.6	159.7	54.7
SOFI			43.3	37.3	22.5
STNE	23.6	27.4	62.4	11.7	2.2
TTD	15.2	25.1	67	47.6	26.4
TWLO	28.1	22.5	60	33.6	6.2
ZI			25.9	47	24.2

How We Think About Allocation

We have had some missteps in allocation since inception. In the past we allocated heavily into companies that we felt were the most compelling in terms of the potential returns. This resulted in overallocation to SmileDirectClub and GoodRx.

In 2022, we have changed our allocation approach and our top positions are no longer the stocks with the greatest upside potential, but the ones we believe have the lowest risk of losing money. The quality of our portfolio has never been higher, and the valuation of our companies have never been so compelling. While the negative returns in 2021 and 2022 can test one's patience and cause frustration, we believe we are very well-positioned for the future.

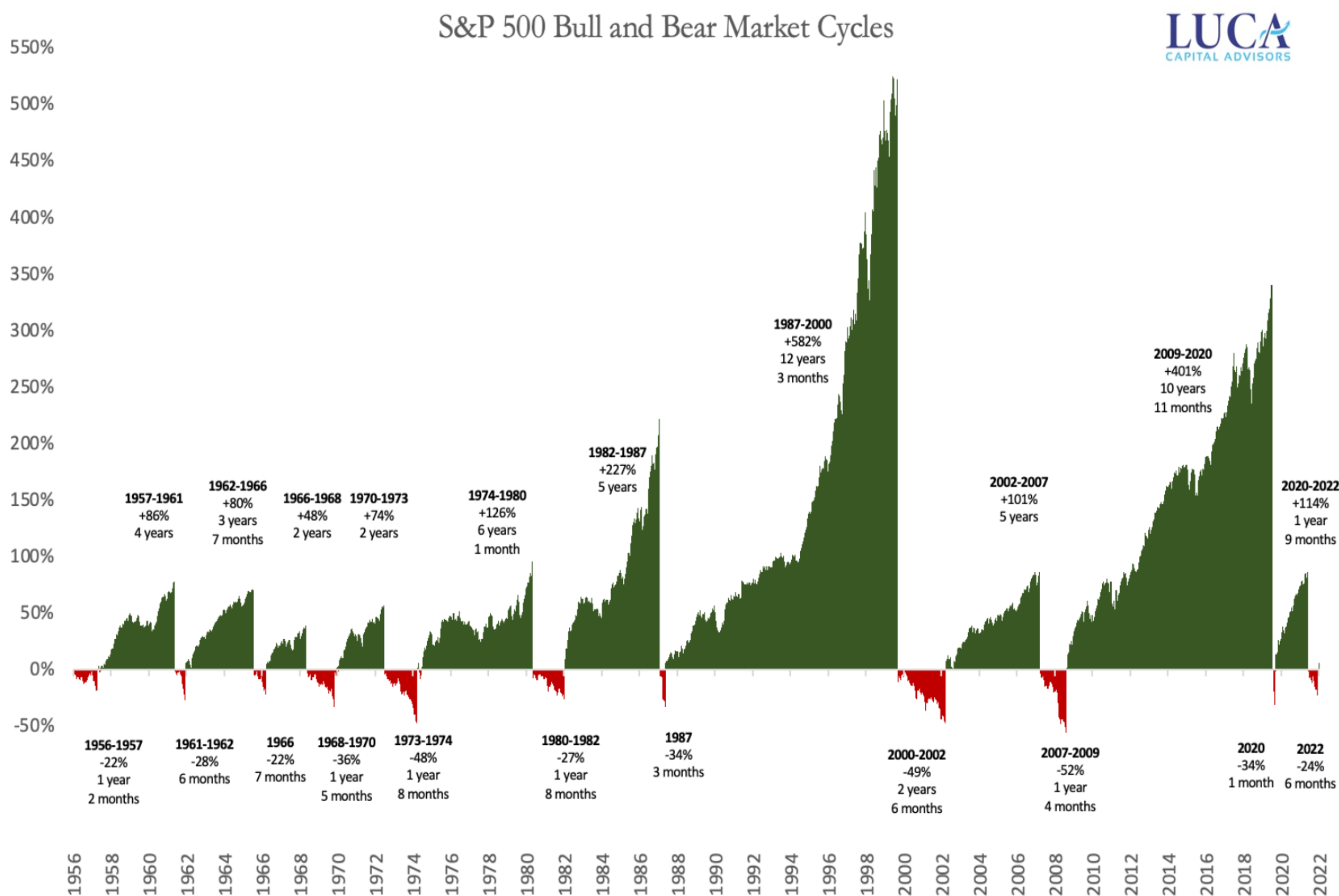
Company	Allocation
ALPHABET	17.83%
PALO ALTO NETWORKS	11.99%
ZOOMINFO	8.94%
CARVANA	8.69%
AMAZON	8.33%
FLEETCOR	6.96%
THE TRADE DESK	5.42%
PAGSEGURO	4.05%
STONECO	3.73%
PERIMETER SOLUTIONS	3.51%
FARFETCH	3.40%
SOFI	3.29%
CASH	2.68%
SHOPIFY	2.64%
SNOWFLAKE	2.54%
TWILIO INC	2.29%
ROKU	2.20%
SIGNATURE BANK	1.51%

How We Think About Markets

In the Durable Growth Portfolio, we are trying to capitalize on long-term investment opportunities. Therefore, we aren't trading on macro data or the upcoming Fed meeting. The strategy is long-only, so we are not shorting stocks — shorting stocks makes you feel like a genius in a bear market, but over time the market goes up, which makes shorting risky and typically lowers performance.

Bear markets are painful, but they also aren't permanent. Over time, the market goes up.

Our portfolio is diversified across 17 positions and different industries. In bull markets, that diversification is sufficient to prevent big drawdowns on the portfolio and growth companies tend to outperform. However, in a bear market, growth companies tend to have bigger selloffs than "defensive" companies. When bear markets end, it is typically the growth stocks that rally first and most significantly.



For the remainder of this letter, we will provide an overview of our thoughts on our top holdings. Thank you for your continued trust in us to manage your hard-earned capital. As always, we are happy to hear from you if there is anything you wish to discuss.

PAYMENTS/FINANCIAL SERVICES

FLEETCOR
STONECO
PAGSEGURO
SOFI

Payments companies have shown strong results in 2022 as expected, as inflation is not a burden to costs of goods sold and nominal GDP growth has been very strong.

FLEETCOR

FLEETCOR is a new position for us that we initiated in the third quarter. FLEETCOR is a global provider of payment solutions focused on helping businesses manage their expenses and payments. The majority of its revenue is recurring with over 90% retention rates and over 50% EBITDA margins. It has grown revenue at an impressive 18% CAGR since going public in 2010, and adjusted net income per share at a 20% CAGR. It has two main business segments: Expense Management and Corporate Payments.

Within Expense Management, FLEETCOR's largest business lies in fuel card issuing, which they have an oligopoly in along with Wex. It allows fleet operators to limit purchases by drivers to fuel, get discounts at participating merchants, and see data on what is being spent. Network effects with fleet operators on the demand side and gas stations, truck stops, and convenience stores on the supply side allows fleet operators to save money through better discounts than they would otherwise get. These products are mission critical but a low single-digit portion of overall fleet costs, leaving room for pricing power. FLEETCOR also operates a lodging business which helps businesses access a discounted hotel network across 136 countries. Finally, it has a Tolls business in Brazil, which processes transactions for over 6 million tagholders across almost all electronic tolls. It has ambitions to expand this business to allow their tagholders to use their tags to buy fuel, food, parking, and more.

FLEETCOR also has a smaller, but faster growing Corporate Payments business that they are building through acquisitions, accounting for 23% of revenue in FY'21. This comprises use cases such as accounts payable automation, allowing businesses to initiate and manage payment of company-approved bills, a virtual card business which operates on the Mastercard network and provides a single-use card for a specific amount and timeframe, and a cross-border offering.

SoFi

SoFi is a fintech platform offering a suite of consumer lending, financial services, and enterprise technology solutions. It recently received approval to create SoFi Bank as a full-service national bank. SoFi benefits from a well-known brand, holistic solution set, and seamless user experience. It has a compelling opportunity to become the one-stop-shop for all financial needs.

SoFi has shown strong execution of their plan to grow their four lines of business. Revenue grew 50% YoY in the most recent quarter to $356M, members grew 69% YoY to 4.3M, and adjusted EBITDA grew 81% YoY to $20M. Despite student loan volumes declining to just 25% of the volume prior to the student loan moratorium (expected to last until 2023) and home loan originations declining 50% YoY, overall originations grew 9% YoY, driven by personal loans which grew 91% YoY. Delinquency and charge off rates remain at 50% below pre-COVID levels; personal loan borrowers have average FICO of 748 while student loan borrowers had average FICO of 773. In addition, propelled by the bank charter, which was approved in January, SoFi Money deposits grew 135% to $2.7B and members grew 92% YoY to 1.8M accounts. Management noted it took 3 years to accumulate the first $1B in deposits and just 3 months to add another $1.6B. SoFi Bank generated $25M of GAAP net income in the quarter.

SoFi has met their revenue and user growth targets issued in their SPAC presentation. They are expected to fall short on EBITDA in 2022, due to the extension of student loan deferment but going forward, EBITDA should improve as student loan volumes return to 2019 levels.

StoneCo

StoneCo is a Brazilian fintech company that offers a financial services and payments processing platform for SMB clients. They also offer lending solutions. StoneCo has a distribution and customer service advantage through its in-person Stone Hubs and an end-to-end platform. StoneCo has been hit with issues over their credit product through the past year. Nonperforming loans increased significantly and expectations of recovery of non-performing clients reduced significantly due to problems in the new registry systems and not being able to enforce those collaterals. Though this significantly impacted financial income in 2021, these issues have since mostly been contained. StoneCo recently reported a strong quarter showing recovery in revenue growth, active clients, and payment volume but it was overshadowed by mark-to-market losses on their Banco Inter stake and a 21% YoY increase in financial expenses as a % of revenue due to significant increases in interest rates, impacting their GAAP operating margins. They also announced that their CFO of the past 5 years was stepping down and is going to be replaced by an interim CFO.

PagSeguro

PagSeguro is a Brazilian payments processing company focused on SMBs and individuals. It offers digital and in-person payment solutions such as a digital account offering cash-in and cash-out options, a range of POS devices, and lending options. It recently launched PagBank and is now the 3rd largest digital bank in Brazil. PagSeguro benefits from a leading brand, an ecosystem around their free digital accounts, and high switching costs. PagSeguro serves over 7.7M merchants, 21.9M customers, and 13.1M PagBank users. PagSeguro has 10.6% market share compared to StoneCo at 11%, behind the leaders GetNet, Rede, and Cielo. PagSeguro is also profitable, with 10% GAAP net income margins. Only 18% of the Brazilian population paid bills or made a purchase online, compared to 77% in the US, and mobile payments volume grew from $1B in 2014 to $26.2B in 2021, leaving significant runway for growth.

DIGITAL ADVERTISING

ALPHABET
THE TRADE DESK
ROKU

Digital advertising companies have seen some softness due to the economy.

Alphabet:

Google Search, which forms 58% of Alphabet's revenues, is a product we are all familiar with. Its moat stems from its ability to take into account hundreds of different factors such that each person gets different search results depending on their location and search history. The more that people use Google, the better data it is able to collect to improve its algorithm and personalize search results, not just your own search history, but also looking at others' search histories and seeing which websites were most helpful for common queries. A competing search engine might be able to copy certain features like the citation system but without the data on its users, it will find it hard to replicate the accuracy. Indexing the web also requires massive scale. 1 in 7 Google searches are new and there are trillions of web pages. Most websites also block crawlers that aren't from Google or Bing because it slows down the websites. This means that smaller search engines like DuckDuckGo are forced to rely on Bing for their search results.

Google's other advantages include owning top-of-funnel through Google Chrome which is the most popular browser at 63% market share, having the resources to pay Apple $18-20 billion to be the default search engine on Safari, and owning Android (72% market share of mobile). Its brand is also synonymous with search and there is no cost to use it, so people will naturally defer to the best search platform. Finally, its scale and data centers allow it to search through its index and return results much faster than competitors.

Alphabet reported a better-than-expected quarter. Search growth continued to remain strong at 13.5% YoY against tough comps. Cloud growth slowed to 35.6% YoY but at an impressive $25B run rate. YouTube slowed down the most to 4.8% YoY growth, but management noted impressive adoption in YouTube Shorts, being watched by over 1.5B users a month. For comparison, TikTok had over 1.2B MAUs as of Q4'21. Operating income remained flat YoY as Alphabet ramped up spending in headcount which they have since slowed down but don't expect to show until 2023.

We continue to maintain Alphabet as our largest position due to the strength of its competitive moat and reasonable valuation.

Roku:

Roku is a connected TV operating system with over 63M MAUs worldwide. It largely generates its revenue through the sale of ad inventory which it secures from publishers as well as through its home screen, remote, and ad-supported Roku Channel. Roku benefits from its leading brand in the US which came as a function of its easy-to-use user interface and its OS being created natively for TV resulting in fewer bugs and being cheaper to install, enabling it to secure distribution partnerships with retailers and TV OEMs alike. Roku's scale helps it attract more advertisers, leading to higher CPMs for publishers and more content, as well as the potential to create its own exclusive content through the Roku Channel.

Roku reported underwhelming results and guidance as nearly half of advertisers paused ad campaigns in response to the weakening macro environment. Account growth is also expected to slow further as Roku benefited from a one-time price drop this quarter as retailers sought to sell off excess inventory. However, we view these headwinds as largely short-term and believe Roku still has tremendous potential to grow revenue per user going forward, as the gap between the 22% of TV budgets spent on streaming today and the 50% of TV time spent on streaming by consumers continues to narrow.

The Trade Desk:

The Trade Desk is the leading independent demand-side platform (DSP) which enables ad buyers to purchase and manage digital advertising campaigns on the open internet, or properties outside of the traditional walled gardens like Google and Facebook. Through its UID2 initiative, it is partnering with leading publishers to create an alternative to third-party cookies and through Solimar, it is enabling publishers to integrate their first-party data to further improve targeting. The Trade Desk benefits from scale because whenever they look at an auction to buy ad space, it costs them money, and it also costs SSPs or supply-side platforms which are responsible for selling publishers' inventory money. Since both parties only get paid if the auction is monetized, SSPs are naturally inclined to send more impressions to the largest bidders that are more likely to win the auction. This has resulted in a consolidated DSP landscape and a fragmented SSP landscape. The Trade Desk's agnostic position also helps it become a trusted buyer of inventory, as it is not biased to its own unlike its largest competitor DV360 from Google.

The Trade Desk reported a strong beat and raise quarter despite macro headwinds. They gained more market share in the first half of 2022 than at any other point in their history as marketers continue to prioritize advertising that delivers the highest return. Management attributed these results to the strength of the connected TV (CTV) tailwind, walled gardens being downgraded in priority as the fragmented CTV landscape presents more attractive measurement and return on ad spend, and specific regulatory scrutiny of Google due to their lack of objectivity in purchasing inventory for advertisers, since they are naturally biased to their own assets like YouTube.

ENTERPRISE SOFTWARE

ZOOMINFO
TWILIO
SNOWFLAKE

Despite macro headwinds, enterprise software spend remains relatively strong.

ZoomInfo:

ZoomInfo reported a strong quarter, in light of the macro headwinds it's facing. For those unfamiliar, ZoomInfo is a B2B contact database with a better data collection methodology by crowdsourcing go-to-market intelligence from an ever-growing customer base. Sales representatives can use ZoomInfo to find the right prospects and get up-to-date email addresses and phone numbers. Because ZoomInfo has the largest customer base by far at over 30k clients, they can get the best database that everyone wants to access, leading to more free users and better data, leading to even more users. Because contact data changes all the time, ZoomInfo also benefits from their scale and the labour that they're able to employ (data scientists) and spread over an increasingly large revenue base. Today, the combined company has no real competition and raised prices by 15% before their IPO which did not have a big impact on churn. With an opportunity set of 700k businesses, ZoomInfo is barely 4% penetrated into its TAM today. ZoomInfo has a very attractive margin profile today, with 40% FCF margins and projected to achieve at least a $2B revenue run-rate by Q4'24, implying a 31% CAGR.

Twilio:

Twilio provides APIs which essentially allow developers to easily embed different communication channels such as email, text, video, or voice into applications with just a few lines of code. For example, Airbnb uses Twilio to send automated text messages to confirm bookings, MDLIVE uses Twilio for voice and video chats to connect doctors with patients, and Zendesk uses Twilio to allow help desk staff to directly communicate with customers. Though Twilio's core service is increasingly commoditized, they remain the leader with 38% market share in the communications platform as a service (CPaaS) market with strong developer mindshare. Twilio's recent acquisition of the customer data platform Segment, is part of its shift to deepen its moat by building a customer engagement platform. Segment helps store customer engagement data so that future interactions with customers can be personalized, making use of Twilio's communication infrastructure and market penetration.

Although Twilio has guided for 20% long-term operating margins and 60-65% gross margins, and >30% organic revenue growth through 2025, Twilio has shown little progress towards GAAP profitability thus far with gross margins deteriorating from the mid-50s at IPO to high-40s. SBC as a % of revenue has also reached all-time-highs at 25% of revenue this past quarter, contributing to a -34% GAAP operating margin despite realizing some operating leverage. Twilio is targeting to achieve non-GAAP operating profitability next year which they are nearly at already. Despite our qualms about Twilio's SBC, we believe growth should remain durable for the foreseeable future, and it is trading at a bargain price at just 2x 2023 sales.

Snowflake:

Snowflake is a cloud data warehouse that allows businesses to store all types of data in a single consolidated source to perform analytics on. Leveraging the cloud, Snowflake is infinitely scalable, allowing customers to not have to manage a data center and plan ahead in terms of hardware, thus separating compute from storage. Snowflake has an advantage over the hyperscalers like AWS Redshift or Google Big Query in that it is multi-cloud, so customers don't have to worry about vendor lock-in, and due to Snowflake's best-in-class technology, hyperscalers are even incentivized to partner with Snowflake to differentiate their own offerings. For example, of the $1.2B in new contract sales in Q4'21 for Snowflake, over half, or $700M, was co-sold with the hyperscalers. On Snowflake's

part, they've invested in integrations with AWS services and joint sales teams. This is a win-win because AWS would have gained nothing if it lost the overall contract to Google or Microsoft. Furthermore, Snowflake has best-in-class technology; as one expert put it, Snowflake was built from scratch by a handful of the world's leading database experts, which can't be replicated with a team of 1,000 generalists.

The pricing model is consumption-based, so customers don't sign multi-year contracts but they purchase credits depending on the amount of data they plan to use and that's been driving their net retention rate of >170% which is the highest in all of SaaS. Snowflake also has a network effect in their nascent data sharing and marketplace businesses. Because Snowflake enables customers to freely share data with each other, only charging for compute and storage used, clients will be incentivized to join the marketplace and bring their partners/suppliers/customers too. This will, in turn, ensure Snowflake's continued dominance as the leading data warehouse and will drive more usage of compute and storage. Although Snowflake is not cheap today, we believe it will remain one of the fastest growing companies in software for years to come due to its significant addressable market, usage-based pricing model, experienced management, and network effects resulting in winner-take-most competitive dynamics. Snowflake is projecting to have $10B in product revenue by 2028 which is almost certainly conservative because it doesn't include any of their new initiatives like data sharing or Unistore. Snowflake reported a better-than-expected Q3'22, growing 83% YoY with 12% FCF margins and a +171% NRR and projecting 68% YoY growth for the fiscal year which they will surely beat.

E-COMMERCE

AMAZON
CARVANA
FARFETCH
SHOPIFY

E-commerce companies saw tremendous pull forward of demand in 2020 and the first half of 2021. We misread the environment and didn't anticipate that e-commerce spending would be negative year over year.

Carvana:

Carvana is the largest online used car retailer with 1.5% share of the $840B US used car market. Carvana provides the best selection, price, and experience for customers stemming from its in-house logistics network, centralized inventory, and national scale. Carvana has a network effect with their first party marketplace because centralized inventory (besides CarMax which has much smaller production stores, no one has the IRC footprint) leads to higher capacity and more long tail SKUs, which attracts more customers, leading to more sales and even more selection. They also have a number of cost advantages. Brand awareness and word of mouth (due to superior value prop) compound with scale, leading to lower CAC, higher LTV (repeat purchases), and privileged access to cheap inventory via Sell to Carvana (consumers don't know value of car). Their financing will have a track record of superior performance due to vertically integrating lending (thus limiting adverse selection) as well as ensuring better vehicle quality due to a standardized process and lower LTVs from lower prices, thus enabling a lower cost of funding. Finally, their in-house logistics system will have higher utilization with scale and their turnover will be quicker - critically important given high depreciation with used cars. These cost advantages will be passed back to the consumer via lower prices, leading to even more scale.

Although incumbents like CarMax have tried to replicate certain aspects like in-housing logistics, they are bogged down by their brick-and-mortar overhead. New entrants will be limited by massive capital requirements and unlike Carvana, won't have DriveTime to help initially. At the same time, new entrants will be forced to compete with a scaled Carvana which itself is constantly improving its value proposition through the network effects and economies of scale shared highlighted. It is unlikely they succeed unless a new paradigm like e-commerce emerges.

Carvana also has a cornered resource in the real estate it possesses. IRCs closer to customers lead to shorter delivery times and increased conversion, as well as lower delivery costs. Getting the permits to build 150k sq ft facilities near cities is very difficult, necessitating ADESA. Finally, scale opens up new opportunities like access to the securitization markets, which has helped Carvana improve their financing GPU. Insurance and a third-party marketplace are others. One reason they've leaned towards the underserved subprime market is to maximize margins. One of the only advantages that Carvana doesn't have is switching costs (eg. Amazon Prime). However, as long as the incremental savings from the next best solution aren't greater than the cost to switch customers will stay, and Carvana has the best value prop that continues to improve.

However, despite Carvana's long-term advantages, they have had a rough 2022. A confluence of ongoing logistics issues, its exposure to the subprime ABS market, and its ill-timed ADESA acquisition which caused it to raise $3.3B of high-interest debt at a 10.25% coupon rate all contributed to the decline. Although we were aware of these issues, we underestimated the severity of the deterioration in macro conditions earlier in the year, which Carvana was acutely exposed to as a result of its sudden increase in leverage. We continued to hold onto our shares despite this, as we believed that the logistics issues were addressable, that the Ally relationship remained strong and would serve as a reliable backstop as the subprime ABS markets closed, and that Carvana management would be able to successfully bring down costs as they had done during Q2'20.

We are pleased to report that after its Q2'22 report, the liquidity situation has improved. Carvana sold $1.3B of receivables to Ally, the most ever, and ABS markets have shown signs of improvement. They seem to be making progress on logistics issues despite the temporary use of 3rd party transport to de-clog inventory from certain IRCs. Multi-car trips have improved to pre-Omicron levels and unutilized slots have been reduced by a third. Carvana grew retail units by 9% to a new all-time-high, compared to a double-digit decline for the industry.

Finally, they've improved both retail gross profit per unit and SG&A per unit quarter-over-quarter and reiterated their guide for further improvements going forward, as they target to be adjusted EBITDA positive by 2023. Carvana projects to earn 8% to 13.5% adjusted EBITDA margins at scale.

Amazon:

With nearly 40% market share of the US e-commerce market, Amazon is company we are all familiar with. Amazon has diverse revenue streams, whether that be its online stores, third-party seller services, subscription services like Prime, AWS, physical stores like Whole Foods, or most recently its advertising business. Amazon benefits from several competitive advantages including its marketplace network effects, its scale and vertical integration enabling fast delivery and a negative cash conversion cycle, and high switching costs and scale economies with AWS. Amazon has called itself Earth's most customer-centric company and along these lines has constantly experimented by entering new segments, sustaining a 24% revenue CAGR over the past decade.

Amazon reported better-than-expected results. AWS continues to grow at an unprecedented scale with minimal deceleration, growing 33% at a $79B run rate with 36% operating margins. The AWS backlog grew 65% YoY. While their online stores saw negative YoY growth and falling profitability due to rising inflation, results came in better than expected. Amazon forecasted revenue growth of +15% YoY in Q3'22 and near-flat operating margins due to a fall in operating leverage as volumes decline, but expect them to improve as they grow into their capacity.

Farfetch:

Farfetch is a global digital luxury marketplace, connecting brands and consumers over 3.6M consumers with 1,400 brands worldwide. Bain estimates that over the last decade, online penetration of luxury sales grew at a 25% CAGR to reach 22% of the $316B global luxury market by 2021 and is expected to grow to 30% by 2025. Though Farfetch is the largest online luxury marketplace, it was just 6% penetrated in 2021. Farfetch does not own any inventory itself, instead providing retailers and brands with all the tools they need to manage their own storefronts. Since luxury sellers are concerned about maintaining their brand image and aura of exclusivity, they are likely to sell only on a limited number of platforms and prefer Farfetch's e-concession model as opposed to competitors like Mytheresa which own the inventory directly. 80% of the items listed are exclusive to Farfetch, with brands not selling anywhere else online besides their own websites. This exclusivity and scale has allowed Farfetch to extract 30% take rates though the company remains unprofitable as it reinvests in growing its marketplace. One potential risk is the power and concentration of their suppliers (top 1% of their consumers accounted for approximately 27.5% of Digital Platform GMV in 2021), but thus far their take rate has remained relatively stable.

Farfetch also runs a high margin Platform Solutions business that essentially allows luxury brands to use Farfetch's technology for everything from running their websites, global payments, cross-border fulfillment, China-based services, selling on multi-brand e-commerce sites, and more. Another validation is their recent deal to acquire a 47.5% in their largest competitor Yoox Net-A-Porter (YNAP), which will also use Farfetch's Platform Solutions in addition to its parent company Richemont. Farfetch intends to purchase the remaining stake if YNAP is consistently profitable. The combination makes Farfetch the clear leader in luxury e-commerce with 10% market share.

Shopify:

Shopify is an e-commerce platform that provides tools for merchants to build and manage their own online store. Shopify benefits from a first-mover advantage allowing them to innovate faster, an app store with integrations, a partner ecosystem with thousands of developers specialized in developing Shopify stores, and high switching costs relative to value-add. Over time, they've expanded this moat by adding additional merchant solutions, which now drive revenue growth over their core subscription product. Most of this revenue is driven by Shop Pay, where Shopify leverages their large base of merchants to create an easy, secure checkout button where customers only need to save their info once and can use it across all Shopify merchants. Shopify is also investing in building its own fulfillment network after third-party logistics firms led to inconsistent delivery times and an inability to track orders. This will require significant additional investment of $200M in 2022 and $1B over 2023 and 2024, pushing their non-GAAP operating margins to the low single-digits after mid-teens in 2020 and 2021.

Shopify's investment in fulfillment provides an alternative to Amazon at a time when Amazon is encroaching further into Shopify's territory. Previously, merchants could leverage Amazon's logistics network via FBA, allowing merchants to pay Amazon and benefit from Prime's one to two-day free shipping to improve conversion. However, with Buy with Prime which was announced in April, merchants can add the option to buy with Prime directly on their own website and let customers enjoy free and fast shipping if they're a Prime member. This competes not only with Shopify for fulfillment but also on payments. It seems like Shopify is open to letting its users use Buy with Prime on their sites. Brands might still be hesitant to work with Amazon but clearly Amazon isn't afraid to cannibalize its own business a bit.

The depressed margins, slowing revenue growth as e-commerce spend weakens, and increased competition have pushed Shopify's stock to multi-year lows. Cognizant of the risks, we took a small position in Shopify as we believe Shopify still has significant runway for growth and has built a strong ecosystem as a result of its maniacal focus on merchants.

Cybersecurity (Palo Alto Networks)

Cybersecurity continues to be the most defensive area of software spend. Palo Alto has successfully built a best-of-breed cybersecurity portfolio through acquisitions and paired that with their best-in-class go-to-market execution. They have undergone a very impressive transformation with SaaS revenues growing from 62% of their revenue in 2019 to over 75% today, with legacy hardware forming the rest. In the meantime, revenue growth has accelerated from 22% YoY in 2019 to 27% in 2022.

Palo Alto recently reported a very strong quarter with minimal revenue slowdown and the highest billings growth in 4 years. They also guided for 25% revenue growth in FY'23, 34% adjusted FCF margins, and GAAP profitability. With just 6% market penetration today, there is a long runway for Palo Alto to continue growing. We continue to have high confidence in Palo Alto given their attractive combination of growth and profitability.

Other (Perimeter Solutions)

Perimeter Solutions is a new addition to our portfolio this quarter. Perimeter is a chemicals company that produces fire retardants, fire suppressants, and oil additives. Fire retardants are Perimeter's largest business, forming 72% of revenues and 83% of adjusted EBITDA in 2021. They are applied ahead of active wildfires on vegetation to slow or stop its spread.

Perimeter primarily sells this product to government agencies, with its main customers being the US Forestry Service and CAL FIRE (The State of California). Due to both regulatory and logistics hurdles, there are very high barriers to entry. Perimeter is the only provider on the US Forest Service's qualified product list, leading to long and healthy relationships with US agencies that may not want to risk switching. Perimeter also has equipment in over 100 airbases across the world which enables them to deliver their fire safety products most efficiently.

The fire-retardant business has a wide moat, enabling pricing power due to its mission-critical nature, the lack of available substitutes, and its small percentage of overall suppression costs. The fire retardant that Perimeter supplies is just 2-3% of suppression costs but critical to firefighting capabilities, supporting 3-5% price increases yearly. Although results can be affected by seasonality, the long-term trend is clear; Perimeter has been able to grow revenue at a 12% CAGR between 2010 and 2020 and adjusted EBITDA at a CAGR of 18%. With a steady multi-decade trend of increasing acres burned across the US and suppression spend, we believe that Perimeter will continue to be just as strong 10 years from now and play a critical part in helping firefighters save lives.

Sold Out (GoodRx, Olo, Cardlytics, Wayfair, C3.AI)

GoodRx:

We originally bought GoodRx shortly after its fall 2020 IPO. It quickly became one of the larger positions in our portfolio as we were attracted by its mission to make prescription drugs affordable for more Americans, the network effects derived from its PBM marketplace resulting in the best prices, and the size of the opportunity. GoodRx released disappointing FY'22 guidance in February, where it forecast mid-20s growth going forward vs. consensus estimates of mid-30s growth. Although we were surprised by the results, after discussions with management and expert calls, we believed that the source of the issue stemmed from GoodRx underestimating the lasting impact that COVID would have on their cohort groups.

When GoodRx released FY'21 guidance, they had modelled for a return to baseline in terms of prescriptions that never materialized due to the Omicron variant, causing them to miss guidance. We believed that GoodRx had set themselves up for a beat-and-raise trajectory and would continue to grow in the high-20s going forward, and shares continued to be attractive. When GoodRx reported their Q2'22 results in May, they would have beat expectations, but we were in for another surprise when their largest pharmacy partner, Kroger, accounting for 25% of GoodRx's revenue, stopped accepting GoodRx coupons.

This caused us to sell the remainder of our shares because we were operating under the assumption that pharmacies were forced to accept GoodRx through their PBM contracts. Indeed, GoodRx has gone over a decade without any precedent for such an incident occurring. However, we discovered that a year ago, GoodRx had implemented a universal ID at Kroger that would automatically select the lowest cost PBM. This made it easy for Kroger to shut down GoodRx directly. In addition, GoodRx's largest PBM partners had negotiated very attractive fees and abnormally low drug prices with Kroger. This, in turn, caused GoodRx to direct a lot of traffic to Kroger and because Kroger was selling a dollar for 80 cents, Kroger was losing more and more money as a result. When old management at Kroger had left last summer for GoodRx and Kroger's contract came due this year, new management took the opportunity to renegotiate the contract and stop accepting GoodRx in the process.

While Kroger was recently announced to start accepting GoodRx coupons again, they will be doing so at a higher price, more in-line with the prices available at the other pharmacies. We believe this invalidates our original thesis that GoodRx prices would continue to beat competition as a function of its PBM marketplace, because it shows that GoodRx doesn't have leverage over Kroger. Though GoodRx will likely continue doing well as a business due to its brand and cash generative ability, we misjudged the strength of its competitive position against pharmacies, and this opens up the opportunity for other pharmacies to renegotiate prices and take rates in the future.

In the future, we believe it is important to invest in business models that create value for all stakeholders, rather than rely on regulation to keep them in-line. In addition, we recognize the importance of owning the method of transaction; though GoodRx acquired its consumers digitally, it ultimately had to rely on pharmacies to fulfill the transaction. Contrast this with Carvana, where users are acquired digitally by Carvana, but Carvana does the hard job of actually fulfilling the transaction and delivering the car to the consumer, giving it more control over the customer experience. To use another example, it's easier to disintermediate a Booking.com than it is to disintermediate Amazon. Healthcare is a huge industry, comprising $4T of spend annually, and it is also plagued with inefficiencies and misaligned incentives. We believed that GoodRx was well-positioned to create change because it created a solution that benefited PBMs, but we underestimated the impact this would have on pharmacies, and their ability to respond.

Olo:

We bought a small position in Olo last fall. Olo provides digital ordering software for restaurants. We were attracted to its long runway, being just over 1% penetrated in terms of digital transactions, its dominant competitive position, with over 25% penetration of enterprise restaurants in the US, and its two-sided network, with over 100 technology partners ranging from delivery marketplaces, point-of-sale (POS) systems, to payment processors as the only scaled, agnostic middleware provider. Olo also leveraged their integrations to aggregate third-party marketplace orders via Rails, enable cheaper white-label delivery options via Dispatch, and provide a unified payment processing via Olo Pay.

Olo recently reported a weak quarter, driven by tough macro conditions. Location adds were flat QoQ because they lost Subway which accounted for 2,500 locations (15,000 total to be rolled off by Q1'23) and is believed to comprise ~6% of Olo's 2021 sales. Although Subway does seem to be unique in the sense they have their own proprietary point-of-sale system, we are worried about the broader trend of point-of-sale systems vertically integrating into digital ordering. For example, PAR Technology recently acquired MENU, which supposedly has over 1000 customers globally. Toast is another competitor that is focused on SMB but reported a strong quarter with growth significantly outpacing Olo.

We were originally able to get comfortable with this risk because legacy POS systems were quite sticky, and restaurants wouldn't switch for 5-6 years. 70% of restaurants indicated they used two to four different POS providers. Furthermore, Olo was generally regarded as the gold standard in ordering with 99% gross retention and we had feedback that the POS systems were not close in terms of capabilities. However, this remained a long-term concern and was further supported by recent developments. We ultimately sold out of Olo due to the combination of underestimating the size of the COVID tailwind to digital orders, concerns around their long-term position against POS systems, and concerns about market saturation.

Cardlytics:

We also bought a small position in Cardlytics last fall. Cardlytics is a card-linked offers advertising platform. It is partnered with over 2,000 bank partners, including 7 of the 10 largest banks in the US, giving it 179.9M MAUs and insight into half of the purchase transactions in the US. The banks share anonymized transaction data with Cardlytics which is then used to target cash back offers presented through an offer wall within banking applications. It is a win-win-win for advertisers, consumers, and banks.

Advertisers value advertising channels on the basis of three factors: scale, return on ad spend (ROAS), and measurability. Cardlytics is able to provide 5x ROAS and as high as 30x ROAS, verified through control groups, across unmatched scale. Banks primarily value user engagement, as they seek to differentiate their banking experiences from competitors and drive increased spend. Finally, bank customers value discounts on their purchases. Cardlytics is able to offer greater discounts as a function of its superior targeting and attribution, which can range from 5% off coupons to free meals and $50 off coupons.

The value that Cardlytics provides for all stakeholders enables a self-reinforcing network effect, whereby more banks mean more consumers, which attracts more advertisers, leading to more engagement which attracts even more banks. Attracting more advertisers also creates greater lock-in with the banks, as switching costs should become higher over time due to the difficulty of replicating the advertiser network while losing the revenue share. These network effects result in a natural monopoly because banks have limited digital real estate and thus face a high opportunity cost (fewer and worse offers) if they were to leverage a subscale competitor.

Despite Cardlytics' strong competitive position and clear value proposition, it faced the major risk of not owning the bank channel. Though this gives Cardlytics its unmatched scale, it also leaves them dependent on the banks to

engage users. In particular, JP Morgan Chase, which signed with Cardlytics in 2018 forms up to 45% of Cardlytics' revenue today. We were able to get comfortable with this risk for many reasons: Chase had previously attempted to build an in-house version since 2012 with a much larger team before giving up as they could not get the advertiser relationships and it wasn't their competency; Chase faces almost no cost in maintaining Cardlytics, besides opportunity cost, and they are making up to ~$62M from Cardlytics today; and Cardlytics switching costs are high given it takes a year to implement. However, Chase recently announced their acquisition of Figg, Cardlytics' largest competitor. Although there are many reasons we still believe Chase would not leave anytime soon, this introduces a significant overhang that will likely not be resolved until Chase's renewal comes up in 2025. We decided to exit the position in light of this news.

Wayfair:

We originally bought Wayfair in Q2'21. Wayfair is a furniture and home goods e-commerce store. We were originally attracted to Wayfair's negative working capital dynamics which is enabled by its power over a fragmented supplier base; similar to Amazon, it gets paid by customers immediately and takes 40 days to pay suppliers, allowing them to use the capital to build their brand. Wayfair's main moat is its specialized logistics network. Since 2014, they've been making the transition away from just being a drop shipper by building out its end-to-end logistics network. Their last-mile deliveries cover 70% of large parcel deliveries, enabling cheaper and faster deliveries compared to companies that have to rely on third parties. IKEA tried to match free delivery but was losing money on the orders. Logistics is hard and costly for large parcel items, which form 30% of sales, and even Amazon doesn't have the same capability.

The home furniture market is huge, fragmented, dominated by brick-and-mortar stores, and highly underpenetrated because the customer experience hasn't been great up until this point. Wayfair has less than 2% share of the $840B home category and e-commerce penetration is ~20%, vs 50% for more mature categories, presenting significant runway. Wayfair's primary selling point over traditional retailers is its vast selection. They have 22M products on their website compared to 9,000 for IKEA and sometimes even have the same product from multiple suppliers. However, a trade off with a third-party marketplace is that you can't ensure quality to the same extent, leading to customer complaints which Wayfair has tried to address through free returns and investing in its logistics network for lower damage rates.

Post-COVID, results have been worse than we expected. In H1'22, Wayfair's revenues declined 14% YoY while losses increased as consumers curtailed discretionary purchases and supply chain issues affected selection and delivery. Q2'22 saw increasing losses QoQ, revenue growth was down 15% YoY, and although they are curtailing losses, they expect a further QoQ decline in revenue growth in revenue growth. Although Wayfair remains the leader in home goods with 14.4% market share, it lost 1.07% share YoY as brick-and-mortar retailers like Restoration Hardware and Pottery Barn took share. We exited Wayfair as we grew uncomfortable with the strength of Wayfair's value proposition in the face of continued share losses and management's ability to achieve their profitability targets. We miscalculated how much pull-forward in demand there was due to COVID and didn't anticipate that revenue growth would be negative year-over-year.

C3 AI:

We started a small position in C3 AI early last year. C3 AI is simplifying companies' ability to leverage AI and machine learning for analytics through their pre-built AI applications for use-cases like inventory optimization or energy management. C3's AI Suite also allows customers to build these types of AI applications on their own. We were attracted to the market opportunity, founder Tom Siebel's successful history in taking Siebel Systems from $0 to $2B in revenues in six years, and the superior technology with high switching costs.

We had been trimming the position for a while as we grew concerned with the Baker Hughes' concentration given it formed 31% of revenues and was growing close to a competitor, the significant management turnover, especially in the CFO position, and the increasing losses. However, we ultimately exited the position after disappointing Q1'23 results. Revenue growth slowed down significantly as they forecasted just 4% growth YoY for FY'23 and guided for increasing non-GAAP losses. SBC also seemed to be out of control at 87% of revenue vs 26% of revenue last year and customer growth slowed significantly.

Management blamed the guide down on macro and their sudden shift to a consumption-based pricing model. Although the change is expected to re-accelerate revenue growth to over 30% in FY'24 by enabling greater customer adoption and more predictable growth, it will have a negative impact on short-term growth. Management also re-iterated that they expect to earn positive non-GAAP operating margins by the end of the next fiscal year (April 2024). However, the lack of progress shown thus far on profitability, especially on a GAAP basis, has made us skeptical.

Disclosures and Disclaimers

This document should not be the basis of an investment decision. An investment decision should be based on your customary and thorough due diligence procedures, which should include, but not be limited to, a thorough review of all relevant offering documents as well as consolation with legal, tax and regulatory experts. Any person subscribing for an investment must be able to bear the risks involved and must meet the particular fund's or account's (each a "Fund" and, collectively, "Funds") suitability requirements. Some or all alternative investment programs may not be suitable for certain investors. No assurance can be given that any Fund will meet its investment objectives or avoid losses. A discussion of some, but not all, of the risks associated with investing in the Funds can be found in the Funds' private placement memoranda, subscription agreement, limited partnership agreement, articles of association, investment management agreement or other offering documents as applicable (collectively the "Offering Documents"), among those risks, which we wish to call to your attention, are the following:

Future looking statements, Performance Date: The information in this report is NOT intended to contain or express exposure or concentration recommendations, guidelines or limits applicable to any Fund. The information in this report does not disclose or contemplate the hedging or exit strategies of the Funds. All information presented herein is subject to change without notice. While investors should understand and consider risks associated with position concentrations when making an investment decision, this report is not intended to aid an investor in evaluating such risk. The terms set forth in the Offering Documents are controlling in all respects should they conflict with any other term set forth in other marketing materials, and therefore, the Offering Documents must be reviewed carefully before making an investment and periodically while an investment is maintained. Statements made in this release include forward-looking statements. These statements, including those relating to future financial expectations, involve certain risks and uncertainties that could cause actual results to differ materially from those in the forward-looking statements. Unless otherwise indicated, Performance Data is presented unaudited, net of actual fees and other fund expenses (i.e. legal and accounting and other expenses as disclosed in the relevant Fund's Offering Documents"), and with dividends re invested. Since actual fees and expenses have been deducted, specific performance of any particular capital account may be different than as reported herein. Due to the format of data available for the time periods indicated, both gross and net returns are difficult to calculate precisely and the actual performance of any particular investor in a Fund may be different than as reported herein. Accordingly, the calculations have been made based on a number of assumptions. Because of these limitations, the performance information should not be relied upon as a precise reporting of gross or net performance, but rather merely a general indication of past performance. The performance information presented herein may have been generated during a period of extraordinary market volatility or relative stability in the particular sector. Accordingly, the performance is not necessarily indicative of results that the Funds may achieve in the future. In addition, the foregoing results may be based or shown on an annual basis, but results for individual months or quarters within each year may have been more favorable or less favorable than the results for the entire period, as the case may be. Index information is merely to show the general trend in the markets in the periods indicated and is not intended to imply that the portfolio of any Fund was similar to the indices in either composition or element of risk. This report may indicate that it contains hypothetical or actual performance of specific strategies employed by The Adviser, such strategies may comprise only a portion of any specific Fund's portfolio, and, therefore, the reported strategy level performance may not correspond to the performance of any Fund for the reported time period.

Investment Risks: The Funds are speculative and involve varying degrees of risk, including substantial degrees of risk in some cases, which may result in investment losses. The Funds' performance may be volatile. The use of a single advisor could mean lack of diversification and, consequently, higher risk. The Funds may have varying liquidity provisions and limitations. There is no secondary market for investors' interests in any of the Funds and none is expected to develop.

Not Legal, Accounting or Regulatory Advice: This material is not intended to represent the rendering of accounting, tax, legal or regulatory advice. A change in the facts or circumstances of any transaction could materially affect the accounting, tax, legal or regulatory treatment for that transaction. The ultimate responsibility for the decision on the appropriate application of accounting, tax, legal and regulatory treatment rests with the investor and his or her accountants, tax and regulatory counsel. Potential investors should consult, and must rely on their own professional tax, legal and investment advisors as to matters concerning the Fund and their investments in the Fund. Prospective investors should inform themselves as to: (1) the legal requirements within their own jurisdictions for the purchase, holding or disposal of investments; (2) applicable foreign exchange restrictions; and (3) any income and other taxes which may apply to their purchase, holding and disposal of investments or payments in respect of the investments of a Fund.

The S&P 500 and S&P Smallcap 600 are unmanaged indices of widely held common stocks. The S&P 500 and S&P Smallcap 600 Indices are not available for investment, and the returns do not reflect deductions for management fees or other expenses.

Luca Capital Advisors LLC is an independent, fee-only, registered investment advisory firm, providing portfolio management to individuals, retirement plans and institutional investors.

Contact Information:

Michael Nowacki

michael@lucacap.com

Richard Chu

richard.chu@lucacap.com