

DEAR BARON OPPORTUNITY FUND SHAREHOLDER:

PERFORMANCE

During the first quarter, Baron Opportunity Fund® (the Fund) rose 4.43% (Institutional Shares), underperforming the Russell 3000 Growth Index (the Benchmark), which gained 7.80%, and essentially matching the S&P 500 Index, which advanced 4.28%. For the first half of 2024, the Fund posted solid gains, increasing 20.44%, slightly outperforming the Benchmark, which rose 19.90%, and materially beating the S&P 500 Index, which improved 15.29%.

Table I.  
Performance†

Annualized for periods ended June 30, 2024

	Baron Opportunity Fund Retail Shares <sup>1,2</sup>	Baron Opportunity Fund Institutional Shares <sup>1,2,3</sup>	Russell 3000 Growth Index <sup>1</sup>	S&P 500 Index <sup>1</sup>
Three Months <sup>4</sup>	4.35%	4.43%	7.80%	4.28%
Six Months <sup>4</sup>	20.27%	20.44%	19.90%	15.29%
One Year	31.28%	31.66%	32.22%	24.56%
Three Years	1.17%	1.43%	10.33%	10.01%
Five Years	18.77%	19.07%	18.55%	15.05%
Ten Years	15.98%	16.29%	15.75%	12.86%
Fifteen Years	16.83%	17.14%	16.93%	14.82%
Since Inception (February 29, 2000)	9.60%	9.78%	7.41%	7.87%

REVIEW & OUTLOOK

U.S. equities endured a slow start to the quarter before rising steadily in May and June. Early market weakness was attributed to heightened concerns about inflation, the pace of anticipated Federal Reserve rate cuts, and rising geopolitical tensions in the Middle East. The sell-off proved short lived,



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PORTFOLIO MANAGER

Retail Shares: BIOPX  
Institutional Shares: BIOIX  
R6 Shares: BIOUX

however, with the NASDAQ Composite and S&P 500 Indexes hitting new all-time highs on several occasions over the remainder of the quarter, supported by better-than-expected corporate earnings and mixed economic data suggesting inflation continues to moderate.

The *Magnificent Seven* and AI remained the dominant drivers of market returns. The Magnificent Seven group, which consists of Alphabet Inc., Amazon.com, Inc., Apple Inc., Meta Platforms, Inc., Microsoft Corporation, NVIDIA Corporation, and Tesla, Inc., appreciated 16.9% for the quarter, accounting for all the gains in the Benchmark, the NASDAQ Composite, and the S&P 500 Indexes. For the first half of 2024, the group rose 32.3%, and accounted for 72% of the Benchmark's half-year return. We believe the Magnificent Seven's dominance stems from a perfect storm-like combination of factors, particularly: (1) a market environment still wrestling

Performance listed in the above table is net of annual operating expenses. Annual expense ratio for the Retail Shares and Institutional Shares as of September 30, 2023 was 1.32% and 1.06%, respectively. The performance data quoted represents past performance. Past performance is no guarantee of future results. The investment return and principal value of an investment will fluctuate; an investor's shares, when redeemed, may be worth more or less than their original value. The Adviser may waive or reimburse certain Fund expenses pursuant to a contract expiring on August 29, 2034, unless renewed for another 11-year term and the Fund's transfer agency expenses may be reduced by expense offsets from an unaffiliated transfer agent, without which performance would have been lower. Current performance may be lower or higher than the performance data quoted. For performance information current to the most recent month-end, visit [BaronCapitalGroup.com](http://BaronCapitalGroup.com) or call 1-800-99-BARON.

† The Fund's 3-, 5-, and 10-year historical performance was impacted by gains from IPOs and there is no guarantee that these results can be repeated or that the Fund's level of participation in IPOs will be the same in the future.

<sup>1</sup> The **Russell 3000® Growth Index** measures the performance of the broad growth segment of the U.S. equity. The **S&P 500 Index** measures the performance of 500 widely held large-cap U.S. companies. All rights in the FTSE Russell Index (the "Index") vest in the relevant LSE Group company which owns the Index. Russell® is a trademark of the relevant LSE Group company and is used by any other LSE Group company under license. Neither LSE Group nor its licensors accept any liability for any errors or omissions in the indexes or data and no party may rely on any indexes or data contained in this communication. The Fund includes reinvestment of dividends, net of withholding taxes, while the Russell 3000® Growth Index and S&P 500 Index include reinvestment of dividends before taxes. Reinvestment of dividends positively impacts the performance results. The indexes are unmanaged. Index performance is not Fund performance. Investors cannot invest directly in an index.

<sup>2</sup> The performance data in the table does not reflect the deduction of taxes that a shareholder would pay on Fund distributions or redemption of Fund shares.

<sup>3</sup> Performance for the Institutional Shares prior to May 29, 2009 is based on the performance of the Retail Shares, which have a distribution fee. The Institutional Shares do not have a distribution fee. If the annual returns for the Institutional Shares prior to May 29, 2009 did not reflect this fee, the returns would be higher.

<sup>4</sup> Not annualized.



# Baron Opportunity Fund

with macroeconomic, geopolitical, and political uncertainties, where apprehensive investors buy the perceived obvious winners and safest stocks first; and (2) the recognition that AI is the most powerful technology platform shift and secular growth driver since the advent of the internet itself, and that in this AI, cloud-connected, digital-first world, the strong tend to be best positioned to capitalize on these trends and become even stronger. More on that below.

Fund performance was a mixed bag for the quarter, and we underperformed the Benchmark during the period. Our overweight positions in AI stalwarts **NVIDIA Corporation** and **Taiwan Semiconductor Manufacturing Company Limited** meaningfully contributed to the Fund's relative performance, as their stocks rose 37% and 28%, respectively. Our private investment in **Space Exploration Technologies Corp.** (SpaceX), a high-profile private company founded by Elon Musk, also contributed to relative performance. SpaceX is literally "going where no company has gone before." Its primary focus is on developing and launching advanced rockets, satellites, and spacecrafts, with the ambitious long-term goal of enabling human colonization of Mars. SpaceX is generating significant value with the rapid expansion of its Starlink broadband service. The company is successfully deploying a vast constellation of Starlink satellites in Earth's orbit, reporting substantial growth in active users, and regularly deploying new and more efficient hardware technology. Furthermore, SpaceX has established itself as a leading launch provider by offering highly reliable and cost-effective launches, leveraging the company's reusable launch technology. Moreover, SpaceX is making tremendous progress on its newest rocket, Starship, which is the largest, most powerful rocket ever flown. This next-generation vehicle represents a significant leap forward in reusability and space exploration capabilities. We value SpaceX using a proprietary valuation model and recent financing transactions. Other top relative contributors were **Guidewire Software, Inc.**, the leading provider of software to the property and casualty insurance industry; **Spotify Technology S.A.**, the world's most popular music and audio streaming service; and **CrowdStrike Holdings, Inc.**, a leading cybersecurity vendor protecting endpoints and cloud workloads, identity, and corporate data from its cloud-native platform.

The Fund's chief relative detractor was Apple, even though it was a contributor to absolute performance. We added Apple to the portfolio for the first time in years (see below). We bought Apple well, but in 20/20 hindsight, we didn't buy enough. Because Apple has an oversized weight in the Benchmark (its average weight was 9.8% for the period), when Apple's stock outperforms (it appreciated 23.0%), it has generally been a headwind to relative performance. Our Apple underweight accounted for 35% of our relative underperformance for the period. The Fund's Health Care investments performed poorly during the quarter, accounting for about half of our relative underperformance. Notable detractors were **Viking Therapeutics, Inc.**, which gave up some gains after posting stunning returns in the first quarter (up more than 350%) off its robust clinical data on its GLP-1/GIP combination weight loss medicine, as well as **Exact Sciences Corporation** and **Rocket Pharmaceuticals, Inc.** Despite this poor performance during the second quarter, our Health Care investments have positively contributed to relative performance on a year-to-date basis.

I read a lot and listen to a lot of technology and market-related podcasts, and the two questions I keep confronting are (1) **Are we in an AI bubble?** and (2) **Is software dead?** We'd like to provide our investors with a summary of our take on these issues.

## AI hype

We do not dispute that there is some hype around AI and the perceived AI winners. History teaches that there is always a hype cycle around significant technology disruptions—initial euphoria, a short period of doubts and questions regarding the significance of the new technology, and then the measured reality of the impact the platform shift is having. We have communicated in these letters and Baron Insights publications that we believe AI is the most significant advancement and technological platform shift impacting our now-digital world since the advent of the internet itself in the mid-1990s, some 30 years ago.

We have been experiencing almost a classic hype cycle over the last 18 months following the ChatGPT moment in late November 2022. Most of this time has been a period of euphoria prompted by the initial introduction and adoption of AI consumer and business applications, announcements and public data releases regarding the improvements in large language models (LLMs), as well as the historic inflection in sales of GPUs,<sup>1</sup> otherwise known as accelerated computing chips, as reflected in the financial results of companies like NVIDIA and **Broadcom Inc.** More recently, however, we've entered the period of doubts and questioning, some of which is real and normal in the first stages of a new paradigm, and some of which is prompted by short sellers. Given the explosive returns of NVIDIA and other AI leaders, AI bears and fear mongers have been comparing the current AI market winners with the internet bubble of the late 1990s/early 2000s, and NVIDIA's stock move today with Cisco's back then. First, while many stocks were trading at nosebleed valuations and on made up metrics (such as price per eyeballs) before the bursting of the internet bubble, as we've said many times, the internet proved to transform our world and create the digital age we are now living in. Second, while NVIDIA's stock price inflection has been nothing short of unprecedented for a company of its size, it was fueled almost entirely by explosive growth in revenues, earnings, and cash flows—not multiple expansion. Over the last 12 months, NVIDIA's stock has effectively tripled, but its forward P/E multiple has remained essentially flat, because NVIDIA blew away Wall Street expectations despite being covered by over 60 sell-side analysts, who have increased their forward projections every single quarter. In my career, the only comparative analogue is when Apple first introduced the iPhone and stunned Wall Street with its growth. In contrast, most of Cisco's move in the late 1990s was due to multiple expansion. At its peak, Cisco traded at a P/E ratio over 130 times, more than quadruple its five-year average of 37 times. At the end of the second quarter, NVIDIA traded at a P/E ratio of 40 times, equal to its five-year average, and at a P/E to growth (or PEG) ratio for 2025 of 0.8 times, as consensus expectations are for NVIDIA to grow earnings per share 40% next year.<sup>2</sup>

<sup>1</sup> GPU = graphics processing unit.

<sup>2</sup> FactSet estimates.

Moreover, investor concerns have arisen about the financial impact AI is having and whether surging capital expenditures (capex) across the technology landscape, particularly the large cloud players (Microsoft, Google, Amazon, and Meta), known as the hyperscalers, will be justified and earn reasonable returns on invested capital (ROIC). First, the adoption and penetration of new technology typically traces a classic S-curve—or more precisely, in our view, a series of S-curves or phases. For at least the past year and a half, we've been in what might be called the AI infrastructure-build phase – building the AI factories, as NVIDIA CEO Jensen Huang has articulated it,<sup>3</sup> and this phase has been dominated by the infrastructure-layer players – the accelerated computing chips suppliers like NVIDIA and Broadcom, as well as data center, cloud infrastructure and energy companies. The hyperscalers, other enterprises, and sovereign entities investing ahead understand that if you want to be in the AI game, you must invest now – build the infrastructure, build the factories – or else you'll find yourselves disrupted on the sidelines or playing catch up in the biggest game, the most important race in a technology generation. Only those who invest today even have the chance to be the winners of the future.

While AI technology is new, the investment paradigm is not – upfront investments followed by long-term returns. All AI services of the future will require an AI factory, whether you own or rent one. The four hyperscalers mentioned above, among others, are leading the charge to build these AI factories. The four are expected to spend almost \$200 billion on capex this year, a 32% increase over the amount the group spent last year. If you exclude Amazon, which doesn't break out its data center capex from its fulfillment capex, the growth rate is 40%.

At Baron, we have experienced and understand that valuing and calculating the expected returns of a growth opportunity, like AI, which requires heavy investment, can only be done by examining and projecting the long-term opportunity. We are in the earliest, almost preliminary stages, of what might be called the AI application phase. This phase – like the early days of the desktop or mobile internet eras – will take years. As in every prior technology generational shift, some early applications will have an immediate measurable impact, while many applications will fail, and others will require iterations and not be ready for prime time until the 2.0 or 3.0 release. Most companies are still in the proof-of-concept stage while very few are ready for production today.

AI is developing rapidly across industries. Near term, there is a lot of excitement around AI for areas such as consumer chatbots, AI-based customer service, AI-based assistants for a variety of business tasks such as coding, marketing, back office, and more. A handful of AI applications and use cases have already yielded measurable impacts and ROIC. For example, in software development, AI services (from companies like Microsoft,

Amazon, and GitLab) – such as code writing, revisions, documentation, vulnerability inspection, etc. – have provided meaningful productivity improvements, with reports of 30% to 60% improvements in developer efficiency.<sup>4</sup> In customer service, generative AI chatbots can handle up to 80% of routine customer inquiries, freeing up human agents to focus on more complex issues, and saving companies 15% to 30% on their customer service operating costs.<sup>5</sup> For the consumer internet players (like Meta, Google, TikTok), their AI investments have improved their core content and advertising platforms – algorithm and bid-rank improvements, more accurate targeting models, increased video engagement, dynamic ad insertion, and more – and have generated impressive ROIC.

Looking forward, published general economic studies have shown that up to \$2.4 trillion dollars in capitalized AI investments could generate a 25% ROIC with either operating expense reductions amounting to 5% of global skilled payroll or 3% of global total payroll or revenue generation at levels of 3% of global public company revenues or 2% of global GDP. On the operating expense side, for example, eliminating one software developer would provide up to \$250,000 of value or cost savings; cutting one knowledge worker out of a team might accrue up to \$150,000. From the revenue generation angle, application-specific sell-side reports have demonstrated that, even at today's pricing levels for AI services such as Microsoft Copilot or Azure AI Cloud, the returns on capital deployed and operating assets are material, though perhaps not as high as current generation cloud software or infrastructure services.<sup>6</sup> Moreover, on NVIDIA's May earnings call, CFO Colette Kress boldly claimed that for every \$1 spent on NVIDIA systems, a hyperscaler could "generate \$7 in revenue over four years."

To repeat, we believe we are in the earliest stages of a multi-decade disruption. Longer-term avenues of development are broad and include drug discovery, in which the opportunity for AI is significant due to the long timelines for drugs to reach approval and the high probability of failure (90% of drugs fail); planning and running factories and supply chains using digital twins and AI simulation; and using AI to build robots across a variety of use cases (from autonomous machines to autonomous driving to humanoid robots). Multi-domain, multi-industry disruption.

When one considers where we are in AI today, and where we might be in a few years, one cannot ignore the pace of improvements we have already witnessed. The Chief Product Officer of one of our software investments, who is leading that company's AI developments, told us on a recent Zoom that it is "incredible how quickly the AI models are improving." I will just highlight a few.

- Accelerated computing chips: At NVIDIA's June COMPUTEX conference appearance, Jensen Huang presented slides showing that AI compute had improved 1,000 times over the last eight years and energy use had

<sup>3</sup> At NVIDIA's recent COMPUTEX conference, Jensen declared: during the industrial revolution, raw materials came into the plant and final products came out; in today's generative AI era, data centers will become AI factories with data as a raw material and tokens as the output. Tokens can represent words, images, videos, or controls of a robot. On the May earnings call Jensen explained: "[W]e build AI factories...AI is not a chip problem only...it's a systems problem." See more comprehensive discussion and quotations below.

<sup>4</sup> AI code assistants such as Microsoft GitHub Copilot, Amazon CodeWhisperer, and GitLab Duo. See <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/unleashing-developer-productivity-with-generative-ai>; <https://github.blog/2022-09-07-research-quantifying-github-copilots-impact-on-developer-productivity-and-happiness/>.

<sup>5</sup> See <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-economic-potential-of-generative-ai-the-next-productivity-frontier>; <https://www.cio.com/article/2112589/wheres-the-roi-for-ai-cios-struggle-to-find-it.html>.

<sup>6</sup> See for example: NewStreet Research, Microsoft: What's the Real Value of AI? Part II: Will AI ever contribute to free cash flow, dated July 11, 2024. The report showed, among other things, that Copilot and Azure AI could earn approximately 100% and 50% EBITDA (earnings before interest, taxes, depreciation and amortization) returns on operating assets versus approximately 175% for Office365 and 80% for Core Azure.

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improved 350 times.<sup>7</sup> NVIDIA's recently introduced Blackwell family of chips can produce performance improvements of up to 4 times faster for training and 30 times for inferencing compared to the prior Hopper generation. Blackwell can deliver 25 times lower total cost of ownership and energy consumption than Hopper, as well. The new Blackwell architecture provides the ability to combine a significant number of GPUs into a "single" large GPU (namely thanks to NVIDIA's networking capabilities), and the company's investor relations commentary stated that they expect Blackwell to be "the new unit of compute."

- LLMs: AI LLM's algorithms are rapidly improving as well. For example, the price of OpenAI's GPT-3 (which cost \$20 per 1 million tokens in early 2023) declined 95% with the introduction of the more capable GPT-3.5 Turbo, which costs 95% less at \$1 per 1 million tokens, despite being a better model. In a recent AI publication,<sup>8</sup> the author presented his views and evidence that "[t]he pace of [LLM] deep learning progress in the last decade has simply been extraordinary." He argued that OpenAI's "GPT-4 was merely the continuation of a decade of breakneck progress in deep learning. A decade earlier, models could barely identify simple images of cats and dogs; four years earlier, GPT-2 could barely string together semi-plausible sentences. Now we are rapidly saturating all the benchmarks we can come up with. And yet this dramatic progress has merely been the result of consistent trends in scaling up deep learning...Another jump like that very well could take us to [artificial general intelligence], to models as smart as PhDs or experts that can work beside us as coworkers." For GPT-4, released in 2023, he described it as a "smart high schooler" and commented: "Wow, it can write pretty sophisticated code and iteratively debug, it can write intelligently and sophisticatedly about complicated subjects, it can

reason through difficult high-school competition math, it's beating the vast majority of high schoolers on whatever tests we can give it, etc." He presented this chart comparing GPT-3.5 and GPT-4 (models already two-to-three years old) to human test-takers:

## Performance on common exams (percentile compared to human test-takers)

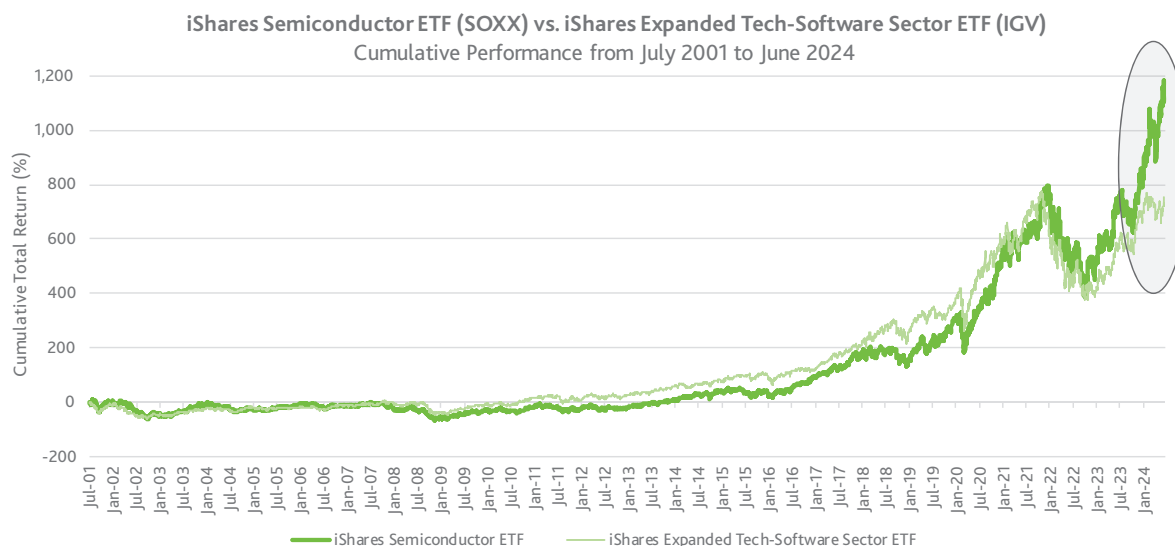
	GPT-4 (2023)	GPT-3.5 (2022)
Uniform Bar Exam	90th	10th
LSAT	88th	40th
SAT	97th	87th
GRE (Verbal)	99th	63rd
GRE (Quantitative)	80th	25th
US Biology Olympiad	99th	32nd
AP Calculus BC	51st	3rd
AP Chemistry	80th	34th
AP Macroeconomics	92nd	40th
AP Statistics	92nd	51st

Source: *Situational Awareness – The Decade Ahead*, June 6, 2024, Leopold Aschenbrenner

Over time, as models continue to improve, and the cost of running them declines, an increasing number of human tasks could be augmented or replaced entirely by AI. Before long, every digital interaction—whether with business software, consumer apps, robots, cars, etc.—will be AI powered. AI will make humans more productive doing their jobs, developing drugs, designing products, writing software, being creative, and more.

## Software

While AI demand and experimentation have clearly benefitted semiconductor stocks (as well as certain energy, industrial, and data center stocks), it has created market uncertainty around the state of software. In fact, year-to-date we have seen the widest discrepancy in semiconductor and software performance in 20 years.



Source: FactSet.

<sup>7</sup> In 2016, NVIDIA's Pascal chip performed at 19 trillion floating point operations per second (TFLOPS) vs. 20,000 TFLOPS for NVIDIA's latest-generation Blackwell architecture released in 2024. Over the same period, energy consumption improved from 1,000 GWh for Pascal to 3GWh for Blackwell.

<sup>8</sup> See *Situational Awareness – The Decade Ahead*, June 6, 2024, Leopold Aschenbrenner.



Why has software lagged year to date? First, as we discussed above, the AI application phase – where enterprise software lies – simply comes later on the AI S-curve or series of S curves. In our myopic, short-term focused market, there is simply less investor excitement for software, and most investors are waiting to see the results – in contrast to the results they are seeing for, say, semiconductors – before jumping back into software. As we described earlier, some software applications (we highlighted AI code writing tools) are already having a profound impact, while others are still in the proof-of-concept stage and will require further iteration and 2.0 or subsequent releases before they really impress. Second, during the second quarter several industry bellwethers, including Salesforce.com and Workday, reported soft financial results and issued disappointing guidance. Among the software companies we track, more than half guided their next quarter revenue below Street expectations. These companies cited a series of reasons including longer sales cycles and tighter Information Technology (IT) spend environments. While part of the weakness could be chalked up to IT budget cyclicality, the sudden shift does beg the question: is AI investment “crowding out” software spend? What does that mean for the long-term growth of software businesses? As CIOs and CEOs are under pressure to adopt AI technology and articulate AI strategies, a bearish narrative emerged that some software models are at risk of being displaced or becoming obsolete.

With any technology platform shift – be it on-premise servers to cloud computing, desktop to mobile applications, or automation to intelligence – our job as software investors is to analyze the threat of substitution, the change to competitive dynamics, and the impact on pricing models and unit economics. While AI poses a risk to some software companies, we think the consensus that all software is at risk is incorrect. In our view, the more likely explanation for the longer software sale cycles is that customers are being more thoughtful and strategic in their software vendor selection – they want to find the right longer-term partners whose products support their 3-5-10-year AI initiatives. Thus, we think the software businesses with the right architecture, product roadmaps, and customer value creation track records should see their competitive moats *widen*, not contract, as AI proliferates, and ultimately capture *more* IT budget share over time. To be clear, our investment goal for software, and any other industry vertical, is to own the *winners*, not the *guy*.

In our view, the enterprise software winners will have to be better at delivering AI services and features than build-your-own AI tools, and they will have to use their incumbency or leadership advantages to ward off upstarts. We believe the winners will be the ones that have a well-established product development culture of innovation and iteration; differentiated proprietary, industry, and customer data; distribution advantages with large customer bases, successful go-to-market efforts, and key partners; well-designed workflows where AI improves the user interface, intelligent predictions/recommendations, and automation; and established always-on connectivity and feedback from their customers; among other things.

Here are a few examples of our software investments that we believe are AI winners:

- **Microsoft Corporation**, a leading software vendor, where Azure OpenAI – its suite of AI services that allows customers to apply natural language algorithms on data – is now used by 65% of the Fortune 100, and GitHub Copilot – its AI code writing service – is delivering 40%-plus improvements in developer productivity and now has 1.8 million subscribers.

- **Datadog, Inc.**, a cloud observability platform that the leading LLM providers are using today to monitor their AI apps; these AI customers are already driving nearly \$100 million of annual recurring revenue for Datadog already.
- **Samsara Inc.**, a software platform for commercial vehicle fleet and physical operations management that is applying AI to the proprietary data it collects from sensors embedded in over a million vehicles spanning billions of miles driven to prevent hundreds of thousands of accidents a year.

Below is a partial list of the secular megatrends we focus on:

- Cloud computing
- Software-as-a-service (SaaS)
- AI
- Mobile
- Semiconductors
- Digital media/entertainment
- Targeted digital advertising
- E-commerce
- Genetic medicine/genomics
- Minimally invasive surgical procedures
- Cybersecurity
- Electric vehicles/autonomous driving
- Electronic payments
- Robotics

We continue to run a high-conviction portfolio with an emphasis on the secular trends cited and listed. Among others, during the first quarter we initiated or added to the following positions:

- Consumer Technology: **Apple Inc.**
- Semiconductors: **Broadcom Inc.**
- Software: **Samsara Inc., Cadence Design Systems, Inc., and Datadog, Inc.**
- Biotechnology: **Arcellx, Inc. and Legend Biotech Corporation**
- E-commerce: **Shopify Inc.**
- Digital Media: **Spotify Technology S.A.**
- Electric Vehicles: **Tesla, Inc.**

**Table II.**  
Top contributors to performance for the quarter ended June 30, 2024

	Percent Impact
NVIDIA Corporation	4.56%
Microsoft Corporation	0.92
Broadcom Inc.	0.56
Amazon.com, Inc.	0.49
Apple Inc.	0.43

**NVIDIA Corporation** sells semiconductors, systems, and software for accelerated computing, gaming, and generative AI. NVIDIA’s stock continued its run, rising 36.9% in the second quarter and finishing the first half of 2024 up 149.9%. NVIDIA continued to report unprecedented growth at scale, with quarterly revenues of \$26 billion growing 262% year-over-year, datacenter segment revenues of \$22.6 billion up 427% year-on-year, and operating margins of 69.3%. NVIDIA’s growth is even more impressive as it is nearing a new product cycle with Blackwell going into production in the third quarter, which speaks to the urgency of demand for GPUs as customers are not willing to wait for the next generation architecture despite its improved performance-to-cost ratio. The Blackwell architecture,

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and in particular, the new GB200 NVL72/36 racks, which the company believes would become “*the new unit of compute,*” would in our view: (1) increase the company’s content per server (for example an NVL72 rack would have 18 compute trays with 4 Blackwell GPUs and 2 Grace CPU in each, and 9 switch trays with NVIDIA content); and (2) further strengthen its competitive advantages as the demand for datacenter-scale computing grows due to scaling laws (models become more capable with size and as they are trained on more data), new model types (such as Mixture of Experts that increase the demand on sharing of data between GPUs) and model optimization mechanisms (such as tensor parallelism, pipeline parallelism, and expert parallelism – which also increase the demands from the connectivity layer), and increase the relative importance of NVIDIA’s networking and full-system capabilities (in particular the capabilities enabled with the latest generation of NVLink—connecting up to 576 GPUs together, up from 8).

While the stock’s strong performance has pulled forward some of the longer-term upside (which we manage through position sizing), we remain early in the accelerated computing platform shift and the adoption of AI across industries and therefore remain shareholders. NVIDIA’s CEO, Jensen Huang described the opportunity in his June COMPUTEX keynote:

*“In the late 1890s, Nikola Tesla invented an AC generator. We invented an AI generator. The AC generator generated electrons. NVIDIA’s AI generator generates tokens. Both of these things have large market opportunities. It’s completely fungible in almost every industry, and that’s why it’s a new industrial revolution.*

*“We have now a new factory producing a new commodity for every industry that is of extraordinary value. And the methodology for doing this is quite scalable, and the methodology of doing this is quite repeatable. Notice how quickly so many different AI models, generative AI models are being invented literally daily. Every single industry is now piling on.*

*“For the very first time, the IT industry, which is \$3 trillion, \$3 trillion IT industry is about to create something that can directly serve \$100 trillion of industry. No longer just an instrument for information storage or data processing but a factory for generating intelligence for every industry... What started with accelerated computing led to AI, led to generative AI and now an industrial revolution.”*

**Microsoft Corporation** is the world’s largest software and cloud computing company. Microsoft was traditionally known for its Windows and Office products, but over the last five years it has built a \$135 billion run-rate cloud business, including its Azure cloud infrastructure service and its Office 365 and Dynamics 365 cloud-delivered applications. The stock contributed to performance because of continued strong operating results and investor enthusiasm regarding Microsoft’s leadership across the secular megatrends of AI and cloud computing. Recent business momentum continued to show evidence of the strength and attractiveness of Microsoft’s product portfolio among its customer set: (1) Azure OpenAI – its suite of AI services – is now used by 65% of the Fortune 100 and contributed 7% of Azure revenue (an annualized run rate of \$5.2 billion); (2) GitHub Copilot – its AI code writing service – is bending the productivity curve for developers (reports of 40%-plus improvements in developer efficiency) and now has 1.8 million paid subscribers, with growth accelerating to over 35% quarter-over-quarter; and (3) Copilot Studio – its AI application service that makes it easier for anyone to build an application, automate a workflow, or create a Copilot using natural language. 30,000 organizations across every industry have used Copilot Studio to customize Copilot for Microsoft 365 or build their own, up 175% quarter-over-quarter. In the March quarter, Microsoft again reported better-than-expected financial results, highlighted by Microsoft Cloud

growing 23% year-over-year, with the fastest commercial bookings in six quarters, and Azure accelerating to 31% constant currency growth, up from 28% in the previous quarter. June quarter guidance came in-line with consensus, but the company provided higher guidance for the most important segment, Intelligent Cloud, on the back of continued strong trends across Azure and Azure OpenAI. We remain confident that Microsoft is one of the best-positioned companies across the overlapping software, cloud computing, and AI landscapes.

**Broadcom Inc.** is a global technology leader that designs, develops, and supplies a broad range of semiconductor and infrastructure software solutions. The stock rose during the quarter as it reported strong earnings on the back of its two key growth drivers, AI semiconductors and its acquired VMware software business. The company once again increased its outlook for AI-related revenue, now expecting \$11 billion or more this year (versus prior guidance for \$10 billion), on the back of strength in both hyperscale custom compute and networking chips, where Broadcom maintains dominating share. In networking, Broadcom’s solutions are critical to enabling AI training factories to scale towards 100,000 chip clusters in the near term and 1 million chip clusters over the coming years. In AI custom compute, Broadcom designs custom accelerators for large consumer-internet AI companies (such as Google and Meta), who are building increasingly large AI clusters to drive improvements in user engagement and targeted advertising on their consumer media platforms. VMware remains on track to continue rapid sequential growth while simultaneously reducing operating expenses, driving faster-than-expected margin expansion and accretion, as management has simplified the product offering and is converting customers from a license model to subscriptions. We believe VMware will grow beyond the \$4 billion near-term quarterly target, well above current analyst expectations. These two factors combined have caused a re-rating to the growth profile for the overall company. To quote CEO Hock Tan, “there is only one Broadcom. Period.”

**Table III.**  
Top detractors from performance for the quarter ended June 30, 2024

	Percent Impact
CoStar Group, Inc.	-0.81%
Viking Therapeutics, Inc.	-0.75
Exact Sciences Corporation	-0.54
Advanced Micro Devices, Inc.	-0.34
Dayforce, Inc.	-0.34

Shares of **CoStar Group, Inc.** detracted from performance. We believe that CoStar shares were impacted by concerns that the company’s second quarter financial results will show a deceleration in net new sales of its residential product following outstanding first quarter performance. CoStar began to monetize its residential offering in February, and had an excellent start, generating \$39 million of net new sales in less than two months. However, the pace of adoption seemed to slow in May and June, leading to share price declines. We believe that few businesses progress linearly and variability in results across quarters is to be expected. We view the residential real estate market as a vast and underpenetrated opportunity. As an asset class, single-family residential properties represent more than \$40 trillion of value in the U.S., or around 60% of the total value of U.S. real estate. We estimate that CoStar’s residential products will address a total addressable market (TAM) that exceeds \$15 billion of annual recurring revenue, or almost four times larger than the company’s flagship Suite offering currently serves. We estimate that offering a residential product in international markets could increase that TAM by a further factor of four.

**Viking Therapeutics, Inc.** develops metabolic disease medicines with a focus on diabetes/obesity and MASH (metabolic steatohepatitis, i.e., fatty liver). Viking's lead asset is VK2735, an injectable and oral version of a GLP-1/GIP combination weight loss medication that directly competes with well-known Eli Lilly & Company products called Mounjaro and Zepbound. Viking's second asset competes with Madrigal Pharmaceutical's just approved MASH asset. Shares exploded in late February when Viking announced positive top-line results from its Phase 2 clinical trial of VK2735. Both of Viking's main assets appear to be more efficacious than their competitors in two exceptionally large revenue end markets. This is the primary basis of our investment thesis, which is only bolstered by what appear to be potentially the largest revenue end markets for the medical industry ever. Shares gave up some of their gains this quarter, however, as biotechnology specialists have leaned into an alternative mechanism for obesity, called amylin inhibition, and have raised doubts that Viking will get acquired (a view we disagree with), as well as a reconstitution of the most well know biotechnology ETF (XBI) that caused forced selling by many long/short strategies to reweight their positions.

We sold our position in **Exact Sciences Corporation** and booked a short-term tax loss after shares dropped precipitously during the second quarter. Exact Sciences is a cancer diagnostics company whose flagship product is Cologuard, a stool-based screening test for colon cancer. The company issued a disappointing first quarter report. On the earnings call, management signaled they would ramp up sales and marketing, raising concerns that they needed to accelerate spending to maintain brand awareness and drive incremental growth. There is also continued concern around emerging competition from liquid biopsies, which are blood-based tests that are more convenient. While we believe there is still a greenfield opportunity among patients not getting any screening done today, the stock is now in the penalty box.

### PORTFOLIO STRUCTURE

We invest in secular growth and innovative businesses across all market capitalizations, with the bulk of the portfolio landing in the large-cap zone. Morningstar categorizes the Fund as U.S. Large Growth. As of the end of the first quarter, the largest market-cap holding in the Fund was \$3.3 trillion and the smallest was \$500 million. The median market cap of the Fund was \$54.1 billion, and the weighted average market cap was \$1.4 trillion.

To end the quarter, the Fund had \$1.3 billion of assets under management. We had investments in 42 unique companies. The Fund's top 10 positions accounted for 58.3% of net assets.

**Table IV.**  
Top 10 holdings as of June 30, 2024

	Quarter End Market Cap (billions)	Quarter End Investment Value (millions)	Percent of Net Assets
Microsoft Corporation	\$3,321.9	\$191.5	14.4%
NVIDIA Corporation	3,039.1	178.0	13.4
Amazon.com, Inc.	2,011.1	93.8	7.0
Meta Platforms, Inc.	1,279.1	62.0	4.7
Apple Inc.	3,229.7	57.1	4.3
Tesla, Inc.	631.1	46.5	3.5
Broadcom Inc.	747.4	42.4	3.2
Space Exploration Technologies Corp.	208.2	36.1	2.7
Gartner, Inc.	34.9	35.6	2.7
Advanced Micro Devices, Inc.	262.2	33.6	2.5

### RECENT ACTIVITY

**Table V.**  
Top net purchases for the quarter ended June 30, 2024

	Quarter End Market Cap (billions)	Net Amount Purchased (millions)
Apple Inc.	\$3,229.7	\$51.8
Broadcom Inc.	747.4	10.3
Samsara Inc.	18.6	9.9
Exact Sciences Corporation	8.7	6.2
Arcellx, Inc.	3.0	4.5

This quarter we re-initiated a position in **Apple Inc.**, a leading technology company known for its innovative consumer electronics products like the iPhone, MacBook, iPad, and Apple Watch. Apple is a leader across its categories and geographies, with a growing installed base that now exceeds 2 billion devices globally. The company's attached services – including the App Store, iCloud, Apple TV+, Apple Music, and Apple Pay – provide a higher margin, recurring revenue stream that both enhances the value proposition for its hardware products and improves the financial profile. Apple now has well over 1 billion subscribers paying for these services, more than double the number it had just 4 years ago. The increasing services mix has led to healthy operating margin improvement, providing more free cash flow for Apple to reinvest in the business and to distribute to shareholders. Throughout its 48-year history, Apple has successfully navigated and capitalized on major technological shifts, from PCs to mobile to cloud computing. We believe the company's leading brand and device ecosystem position it to do equally well in the AI age, and this was the driver of our decision to re-invest. "Apple Intelligence" – the AI strategy unveiled at Apple's recent Worldwide Developer Conference – leverages on-device AI and integrations with tools like ChatGPT to enhance user experiences across its ecosystem. The AI suite enables users to create new images, summarize and generate text, and use Siri to perform actions across their mobile applications, all while maintaining user privacy and security. We think Apple Intelligence can drive accelerated product upgrade cycles and higher demand for Apple services. The combination of growth re-acceleration, increasing services contribution, and thoughtful capital allocation should continue driving long-term shareholder value.

We continued to build our position in **Broadcom Inc.** as we have increased conviction in its AI and VMware growth opportunities. Among companies with similar AI exposure, Broadcom has a reasonable absolute valuation, and its track record of execution and long-term shareholder value creation is remarkable. We remain excited about Broadcom's long-term prospects.

We initiated a position in **Samsara Inc.** during the quarter. Samsara provides a cloud software platform for commercial vehicle telematics, video-based driver safety, driver workflow automation, and industrial equipment monitoring. Its software collects and analyzes data from sensors and cameras installed in its customers' commercial trucks, construction equipment, warehouses, and other assets, helping companies visualize and improve the state of their operations. More than 17,500 customers in the transportation, field services, construction, utilities, and other industries have adopted Samsara, and last year the company became one of the fastest software companies ever to reach \$1 billion in annual recurring revenue (ARR). Samsara has been winning share from competitors in the \$51 billion connected fleet software market due to its superior cloud native architecture, ability to address multiple use cases in a single platform, and its rapid product release cycle. As Samsara continues to expand its

# Baron Opportunity Fund

connected asset base, it is building an unmatched data asset that it is using to drive better outcomes for its customers. Capturing more than 9 trillion data points from over 44 billion hours of camera footage across millions of miles driven, Samsara uses AI to help companies optimize their vehicle routes, prevent accidents, improve asset utilization, reduce fuel expenses, and lower insurance premiums. In 2023, across its customer base, the company prevented 200,000 accidents and reduced carbon emissions by 2.3 billion pounds. We see a long runway for growth as Samsara expands in existing accounts and wins new logos. Samsara is less than 50% penetrated in its existing customers' vehicle fleets and has a significant opportunity to cross-sell newer non-vehicle products (which already account for \$125 million of ARR) into its base. The company has also increased its customer count by more than 20% year-over-year every quarter and identified hundreds of thousands of potential new accounts to win. As it has scaled, Samsara has delivered healthy operating leverage, and we think free cash flow margins can ultimately expand beyond 20% longer term.

**Table VI.**  
Top net sales for the quarter ended June 30, 2024

	Quarter End Market Cap or Market Cap When Sold (billions)	Net Amount Sold (millions)
NVIDIA Corporation	\$3,039.1	\$27.1
Shockwave Medical, Inc.	12.3	19.4
Workday, Inc.	58.6	19.2
Take-Two Interactive Software, Inc.	26.5	12.5
Astera Labs, Inc.	10.8	10.7

*Investors should consider the investment objectives, risks, and charges and expenses of the investment carefully before investing. The prospectus and summary prospectus contain this and other information about the Funds. You may obtain them from the Funds' distributor, Baron Capital, Inc., by calling 1-800-99-BARON or visiting [BaronCapitalGroup.com](http://BaronCapitalGroup.com). Please read them carefully before investing.*

**Risks:** Securities issued by small and medium sized companies may be thinly traded and may be more difficult to sell during market downturns. Companies propelled by innovation, including technology advances and new business models, may present the risk of rapid change and product obsolescence, and their success may be difficult to predict for the long term. Even though the Fund is diversified, it may establish significant positions where the Adviser has the greatest conviction. This could increase volatility of the Fund's returns.

The Fund may not achieve its objectives. Portfolio holdings are subject to change. Current and future portfolio holdings are subject to risk.

The discussions of the companies herein are not intended as advice to any person regarding the advisability of investing in any particular security. The views expressed in this report reflect those of the respective portfolio managers only through the end of the period stated in this report. The portfolio manager's views are not intended as recommendations or investment advice to any person reading this report and are subject to change at any time based on market and other conditions and Baron has no obligation to update them.

This report does not constitute an offer to sell or a solicitation of any offer to buy securities of Baron Opportunity Fund by anyone in any jurisdiction where it would be unlawful under the laws of that jurisdiction to make such offer or solicitation.

**Free cash flow yield** is a financial solvency ratio that compares the free cash flow per share a company is expected to earn against its market value per share. **Price/Earnings Ratio or PE (next 12-months):** is a valuation ratio of a company's current share price compared to its mean forecasted 4 quarter sum earnings per share over the next twelve months. If a company's EPS estimate is negative, it is excluded from the portfolio-level calculation.

BAMCO, Inc. is an investment adviser registered with the U.S. Securities and Exchange Commission (SEC). Baron Capital, Inc. is a broker-dealer registered with the SEC and member of the Financial Industry Regulatory Authority, Inc. (FINRA).

We slightly trimmed our investment in **NVIDIA Corporation** to manage its position size and take some profits, but it remains a high conviction idea, the second largest investment in the Fund, and our largest overweight position versus the Benchmark.

We sold our successful investment in **Shockwave Medical, Inc.**, after the company announced its acquisition by Johnson & Johnson for \$335 per share in cash.

We exited our investment in **Workday, Inc.**, and spread that capital around to several of our other software investments, including new positions in Samsara (discussed above) and Cadence Design, as well as an increase in our Datadog investment.

I remain confident in and committed to the strategy of the Fund: durable growth based on powerful, long-term, innovation-driven secular growth trends. We continue to believe that non-cyclical, durable, and resilient growth should be part of investors' portfolios and that our strategy will deliver solid long-term returns for our shareholders.

Sincerely,

Michael A. Lippert  
Portfolio Manager