DEAR BARON DISCOVERY FUND SHAREHOLDER:

PERFORMANCE

After a challenging fourth quarter of 2018, we are pleased to report that during the first quarter of 2019, Baron Discovery Fund (the "Fund") increased 19.72% (Institutional Shares), which was 2.58% better than the Russell 2000 Growth Index. The quarter's favorable results were helped significantly by the strong performance of a handful of top 10 positions such as **The Trade Desk**, **Mercury Systems, Inc.**, and **Yext, Inc.** Even with the strong start to the year, we continue to be excited by both the near- and long-term growth prospects of our holdings.

Table I.
Performance†
Annualized for periods ended March 31, 2019

	Baron Discovery Fund Retail Shares[1,2]	Baron Discovery Fund Institutional Shares[1,2]	Russell 2000 Growth Index[1]	S&P 500 Index[1]
Three Months[3]	19.60%	19.72%	17.14%	13.65%
One Year	21.71%	22.02%	3.85%	9.50%
Three Years	27.32%	27.65%	14.87%	13.51%
Five Years	11.91%	12.18%	8.41%	10.91%
Since Inception (September 30, 2013) (Annualized)	15.71%	15.99%	9.26%	12.25%
Since Inception (September 30, 2013) (Cumulative)[3]	123.09%	126.11%	62.77%	88.80%

"Teamwork makes the dream work!"

- Laird's daughters as they help clean the kitchen after dinner

During client meetings, one of the questions we are commonly asked is why the Firm decided to use a co-manager structure with Baron Discovery Fund. We think this is an important question to examine because we believe our co-manager structure is a meaningful contributor to our alpha generation. Among the many benefits a co-manager structure provides, the most obvious is that despite the fact that we work extremely hard, there still exists a finite amount of time in which we can meet with and analyze companies. By having two managers instead of one, we have the ability to investigate twice as many companies or perform twice as much due diligence (or some combination of both). Therefore, we believe there are significant synergies from our co-manager structure.

RANDY GWIRTZMAN AND LAIRD BIEGER
PORTFOLIO MANAGERS

Retail Shares: BDFFX
Institutional Shares: BDFIX
R6 Shares: BDFUX

So why then don't all mutual funds have co-managed or, even better yet, team-managed approaches? After all, if 2 people can look at twice as many companies, can't 3 people look at 3 times as many or, to take an extreme, 10 people look at 10 times as many? Of course, things are never that easy. We believe it's not about the number of people that matter but how those people work together as a team. We need not look much further than the NFL or NBA to see numerous examples of teams that have brought together (with great fanfare we might add) a few star players only to see those teams fail miserably. For sure, "teamwork makes the dream work" but far too often 1+1 equals something significantly less than 2.

So why do we believe that our co-manager structure works so well for Baron Discovery Fund? For one, we have complementary expertise. For example, Randy has deep expertise in sectors such as health care services, medical devices, diagnostics, specialty pharmaceuticals, biotechnology, semiconductors and semiconductor capital equipment, systems software, alternative energy, defense, business services, automotive, commercial banking and general industrials. Laird complements Randy's coverage almost perfectly with expertise in gaming, lodging, retail, restaurants, leisure, consumer staples, agriculture and agricultural equipment, real estate related sectors (such as REITS and building products), application software, internet,

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, 2018 was 1.40% and 1.12%, but the net annual expense ratio was 1.35% and 1.10% (net of the Adviser's fee waivers), 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 cost. The Adviser reimburses certain Baron Fund expenses pursuant to a contract with an 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 www.BaronFunds.com or call 1-800-99BARON.*

† The Fund's historical performance was impacted by gains from IPOs and/or secondary offerings. There is no guarantee that these results can be repeated or that the Fund's level of participation in IPOs and secondary offerings will be the same.

1 The indexes are unmanaged. The Russell 2000® Growth Index measures the performance of small-sized U.S. companies that are classified as growth and the S&P 500 Index of 500 widely held large cap U.S. companies. The indexes and the Fund are with dividends, which positively impact the performance results. Russell Investment Group is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. Russell is a trademark of Russell Investment Group.

2 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.

3 Not annualized.

financial services, insurance, materials and general industrials. That's clearly a mouthful, but that's where we are after 20 years of investing!

We also believe it is important that we have worked together for a long time. Laird joined Baron Capital in 2000. Randy joined only two years later. Together, we have a combined 36 years working at Baron Capital! And we have known each other even longer. Our relationship began back in 1997 when we met at Columbia Business School–we have been friends for over two decades. It is our hope we will remain so long into retirement. It is our belief that this long history has created an environment that encourages:

- constant communication and sharing of ideas
- support for each other in both good times and bad
- a strong work ethic
- a clear focus on goals and results

Are partnerships always easy? Absolutely not. Partnerships require more work in many ways. But we believe the advantages significantly outweigh the disadvantages and is part of what makes our Baron Discovery Fund team differentiated and special.

Table II.
Top contributors to performance for the quarter ended March 31, 2019

	Percent Impact
The Trade Desk	1.52%
Mercury Systems, Inc.	1.19
Yext, Inc.	1.02
ForeScout Technologies, Inc.	0.83
TherapeuticsMD, Inc.	0.75

The Trade Desk is the leading internet advertising demand-side platform, enabling agencies to purchase digital advertising through PC, mobile, and online video channels more efficiently. The Trade Desk was a top contributor in the quarter as a result of robust fourth quarter results. The company continued to benefit from the growth of programmatic advertising and, more recently, the growth in "connected TV" (i.e., streaming services such as Roku, Amazon Fire, and YouTube TV). The company also announced the official launch of its ad buying platform in China, which CEO Jeff Green believes can grow to be one-third of total revenue in five years. We remain positive on the company given its technology, scale, and estimated 10% share in the $30 billion programmatic advertising market, which is a small and growing subset of the $700 billion spent on global advertising annually.

Mercury Systems, Inc., the leading Tier 2 defense electronics contractor in the U.S., put up terrific results for the December quarter. It beat expectations with 11% organic growth, guided full-year organic revenue growth to 9% to 10% (better than consensus expectations), and predicted that 2019 free cash flow will be up significantly. Book-to-bill ratio of 1.09 times was also exceptional. On its earnings call, Mercury also laid out its M&A strategy and outlined multiple paths to accelerate growth beyond its organic rate, while maintaining a solid strategic focus. We believe that Mercury has unmatched market positioning for organic and acquired growth, and can continue to put up terrific operating metrics for years to come.

Yext, Inc. is the leader in digital knowledge management, which enables businesses to maintain an accurate database of their site locations and other associated data (such as telephone numbers and hours of operation). This allows companies to ensure accurate "single version of the truth" information, which can be distributed to search engines, social media sites, industry-specific sites, and voice search operators (a growth area we are bullish on). Yext was a top contributor in the quarter on robust financial results with strength in the enterprise business, which added 350 new logos in fiscal year 2019. We continue to believe that Yext is in the early innings of growth and enjoys a large and wide-open market opportunity with a highly visible, recurring revenue model. Moreover, we continue to have high regard for members of management, many of whom are veterans of Saleforce.com Inc. and were crucial to that company's early success.

ForeScout Technologies, Inc. designs and markets cybersecurity software. The company has developed technology that discovers network-connected devices in real time, and continuously monitors and assesses their security posture. Because the solution is "agentless," ForeScout's software can find network-attached hardware even if that hardware doesn't have special "agent" software running on it. By using "fingerprints," which classify devices based on behavior and other identifying characteristics instead of agents, the company can provide customers visibility to 30% more network-attached devices than they saw before. Since any device attached to a network could be a vector for a cyber attack, having so much more visibility is a significant advantage to ForeScout's clients. Shares outperformed in the quarter as the company reported strong earnings and guidance. It posted significant device growth (driving future revenue and expansion opportunities) as well as positive free cash flow. Guidance at a March analyst day highlighted the near-term launch of true subscription offerings that will help make more revenue recurring and with that, we expect the trading multiple gap versus peers to narrow. We believe ForeScout's solutions are still early for its market and see continued growth for the company over our investment horizon.

TherapeuticsMD, Inc. is developing drugs that address the multi-billion dollar hormone replacement market. The company now has three FDA approved drugs that it is bringing to market. Shares performed well in the quarter as its first drug for Vulvar Vaginal Atrophy (Imvexxy) has been putting up very good prescription growth, and its second drug for hot flashes in menopause (Bijuva) will launch in April. It will also market a new birth control product (Annovera) starting in the second half of the year.

Table III.
Top detractors from performance for the quarter ended March 31, 2019

	Percent Impact
Sientra, Inc.	–0.56%
Ra Medical Systems, Inc.	–0.44
Hudson Ltd.	–0.23
Esperion Therapeutics, Inc.	–0.21
Revance Therapeutics, Inc.	–0.13

Sientra, Inc. manufactures medical devices used in the aesthetics field. Shares lost ground in the quarter due to a slight (one-to-two quarter) delay in ramping its third-party breast implant facility to full capacity, as well as industry concerns around textured implant safety (which have dampened overall industry procedure volume). In the quarter, the FDA convened a panel to examine rare incidences of cancer surrounding textured implants. It appears that the likely recommendations will not have much of an effect on Sientra. We are not overly concerned, as Sientra's textured implants have far fewer incidences per implant versus competitors, and its textured business is only about 1% to 2% of sales. The FDA also would like Sientra to get better post-implant data from its patients by increasing its patient compliance rate to 65% from 61% (and issued a warning letter to this effect). We believe this is manageable at a modest cost. Our expectation is that shares will recover through this year as patients return to normal procedure volume after they recognize the high overall degree of safety of Sientra's implants.

Ra Medical Systems, Inc. is a medical technology company that clears peripheral arterial blockages using a custom designed laser delivery system called Dabra. The company's shares fell during the quarter after poor operational performance in its second quarter as a public company. Ra Medical had some yield issues with its manufacturing equipment (which has since been completely repaired), and it has hired a new Chief Commercial Officer to revamp the sales force, with a focus on training so sales people can conduct highly technical meetings with endovascular surgeons. We have spoken with the company and the new CCO and like his plan and his prior experience in the endovascular field. While this has been a poor investment for the Fund; however, it is a small position, is trading below its cash value (so if it was liquidated tomorrow it would in theory return more to shareholders than the current price), has a differentiated technology in the field, and has the potential to become a valuable going concern. Therefore, there is little downside from here and a lot of potential upside if management turns the ship around.

Hudson Ltd., a leading North American travel retailer, underperformed during the quarter following the abrupt departure of its CEO, and softer-than-expected earnings. The operational challenges were driven by a slowdown in duty free sales and weaker net new business growth. While we still believe Hudson is well positioned to take share in the growing travel retail market and is largely insulated from e-commerce disruption, we exited the position because the company's growth had not met our expectations.

Esperion Therapeutics, Inc. is a pharmaceutical company that is developing a drug which treats elevated LDL cholesterol. Its active pharmaceutical ingredient is called bempedoic acid (BA). BA lowers LDL cholesterol without the muscle-related side effects that are associated with statins (the most popular drug formulation for this condition). Statin-related side effects have resulted in up to 18 million people in the U.S. being at less than optimal LDL therapy. BA has been proven safe in multiple clinical trials. When taken without background statin therapy (highly relevant for patients who can't take statins due to side effects), BA lowers cholesterol by up to 29% in combination with ezetimibe (another approved generic LDL drug) versus placebo. It also lowers hsCRP (high sensitivity C-reactive protein), an inflammation indicator, by up to 37% as well, and lowers Hba1c so that it can be used in diabetic patients where statins tend to raise it. When used along with background statin therapy (the maximum a patient can handle without side effects from statins), LDL lowering is an incremental 17% to 18% and hsCRP is lowered up to 21.5%. Fundamentally, the first quarter was terrific for Esperion, even if its share price lagged. It submitted its New Drug Applications (NDAs) to the FDA and its equivalent to the European Medicines Agency, with approval expected in 2020. Esperion also inked a positive deal with Daiichi Sankyo in January 2019 to market BA in the EU. Under the agreement, Esperion will receive up to $900 million in payments ($150 million was paid on signing, $150 million for first commercial sales in EU expected in 2020, and $600 million split among other milestones including sales thresholds and cardiovascular trial results). It will also receive royalties on sales of 15% to 25%. Share prices in companies with unapproved drugs can be volatile, so we don't read much into the stock performance in the quarter.

Revance Therapeutics, Inc. is an aesthetics pharmaceutical company developing a long-lasting injectable botulinum toxin (Allergan's version is the ubiquitous Botox). The long duration of effect of Revance's version of the drug is unique in a multi-billion dollar market, which includes both aesthetic and therapeutic uses. Fundamentals remain strong for the company, and it disclosed solid phase 3 clinical results for the glabellar lines (above the nose) indication for its drug. It also completed a key regulatory meeting with the FDA which should enable it to file for approval for glabellar in the first half of 2019, with a hoped-for launch in 2020. We believe shares were down due to higher-than-expected operational spending guidance for 2019, which reflects plans to build a sales force prior to the 2020 launch.

Portfolio Structure

Table IV.
Top 10 holdings as of March 31, 2019

	Year Acquired	Quarter End Investment Value (millions)	Percent of Net Assets
Mercury Systems, Inc.	2015	$17.7	3.4%
Myriad Genetics, Inc.	2016	16.9	3.3
Americold Realty Trust	2018	13.7	2.7
SiteOne Landscape Supply, Inc.	2016	13.7	2.7
Yext, Inc.	2017	13.1	2.5
RIB Software SE	2018	13.0	2.5
The Trade Desk	2016	12.9	2.5
Intersect ENT, Inc.	2018	12.5	2.4
Sientra, Inc.	2016	12.1	2.4
2U, Inc.	2017	12.0	2.3

Our top 10 stocks represented 26.7% of the net assets of the Fund 3/31/2019, which is consistent with our historical levels.

Recent Activity

Table V.
Top net purchases for the quarter ended March 31, 2019

	Year Acquired	Quarter End Market Cap (billions)	Amount Purchased (millions)
Sientra, Inc.	2016	$0.3	$10.0
Rexford Industrial Realty, Inc.	2019	3.5	9.7
Revance Therapeutics, Inc.	2019	0.7	8.7
SiteOne Landscape Supply, Inc.	2016	2.3	8.2
2U, Inc.	2017	4.1	8.2

During the quarter, we increased our investment in **Sientra, Inc.** and reinvested in former holding **Revance Therapeutics, Inc.** We discussed these stocks above.

We also reinvested in former holding **Rexford Industrial Realty, Inc**. Rexford is a high-growth real estate investment trust that owns a portfolio of 179 infill industrial properties (22.1 million square feet) concentrated in Southern California. Southern California is considered to be among the most attractive markets for industrial real estate in the country, owing to the diverse set of industries that drive demand for warehouse space (manufacturing, distribution, consumer staples, IT businesses, etc.). In addition, new infill development activity is limited by a scarcity of developable land and "higher and better use" opportunities to develop land for purposes other than warehouse space. Rexford is growing rapidly, both organically (increasing occupancy, rising market rents, contractual rent escalators in leases) and through acquisitions, in a highly-fragmented market. The management team, led by two seasoned real estate executives, draws on its deep rolodex of contacts to identify acquisition candidates. Acquisitions are often negotiated “off market,” resulting in more attractive purchase prices versus results achieved in more competitive auctions. We believe the valuation is attractive relative to the high quality of the platform and the significant growth we expect to see over the next several years.

We increased our positions in both **SiteOne Landscape Supply, Inc.** and **2U, Inc.** during the quarter. We had trimmed both positions at higher levels due to what we believed were extended valuations (we continued to be positive on the companies’ fundamentals). However, both companies’ stocks came under pressure during the recent market weakness. We used that dislocation to increase our positions in both as we felt valuations had become attractive again.

Table VI.
Top net sales for the quarter ended March 31, 2019

	Year Acquired	Market Cap When Acquired (billions)	Quarter End Market Cap or Market Cap When Sold (billions)	Amount Sold (millions)
Brooks Automation, Inc.	2018	$2.0	$2.3	$3.8
Hudson Ltd.	2018	1.6	1.4	3.6
Varonis Systems, Inc.	2014	1.0	1.6	3.1
Party City Holdco Inc.	2015	2.0	0.7	3.0
The Trade Desk	2016	1.2	8.8	2.3

We sold our position in **Brooks Automation, Inc**. in the quarter. Brooks is a well-run and interesting company that specializes in semiconductor capital equipment as well as cryogenic equipment for health care end markets (storage of medical samples). We have been disappointed in the pace of progress on the health care side of the company, and feel we have better opportunities to invest elsewhere in health care and technology. **Varonis Systems, Inc.** is a cybersecurity software company that specializes in protecting data files on computer networks. We believe that its software is unmatched for this functionality. Nevertheless, we grew concerned when Varonis changed its strategy in the quarter from selling perpetually licensed software (with a larger upfront payment) to a subscription-oriented business (where payment for software is recurring, but is spread over multiple years in smaller payments per year). We’ve seen transitions like this before, and it can take a few years for a business to normalize on the new model. In the meantime, growth can slow meaningfully, so we prefer to take profits for now, and assess the transition from the sidelines. We still really like management and the product. We sold our position in **Hudson Ltd**. for the reasons mentioned above. Similarly, we reduced our position in **Party City Holdco Inc.** as both its growth and cash flow generation underperformed our expectations. We trimmed our position in **The Trade Desk** given its strong recent performance and our expectations for less near-term upside. That being said, we remain strong believers in the company’s longer-term opportunity.

Outlook

As we discussed in our 12/31/2018 letter, we continue to believe we have a significant number of stock-specific catalysts that we expect to take place through the remainder of the year. We are also excited by the number of small, fast-growing companies in our “new idea” funnel. We continue to work to process these ideas in order to “discover” the next great small-growth companies. Thank you for your support!

Randy Gwirtzman & Laird Bieger
Portfolio Managers

Investors should consider the investment objectives, risks, and charges and expenses of the investment carefully before investing. The prospectus and summary prospectus contains this and other information about the Funds. You may obtain them from its distributor, Baron Capital, Inc., by calling 1-800-99BARON or visiting www.BaronFunds.com. Please read them carefully before investing.

Risks: The Adviser believes that there is more potential for capital appreciation in smaller companies, but there also may be more risk. Specific risks associated with investing in smaller companies include that the securities may be thinly traded and they may be more difficult to sell during market downturns. The Fund may not achieve its objectives. Portfolio holdings are subject to change. Current and future portfolio holdings are subject to risk.

Alpha measures the difference between a fund’s actual returns and its expected performance, given its level of risk as measured by beta.

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 manager only through the end of the period stated in this report. The portfolio managers’ 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.