

DEAR BARON ASSET FUND SHAREHOLDER:

PERFORMANCE

During the quarter ended March 31, 2017, U.S. stocks continued their post-election rally. However, the markets witnessed a reversal of the so-called 'Trump Trade.' Many of the companies and sectors that performed best in the immediate aftermath of the surprise election results trailed the broader market. Investors presumably remained optimistic that the likely policies of the Trump administration would foster accelerated economic growth. But investors were forced to temper their excitement about a near-term increase in infrastructure spending and a sweeping replacement of the Affordable Care Act. Against this backdrop, Baron Asset Fund (the "Fund") performed well. The Fund's Retail Shares gained 10.07% and its Institutional Shares gained 10.17%. The Russell Midcap Growth Index (the "Index") gained 6.89%, and the S&P 500 Index gained 6.07%.

The Fund's investments that performed best included those in the Health Care, Consumer Discretionary, Information Technology (IT), and Real Estate sectors. The Fund's largest holding, veterinary diagnostic firm **IDEXX Laboratories, Inc.**, was the biggest driver in Health Care, increasing nearly 32%. In addition, the Fund's investments in the life sciences tools & services sub-industry did well, notably **illumina, Inc.**, the leader in next generation DNA sequencing, and **Mettler-Toledo International, Inc.**, a manufacturer of weighing devices. Strength in Consumer Discretionary was mostly attributable to the outperformance of ski resort operator **Vail Resorts, Inc.**, online travel agency **The Priceline Group, Inc.**, and jeweler **Tiffany & Co.**, whose share prices were all up 20% or more in the quarter. Within IT, the Fund's application software holdings outperformed. These included **Mobileye N.V.**, the leader in automated driving technology that was purchased by Intel Corp., **Guidewire Software, Inc.**, which serves the insurance industry, **ANSYS, Inc.**, which makes product simulation software, and **SS&C Technologies Holdings, Inc.**, which makes software for financial services firms. Real Estate investments also outperformed after increasing almost 12% in the quarter. Tower operator **SBA Communications Corp.**, which was reclassified into this sector during the quarter, and **Equinix, Inc.**, which owns and operates data centers, both gained on good operating results.

Industrials sector investments were the only detractors from relative results, mainly as a result of the underperformance of **Verisk Analytics, Inc.**, which provides information about risk to the insurance, financial services, and energy industries, and **Westinghouse Air Brake Technologies Corporation (Wabtec)**, which provides components to the global rail industry. In addition, as discussed below, several investments detracted from the Fund's



ANDREW PECK
PORTFOLIO MANAGER

Retail Shares: BARAX
Institutional Shares: BARIX
R6 Shares: BARUX

results after reporting quarterly results that did not fully meet investor expectations. These included the online real estate service **Zillow Group, Inc.** and automotive aftermarket parts retailer **Advance Auto Parts, Inc.**

Table I.
Performance
Annualized for periods ended March 31, 2017

	Baron Asset Fund Retail Shares ^{1,2}	Baron Asset Fund Institutional Shares ^{1,2,3}	Russell Midcap Growth Index ¹	S&P 500 Index ¹
Three Months ⁵	10.07%	10.17%	6.89%	6.07%
One Year	18.82%	19.15%	14.07%	17.17%
Three Years	8.34%	8.64%	7.88%	10.37%
Five Years	12.37%	12.69%	11.95%	13.30%
Ten Years	7.25%	7.48%	8.13%	7.51%
Fifteen Years	8.21%	8.36%	8.57%	7.09%
Since Inception (June 12, 1987)	11.23%	11.31%	9.83% ⁴	9.59%

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, 2016 was 1.31% and 1.04%, 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 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.*

¹ The indexes are unmanaged. The Russell Midcap® Growth Index measures the performance of medium-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 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.
⁴ For the period June 30, 1987 to March 31, 2017.
⁵ Not annualized.



Baron Asset Fund

Table II.

Top contributors to performance for the quarter ended March 31, 2017

	Year Acquired	Percent Impact
IDEXX Laboratories, Inc.	2006	1.88%
Vail Resorts, Inc.	1997	0.93
Illumina, Inc.	2012	0.63
Mettler-Toledo International, Inc.	2008	0.61
Arch Capital Group Ltd.	2003	0.44

Shares of veterinary diagnostics manufacturer **IDEXX Laboratories, Inc.** rose after the company reported impressive financial results. We believe the company's competitive position is as strong as it has ever been. Quarterly results were highlighted by accelerated organic growth, robust placements of its new diagnostic instrument, and improved price realization. Results also demonstrated healthy margin expansion, which is finally apparent in financial results after several years of intensive investment. Management also dramatically accelerated share repurchases, spending \$250 million in the quarter to repurchase 2% of company shares. Looking forward, we expect IDEXX to achieve sustained double-digit constant currency organic growth during the next several years, driven by productivity benefits from its move to a direct U.S. sales force, the company's persistent innovation pipeline, and returns on its intensive investment in international markets.

Shares of ski resort owner **Vail Resorts, Inc.** gained in the aftermath of strong recent results, highlighted by increased skier visitation to its properties and higher average spending levels by those visitors. We believe Vail's recent acquisitions of ski resorts Whistler Blackcomb, Park City, and Perisher will allow Vail to make wise investments to improve those properties. We expect this to result in ongoing increases in season ski pass sales, which help insulate Vail's earnings from poor snowfall seasons and lead to improved cash flow.

Shares of **Illumina, Inc.**, the leading provider of DNA sequencing instruments and consumables, bounced back after performing poorly in 2016. In January, Illumina announced a new high throughput sequencing platform called the NovaSeq, which the company believes will create a meaningful replacement opportunity for its existing customer base and open exciting new applications for DNA sequencing. We continue to believe Illumina has a long runway for growth driven by its dominant competitive position in a market that we believe will be driven by increased adoption of DNA sequencing in clinical markets, such as cancer screening, diagnosis, and treatment.

Mettler-Toledo International, Inc. is the world's largest provider of weighing instruments for use in laboratory, industrial, and food retailing applications. Shares gained after the company reported strong quarterly results and increased its earnings guidance for 2017. Mettler-Toledo experienced particular strength in China, where sales grew at a mid-teens rate, and it also had continued success in raising its prices at modest, but consistent, rates. We believe Mettler-Toledo is exceptionally well managed, and we expect it to continue compounding earnings at attractive rates.

Arch Capital Group Ltd. is a Bermuda-based specialty insurance and reinsurance company. Arch gained on good financial results, as its profitable underwriting, modest catastrophe losses, and favorable reserve development drove mid-teens growth in its book value per share. The shares also benefited from growth in its mortgage insurance segment and its successful recent acquisition of United Guaranty. This acquisition makes Arch the

largest provider of private mortgage insurance, a market that we believe has attractive profitability and growth prospects.

Table III.

Top detractors from performance for the quarter ended March 31, 2017

	Year Acquired	Percent Impact
Zillow Group, Inc.	2015	-0.10%
Westinghouse Air Brake Technologies Corporation	2013	-0.08
Advance Auto Parts, Inc.	2016	-0.07
CarMax, Inc.	2004	-0.07
T. Rowe Price Group, Inc.	2004	-0.07

Zillow Group, Inc. is the leading domestic online real estate company. After performing well in 2016, its shares declined after the company reported a 2017 outlook that fell short of Wall Street expectations. We continue to believe that several products launched at the end of 2016 and early this year will start to have a positive impact on Zillow's revenue growth during 2017. Zillow is the leader in the highly-fragmented market for real estate advertising, which we believe will continue to rapidly migrate online, and we believe there remains room for the company to grow meaningfully.

Westinghouse Air Brake Technologies Corporation (Wabtec) is the leading manufacturer of equipment for railroad safety and productivity improvement. Its shares fell after the company reported 2016 results that missed investor expectations as a result of the slow recovery from a trough in the freight rail market. We believe early indicators are pointing to stabilization in this market. Further, we think Wabtec should grow nicely through its recent acquisition of Faiveley Transport, a transformative deal that can potentially provide significant growth and accretion opportunities.

Shares of automotive aftermarket parts retailer **Advance Auto Parts, Inc.** fell on concerns that mild winter weather and delayed tax refunds would weigh on near-term results. In addition, worries of increased online competition pressured the auto parts retail sector. The company also reported fourth quarter 2016 results that were ahead of Wall Street expectations on sales but lagged on margins. We believe the company's new management team has a sensible plan in place that has the potential to translate to accelerated revenue growth and improved profitability.

Shares of the country's leading used car retailer **CarMax, Inc.** were down on concerns that excess supply of used vehicles entering the wholesale market could result in lower prices on used car dealers' lots. We believe this trend has the potential to benefit CarMax by driving traffic to its stores, while helping the company maintain strong margins through lower car acquisition costs. With a low single-digit share of a vast, fragmented market, and a growing store base, we believe CarMax is poised to potentially deliver industry-leading sales and earnings growth over the next several years.

Shares of investment manager **T. Rowe Price Group, Inc.** declined as the asset management industry faced ongoing pressure from its clients on fees and the ongoing shift towards passive investments and income-oriented products. The company's asset flows have been negative for three quarters and certain retirement products saw their first net outflows. We believe this high quality manager has the ability to navigate the current industry headwinds and benefit from potential industry consolidation.

PORTFOLIO STRUCTURE

At March 31, 2017, Baron Asset Fund held 56 positions. The Fund's 10 largest holdings represented 42.6% of assets, and the 20 largest represented 63.7% of assets. The Fund's largest weighting was in the Information Technology (IT) sector at 22.6% of assets. This sector includes software companies, IT consulting firms, and data processing firms. The Fund held 22.0% of its assets in the Health Care sector, which includes investments in life sciences tools & services companies, health care equipment and supplies companies, and health care distributors. The Fund held 17.2% of its assets in the Financials sector, which includes investments in insurance companies, investment brokers and financial exchanges. The Fund also had significant weightings in Industrials at 15.3% of assets and Consumer Discretionary at 13.4% of assets.

Table IV.
Top 10 holdings as of March 31, 2017

	Year Acquired	Market Cap When Acquired (billions)	Quarter End Market Cap (billions)	Amount (millions)	Percent of Net Assets
IDEXX Laboratories, Inc.	2006	\$2.5	\$13.6	\$179.5	6.7%
Gartner, Inc.	2007	2.9	9.0	167.4	6.2
Vail Resorts, Inc.	1997	0.2	7.7	139.1	5.2
Arch Capital Group Ltd.	2003	0.9	11.7	120.8	4.5
Mettler-Toledo International, Inc.	2008	2.4	12.4	119.7	4.5
Verisk Analytics, Inc.	2009	4.0	13.5	105.5	3.9
The Charles Schwab Corp.	1992	1.0	54.6	100.0	3.7
FactSet Research Systems, Inc.	2006	2.5	6.5	71.7	2.7
SBA Communications Corp.	2007	3.8	14.6	71.0	2.6
Guidewire Software, Inc.	2013	2.8	4.2	68.7	2.6

RECENT ACTIVITY

During the past quarter, the Fund established three new positions and added to six others. The Fund also sold two positions and reduced its holdings in 15 others.

Table V.
Top net purchases for the quarter ended March 31, 2017

	Quarter End Market Cap (billions)	Amount Purchased (millions)
Acuity Brands, Inc.	\$9.0	\$19.8
BWX Technologies, Inc.	4.7	12.1
A. O. Smith Corporation	8.9	7.5
The Ultimate Software Group, Inc.	5.8	6.1
CoStar Group, Inc.	6.8	6.0

During the quarter, we initiated a position in **BWX Technologies, Inc.** The company is the sole supplier of nuclear propulsion systems to the U.S. Navy, which uses the systems to power its submarines and aircraft carriers. In addition, the company provides nuclear fuel and related services to both government-owned facilities and the nuclear industry globally. We believe BWX provides an opportunity to invest in a public company that is effectively a key strategic asset of the U.S. government, critical to national security. With its highly scalable and profitable business model, years of technical expertise, and relationship in the nuclear industry, we believe BWX offers consistent growth coupled with significant barriers to competition.

Navy market conditions are favorable, as fleet growth is a priority for the current presidential administration after years of stagnant activity. We see strong momentum in replacement programs (Columbia Class Submarines) and procurement (potential for accelerated orders for both carriers and submarines). BWX and the Navy have a symbiotic relationship that allows the company to generate attractive returns on its investments for the Navy's growth, while sharing scale cost reduction and efficiencies with its largest customer.

In addition, we see a resurgence of activity globally and in the Canadian nuclear market specifically, where BWX has a leading position through its operations and as a result of a recent acquisition. We expect to see additional growth opportunities in this market.

Lastly, we believe the company has adjacent military and commercial market opportunities that are still in nascent stages, but could prove to be important growth drivers in the long term.

Table VI.
Top net sales for the quarter ended March 31, 2017

	Amount Sold (millions)
IDEXX Laboratories, Inc.	\$28.3
FleetCor Technologies, Inc.	27.1
Quintiles IMS Holdings, Inc.	9.7
CBRE Group, Inc.	8.7
Vail Resorts, Inc.	6.8

After the company reached an all-time high (resulting in an approximate eight-fold return on our initial investment almost 11 years ago), we trimmed our position in veterinary diagnostic company **IDEXX Laboratories, Inc.** The company remains our largest investment. We reduced our position in **FleetCor Technologies, Inc.** on caution surrounding its slowing growth rate. We exited our investment in contract research organization and health care data firm **Quintiles IMS Holdings, Inc.** on concerns about the wisdom of its recent merger. We reduced our holdings of **CBRE Group, Inc.** after its shares rose meaningfully on limited news. We reduced our holdings of **Vail Resorts, Inc.** after the company reached an all-time high (resulting in an approximate ten-fold return on our initial investment 20 years ago). The company also remains one of our largest investments.

Baron Asset Fund

OUTLOOK

We remain optimistic that the economic policies of the presidential administration will continue to provide a beneficial backdrop for equities. The administration's focus on lower corporate tax rates and reduced regulatory burdens will hopefully lead to accelerated corporate earnings growth. We are encouraged that equity markets continue to move in tandem with interest rates since the election. We believe this should quell what has perhaps been investors' greatest recent concern—that higher rates would inevitably lead to lower equity prices. In addition, employment and housing trends continue to improve, and there are signs that the industrial economy is now following suit. We think that our portfolio of what we believe are well-managed, competitively advantaged, fast growing companies will continue to perform well in this environment, although we cannot guarantee that they will.

Furthermore, we continue to believe that high quality, mid-sized growth stocks represent a compelling long-term investment opportunity. During the past 30 years, mid-cap growth stocks, as a category, have outperformed small-cap and large-cap growth stocks. However, mid-caps have

underperformed these asset classes during the past five years. We are hopeful that this trend will reverse, presenting an attractive opportunity for the mid-cap growth asset class in the future.

Thank you for investing in Baron Asset Fund.

Our entire Firm and our research department, in particular, are committed to justifying your ongoing confidence and support. I remain a significant investor in the Fund alongside you.

Sincerely,



Andrew Peck
Portfolio Manager
April 20, 2017

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.

The Adviser believes that there is more potential for capital appreciation in mid-sized companies, but there also may be more risk. Specific risks associated with investing in mid-sized 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.

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.

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