



# Baron Mid Cap Growth Strategy

December 31, 2018

## DEAR INVESTOR:

### PERFORMANCE

U.S. equity indexes declined meaningfully during the quarter, and weakness was broad-based across nearly all sectors. Growth indexes and value indexes both fell, but the decline in growth stocks was more pronounced. Reasons included concerns over the looming trade war between the U.S. and China, indications that the Federal Reserve might increase interest rates several times during 2019, and some signs that global growth, particularly in China, might be slowing. Against this challenging backdrop, Baron Mid Cap Growth Strategy declined 16.35% while the Russell Midcap Growth Index (the "Index") declined 15.99%, and the S&P 500 Index declined 13.52%.

**Table I.**  
**Performance<sup>†</sup>**  
**Annualized for periods ended December 31, 2018**

	Baron Mid Cap Growth Strategy (net) <sup>1</sup>	Baron Mid Cap Growth Strategy (gross) <sup>1</sup>	Russell Midcap Growth Index <sup>1</sup>	S&P 500 Index <sup>1</sup>
Three Months <sup>2</sup>	(16.35)%	(16.13)%	(15.99)%	(13.52)%
One Year	0.18%	1.18%	(4.75)%	(4.38)%
Three Years	10.53%	11.64%	8.59%	9.26%
Five Years	8.25%	9.34%	7.42%	8.49%
Ten Years	14.14%	15.29%	15.12%	13.12%
Fifteen Years	9.54%	10.65%	8.98%	7.77%
Since Inception <sup>3</sup> (June 30, 1998)	7.70%	8.78%	7.29%	5.93%

During the quarter, outperformance of the Strategy's investments in Financials and Industrials, its modest cash exposure amid a down market,

and its higher exposure to better performing REITs within the Real Estate sector contributed the most to relative results. Performance in the Financials sector was driven by **Willis Towers Watson Public Limited Company**, a benefits consultant and insurance broker, and **MarketAxess Holdings Inc.**, an operator of an electronic trading platform for fixed income securities. Both companies reported strong quarterly results. Specialty insurer **Arch Capital Group Ltd.**, investment management tools provider **FactSet Research Systems, Inc.**, and **First Republic Bank** also added value, as their stock prices held up relatively well in a volatile market. Strength in the Industrials sector was due to the outperformance of data and analytics vendor **Verisk Analytics, Inc.** and diversified industrial company **Roper Technologies Inc.** Verisk's shares outperformed after the company reported solid quarterly results and hosted an upbeat investor day. Roper's stock outperformed as its high-quality characteristics and significant recurring revenues were positively regarded by investors in a volatile market.

Information Technology (IT) and Consumer Discretionary investments and lack of exposure to the outperforming Consumer Staples sector detracted the most from relative results. Weakness in IT was partly due to the underperformance of IT research firm **Gartner, Inc.**, as well as credit card processor **Worldpay, Inc.** We believe both companies were unfairly swept up in the widespread sell-off among IT stocks during the quarter. The underperformance of application software vendors **ANSYS, Inc.** and **Guidewire Software, Inc.** also hampered relative results. Within Consumer Discretionary, underperformance of global ski resort operator **Vail Resorts, Inc.** and venerable jeweler **Tiffany & Co.** weighed on relative results. Vail fell after the company sold slightly fewer season pass sales for the 2018/19 ski season than investors expected. Tiffany's shares were down sharply after quarterly sales growth decelerated from levels experienced earlier in 2018. We are optimistic that the sales issues experienced by both companies will prove fleeting.

*For Strategy reporting purposes, the Firm is defined as all accounts managed by Baron Capital Management, Inc. ("BCM") and BAMCO, Inc. ("BAMCO"), registered investment advisers wholly owned by Baron Capital Group, Inc. As of December 31, 2018, total Firm assets under management are approximately \$24.0 billion. The Strategy is a time-weighted, total return composite of all mid-cap accounts greater than \$1 million using our standard investment process. Since 2010, accounts in the Strategy are market-value weighted and are included on the first day of the month following one full month under management. Prior to 2010, accounts were included on the first day of the quarter after one full quarter. Gross performance figures do not reflect the deduction of investment advisory fees. Actual client returns will be reduced by the advisory fees and any other expenses incurred in the management of the investment advisory account. A full description of investment advisory fees is supplied in our Form ADV Part 2A. Valuations and returns are computed and stated in U.S. dollars. Performance figures reflect the reinvestment of dividends and other earnings. The Strategy is currently composed of one mutual fund managed by BAMCO and separately managed accounts managed by BCM. BAMCO and BCM claim compliance with the Global Investment Performance Standards (GIPS®). To receive a complete list and description of the Firm's Strategies or a GIPS-compliant presentation please contact us at 1-800-99BARON.*

*Performance data quoted represents past performance. Current performance may be lower or higher than the performance data quoted. Past performance is no guarantee of future results.*

<sup>†</sup> The Strategy's historical performance was impacted by gains from IPOs and/or secondary offerings, and there is no guarantee that these results can be repeated or that the Strategy's level of participation in IPOs and secondary offerings will be the same in the future.

<sup>1</sup> 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 Strategy 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.

<sup>2</sup> Not annualized.

<sup>3</sup> The Strategy has a different inception date than its underlying portfolio, which is 6/12/87.



# Baron Mid Cap Growth Strategy

**Table II.**

**Top contributors to performance for the quarter ended December 31, 2018<sup>1,2</sup>**

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MarketAxess Holdings Inc.  
Willis Towers Watson Public Limited Company  
SBA Communications Corp.

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**MarketAxess Holdings Inc.** operates the leading electronic platform for trading corporate and sovereign bonds. The stock performed well after the company reported good third quarter results, highlighted by its increased market share – daily trading volume rose 11% while total market volume fell 7%. The company also benefited from the elevated market volatility during the fourth quarter, as its daily trading volume grew 26% while total market volume fell 2%. We continue to expect MarketAxess to be the prime beneficiary of the ongoing secular shift toward electronic trading in the corporate bond market.

Shares of **Willis Towers Watson Public Limited Company**, a leading insurance broker and human resources consultant, rose modestly against the difficult market backdrop. After shares underperformed for a long period, we believe that the stock had become quite attractively valued. The company's third quarter earnings were well received, enabling shares to hold up relatively well in a volatile market. We remain optimistic that Willis Towers Watson will be able to drive sustained double-digit adjusted EPS growth and generate meaningful free cash flow.

Shares of cellular tower operator **SBA Communications Corp.** rose slightly during the quarter, as the major domestic wireless carriers continued to spend aggressively to build out their networks on SBA-owned towers. We believe that U.S. and Latin American wireless carriers will continue to place more equipment on SBA's towers in order to improve the quality of their 4G networks. In addition, the eventual rollout of next-generation 5G networks should present a further growth opportunity for the company.

**Table III.**

**Top detractors from performance for the quarter ended December 31, 2018<sup>1,2</sup>**

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IDEXX Laboratories, Inc.  
Gartner, Inc.  
Vail Resorts, Inc.  
Guidewire Software, Inc.  
Bio-Techne Corporation

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After rising throughout the first three quarters of the year, shares of **IDEXX Laboratories, Inc.**, the leading player in the market for veterinary diagnostics, detracted meaningfully from performance in the fourth quarter. While the company's third quarter financial results were strong, unfavorable weather in Europe and depressed global milk prices caused farmers to cut back on veterinary expenses, which slightly reduced overall reported growth. We are optimistic about IDEXX's long-term prospects as placements of the company's flagship Catalyst instruments into veterinary offices continued to track at impressive rates. In addition, IDEXX's domestic

reference laboratory segment continued to grow at approximately twice the rate of its largest competitor. Lastly, we believe there is meaningful room for continued margin expansion over the next several years.

Shares of **Gartner, Inc.**, the largest provider of syndicated research on the IT sector, detracted from performance as technology stocks broadly sold off. We believe that Gartner's integration of its approximate \$3 billion acquisition of CEB, Inc., which provides research on best practices to senior corporate executives across many industries, is proceeding ahead of schedule. We believe that Gartner has wisely increased its investment into this new business to pursue a large, incremental revenue opportunity. We believe that the company's recent results indicate continued positive returns from this initiative, as both sales productivity and client retention rates improved at CEB. We expect this acquisition to drive accelerated revenue growth for Gartner over the medium term. Separately, we believe that key forward-looking metrics in Gartner's core IT research business continue to be solid, with research contract value growth and sales productivity both improving.

Shares of **Vail Resorts, Inc.**, the largest global operator of ski resorts, decreased in the quarter as the company sold slightly fewer season pass sales for the 2018/19 ski season than investors expected. While this result was disappointing, Vail still received nearly half of its anticipated lift ticket revenue before the ski season started. This should make Vail's earnings more predictable and less susceptible to weather conditions. And, encouragingly, Vail's Colorado resorts received significant early season snowfall. We believe that the company should continue to grow earnings at a double-digit rate, while also generating strong cash flow to be used for dividend increases and accretive acquisitions.

Shares of insurance software vendor **Guidewire Software, Inc.** detracted from performance in concert with a broad sell-off of technology stocks. We believe that Guidewire is the dominant provider of next generation core software systems to the property and casualty insurance industry. We believe the industry is in the early stages of a large-scale core system replacement cycle, and Guidewire has tripled its addressable market in the past several years through new products introductions and cloud delivery capabilities. Eventually, we believe Guidewire will become the key software vendor for the global P&C insurance industry, capturing a significant share of a \$15 billion-to-\$30 billion total addressable market.

**Bio-Techne Corporation** is one of the world's leading suppliers of proteins, antibodies, and test kits to the life sciences research community. Shares detracted in the quarter after management removed \$30 million of revenue contribution from its 2019 fiscal year guidance because of certain discrete issues related to the timing of revenue recognition in its Exosome Diagnostics segment. We remain optimistic about Exosome, which has a non-invasive liquid biopsy test to help physicians determine whether a prostate biopsy is necessary in patients with ambiguous screening results. We have not changed our view on the company's long-term prospects. Bio-Techne reported solid quarterly financial results, highlighted by 10% organic revenue growth, and management still expects the Exosome segment to contribute \$150 million to revenue by 2023.

<sup>1</sup> Top contributors, top detractors, and top 10 holdings are based on a representative account. Such data may vary for each client in the Strategy due to asset size, market conditions, client guidelines, and diversify of portfolio holdings. The representative account is the account in the Strategy that we believe most closely reflects the current portfolio management style for the Strategy. Representative account data is supplemental information.

<sup>2</sup> Based on the gross performance results of the representative account.

## PORTFOLIO STRUCTURE

At December 31, 2018, Baron Mid Cap Growth Strategy held 59 positions. The Strategy's 10 largest holdings represented 40.3% of assets, and the 20 largest represented 61.5% of assets. The Strategy's largest weighting was in the IT sector at 25.5% of assets. This sector includes software companies, IT consulting firms, internet services and infrastructure companies, and data processing firms. The Strategy held 23.1% of its assets in the Health Care sector, which includes investments in life sciences companies, and health care equipment, supplies, and technology companies. The Strategy held 17.4% of its assets in the Industrials sector, which includes investments in research and consulting companies, industrial conglomerates, and machinery companies. The Strategy also had significant weightings in Financials at 13.4% of assets and Consumer Discretionary at 10.4% of assets.

**Table IV.**  
**Top 10 holdings as of December 31, 2018<sup>1</sup>**

	Percent of Net Assets
Gartner, Inc.	6.4%
IDEXX Laboratories, Inc.	5.9
Verisk Analytics, Inc.	4.4
Vail Resorts, Inc.	4.4
Mettler-Toledo International, Inc.	4.3
Guidewire Software, Inc.	3.3
Verisign, Inc.	3.1
Illumina, Inc.	3.0
The Charles Schwab Corp.	2.9
FactSet Research Systems, Inc.	2.6

<sup>1</sup> Based on the representative account

## RECENT ACTIVITY

During the past quarter, the Strategy established one new position and added to seven others. The Strategy reduced its holdings in four positions.

**Table V.**  
**Top net purchases for the quarter ended December 31, 2018<sup>1</sup>**

Aspen Technology, Inc.
Tiffany & Co.
TransUnion
Ceridian HCM Holding Inc.
IAC/InterActiveCorp

<sup>1</sup> Based on the representative account

**Aspen Technology, Inc.** is the leading provider of optimization software to the energy and process industries. Aspen was founded 30 years ago in a lab at MIT, gained scale through a series of acquisitions in the early 2000s, and recently finalized a complete restructuring of its software and business model. Today, the company's core Engineering and Manufacturing & Supply Chain (MSC) suites help customers improve competitiveness and profitability by increasing productivity, reducing operating costs, and minimizing working capital.

Aspen's customers include the world's largest energy, chemical, and engineering & construction companies. These customers depend on Aspen's software to run mission-critical aspects of their business, such as process design and simulation, automated process control, and plant and pipeline scheduling. In total, Aspen's software creates more than \$50 billion of value annually for its customers. The criticality of Aspen's tools leads to average contract lives of six years, near-perfect retention rates, and annual price increases.

The company serves a large and well-defined addressable market. We estimate that the opportunity for the company's core Engineering and MSC suites is approximately \$3 billion of annual recurring revenue, or around six times larger than its current business. We believe that the vast majority of the growth opportunity will come from deeper engagement with existing customers. The company employs a "token" model as a means to encourage wider adoption of its software. Aspen's customers increase their token consumption when they use additional modules or allow more users to adopt the suite. Given the high ROI of the modules, the inevitable result is that customers need to keep coming back to Aspen to purchase more tokens as their use of Aspen technology expands. Growth in Engineering and MSC should also be driven by an upgrade cycle to its newest platform, better integration of modules, and the consistent release of new modules.

Aspen recently extended its market leading functionality into asset maintenance with the launch of its Asset Performance Management ("APM") suite. APM offers simulation tools and machine learning algorithms to help customers predict machine failures before they happen and prescribe prospective actions for operators to take to avoid unexpected failures. The APM suite offers customers a dramatic ROI, as unanticipated equipment failures can take weeks to resolve and result in millions of dollars per day of lost revenue. In total, unplanned equipment downtime causes an estimated \$1.4 trillion of lost value annually.

We estimate that the addressable opportunity for the new APM suite is approximately \$2 billion of annual recurring revenue. We believe that APM software is a logical cross-sell for existing Aspen customers in the process industries, and that it is applicable to a broader set of industries, including consumer packaged goods, pharmaceuticals, and transportation. We are encouraged by the company's early traction in growing this business, and we believe that over time, APM can represent close to half of the company's annual bookings.

Like many vertical software companies, Aspen's business is highly profitable and extremely cash generative. Free cash flow margins are already in the low 40% range, and we think those will rise higher over time given the company's high incremental margins and strong cost controls. The company converts around 75% of its EBITDA to free cash flow, which it uses to make acquisitions and repurchase stock. We expect management to look to acquire assets that will help it penetrate deeper into its customers and further build out its new APM suite. The company's consistent share repurchase program has reduced the number of shares outstanding by 18% over the last three years. We expect to see a minimum \$200 million to \$250 million of annual repurchases going forward, and we believe that repurchases can opportunistically be expanded.



# Baron Mid Cap Growth Strategy

Table VI.

Top net sales for the quarter ended December 31, 2018<sup>1</sup>

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Waters Corporation  
Arch Capital Group Ltd.  
Alexander's, Inc.  
T. Rowe Price Group, Inc.

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<sup>1</sup> Based on the representative account

We reduced our holdings in **Waters Corporation**, a leading manufacturer of liquid chromatography devices, over concerns about its long-term competitive position. We trimmed our position in insurer **Arch Capital Group Ltd.** on concerns about the outcome of a changing regulatory environment for its profitable mortgage insurance unit. We trimmed our position in New York office and retail REIT **Alexander's, Inc.** over concerns about trends in the retail environment. We sold some shares of **T. Rowe Price Group, Inc.** to redeploy the proceeds into other investment opportunities.

## OUTLOOK

Despite the stock market's poor performance during the past quarter, we remain optimistic about the prospects for U.S. equities. We are encouraged by the market's upward direction during the early part of January 2019. We believe that the economy remains generally robust and that the outlook for continued strength in earnings among the companies in our portfolio remains solid. The U.S. unemployment rate remains near an historic low, and most leading economic indicators remain positive. Although we are not expert in gauging the future direction of interest rates (and we believe that few such "experts" exist), we are encouraged that the Wall Street consensus has evolved to expect more modest increases by the Federal Reserve going forward.

We believe that our portfolio of well-managed, competitively advantaged, fast growing companies will continue to perform well, although we cannot guarantee that they will. We continue to believe that high-quality, mid-sized growth stocks represent a compelling long-term investment opportunity.

Sincerely,



Andrew Peck  
Portfolio Manager

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*The performance of accounts in the Strategy may be materially different at any given time. Differences that may affect investment performance include cash flows, inception dates, and historical prices. Positions may not be the same or may be traded at different times. In addition, accounts in the Strategy may be pursuing similar investment strategies, but may have different investment restrictions.*

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. Prior to February 15, 2007, the Strategy invested primarily in small and mid-sized growth companies. Since then, the Strategy invests in mid-sized companies. The Strategy 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.