Needham Funds

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Dear Shareholders, Friends of Needham, and Prospective Shareholders,

We are pleased to report results for the quarter ending March 31, 2019 for the Needham Growth Fund, Needham Aggressive Growth Fund, and Needham Small Cap Growth Fund. Our mission is to create wealth for long-term investors and the first quarter of 2019 was a good step forward.

Needham Funds' First Quarter 2019 Results

In the first quarter, the Needham Growth Fund Institutional and Retail classes returned 14.47% and 14.28%, respectively, and the Needham Aggressive Growth Fund Institutional and Retail classes returned 16.98% and 16.79%, respectively. The Needham Small Cap Growth Fund Institutional and Retail classes returned 16.47% and 16.37%, respectively. The Russell 2000 Index returned 14.58% and the S&P 500 Index returned 13.65%.

Review of the First Quarter 2019

In January, the markets roared and the Needham Funds earned back the December losses and most of the fourth quarter 2018 losses. Talk of a global economic slowdown created uncertainty surrounding the U.S. Federal Reserve's plan to increase interest rates in 2019. On January 25, the 35-day partial U.S. Federal government shutdown ended.

At its February 1 meeting, the Federal Reserve decided to hold interest rates flat and forego the planned hikes for 2019, confirming what the market had anticipated. The Fed cited slow growth in China and Europe, Brexit, the risks of U.S.-China trade talks, and the government shutdown. While a Federal Reserve pause is good for the equity markets, we also recognize that 2.25-2.50% is a historically low range for interest rates. We have long said that as a rule, monetary authorities pursue easy money policies. Paul Volcker is the one exception in the last 40 years. We believe equity markets could continue to benefit in 2019 from these easy monetary policies.

In February, fourth quarter 2018 GDP growth was confirmed at 2.6%, versus an initial estimate of 1.8-2.0%. The U.S. also agreed to postpone its announced tariff increase from 10% to 25% on $200 billion of Chinese goods, and trade negotiations continued. We continue to believe that the United States and China will reach a trade agreement, which could be positive for the markets. In House testimony, Federal Reserve Chairman Powell confirmed that the Fed will pause on its plan to downsize its $4 trillion balance sheet.

March was a relatively flat month. Inverted yield curves have traditionally foreshadowed economic slowdowns. For a few days in March, the yield curve inverted when the yield on 10-Year Treasuries fell below maturity dates under one year. By the end of March, Chairman Powell said wages were growing, consumer confidence rebounded, and economic fundamentals were strong.

Our outlook for 2019 remains positive, with the possibilities of a U.S.-China trade deal, an accommodative Federal Reserve, and value recognition in our small cap companies that lagged in 2018. We look forward to a year of patience rewarded.

Needham Small Cap Growth Fund (NESGX/NESIX)

The Needham Small Cap Growth Fund Institutional class returned 16.47% and the Retail class returned 16.37% in the quarter ended March 31, 2019. The small cap Russell 2000 Index returned 14.58% in the first quarter.

We are very pleased with the Fund's first quarter performance as headline and market volatility returned. We were able to reduce specific positions that achieved our price targets while deploying capital into new and existing positions. While volatility may seem to be a bad word for the overall markets, it is a great chance for active managers to find buying opportunities. It is in these volatile markets when a cash position is truly strategic for small cap fund managers. Many small cap investment opportunities "trade by appointment" and we like to capitalize on these opportunities when liquidity is available to both buy and sell stock positions. The Fund continued its lean toward a concentrated portfolio of stocks, with the top 10 holdings representing 51.46% of net assets at March 31, 2019.

Top holdings at March 31, 2019 included Amber Road, Inc. (AMBR), PDF Solutions, Inc. (PDFS), Photronics, Inc. (PLAB), Air Lease Corp. (AL), and Cohu, Inc. (COHU). The Fund's top first quarter contributors included PDF Solutions, Super Micro Computer, Inc. (SMCI), Roku, Inc. (ROKU), GenMark Diagnostics (GNMK), and Aspen Aerogels, Inc. (ASPN). The Fund's largest first quarter detractors were EMCORE Corp. (EMKR), Cohu, and a small short position in Ubiquiti Networks, Inc. (UBNT).

With regard to PDF Solutions, the company continues to move through a product transition with some very positive customer sales this past quarter. This had been a painful long-term holding, but we believe in the management team and its long-term goals. Super Micro Computer is another long-term holding that has had tremendous fundamental achievements as it builds out its business; however, the company has had difficulty filing its financial reports over the past two years and was the target of unconfirmed negative reports in the second half of 2018. We remain confident that it will file, and we continue to monitor its financial updates, which suggest the core business is doing very well.

We added a small number of new small positions to the Fund, including Marvell Technology Group Ltd. (MRVL), Vicor Corp. (VICR), and MACOM Technology Solutions Holdings, Inc. (MTSI). We sold our positions in Five9, Inc. (FIVN), Hess Corp. (HES), and Vishay Precision Group (VPG), but we also trimmed some of our holdings mid-quarter as they achieved our price targets after significant appreciation. In March, we found some great opportunities to redeploy our cash to build many of our existing positions. The Fund ended the quarter with a cash position of 5.9%, and we will remain patient as we deploy that capital.

We continue to believe that a good environment remains for investment in equities. Three themes we are focused on include: 1) continuation of the growth in the semiconductor capital equipment industry; 2) 5G communication infrastructure build-outs; and 3) military and defense modernization. These three areas of investment impact much of our portfolio, and we believe that long term, they should create shareholder value.

We expect the increased volatility to continue throughout 2019 and into 2020. We expect no more rate increases this year from the Federal Reserve unless the economy returns to very strong and sustained growth rates. While the global trade negotiations have been painful headlines for many, any resolution to these disagreements should provide a very nice tailwind to the global economy as we enter the general election of 2020. The high-yield markets remain strong, which is also supportive of the small cap asset class valuations. We reiterate from past quarterly letters that mergers and acquisitions continued in the small cap universe. We expect to see increased M&A activity to improve and benefit our portfolio of stocks in 2019.

Needham Growth Fund (NEEGX/NEEIX)

In the first quarter, the Needham Growth Fund Institutional class returned 14.47% and the Retail class returned 14.28%, outperforming the S&P 500 Index, which returned 13.65%.

For the first quarter, PDF Solutions was the top contributor and returned 46.5%. The company made continued progress on its new initiatives, including an announcement of a new agreement for Design-for-Inspection with its lead customer, which we believe to be Taiwan Semiconductor Manufacturing Co., Ltd (TSM). DFI is used to detect electrical failures on semiconductors during the manufacturing process. PDF's business model is to provide machines, the Exensio Big Data Analytics platform and software-applications-as-a-service, which results in recurring revenue for PDF. Exensio revenue grew 43% in 2018 and could represent 40% of revenue in 2019. The Fund owns the stock in anticipation of addressing these markets and being a much larger company over the years ahead. PDF has been in a five-year investment period. Investments like this take patience.

The Fund's largest position, Thermo Fisher Scientific (TMO), was the second best contributor and returned 22.4%. The company develops instruments and consumables used in life science and other research-oriented industries. In February, Thermo Fisher reported 9% organic revenue growth for the fourth quarter of 2018, well above the 4-6% Wall Street expectations. We see continued organic growth and acquisition opportunities. Thermo Fisher is a 19-year holding of the Fund, and has compounded at a near 19% annual rate.

Super Micro Computer was the third-largest contributor and returned 53.1%. On October 4, 2018, Super Micro Computer was the victim of a bizarre story published by Bloomberg Businessweek about Chinese People's Liberation Army hackers inserting "microchips the size of a grain of sand" into Super Micro servers, allowing the Chinese to spy on customers, including Apple (AAPL), Amazon (AMZN), and the Department of Defense. All of these entities and many others denied the story. Tim Cook of Apple personally called for Bloomberg to retract the story. The article took Super Micro from $21.50 per share to a low of $8.50 in one day. While dealing with this false story, Super Micro reported 8-9% revenue growth in the December quarter and guided for 1-9% growth in the March quarter. The company is estimated to earn $2.00-2.30 per share in 2018 and 2019. The stock closed the year at $21.13, or barely 10x earnings. We were once again disappointed that Super Micro has yet to file its financials back to June of 2017. It has provided estimates of how revenue will move between a few quarters and if these estimates hold, we believe the changes will not be material. We are comfortable with the current valuation, but regret that we have no idea when Super Micro will be able to file.

Entegris (ENTG) was the fourth-leading contributor and returned 28.2%. Entegris supplies filters and chemicals used in semiconductor advanced manufacturing processes. On January 28, Entegris and Versum Materials (VSM) announced an agreement to merge and announced $75 million of expense savings. A month later, Merck KGaA (MRK.GR) announced a competing bid for Versum. Merck's interest in Versum shows the value of Entegris, which is a similar business. In early April, Merck increased its bid for Versum and won the acquisition. Entegris walked away with a $140 million break-up fee. At a comparable multiple, Entegris would be valued at $52 per share, above the $35.69 March 31 closing price.

The only detractor of note was the Fund's short position in Ubiquiti Networks. Ubiquiti was up 50.9% during the first quarter. Ubiquiti furthered its retreat from the public eye by not holding a conference call this quarter. The company hasn't had a CFO since April 2015. In October 2018, Ben Moore, long-time VP of Business Development and one of only three named officers, resigned. In November 2018, Ubiquiti released earnings that showed ongoing tax audits in the U.S. and Hong Kong, and a Notice of Proposed Adjustment from the IRS relating to 2015 and 2016, indicating the company owes $50 million. Ubiquiti disagrees and hasn't recorded a tax liability. In November 2018, Ubiquiti announced a new $200 million stock repurchase program. Its previous buybacks have mostly been funded with bank debt.

We have not changed our thesis on Ubiquiti. It's hard for a mutual fund to compound returns when a short position keeps requiring capital that can be used to buy positions which we'd like to hold for years. Consequently, we reduced the Fund's short position in Ubiquiti. We also reduced the short position in Medallion Financial, Inc. (MFIN).

In the first quarter, the Needham Growth Fund added a new small position in Wabtec (Westinghouse Air Brake Technologies Corp.) (WAB), a leading locomotive manufacturer. During the quarter, it made progress on its transformational acquisition of General Electric's locomotive business. We believe there is likely to be a strong market for new and retrofit locomotives over the next few years, as technology is more widely adopted and the cost of trucking and shortage of drivers makes rail an even more attractive shipping option.

The Fund added to its positions in DIRTT Environmental Solutions (DRT:TSE), Vicor, and Navigator Holdings (NVGS) on price weakness. The Fund sold its position in Hess Corp. The Fund reduced its positions in FormFactor (FORM), ViaSat (VSAT), Thermo Fisher Scientific, Becton Dickinson & Co. (BDX), Entegris, Photronics, and The Trade Desk (TTD).

As of March 31, 2019, the top 10 positions were 58.39% of the Fund's net assets. Trailing 12-month turnover was just 7% and the Fund's Active Share vs. the S&P 500 was 107.5%. The Fund was short 5.9% of total investments. Once again, the Fund looks nothing like the S&P 500 and its performance was not correlated.

Needham Aggressive Growth Fund (NEAGX/NEAIX)

Needham Aggressive Growth Fund Institutional class returned 16.98% in the first quarter and the Retail class 16.79%. The Russell 2000 Index returned 14.58% during the same period. PDF Solutions, now the largest position in the Fund, was the top contributor, and Entegris was the second-leading contributor.

GSE Systems (GVP) was the third-leading contributor and returned 33.3%, regaining some of its fourth quarter loss. GSE's mission is to be a leader in training, consulting and technology-enabled engineering solutions for the power and process industries, and it made progress on this mission throughout 2018. In January 2019, GSE announced a $2.6 million contract with a major U.S. nuclear operating company to deliver a Data Validation & Reconciliation (DVR) solution. GSE's True North Consulting division will deliver on this contract by building simulation models of reactor plants and integrating them with the plant information systems. This contract illustrates the potential for revenue and new product synergy across GSE's acquired companies. In February 2019, GSE announced the acquisition of DP Engineering Ltd. for $13.5 million of cash. DP acts as "Engineer of Choice" in mechanical, civil, electrical, instrumentation and controls, cyber security and fire protection for projects in nuclear power plants. DP had annual revenue greater than $20 million with gross margins over 30% and strong cash flow. DP is anticipated to generate $3-4 million of adjusted EBITDA. Pro-forma the DP acquisition, GSE now has over $100 million of revenue and a market cap of just $56 million.

MKS Instruments returned 44.4% and was the fourth-leading contributor. MKS reported December quarter revenue that declined 10% year over year, but exceeded estimates. The market is looking for a second half 2019 recovery for the semiconductor capital equipment industry, including MKS. During the quarter, MKS closed the acquisition of Electro Scientific Industries with its laser-based manufacturing solutions. A number of years ago, the Needham Funds were significant ESI shareholders. ESI has come a long way and has current opportunities with it tools for drilling flexible printed circuit boards and multi-layer ceramic capacitors (MLCCs). MLCCs have been in short supply, which should be positive for capital spending. Longer term, ESI has an opportunity as it enters the market for drilling tools used for High Density Interconnect (HDI) printed circuit boards. MKS has built a record of strong execution for its acquisitions, in particular with the transformative acquisition of Newport Corporation in 2016.

Like the Needham Growth Fund, the Aggressive Growth Fund's short positions in Ubiquiti Networks and Medallion Financial were the leading detractors, and the Fund reduced the size of these positions.

The only long position to be a substantial detractor was Vicor, which fell 31.1% in the first quarter. Vicor makes small, modular power converters used in data centers, on servers and in transportation systems, including automobiles. It has invested $400 million in new product development over the last decade. Vicor has worked with Alphabet's Google (GOOGL) on its Open Compute data centers to distribute DC (direct current) power throughout the data center rather than go through the inefficient conversions to AC (alternating current) and back again to DC. In March 2018, Vicor and NVIDIA (NVDA) announced that they were working together. Many of today's computing needs require sophisticated power conversion and Vicor is uniquely positioned to meet these conversion needs. The quarterly financial results announced in February 2019 were disappointing, even though at the time, there were no Wall Street analysts covering the company. On the call, Vicor announced that it was adding capacity for $750 million of revenue by 2020. Vicor had $291 million of revenue in 2018. We believe Vicor may be a substantially larger company within a few a years.

The Fund added a starter position in Wabtec. The Fund reduced positions in Entegris, Omnicell (OMCL), FormFactor, Super Micro Computer, Akamai Technologies (AKAM), Photronics, Q2 Holdings (QTWO), and The Trade Desk. The Fund exited positions in 2U, Inc. (TWOU), Becton Dickinson & Co. (BDX), Frequency Electronics (FEIM), Ichor Holdings (ICHR), and II-VI (IIVI).

At March 31, 2019, the Fund's top 10 positions were 64.35% of net assets. The Fund had an Active Share of 111.8% versus the Russell 2000 and had trailing 12-month turnover of 6%.

Closing

We believe the U.S. remains the best place in the world to be investing, and we continue to see an opportunity to invest in small and mid-cap stocks. Most importantly, we see a revolution happening in technology that has created and continues to create investment opportunities. We see opportunity in our strategy of investing in companies that we know well and that we believe are positioned with secular growth drivers.

We welcome our new investors and thank all of our investors for their continued support. If you have any questions, thoughts or concerns, please contact us at (800) 625-7071 or at cretzler@needhamco.com or jbarr@needhamco.com. For information about the funds, please visit our website at www.needhamfunds.com.

Sincerely,

Chris Retzler

John O. Barr

Chris Retzler, Portfolio Manager | John O. Barr, Portfolio Manager

Fact Sheet Links: [Needham Growth Fund] [Needham Aggressive Growth Fund] [Needham Small Cap Growth Fund]

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This message is not an offer of the Needham Growth Fund, the Needham Aggressive Growth Fund or the Needham Small Cap Growth Fund. Shares are sold only through the currently effective prospectus. Please read the prospectus or summary prospectus and consider the investment objectives, risks and charges and expenses of the Funds carefully before you invest. The prospectus and summary prospectus contain this and other information about the Funds and can be obtained on our website, www.needhamfunds.com.

Investment returns and principal value will fluctuate, and when redeemed, shares may be worth more or less than their original cost. Performance data quoted represents past performance, and does not guarantee future results. Current performance may be higher or lower than these results. Performance current to the most recent month-end may be obtained by calling our transfer agent at 1-800-625-7071. Total return figures include reinvestment of all dividends and capital gains.

All three of the Needham Funds have substantial exposure to small and micro capitalized companies. Funds holding smaller capitalized companies are subject to greater price fluctuation than those of larger companies.

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Portfolio holdings are subject to change. The Needham Funds ownership as a percentage of net assets in the stated securities as of 3/31/19:

SECURITY	NEEGX	NEAGX	NESGX	SECURITY	NEEGX	NEAGX	NESGX	SECURITY	NEEGX	NEAGX	NESGX
AMBR	4.23%	3.17%	8.64%	**VICR**	0.85%	4.04%	1.66%	**FORM**	4.14%	2.70%	0.64%
PDFS	6.71%	10.10%	7.72%	**MTSI**	0.00%	0.00%	0.77%	**VSAT**	1.83%	0.00%	0.24%
PLAB	1.40%	1.48%	7.46%	**FIVN**	0.00%	0.00%	0.00%	**BDX**	5.47%	0.00%	0.00%
AL	1.88%	0.23%	5.05%	**HES**	0.00%	0.00%	0.00%	**TTD**	1.15%	0.58%	0.00%
COHU	0.00%	0.00%	4.52%	**VPG**	0.00%	0.57%	0.00%	**GVP**	0.00%	7.02%	0.00%
PDFS	6.71%	10.10%	7.72%	**TMO**	9.45%	0.00%	0.00%	**MKSI**	2.55%	4.79%	0.86%
SMCI	3.47%	3.43%	2.27%	**AAPL**	0.56%	8.50%	0.00%	**MFIN**	-1.08%	-2.24%	0.00%
ROKU	0.00%	0.00%	0.59%	**AMZN**	0.00%	0.00%	0.00%	**OMCL**	0.00%	0.54%	0.00%
GNMK	0.17%	0.00%	2.58%	**ENTG**	5.32%	9.78%	0.77%	**AKAM**	2.67%	3.77%	0.00%
ASPN	1.21%	0.94%	3.87%	**VSM**	0.00%	0.00%	0.00%	**QTWO**	1.44%	1.40%	0.00%
EMKR	0.00%	0.00%	3.75%	**WAB**	0.24%	0.25%	0.00%	**TWOU**	0.08%	0.00%	0.00%
UBNT	-4.51%	-4.02%	0.00%	**DRT**	0.70%	4.38%	0.78%	**FEIM**	0.41%	0.00%	2.21%
MRVL	0.00%	0.00%	0.15%	**NVGS**	0.39%	0.06%	3.54%	**ICHR**	0.00%	0.00%	1.11%
								IIVI	0.00%	0.00%	0.91%