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November 2016

Dear Shareholders, Friends of Needham and Prospective Shareholders,

We are pleased to report results for the third quarter of 2016 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.

Needham Funds' Third Quarter

In the third quarter, the Needham Growth Fund (NEEGX) returned 5.98%, the Needham Aggressive Growth Fund (NEAGX) returned 9.32%, and Needham Small Cap Growth Fund (NESGX) returned 12.31%. The Russell 2000 Total Return Index returned 9.05%, the S&P 500 Total Return Index returned 3.85%, and the NASDAQ Composite Index returned 10.02%. The Wall Street Journal (October 10, 2016, p. R6) ranked Needham Small Cap Growth Fund as the #1 Small Cap Core Fund and the Needham Aggressive Growth Fund as the #5 Midcap Growth Fund for the quarter.

Remember January and February?

At the low in mid-February, the Russell 2000 Total Return Index was down 16% and the S&P 500 was down 11%. West Texas Intermediate crude oil traded as low as $26.21 per barrel. The Shenzhen stock market fell 27%. There was fear for the survival of the European Union, fear of China devaluing its currency and having too much debt, fear of bankruptcies in the high yield and energy sectors, and fear of an industrial recession led by energy. There were terrorist attacks at home and abroad. Many international markets had negative interest rates. It was the market's worst start to a year – ever.

Third Quarter Review

By the end of September, the worries from the beginning of the year were a distant memory. However, there are always worries. The third quarter was dominated by an anemic economy, low bond yields, and the Clinton and Trump Presidential campaigns. In the end, though, it was a positive quarter for the Funds and the equity markets.

July started with a market rebound from the late June Brexit vote. The S&P 500 returned 3.69% and the Russell 2000 returned 5.97%. The Needham Funds were positive, in line with the markets. July brought the failed coup in Turkey, more violence in Europe and the Presidential conventions. And the Fed kept interest rates at 0.25%, but kept open the prospect of future increases. Government bonds remained at historically low yields around the world. Second quarter U.S. GDP growth was 1.2% and the first quarter's growth was revised to just 0.8%.

In August, the S&P 500 returned 0.14% and the Russell 2000 returned 1.77%. The Needham Funds outperformed most averages. Volatility was low - August 31 was the 38th straight day with less than a 1% change in the S&P 500. The Federal Reserve again declined to raise rates, but in an August 26 speech, Chairwoman Yellen indicated that economic conditions may be ripe for an increase in September. Retail sales slowed in August.

In September, the S&P 500 was flat and the Russell 2000 returned 1.11%. The Needham Funds outperformed. The Needham Growth Fund returned 1.51%, the Needham Aggressive Growth Fund returned 3.33%, and the Needham Small Cap Growth Fund returned 3.70%. In no surprise, the Federal Reserve decided not to raise interest rates, and most pundits think it won't consider a raise until December, after the election. Given the anemic economy, we believe a rate hike in December would be the last in a long time. With 40% of the world's debt trading at negative interest rates, raising U.S. rates will send the dollar higher with risk to the U.S. economy and exports, to say nothing of the higher interest cost of the Federal debt.

We remain fully aware of the macro risks, but we are focused on our companies.

Why Invest in The Needham Funds Now?

1) Although we believe the Federal Reserve may finally increase rates by 25 basis points in December, we believe low interest rates and accommodative monetary policy are likely to persist for a long time.
2) International monetary policy remains very accommodative. Approximately 40% of developed world sovereign debt trades at negative yield.
3) We believe a time with negative interest rates is a good time to be in the right equities and not in bonds.
4) Historically, small cap stocks have outperformed the S&P. Yet, small caps have trailed the S&P 500 for the last 3 years. We believe many of our small cap investments are well positioned to outperform.

We remain focused on our individual companies and see interesting growth prospects and compelling valuations in our holdings.

Needham Funds' Managers – John Barr and Chris Retzler

This year, the Needham Funds' above-average returns have resulted from both our compounding winners and buying and selling our holdings at the right time. We thought we'd each write about our styles and how they've contributed to this year's results.

John's Words on Investment Style

I manage the Needham Aggressive Growth Fund and with 11% trailing 12-month turnover, the average holding period for the Fund is 9 years. My primary stock research interest is in identifying compounders. Compounders are companies with large market opportunities, great management, and strong returns on capital that the Funds can own for many years, and which will compound returns at above-market average rates. Some of the leading contributors to 2016 performance include PDF Solutions, Inc. (PDFS), Entegris, Inc. (ENTG), Wage Works, Inc. (WAGE), FEI Company (FEIC), MKS Instruments, Inc. (MKSI) and ViaSat, Inc. (VSAT). These companies have all returned over 20% for the year-to-date through September 30, 2016. They've also been multi-year holdings and all have generated above-market returns over three and five years.

What does investing in a great manager really mean? I recently wrote ***The Growth Factor 23; The Role of Founders, Family and Long-Tenured Management** in **Compounders***.

David Larcker and Brian Tayan of the Stanford Graduate School of Business wrote, "Does Extreme Compensation Create Extreme Risk?" in consideration of Valeant Pharmaceuticals International, Inc. (VRX). They asked the question of how a company's board should craft a CEO compensation package.

Michael Pearson of Valeant had a great eight-year run as the CEO of Valeant, but it all came crashing down in the last year. Mr. Pearson was a McKinsey consultant recruited by a Valeant board member who is a hedge fund manager. His compensation package was crafted to reward shareholder returns and Mr. Pearson delivered a higher stock price for eight years. At one point, his personal holding was worth $3 billion. His strategy was to cut R&D spending and raise drug prices. On the surface, Valeant's reinvestment opportunities and high returns on capital appeared to be a compounder's dream. But, his reinvestment was in M&A, not building a sustainable business. Investors were fooled.

In contrast, I realized that many compounders in the Needham Funds were run by founders, family or long-tenured managers. These are people with the passion and vision to create enduring enterprises. Many technology company founders/CEOs all have Ph.Ds. They own stock, mostly from their roles as founders. They've been in place for over 20 years. Most have co-founders still active in their businesses.

In The Growth Factor, I featured PDF Solutions, Inc. (PDFS), IPG Photonics Corporation (IPGP), ViaSat, Inc. (VSAT), Super Micro Computer, Inc. (SMCI), and Oil-Dri Corporation of America, Inc. (ODC) as some of Needham Funds' long-term holdings that are founder-managed compounders.

So, "Does extreme compensation create extreme risk?" My answer: If you have to ask the question, you've already lost.

Chris Retzler and I co-manage the Needham Growth Fund. With 8% trailing 12-month turnover, the Needham Growth Fund is also focused on compounders. However, all three of the Needham Funds also subscribe to Chris' investment strategy of buying and selling our holdings at the right time.

Chris' Words on Investment Style

Investing in small cap companies requires patience, combined with the willingness to recognize mistakes. I like to wait for fat pitches and deploy capital when I believe that the upside/downside ratio provides a favorable risk/reward.

Liquidity, or at times lack thereof, has been a major factor in successful investing in small cap companies. In cases where liquidity is low, I need to have very strong conviction on the investment thesis and also have confidence in a strong management team. Once into an illiquid investment, it is generally more difficult to reverse the course and a long-term investment horizon is required. Needham Small Cap Growth Fund has had some of its greatest returns from these types of long-term investments. One example is a long-time holding in Soundbite Communications that ultimately ended in a successful sale of the business.

Small cap cyclical investments usually have a shorter timeframe and require a bit more of a trading style. An example of this type of investment is in the semiconductor capital equipment industry, which has capital cycles that can, at times, last only a few quarters.

Needham Growth Fund

The Needham Growth Fund returned 5.98% in the third quarter ending September 30, 2016.

FormFactor, Inc. (FORM) returned 20.7% and was the leading contributor. FormFactor, which makes wafer probe cards used for new semiconductor designs, reported strong earnings and guidance in July, recovering from a weak first quarter.

PDF Solutions, Inc. (PDFS) returned 29.9% and was the second-leading contributor. On November 1, 2016, PDF hosted its first investor day since going public in 2001. The market is beginning to understand PDF's growth opportunities with Design For Inspection, Exsensio big data analytics and the emergence of a Chinese semiconductor manufacturing industry.

Amber Road, Inc. (AMBR) was the third-leading contributor and returned 25.2%. Amber Road, which supplies global trade management SaaS, reported a strong second quarter, with strong enterprise bookings. Brexit, more rules about trade with China and growing global trade complexity are all situations that could accelerate Amber Road's growth.

Thermo Fisher Scientific, Inc. (TMO), the Fund's largest holding at 8.5% of net assets as of September 30, 2016, returned 7.8% during the quarter. Thermo Fisher closed the accretive acquisition of FEI Company (formerly FEIC), a long-term holding of the Needham Aggressive Growth Fund, earlier than expected. KVH Industries, Inc. (KVHI), Entegris, Inc. (ENTG), Jabil Circuit, Inc. (JBL), CarMax, Inc. (KMX) and MKS Instruments, Inc. (MKSI) were other top contributors.

The Fund's top detractor was its short position in Ubiquiti Networks Inc. (UBNT), as the stock rose 38.3%. Ubiquiti recognizes revenue on sell-in to its distributors. In the June quarter, South American revenue was up 54% over the March quarter. We note that the company's new Chief Accounting Officer is on Long Island, the leading distributor is in Paraguay, most of the cash is in Hong Kong, and its headquarters are in San Jose. This complexity could create challenges for any small company.

Express Scripts Holding Company (ESRX) was the second-leading detractor, as the stock fell 6.9%. The quarter brought slightly lower gross margin and volume growth. Express Scripts continues to be in a lawsuit with Anthem, Inc. (ANTM), its largest customer. During the quarter, Anthem's proposed merger with Cigna Corporation (CI) broke up. We believe Anthem is using the courts to gain commercial leverage and that ultimately, the two companies will reach a reasonable agreement.

During the third quarter, the Needham Growth Fund added several new positions, including two IPOs, The Trade Desk, Inc. (TDD) and Nutantix, Inc. Class A (NTNX). We hope to build meaningful positions in both of these high-quality companies. Needham Growth Fund also added positions in Pure Storage, Inc. Class A (PSTG) and Navigator Holdings Ltd. (NVGS), which are both already held by Needham Small Cap Growth Fund. The two largest additions to existing positions were to Reis, Inc. (REIS), on a disappointing earnings release, and to PDF Solutions.

The Needham Growth Fund exited its position in Silicon Graphics, Inc. (formerly SGI) upon its acquisition by Hewlett Packard Enterprise Company (HPE). The Fund reduced its holdings in FormFactor and Nova Measuring Instruments Ltd. (NVMI) and trimmed positions in Becton, Dickinson & Company (BDX), CarMax, Inc. (KMX), Entegris, Thermo Fisher Scientific and Varian Medical Systems, Inc. (VAR) due to position sizes and valuation. All are long-term Fund holdings.

Needham Growth Fund had an Active Share of 106.4% vs. the S&P 500 TR Index, and trailing 12-month turnover of just 8%. Active Share is a measure of the differentiation of the holdings of a portfolio from the holdings of its appropriate passive benchmark index. Active Share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the manager's portfolio versus the weight of each holding in the benchmark index and dividing by two. It is possible for funds that hold short positions to have an Active Share of over 100%.

On September 30, 2016, the Fund had 52.5% of net assets in the top 10 positions. 48% of the Needham Growth Fund's net assets were invested in companies with market capitalizations greater than $8 billion, 19% between $2 billion and $8 billion, and 32% under $2 billion.

Needham Aggressive Growth Fund

The Needham Aggressive Growth Fund returned 9.32% in the third quarter ending September 30, 2016. The Fund was ranked the 5th best performing Midcap Growth Fund by the Wall Street Journal. We note that Morningstar classifies the fund as Small Cap Growth. With the Fund's low turnover (average 9-year holding period), our best compounding investments grow through the market cap categories and become larger companies. We do not have to sell a winning investment just because it has grown into a larger cap company. Consequently, 39% of the Fund's assets are in companies with market capitalizations over $2 billion. However, most of the additions are small cap companies.

PDF Solutions was the Fund's leading contributor and is the Fund's largest position at 9.1% of net assets.

GSE Systems, Inc. (GVP) returned 29.6% and was the second-largest contributor. GSE is an undiscovered micro-cap. It supplies simulation and training for the power and process industries, with a history of supplying simulators to train nuclear plant operators. We believe the new management team led by Kyle Loudermilk, CEO, Chris Sorrells, COO, Emmett Pepe, CFO, and Bahram Meyssami, CTO will be able to transform the company to a high-margin software and services company. Kyle's experience at Aspen Technologies and Microstrategy is directly relevant. We started purchasing the stock 2½ years ago at under $2 per share and have consistently added to the position, including in the third quarter. It currently trades near $2.75 per share.

Entegris Inc. (ENTG) returned 20.4% and was the Fund's third-leading contributor. The company makes filtration systems and supplies chemicals to the industries, including the semiconductor industry. Entegris reported strong margins in the June quarter. Form Factor, Apple, Inc. (AAPL), KVH Industries and Amber Road were other leading contributors to third quarter performance.

The Fund's short position in Medallion Financial Corp. (MFIN), the leading lender on taxicab medallions, was a top contributor as the stock fell 42.2%. For the last year, the market has ignored accelerating loan delinquencies, declines in taxicab medallion values, and asset write-ups, until August 2, when Medallion Financial cut its quarterly dividend from $0.25 per quarter per share to $0.05. We believe a number of Medallion's assets, most obviously its Chicago medallions, are worth far less than reported on the company's balance sheet. Chicago medallions are seeing limited buying and selling at around $60,000, while Medallion Financial has them marked at $208,346 as of June 30, 2016. We note that a very well-regarded, quantitative, value-oriented fund more than doubled their position since the beginning of 2015 to become the largest institutional holder with ownership of 5.5% of Medallion Financial. I guess quants don't read 10-K footnotes.

In the third quarter, the leading detractor was the short position in Ubiquiti Networks. The second-leading detractor was microcap Reis, Inc., the real estate information company. Reis reported a slower growth rate than it had reported in the last few years. We believe its new products may lead to surprising growth.

The Fund added new positions in Agile Therapeutics, Inc. (AGRX), developer of the Twirla contraceptive patch. We already own Corium International, Inc. (CORI), which is Agile's patch R&D and manufacturing partner. The Fund also invested in the IPOs of The Trade Desk and Nutanix, and added to existing positions, including Reis, GSE Systems and Corium.

We exited our long-time holding in FEI Company (formerly FEIC) on its acquisition by Thermo Fisher and Silicon Graphics. We reduced positions in Form Factor, Frequency Electronics, Inc. (FEIM) and Entegris for tax planning and position sizing.

Needham Aggressive Growth Fund had an Active Share of 116.3% versus the Russell 2000 and a trailing 12-month turnover of 11%. The Fund exited the quarter with 39% of assets in companies over $2 billion in market cap, 37% in companies between $250 million and $2 billion, and 24% under $250 million. The Fund's top 10 positions were 54.1% of net assets. The Fund had a 9% short position and was once again fully invested.

Needham Small Cap Growth Fund

The third quarter of 2016 continued to expand upon the momentum that the Fund experienced in the first half of the year. The Fund returned 12.31% in the third quarter and 21.78% year-to-date as of September 30, 2016 versus the Russell 2000 returning 9.05% and 11.46%, respectively. Small cap stocks have been in favor this year and more specifically, small cap technology value stocks have done very well. The Fund has benefitted from years of patience in many of its core holdings and was able to realize superior returns.

The Fund's holdings in Ultra Clean Holding (UCTT), Amber Road, and TTM Technologies (TTMI) were all top contributors. Ultra Clean benefitted from the semiconductor capital equipment spending at major foundries after a delay from 2015. While Ultra Clean detracted from Needham Small Cap Growth Fund's returns in 2015, it has contributed nicely throughout 2016, and we expect to see continued financial improvement in its business model. Amber Road has also recovered nicely from a trough in its business in 2015. The company has executed on plan throughout 2016, and we expect to see its business to continue to improve as global trade management continues to grow and remain complex. The final top contributor for the quarter was TTM Technologies, a long-time holding that we have discussed in a many a quarterly letter. TTM continued to integrate from its acquisition of Viasystems, Inc. and it realized the financial benefits of being a larger organization. That said, we did take advantage of its superior performance this quarter and exited the position.

2016 and the third quarter have been a great time for M&A in many of our portfolio holdings. Hutchinson Technologies (HTCH) was a large position in the Fund and its acquisition by TDK Corporation of Japan was announced in November 2015. However, the transaction's closing was negatively impacted in the second quarter. We were fortunate to add to our position at very low prices and ultimately were rewarded when the deal finally closed in September 2016. We knew Hutchinson for many years and we were confident in the management team to consummate the transaction. Patience paid off once again.

We see opportunity in our strategy of investing in companies that we know well and that we believe are well-positioned with secular growth drivers. We believe the remainder of 2016 will bring a modest rebound for equities. As it already has this year, we believe the markets will experience more volatility and that our ability to short could dampen the possible volatility.

Closing

The markets have been driven higher due to low global interest rate curves, which are the result of accommodative monetary policy from central bankers. This has driven down volatility and allowed for expansion of multiples. It is hard to believe that the reverse will not happen if global central banks modify the rates of stimulus being added to the system. However, we don't expect our Fed to move before the December meeting, if they move at all.

Earnings season is in swing, with some negative surprises in the industrial and healthcare sectors. We believe we are still in a slow growth environment weighted down by excessive government regulation. We prefer individual stock stories, but have had in place a larger hedge to the overall market indices to balance out the risk of a market correction. A sizeable market correction would be very healthy following many months of an uptrend. We see value in small cap stocks as M&A continues to provide a floor in certain areas of the market.

The high yield market is healthier than it was last year, when energy was under significant pressure and was causing downward price movements for the asset class, which in turn pressured the small cap sector. If we observe a turn in either direction in the high yield markets, we would need to reevaluate our exposure. We think technology remains a good value investment as budgets were constrained earlier in the year and limited enterprise spending. We see this trend improving as technological upgrades can only be postponed for so long.

We believe the U.S. is still facing sub-par economic growth, but it remains the best place in the world to be investing and working. Asia and Europe are facing difficult economic times. We believe there is opportunity in small and mid-cap stocks in this difficult market. We are particularly excited that this market may give us a chance to add to positions already in the portfolio.

To reiterate our overall thesis: monetary policy remains accommodative. Most importantly, we see a revolution happening in technology that has created and continues to create investment opportunities.

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 send us an email at cretzler@needhamco.com or jbarr@needhamco.com. For information about the funds, please visit our website at www.needhamfunds.com.

Sincerely,

Chris Retzler
Portfolio Manager

John O. Barr
Portfolio Manager

The Needham Funds ownership as a percentage of net assets in the stated securities as of September 30, 2016:

	NEEGX	NEAGX	NESGX
PDFS	3.59%	9.10%	6.39%
ENTG	2.53%	6.43%	0.33%
WAGE	1.19%	3.32%	0.00%
FEIC	0.00%	0.00%	0.00%
MKSI	2.27%	2.61%	0.57%
VSAT	5.43%	2.83%	0.00%
VRX	0.00%	0.00%	0.00%
IPGP	0.41%	1.20%	0.00%
ODC	0.00%	1.63%	0.00%
FORM	4.12%	4.87%	2.49%
TMO	8.46%	0.00%	0.00%
AMBR	3.30%	3.26%	7.37%
KVHI	3.91%	5.43%	4.38%
JBL	2.72%	0.00%	0.63%
KMX	4.76%	2.28%	0.00%
UBNT	-3.08%	0.00%	-1.64%
ESRX	7.56%	0.82%	0.78%
ANTM	0.00%	0.00%	0.00%
TDD	0.00%	0.00%	0.00%
NTNX	0.18%	0.09%	0.38%
PSTG	0.06%	0.00%	1.04%
NVGS	0.03%	0.00%	0.55%
REIS	1.14%	4.08%	2.78%
SGI	0.00%	0.00%	2.06%
HPE	0.00%	0.00%	0.00%
NVMI	0.98%	2.12%	0.00%
BDX	4.85%	1.57%	0.00%
VAR	1.20%	0.00%	0.00%
GVP	0.00%	5.15%	0.00%
MFIN	-0.44%	0.00%	0.00%
AAPL	0.70%	4.78%	0.00%
AGRX	0.00%	0.20%	0.80%
CORI	0.54%	0.66%	0.65%
UCTT	0.25%	0.47%	9.13%
TTMI	0.02%	0.00%	0.00%