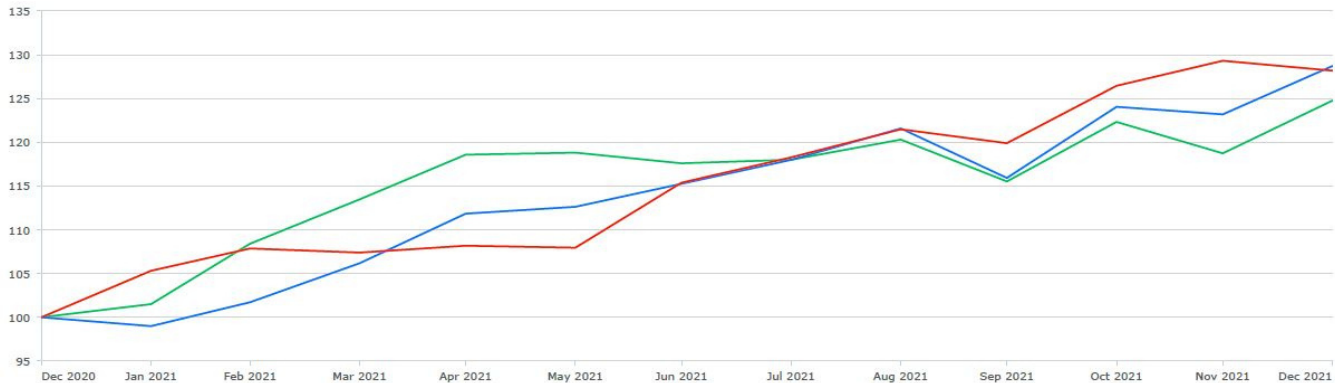


### MARKET REVIEW

- The market closed 2021 near its 12-month and all-time highs. In 4Q21, the S&P 500 returned 11.03% and the S&P 400 MidCap returned 8.00%. In 2021, the S&P 500 returned 28.71%; the S&P 400 MidCap returned 24.76%.



	RETURN
Needham Growth Institutional	28.18
S&P 500	28.71
S&P 400	24.76

Source: Zephyr Informais

- While 2021 was a great year, the start of 2022 is anything but great. Inflation is lasting longer than the Federal Reserve previously indicated, and it needs to raise rates sooner and faster in 2022. Core CPI growth of 5.5% in December was the highest in over 30 years.<sup>1</sup> The market is factoring in higher interest rates, which may result in lower multiples.

### MACRO OBSERVATIONS

- 10-year U.S. Treasury rates ended 4Q where they started at 1.5%. In January, the 10-year has spiked to 1.81%.<sup>2</sup>
- U.S. unemployment fell to 4.2% in November. Throughout 2021, the labor force participation rate remained at a level not seen since 1976, before the widespread participation of women in the workforce.<sup>3</sup> Labor and inventory shortages (including semiconductors) and supply chain disruptions remain prevalent. As long-time investors in semiconductor manufacturing technology, we are pleased to see the world recognize the need for investment.
- The Fed indicated an intention to taper its bond-buying by \$15 billion per month and raise interest rates in 2022. Jerome Powell, recently nominated to a second term as Chairman, said “transitory” is no longer an accurate term to describe the current high inflation rate.<sup>4</sup> Other than Paul Volcker, the Fed’s Board Governors have a history of accommodative policies that have long provided a tailwind for equities, and we believe this is unlikely to change.
- The higher rates anticipated by the markets are still well below inflation, which makes equities a way to earn a real return. To achieve a real return, companies must have pricing power and growth plans.
- In December, the Omicron variant of COVID-19 ripped around the world, disrupting the holiday season. Fortunately, it is less lethal, although more contagious, than earlier variants. We are hopeful that Omicron’s retreat brings a return to many aspects of pre-COVID life sometime in 2022.
- A range of industries performed well in 4Q21, including technology, industrials, real estate, utilities, consumer discretionary and staples, and materials.

---

**IMPACTS ON PORTFOLIO PERFORMANCE**

---

- The Fund's Institutional (NEEIX) and Retail classes (NEEGX) returned 6.91% and 6.81% respectively in 4Q21. In 2021, NEEIX returned 28.18% and NEEGX returned 27.68%. (See page 3 for standardized performance as of December 31, 2021.)
- The Fund's allocation to technology was a contributor, but stock selection was the dominant reason for the 4Q21 results. PDF Solutions, Inc. (PDFS) was the leading contributor; it reported strong results for its Exensio semiconductor manufacturing data analytics business. Other leading contributors were some of the Funds' largest positions - Nova, Ltd. (NVMI), Thermo Fisher Scientific Inc. (TMO), and Aspen Aerogels Inc. (ASPN). Aspen Aerogels was by far the leading contributor for the year as it achieved design wins with electric vehicles makers. Aspen's PyroThin is used to prevent thermal runaway in lithium-ion batteries. These companies, plus Entegris Inc. (ENTG) were the leading contributors for the year.
- The Fund's lack of exposure to the energy and consumer discretionary sectors was a minor detriment to performance in 4Q21.
- With 15% turnover, the Fund does not rotate into or out of sectors, but invests in companies we believe can outperform over the long-term.

---

**PORTFOLIO CHANGES**

---

- There were no significant new positions or exits in 4Q21. The Fund took advantage of market weakness to increase the size of many established positions.
- The Fund reduced positions in Aspen Aerogels and PDF Solutions after significant outperformance. We also sold about half of the Fund's position in NeoPhotonics Corporation (NPTN) after it announced an agreement to sell to Lumentum Holdings, Inc. (LITE).
- The Fund ended 4Q21 with 11% cash as a result of inflows. We plan to carefully deploy this capital.

---

**LOOKING AHEAD & OPPORTUNITIES**

---

- Many of our top portfolio holdings have made multi-year investments that we believe position them to deliver growth and positive returns over the next few years. If these investments succeed, they could provide a hedge to macroeconomic factors such as inflation.
- We are optimistic about the short- and long-term opportunities in semiconductor manufacturing technology, which represents approximately 30% of the Fund's investments.
- The Fund targets investments that we perceive to have significant, unrecognized growth opportunities. COVID-19 hastened the revolutionary development in technology and life sciences; the Fund is a long-term investor in companies that enable the research and manufacturing to bring these developments to market.
- Greater-than-benchmark exposure to stocks with high quality factors might position the Fund for outperformance in future periods of market weakness.

[1] <https://tradingeconomics.com/united-states/core-inflation-rate>

[2] <https://fred.stlouisfed.org/series/DGS10>

[3] <https://fred.stlouisfed.org/series/CIVPART>

[4] <https://www.reuters.com/article/usa-fed-instant/feds-powell-floats-dropping-transitory-label-for-inflation-idUSKBN2IF150>

Average Annual Returns as of 12/31/21. The Needham Growth Fund inception date is 1/1/96.

\*\*Performance for any periods prior to the inception date of Institutional Class Shares are based on the historical performance of the Retail Class Shares adjusted to assume the expenses associated with Institutional Class Shares.

	3 MO	YTD	1YR	3YR	5YR	10YR	SINCE INCEPT.
Needham Growth Fund Inst Class**	6.91%	28.18%	28.18%	37.68%	20.71%	16.35%	14.70%
After Taxes on Distributions	5.30%	26.25%	26.25%	35.17%	18.08%	14.45%	13.21%
After Taxes on Distributions & Redemptions	5.20%	18.02%	18.02%	29.92%	15.98%	13.13%	12.56%
Needham Growth Fund Retail Class	6.81%	27.68%	27.68%	37.02%	20.12%	15.83%	14.21%
After Taxes on Distributions	5.16%	25.70%	25.70%	34.48%	17.47%	13.91%	12.72%
After Taxes on Distributions and Redemptions	5.18%	17.76%	17.76%	29.36%	15.48%	12.66%	12.10%
S&P 500 Index	11.03%	28.71%	28.71%	26.07%	18.47%	16.55%	10.24%
S&P 400 Index	8.00%	24.76%	24.76%	21.41%	13.09%	14.20%	11.93%
Russell 2000 Index	2.14%	14.82%	14.82%	20.02%	12.02%	13.23%	9.27%

The Needham Growth Fund's Gross Expense Ratio is 1.85% for the Retail Class and 1.58% for the Institutional Class. The Needham Growth Fund's Net Expense Ratio is 1.85% for the Retail Class and 1.40% for the Institutional Class. The Net Expense Ratio reflects a contractual agreement by the Fund's investment adviser to waive its fee and/or reimburse the Fund through April 30, 2022 to the extent the Gross Expense Ratio exceeds 1.95% and 1.40% of the average daily net assets of Retail Class Shares and Institutional Class Shares (Expense Cap). The Expense Cap excludes taxes, interest, brokerage, dividends on short positions, fees and expenses of "acquired funds," extraordinary items and shareholder redemption fees but includes the management fee. Fact Sheet Link: [Needham Growth Fund](#) [Prospectus Link](#)

*The information presented in this commentary is not intended as personalized investment advice and does not constitute a recommendation to buy or sell a particular security or other investments.*

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](http://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.*

Needham & Company, LLC, member FINRA/SIPC, is the distributor of The Needham Funds, Inc.

Portfolio holdings are subject to change. Needham Growth Fund's ownership as a percentage of net assets in the stated securities as of 12/31/21: PDFS: 5.97%; NVMI: 3.21%; TMO: 6.15%; ASPN: 8.42%; ENTG: 6.45%; NPTN: 0.4%; LITE: 0.00%.

The source of the data for each of the Russell 2000 Index and the Russell 3000 Index (together, the "Indexes") is the London Stock Exchange Group plc and its group undertakings (collectively, the "LSE Group"). © LSE Group 2022. All rights in the Indexes vest in the relevant LSE Group company which owns the Index. The Indexes are calculated by or on behalf of FTSE International Limited or its affiliate, agent or partner. Neither the LSE Group nor its licensors accept any liability for any errors or omissions in the Indexes; no party may rely on the Index returns shown; and the LSE Group makes no claim, prediction, warranty or representation about the Fund or the suitability of the Indexes with respect to the Fund. No further distribution of data from the LSE Group is permitted without the relevant LSE Group company's express written consent. The LSE Group is not connected to the Fund and does not promote, sponsor or endorse the Fund or the content of this prospectus.