



While 2021 was a challenging year for the Biotech Growth Trust, we continue to have an optimistic outlook for 2022 and believe now is a great time to buy shares for long-term investors.

**1) Small cap biotech should recover given compelling valuations.** We noted in the semiannual report the performance disparity between large and small cap biotech since the beginning of the current fiscal year (31 March 2021). Unfortunately, that gap in performance has not appreciably narrowed. Since the beginning of the current fiscal year through the end of December, the small cap constituents of the NASDAQ Biotech Index have underperformed the large cap constituents by approximately 30%. The Biotech Growth Trust is structurally tilted towards smaller cap stocks, so this dynamic was a significant headwind to both absolute and relative performance in 2021.

## Market Cap Performance Divergence in Biotechnology

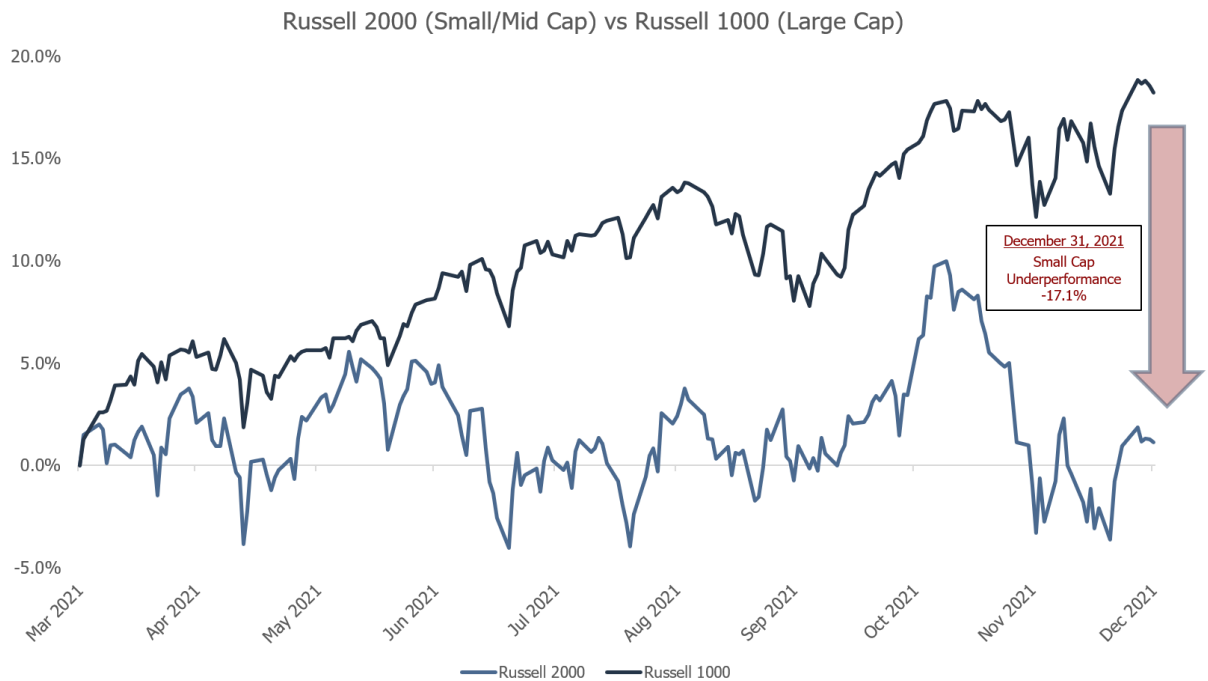
### NBI Performance by Market Cap Classification



The lagging performance of small cap stocks has been a market-wide phenomenon that is not exclusive to biotech. As shown below, since the end of March, the Russell 2000 has lagged the Russell 1000 by about 17 percentage points.

# Size Divergence in the Broad Market

## Russell 2000 vs. Russell 1000



Note: Chart updated from 31 March 2021 to 31 November 2021. The Russell 2000 Index is comprised of the smallest 2000 companies in the Russell 3000 Index. The Russell 1000 Index is comprised of the largest 1000 companies in the Russell 3000 Index.

With the recent drawdown, we believe valuations for small cap biotech are very compelling at current levels, with many companies now trading at market caps not appreciably higher than the net cash on their balance sheet.

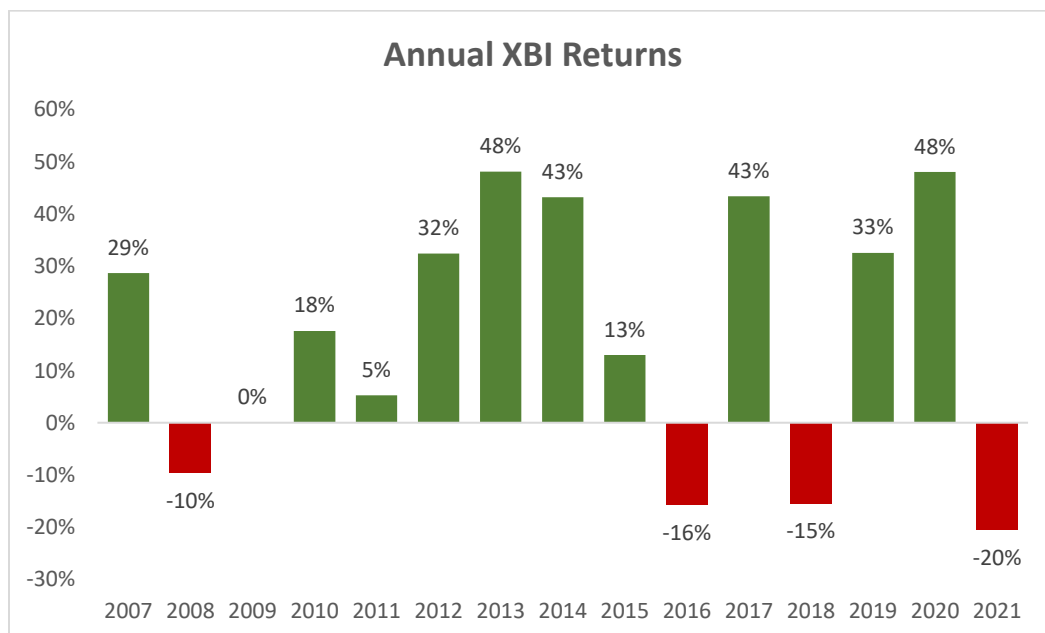
**2) Performance reversion appears likely given extent of drawdown.** One proxy commonly used to track performance of small and midcap biotech is the XBI, an equal weighted index of biotech companies created in 2006. **According to Goldman Sachs, the current drawdown of the XBI versus the S&P 500 is the longest and largest since inception.**



| Drawdown Period            | Trading Days | XBI         | XBI vs S&P  |
|----------------------------|--------------|-------------|-------------|
| Jul 2015 - Feb 2016        | 144          | -49%        | -35%        |
| Apr - May 2016             | 14           | -14%        | -13%        |
| Jun 2016                   | 17           | -17%        | -12%        |
| Sep - Oct 2016             | 30           | -23%        | -18%        |
| Nov - Dec 2016             | 27           | -13%        | -17%        |
| Mar - Apr 2018             | 19           | -14%        | -8%         |
| Sep - Dec 2018             | 78           | -35%        | -16%        |
| Apr - Sep 2019             | 123          | -20%        | -22%        |
| Feb - Mar 2020             | 18           | -33%        | -3%         |
| Jul - Sep 2020             | 35           | -14%        | -16%        |
| Average                    | 51           | -23%        | -16%        |
| Median                     | 29           | -19%        | -16%        |
| <b>Feb 2021 - Jan 2022</b> | <b>232</b>   | <b>-40%</b> | <b>-59%</b> |

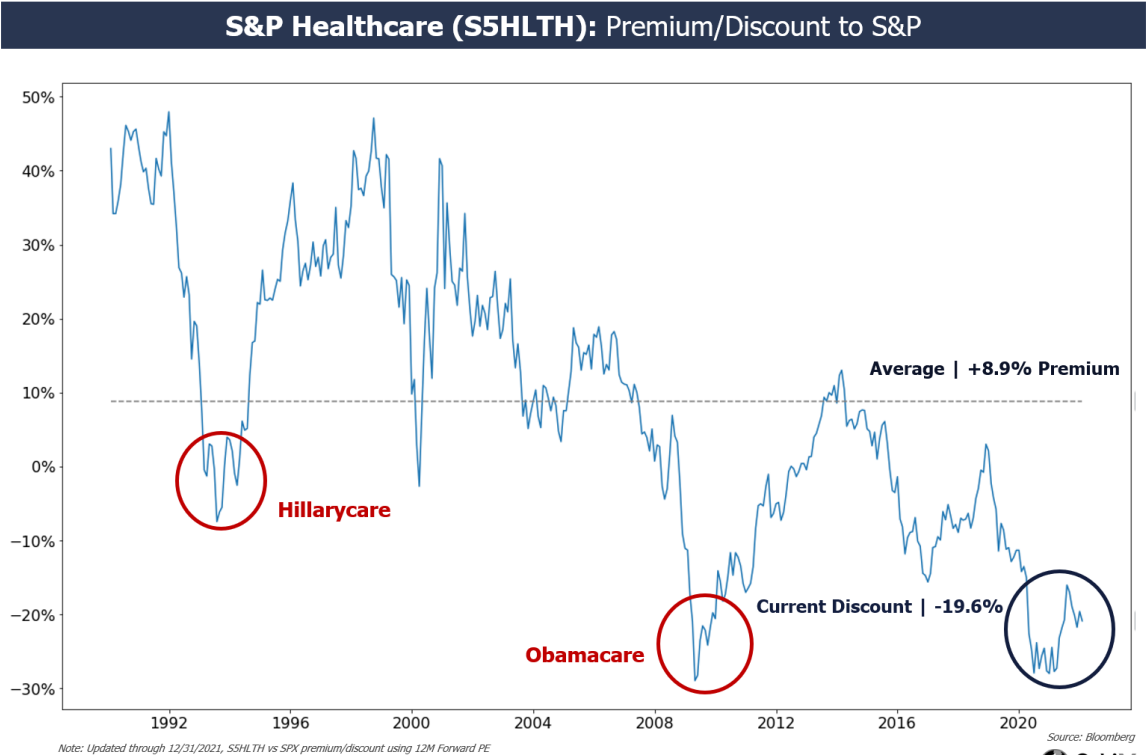
Source: Goldman Sachs Global Investment Research, FactSet

We would also note that after years in which the XBI has traded down substantially, the XBI typically rebounds the following year. With 2021's disappointing performance, history suggests that 2022 should be a positive year for small cap biotech.



**3) Healthcare broadly also undervalued versus the general market.** Looking more generally at healthcare valuations, we would note that the healthcare constituents of the S&P 500 across all subsectors (not including just biotech) are also trading at an average forward P/E multiple that is below historical averages. As noted in the graph, sector-wide valuation contraction typically occurs when healthcare reform is being considered by the U.S. government. When there is certainty on the outcome of that reform, a relief rally generally ensues. Currently, Biden’s Build Back Better social policy bill is being discussed in Washington, which includes some drug pricing provisions. Passage of that bill could serve as a clearing event to allow healthcare to re-rate.

## Healthcare Valuations at Historic Lows



**4) Potential catalysts for a re-rating in biotech.** There are several possible events that could catalyze a recovery:

- **M&A transactions.** We believe M&A activity could accelerate now that many of the small cap biotech companies are trading at lower valuations.
- **Passage of drug pricing legislation.** Passage of Biden’s Build Back Better social policy bill has been delayed due to disagreements between Democratic centrists and progressives in the Senate. We believe that the bill, if it were to pass at all, will need to pass by spring 2022 given upcoming midterm elections in the second half of 2022. If the bill passes, we expect it to be a



clearing event for biotech. The House has passed a version of the bill that contains certain drug pricing provisions that are manageable for the industry (e.g. drug price inflation caps, limited Medicare price negotiations for drugs that don't face competition).

- **Positive clinical data, more timely approvals, and strong product launches.** COVID restrictions have made it difficult in certain instances for companies to properly promote their drugs. In some cases, COVID has also diverted the FDA from approving drug applications in a timely manner. As the Omicron surge fades in the US, we expect those headwinds to abate. There is still a rich calendar of clinical data based on novel technologies that could reenergize sentiment in the space.

Overall, we think the fundamental drivers of the biotech industry remain intact and the current dislocation provides an excellent entry point for investors.

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