



September 2022

# Lazard Global Biopharmaceutical Leaders Study 2022

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## Executive Summary

LAZARD



## A Look-back at the January 2022 Pulse Survey

Before we share the conclusions from the recent study, let's take a moment to reflect on predictive nature of our prior survey. Lazard's Global Healthcare Leaders Pulse Study in January 2022 focused on expectations for the COVID-19 pandemic as well as for financing and transaction activity. Now, about six months later, we see a high correlation between healthcare industry leaders' responses and the subsequent course of events, a pattern consistent with prior studies.

- In January 2022, a large majority of respondents believed that the COVID-19 pandemic had transitioned from a pandemic to an endemic phase, or would do so in 2022. There was no consensus on what the characteristics of an endemic phase would be. Indeed, since the Omicron B.1.1.529 surge early this year, we have seen BA.4 and BA.5 emerge as the newest members of Omicron's family of sub-variants in numerous countries worldwide, spreading faster than prior variants, but causing fewer deaths and hospitalizations.
- The majority of respondents expected the financing environment for healthcare companies to be more challenging across the board, most markedly in the public markets. In fact, biotech public financing markets did become increasingly constrained in Q2 2022 with fewer IPOs and an increase in non-traditional follow-on financing structures such as PIPEs and registered directs. Of note, a majority of the non-traditional financings were insider-led, while a majority of the traditionally executed follow-ons were on the heels of a meaningful catalyst.
- 78% of respondents predicted that bolt-on acquisitions would increase, while 78% predicted that large cap consolidation would remain at the same low level as the prior two years or be even lower. Indeed, after a slow start in Q1-2022, bolt on acquisitions have accelerated recently, bringing the first half of 2022 in line with prior years by volume, albeit with smaller deals on average than in 2017-2020. Also consistent with the predictions, large cap consolidation has not occurred.
- A large majority of industry leaders did not expect the U.S. to enact new legislation in 2022 that would significantly impact drug pricing. With the recent passage of the *Inflation Reduction Act* shortly after the Study was fielded, starting in 2026, HHS will have the authority to negotiate prices for 10 Medicare Part D drugs with no generic or biosimilar competition, increasing to 20 Part B and Part D drugs by 2029. Among certain other provisions, the law also institutes inflation caps in Medicare Parts B and D that limit price increases for drugs year over year (beginning in 2023) and annual caps for beneficiaries' out-of-pocket Part D spending (beginning in 2025). While the legislation establishes mechanisms to impact drug pricing, many view that the magnitude of the impact will not be significant for years to come.

The above findings support that healthcare industry leaders have significant awareness of their industry landscape, and their perspectives merit our attention.

<sup>1</sup> A disease is defined as endemic when it is a constant presence limited to a given geographic area or population, according to the U.S. Centers for Disease Control and Prevention.

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# 71%

of respondents to the January 2022 "pulse" survey stated that the emergence of variants such as Delta and Omicron meant that COVID-19 was already in an endemic phase<sup>1</sup>

# 90%

of respondents to the January 2022 "pulse" survey correctly predicted IPOs would be lower than in the prior two years, while

# 64%

correctly predicted follow-on financings would be lower





## Lazard Global Biopharmaceuticals 2022 Study

Until recently in 2022, several factors conspired to cause a decline in biotech valuations and a widespread liquidity crunch. These factors include the difficult geopolitical environment, macroeconomic challenges, numerous high profile data misses, an inability to digest historically high issuance levels, an outflow of generalist investors, and relatively limited M&A activity. However, there have been signs of recovery, with some recent positive clinical data, higher trading levels, a resurgence of certain forms of financing, and increased M&A activity. It is hard to say yet whether or not the improvement is durable.

In this context, our 2022 Biopharmaceutical Leaders Study was fielded in June, just following the May biotech market nadir. This year's study focused on 211 biopharmaceutical leaders<sup>1</sup> across many of the largest biopharma companies globally, but also across smaller public and private companies, and prominent investment firms. The respondents comprise 171 top C-level biopharmaceutical executives and 40 leading biopharmaceutical investors<sup>2</sup>. Among the C-level executives, 20 are from large-cap public biopharma companies, 13 from mid-caps and 91 from small-caps, while 47 are from private biotechnology companies.



SURVEY  
RESPONDENTS

**211**  
**Biopharma Industry  
Leader Responses**

**171**  
**C-Level Executives**

**40**  
**Investors**

C-SUITE BREAKDOWN

**124**  
**Public Company  
Participants**

**47**  
**Private Company  
Participants**

### Our Central Findings:

- 1 Biopharmaceutical market recovery is unlikely before the first half of 2023, and there is significant uncertainty about the timing of the recovery thereafter. While innovation is expected to remain the same or increase in the next cycle, access to capital and company formation are predicted to be lower.
- 2 A more optimistic biopharma market sentiment will primarily be catalyzed by an improved macroeconomic outlook, higher levels of M&A and business development activity, and meaningful positive data catalysts.
- 3 While large-cap biopharma consolidation is expected to remain at the same low level, bolt-on acquisitions and strategic alliances are expected to increase. Value expectations, the need for growth and positive clinical data will be important catalysts to rising strategic activity.
- 4 The top therapeutic priorities are solid tumors, rare diseases, autoimmune/inflammation/fibrosis, and neuroscience. Views on the top innovative, disruptive technologies are widely distributed, reflecting the exciting breadth, depth and pace of innovation.
- 5 Legislation that will significantly impact drug pricing was not expected, while drug price increases are anticipated to be at or below inflation in 2022/2023 and extending to 2024 and beyond.

1 C-level executives included CEOs, CFOs, and senior executives involved in strategic decision-making. Large-cap biopharma companies were defined as those with market capitalizations over \$25bn; mid-cap with market capitalizations between \$5bn and \$25bn, and small-cap with market capitalizations lower than \$5bn. Market data as of June 30, 2022.

2 In contrast to prior studies, this year's study included only biopharmaceutical executives and investors, and did not include medical technology or healthcare services executives or investors. Going forward, we intend to conduct separate studies focused on each of these segments.



**1 Biopharmaceutical market recovery is unlikely before the first half of 2023, and there is significant uncertainty about the timing of the recovery thereafter. While innovation is expected to remain the same or increase in the next cycle, access to capital and company formation are predicted to be lower.**

Expectations for timing of a biopharmaceutical market recovery

Almost no respondents – just 7% – believe there will be a biopharma market recovery in 2022, and there is significant uncertainty about the timing of a recovery thereafter.

While nearly all respondents share a bearish sentiment regarding a biopharma market recovery during the back half of the year, the majority believe that a recovery will occur in 2023, with opinion almost evenly split on a first-half or second-half recovery.

From one perspective, almost two-thirds of respondents – 65% – expect a recovery to take place during 2023, with a slight plurality – 34% – expecting it to be in the second half of next year, and 31% estimating it to take place within the opening six months.

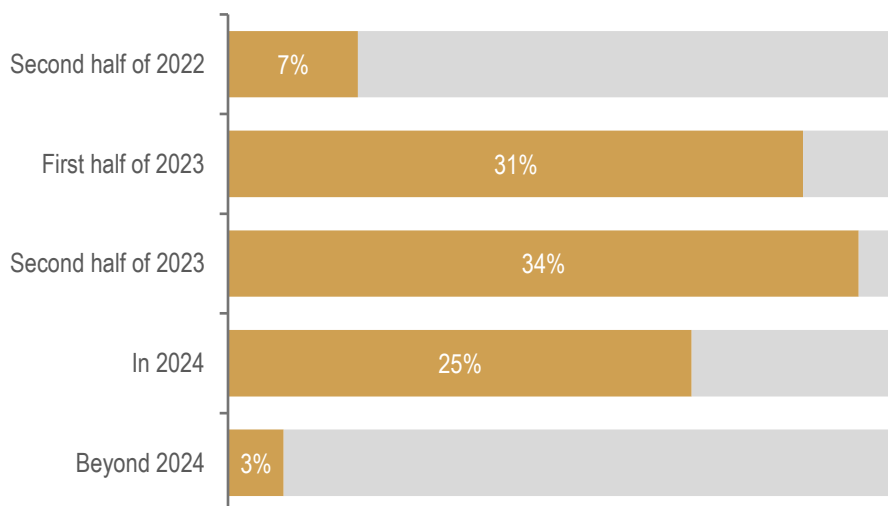
From another more bearish perspective, more than 60% of respondents do not expect a recovery until the second half of 2023 or beyond, with 28% expecting it in 2024 or beyond.

The view is broadly consistent across private, small-cap biopharma, mid-cap biopharma, large-cap biopharma leaders and investors.

**Only 7%**  
of biopharmaceutical leaders believe there will be a biopharma market recovery in 2022



**Q: What are your expectations for the timing of a biopharma market recovery?**





### Valuation Predictions for the XBI and NBI

At the time of the conclusion of fielding the Study<sup>1</sup>, the SPDR S&P Biotech ETF (XBI) had declined almost 34% year-to-date and the NASDAQ Biotechnology Index (NBI) had fallen by more than 21%. From peak levels in February 2021<sup>2</sup>, the XBI and NBI had fallen 57% and 31%, respectively.

Despite these significant losses, Study respondents expected price levels to fall further before they improve. In fact, over two-thirds of biopharmaceutical leaders – 68% – expected the price levels of the XBI and NBI to get worse before they get better, with 55% anticipating valuations to be somewhat lower relative to current prices before a recovery, and 13% foreseeing significantly lower valuations. Views on expected price levels for the XBI and NBI were broadly consistent across all respondent groups, with the exception of mid-cap biopharma executives who were even more pessimistic, with 85% believing that valuations will move lower before a recovery.

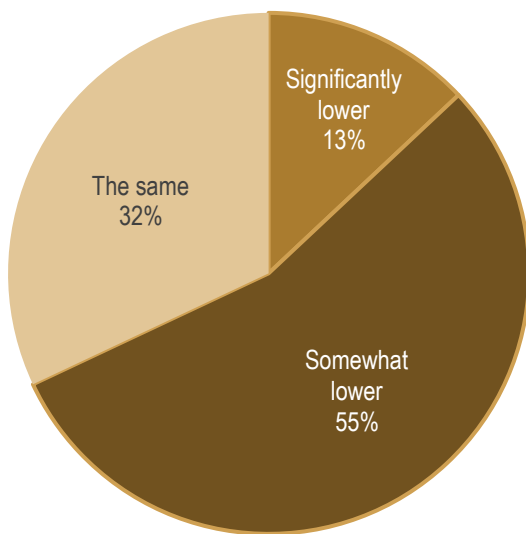
It turns out that the price levels of the XBI and NBI have improved since then – driven by some recent positive clinical data, a resurgence of certain forms of financing, and increased M&A activity. It is hard to say, however, whether or not this improvement is durable.

# 68%

of biopharma market leaders expected the prices levels of the XBI and NBI to get worse before they get better



**Q: What are your expectations for valuations relative to the current XBI and NBI price levels before a biopharma market recovery occurs?**



<sup>1</sup> June 30, 2022.  
<sup>2</sup> Peak of February 8, 2021.





### Market Cycle Predictions

Expectations for biopharmaceutical innovation are positive, with 82% of biopharmaceutical leaders anticipating the same or higher levels of innovation during the next market cycle, relative to pre-downturn 2021 levels.

However, when asked about expectations for their ability to access capital in the next market cycle relative to conditions in 2021 before the current downturn, almost three-quarters of respondents stated that they expect it to be lower.

Confidence about new company formation is scarcely better, with 67% of respondents expecting lower rates during the next cycle than pre-downturn. Small-cap biopharma executives are particularly pessimistic here, with 75% expecting a lower level of company creation in the next market cycle.

Notably, across all three metrics, investors are the most optimistic respondent group, with 38%, 18%, and 13% expecting innovation, access to capital and company formation to be higher, respectively.

**82%**

of respondents expect the same or higher levels of innovation during the next cycle



*Q: In the next market cycle, do you expect innovation, access to capital and company formation to be higher, lower, or the same relative to pre-downturn 2021 levels?*

	Innovation	Access to Capital	Company Formation
Higher	27%	10%	6%
The Same	55%	18%	27%
Lower	17%	72%	67%



Note: Totals that appear in output may sum greater or less than 100% due to the rounding of figures to the nearest whole percentage.



## 2 A more optimistic biopharma market sentiment will primarily be catalyzed by an improved macroeconomic outlook, higher levels of M&A and business development activity, and meaningful positive data catalysts.

### Catalysts to Improve the Biopharma Market Outlook

Over three quarters of participants believe that an improved macroeconomic environment – including tempered inflation, consensus on monetary policy and a better global growth outlook – will be the most important catalyst in improving the biopharma landscape.

This key driver is closely followed by higher levels of M&A and business development activity (58%), and meaningful positive data catalysts (53%).

Notably, large-cap public biopharma leaders and investors are particularly focused on meaningful positive data catalysts, with 75% and 65%, respectively, citing this as a top factor.

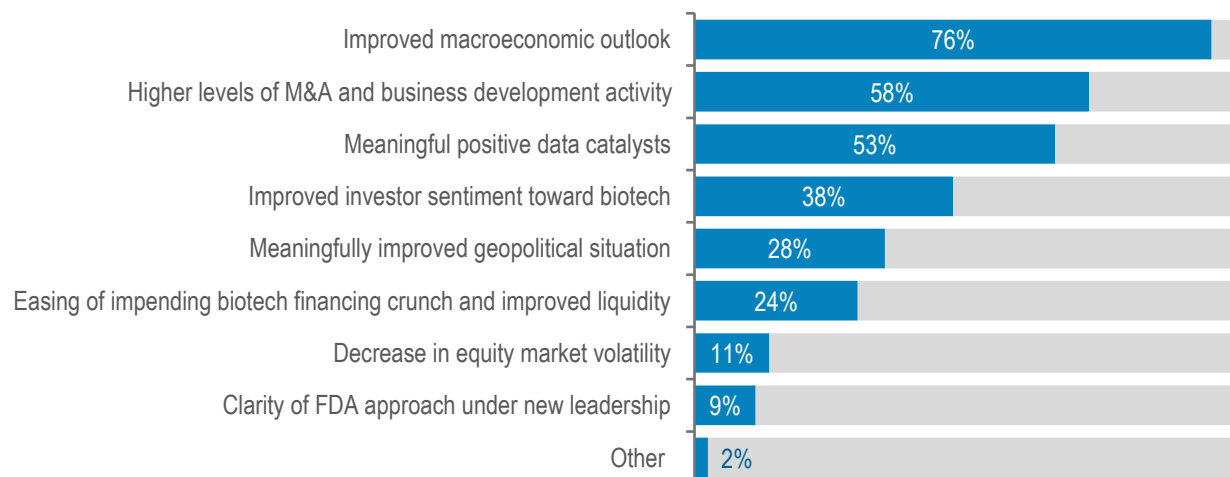
By contrast, small-cap biopharma executives are particularly focused on higher levels of M&A and business development activity to improve the biopharma market outlook, with 74% identifying it as an important catalyst.

Other catalysts on the minds of biopharmaceutical leaders are improved investor sentiment toward biotech (38%), a meaningfully improved geopolitical situation (28%), and an easing of the biotech financing crunch and improved liquidity, which is cited by 24% of respondents.

Large-cap public biopharma leaders and investors are particularly focused on meaningful positive data catalysts, with **75%** and **65%**, respectively, citing this as a top factor to an improved market outlook



**Q: Which of the following potential catalysts will be the most important in improving the biopharma market outlook? (Select top three)**





### Impact of Inflation

The majority (70%) of biopharmaceutical leaders cite a higher cost of capital as their preeminent concern about inflation, with 55% identifying the lower availability of capital, and 49% reporting the impact on market valuations as their biggest worries.

Small-cap biopharma executives and investors are particularly concerned about the higher cost of capital, with 79% and 85%, respectively, citing this as a top issue.

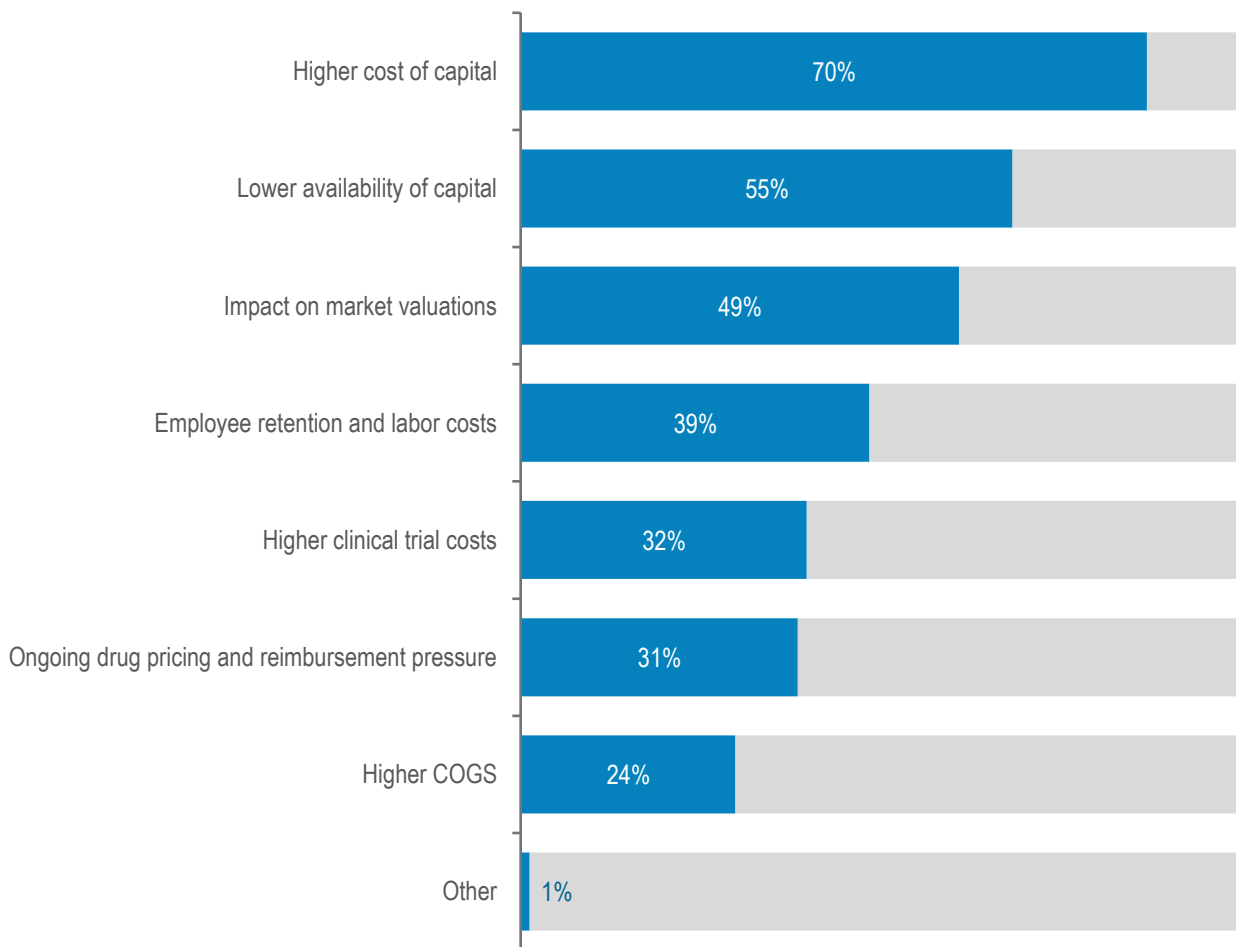
However, over two-thirds – 70% – of large-cap biopharma executives are highly concerned about higher employee retention and labor costs. Investors are especially concerned about the impact of inflation on market valuations, with 68% citing this as a top factor.

# 70%

of biopharmaceutical leaders are concerned that inflation will lead to higher cost of capital



Q: *What are your biggest concerns regarding inflation? (Select top three)*







### 3 While large-cap biopharma consolidation is expected to remain at the same low level, bolt-on acquisitions and strategic alliances are expected to increase. Value expectations, the need for growth and positive clinical data will be important catalysts to rising strategic activity.

#### Trends for M&A and Alliances

A significant majority of biopharmaceutical leaders – 84% – expect large-cap biopharma consolidation to remain at the same prevailing low level for the balance of 2022, or to be even lower. However, a significant majority – 75% – expect bolt-on acquisitions activity to be higher, while 76% expect strategic alliance activity to be higher, a trend we are already seeing manifest in the second half of 2022.

# 75%

of biopharmaceutical leaders expect bolt-on acquisitions activity to be higher for the balance of 2022.

Mid-cap and large-cap biopharma executives and investors are particularly optimistic that bolt-on acquisition activity will be higher, with 85%, 80% and 83% of these groups of respondents expecting higher activity, respectively.

Large-cap biopharma executives are notably optimistic that strategic alliance activity will be higher during the remainder of 2022, with 85% expecting an increase.



*Q: What do you expect the level of corporate development activity will be for the balance of 2022 relative to the past six months?*

	Large-Cap Consolidation	Bolt-On Acquisitions	Strategic Alliances / Licensing
Significantly higher	--	14%	25%
Somewhat higher	16%	61%	51%
Stay same	54%	15%	20%
Somewhat lower	14%	9%	4%
Significantly lower	16%	--	--



Note: Totals that appear in output may sum greater or less than 100% due to the rounding of figures to the nearest whole percentage.



### Challenges to Executing Deals in the Current Environment

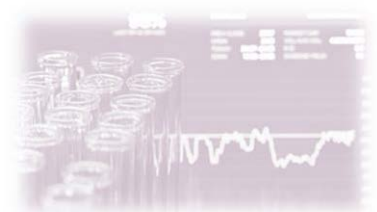
Value expectations of biotech management and board members is considered by far the top challenge to executing deals in the current environment, with 78% of respondents citing it as a top challenge. This level of concern is consistent with our Study fielded in June 2021, although the XBI Index was 82% higher then, compared to the time of this Study<sup>1</sup>.

Other challenges perceived to stand in the way of transaction activity include stock price volatility (37%) and the impact of transactions on R&D budgets and the P&L (35%). These levels are approximately double those in the 2021 Study. Scarcity of attractive counterparties is also cited as such a challenge by 35% of respondents.

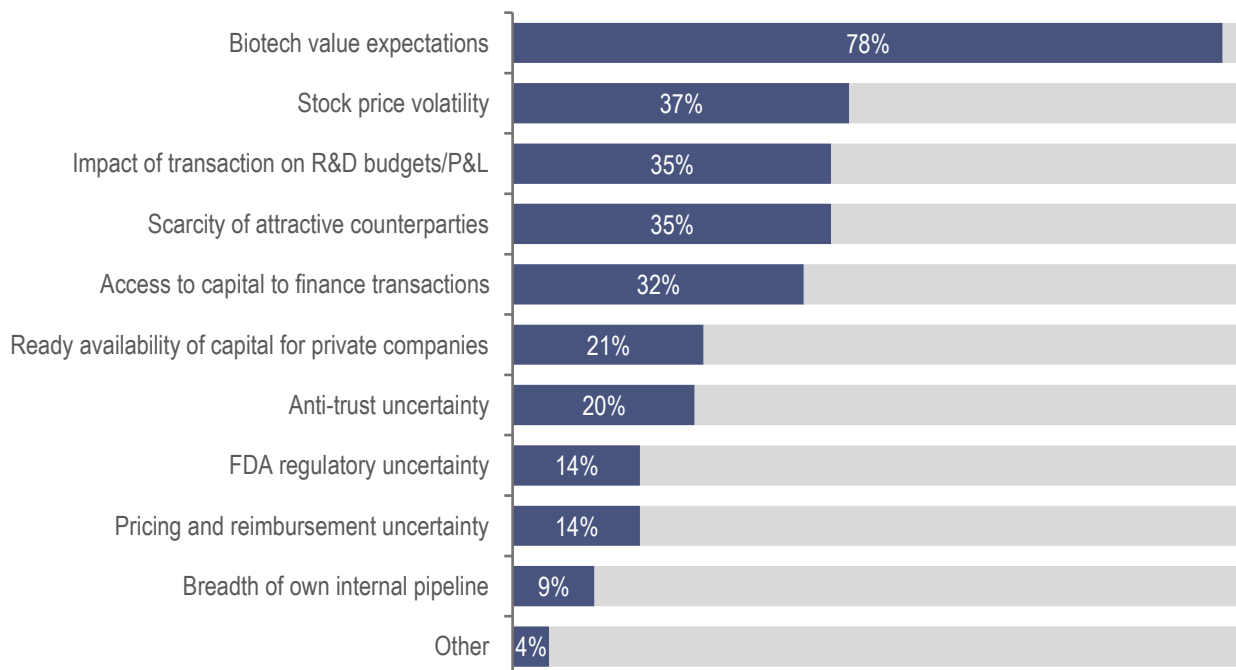
Notably, concerns about pricing and reimbursement uncertainty as a challenge to deal activity is now down to 14% of respondents compared to 35% in 2021.

Large-cap biopharma executives, in particular, cite the scarcity of attractive counterparties (60%), the impact of transactions on R&D budgets and the P&L (60%) and anti-trust uncertainty (50%) as their top challenges to executing deals in the current environment.

**78%**  
of respondents cited biotech value expectations as a top challenge to executing deals in the current environment



**Q: What are the top three challenges to executing deals in the current environment? (Select top three)**



<sup>1</sup> Market date as of June 30, 2022, and June 30, 2021, respectively.



### Catalysts for Greater Biopharma M&A Activity

Consistent with healthcare leader perceptions of top challenges to M&A, almost two-thirds of respondents – 62% – believe that reasonable price levels and value expectations are necessary to drive greater biotech M&A activity.

Another key factor required to propel more biopharma M&A activity is the need for growth, as identified by 55% of respondents. Importantly, this factor is cited by a significantly greater proportion of large-cap biopharma executives (90%) and mid-cap biopharma executives (85%).

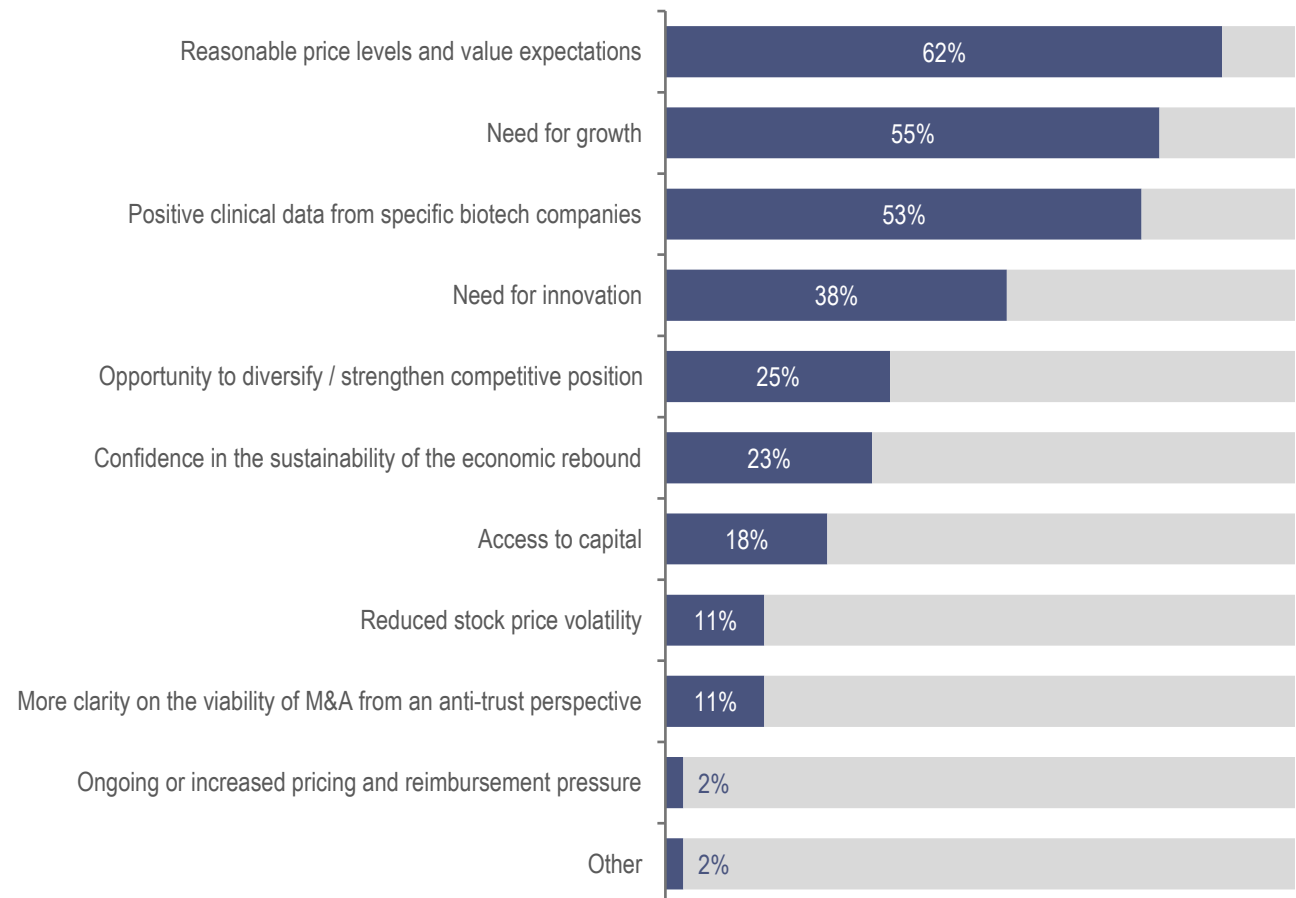
Positive clinical data from specific biotech companies is cited as a catalyst by 53% of respondents, while the need for innovation is cited by 38% of respondents as top factors.

# 90%

of large-cap biopharmaceutical executives believe need for growth is a top catalyst for greater M&A going forward



Q: *What are the top three factors that will catalyze greater M&A activity in the healthcare sector? (Select top three)*





#### 4 The top therapeutic priorities are solid tumors, rare diseases, autoimmune/inflammation/fibrosis, and neuroscience. Views on the top innovative, disruptive technologies are widely distributed, reflecting the exciting breadth, depth and pace of innovation.

##### Therapeutic Area Priorities

Solid tumors is a top therapeutic priority for more than half of the respondents (53%). This priority is followed closely by rare diseases (46%), autoimmune, inflammation and fibrosis (42%), and neuroscience (42%). These priorities are in-line with last year's Study, except there is now a lower focus on antivirals, antibacterials and other anti-infectives.

Large-cap biopharma executives and investors tend to be even more focused on autoimmune, inflammation and fibrosis (55% and 53%, respectively), and less focused on rare diseases (30% and 33%, respectively).

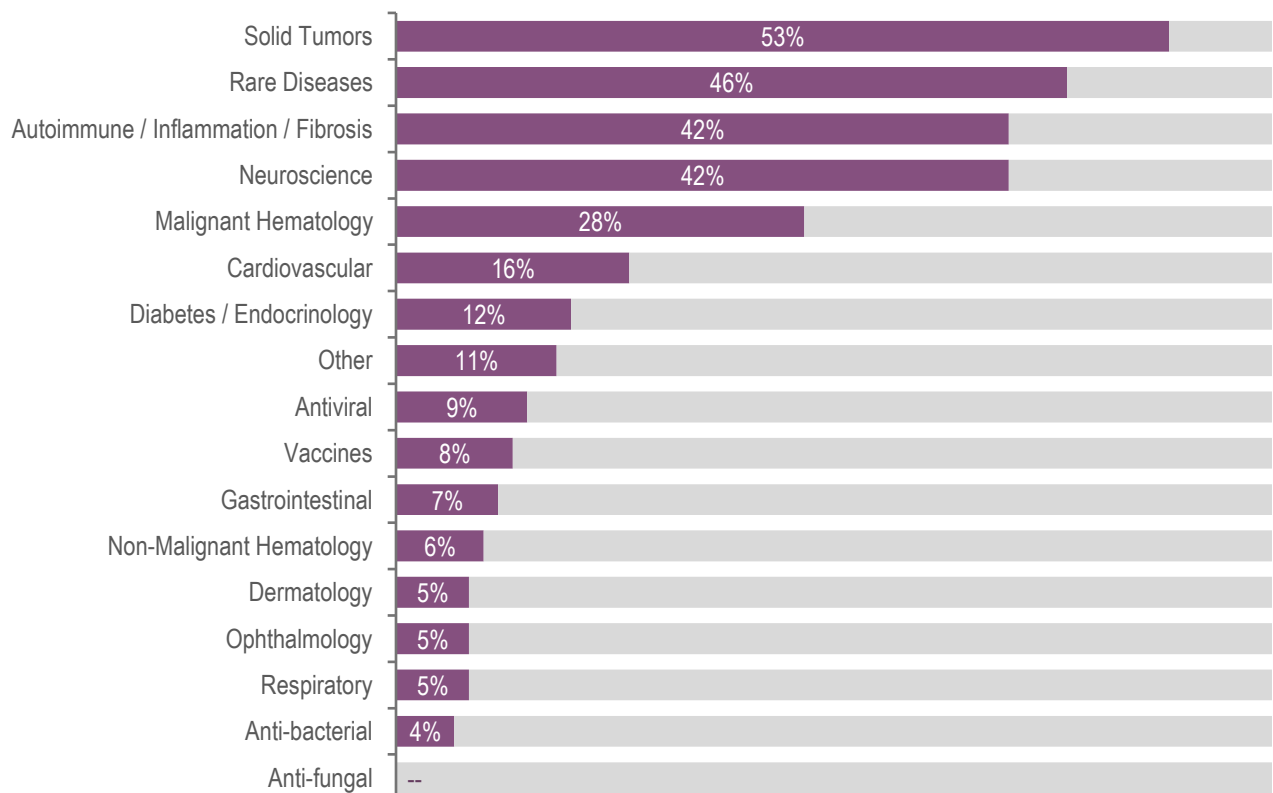
Investors tend to be even more focused on solid tumors (70%) and neuroscience (55%).

# 53%

of respondents identified solid tumors as a top therapeutic area priority over the next twelve months



Q: *What are your top three therapeutic area priorities for the next 12 months? (Select top three)*





### Innovative, Disruptive Technological Priorities

The wide distribution of views on top innovative, disruptive technologies highlights the exciting breadth and pace of innovation across many different novel technologies.

RNA approaches narrowly lead as the top priority (34%), and are closely followed by precision medicine (30%) and immuno-oncology (28%). Also featuring prominently are next-generation antibodies such as bispecifics (27%), protein degradation (26%), and cell therapy (25%). However, priorities among biopharma companies and investors differ somewhat.

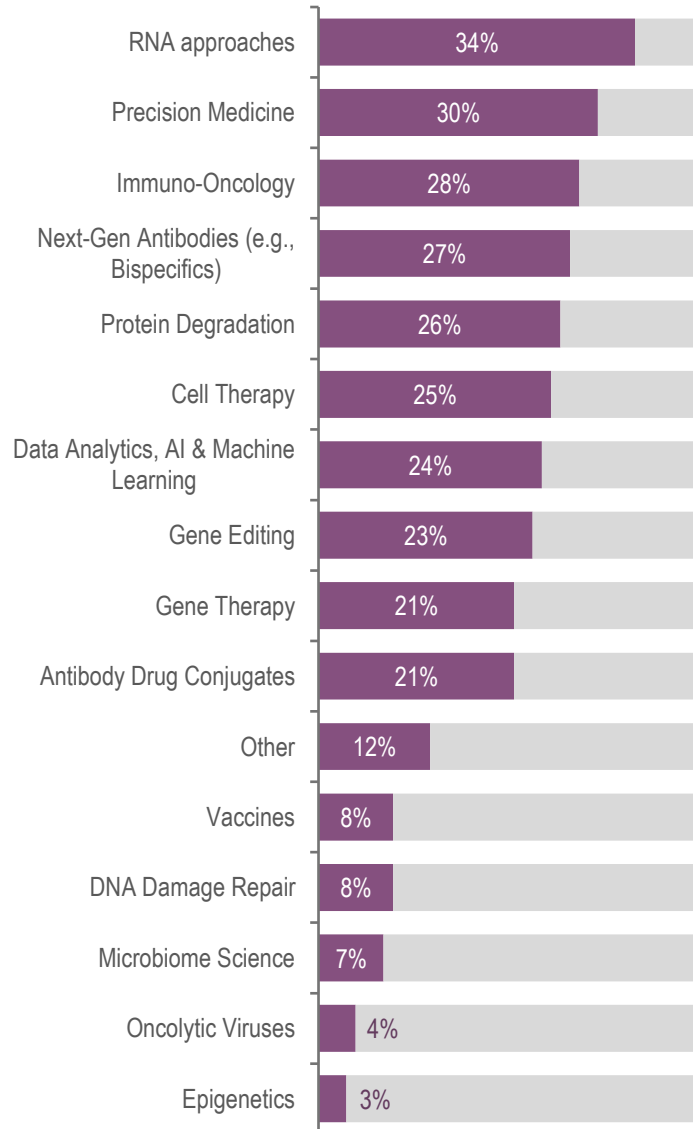
A larger proportion – 40% – of large-cap biopharma leaders focus on next-gen antibodies (such as bispecifics). Antibody drug conjugates, immuno-oncology, and RNA approaches are cited as highly important by approximately 35% of large-cap biopharma respondents. On the other hand, they tend to be less focused on gene therapy (15%).

Mid-cap biopharma executives are focused on next-gen antibodies (46%), while gene therapy, cell therapy, immuno-oncology, antibody drug conjugates, and precision medicine are also areas of high focus, at 31% each.

Investors tend to be highly focused on protein degradation (48%), RNA approaches (43%) and gene editing (35%). They tend to be less focused on immuno-oncology (18%) and antibody drug conjugates (15%).

Notably, since our Study fielded in June 2021, focus has increased on protein degradation (from 14% to 26%) and on RNA approaches (from 27% to 34%). Concurrently, it has decreased on gene therapy (30% to 21%) and immuno-oncology (36% to 28%).

**Q: What are your top three innovative, disruptive technological priorities for the next 12 months? (Select top three)**





## 5 Legislation that will significantly impact drug pricing was not expected, while drug price increases are anticipated to be at or below inflation in 2022/2023 and extending to 2024 and beyond.

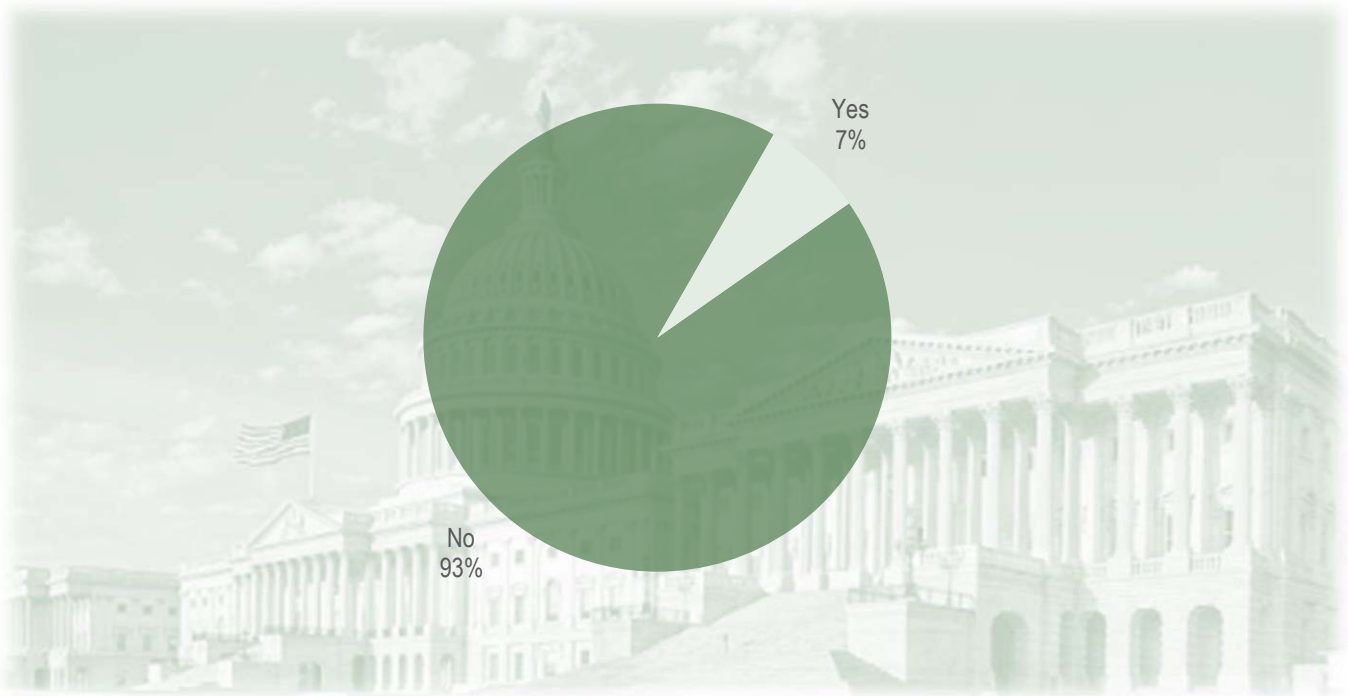
### Predictions About Impact of Legislation on Drug Pricing

A large majority of industry leaders did not expect the U.S. to enact new legislation in 2022 that would significantly impact drug pricing. With the recent passage of the *Inflation Reduction Act* shortly after the Study was fielded, starting in 2026, HHS will have the authority to negotiate prices for 10 Medicare Part D drugs with no generic or biosimilar competition, increasing to 20 Part B and Part D drugs by 2029. Among certain other provisions, the law also institutes inflation caps in Medicare Parts B and D that limit price increases for drugs year over year (beginning in 2023) and annual caps for beneficiaries' out-of-pocket Part D spending (beginning in 2025). While the legislation establishes mechanisms to impact drug pricing, many view that the magnitude of the impact will not be significant for years to come. The reasons are the limited scope and delayed timing for key provisions in the legislation, and that the negotiation mechanism and Part D price increase limits are based on the average manufacturer price pre-rebate, which may mitigate the impact on net price.

**93%**  
of respondents did not anticipate legislation that will significantly impact drug pricing



Q: After the U.S. midterm elections, do you expect new legislation to be passed that will significantly impact drug pricing?







### Biopharma Company Pricing Changes in Response to Inflation

A significant majority of biopharmaceutical leaders – 86% – expect that price increases in 2022 and into 2023 will be at or below inflation. Notably, 55% expect price increases over this time period to be below inflation<sup>1</sup>. Similarly, 81% of respondents expect price increases at or below inflation to extend into 2024 and beyond, while 39% expect price increase to be below inflation<sup>1</sup>. Almost no respondents expect price increases will be significantly above inflation over either period.

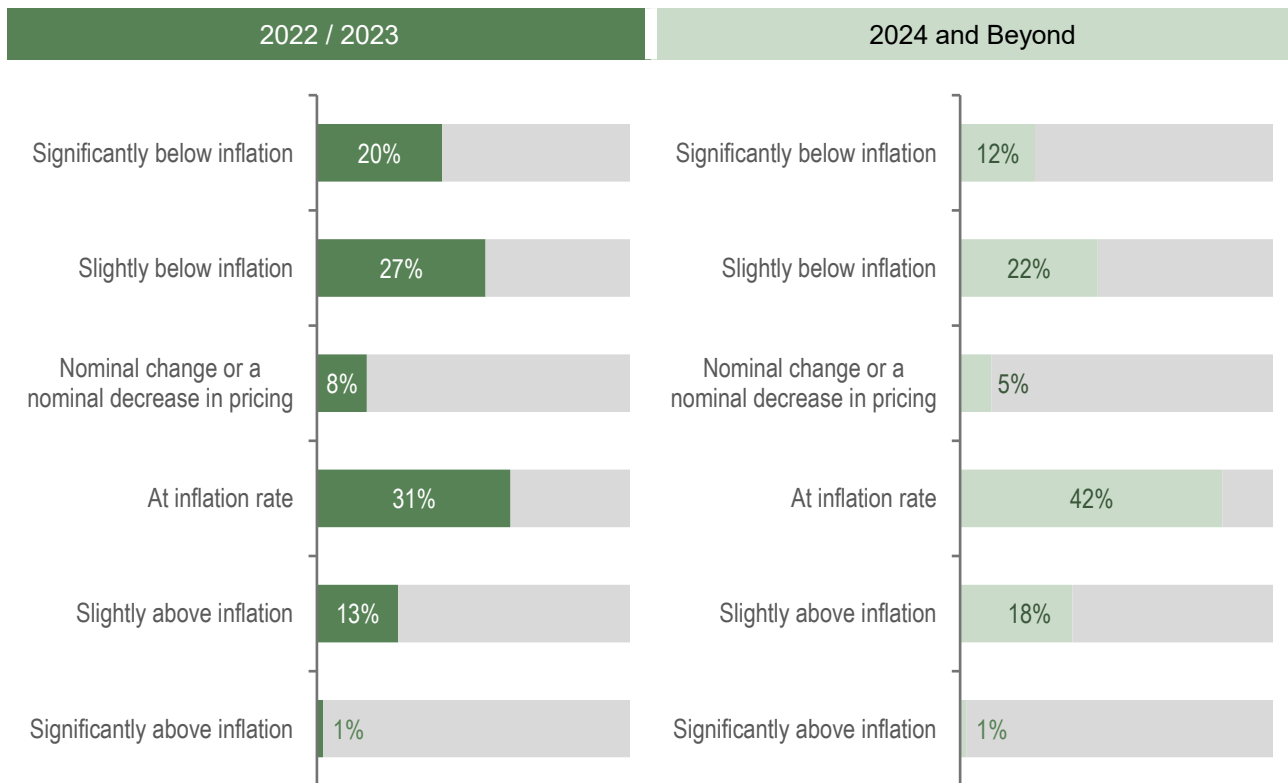
# 86%

of biopharmaceutical leaders expect that price increases in 2022 and into 2023 will be at or below inflation

However, executives and investors tend to have differing views on this issue. Large-cap biopharma executives, in particular, expect price increases slightly or significantly below inflation in 2022 and 2023 (75%)<sup>1</sup>, whereas more investors expect price increases at or above inflation during this period (58%).



**Q: Given your perspective on inflation, what do you believe biopharma companies will be able do as it relates to pricing increases for 2022 / 2023 and 2024 and beyond?**



<sup>1</sup> The response “nominal change or a nominal decrease in pricing” is considered to be equivalent to slightly or significantly below inflation.



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