September 2024

Lazard Global Biopharmaceutical Leaders Study 2024

Executive Summary

LAZARD

A Look Back at Lazard's September 2023 Biopharmaceutical Leaders Study

Before reflecting on our most recent study, we will briefly consider how the conclusions of our prior study have played out over the last twelve months. Lazard's Global Biopharmaceutical Leaders Study in September 2023 focused on expectations for a biopharmaceutical market recovery, expectations for the IRA, predictions for biopharma transaction activity and key areas of therapeutic and technological focus. Now, a year later, we see a high correlation between biopharma industry leaders' responses in the 2023 Study and the course of subsequent events, a pattern that is consistent with prior studies.

- In last year's Global Biopharmaceuticals Leaders Study, published in September 2023, 79% of respondents did not expect a recovery before the first half of 2024, and 40% did not expect it until the second half of 2024 or beyond. While biopharmaceutical equity markets have since recovered to pre-pandemic levels, the XBI is still significantly down from its peak and has been relatively range bound during 1H24. Since September 2023, the XBI and NBI have traded up 24.8% and 17.5%[1], respectively, although there has been meaningful volatility over that period, with increases of 10.1% and 5.2% as of December 31, 2023, 3.8% and 4.0% within 1H24, and 9.2% and 7.4% since then[2]. While biotech follow-on market volumes year-to-date are up approximately 68%[3] year-over-year, typically following catalysts and driven by increased use of PIPEs, investors are still risk averse. The IPO market showed marginally increased activity in 1H24, but generally remains closed as a majority of the IPO classes from 2021 – 2024 continue to trade below their offer prices.

79%
of respondents to the September 2023 study did not expect a recovery before 1H 2024

- In last year's Global Biopharmaceutical Leaders Study, 90% of respondents expected the level of large cap consolidation to remain at the same low level or to decrease, driven at least in part by anti-trust uncertainty, and this is what has occurred. On the other hand, approximately 70% of respondents expected higher bolt-on acquisition and alliance activity, driven by the need for growth, limited access to capital for biotechs, reasonable price expectations, and positive clinical data. Indeed, since September 2023, when the last survey was published, there has been higher biopharma transaction activity with 53 acquisitions at a median transaction size of approximately $1.1 billion, versus approximately 36 transactions at a median transaction size of approximately $1.2 billion in the prior twelve months.[4]

90%
of respondents to the September 2023 study expected the level of large cap consolidation to remain at the same low level or decrease

70%
of respondents to the September 2023 study expected bolt-on acquisition activity to be higher

1 Represents trading activity from September 1, 2023, to August 31, 2024.
2 Represents trading activity from September 1, 2023 to December 31, 2023, from December 31, 2023 to June 30, 2024, and from June 30, 2024 to August 31, 2024.
3 US Follow-On data excludes closed-end funds, non-US offerings, and SPACs. Deal value includes over-allotment; excludes Life Sciences deals with <$50mm of proceeds. As of August 31, 2024.
4 Assumes select biopharma transactions from September 1, 2023 to August 31, 2024, and September 1, 2022 to August 31, 2023, respectively, with transaction sizes over $100mm. Includes acquisitions of private and public biotech companies across all geographies.

A Look Back at Lazard's September 2023 Biopharmaceutical Leaders Study (cont'd)

- In the 2023 Study, the top therapeutic priorities were autoimmune / inflammation / fibrosis, rare diseases, solid tumors, and neuroscience. These priorities have played out in biotech acquisitions and financings.[1] 32% of previously mentioned biotech acquisitions were in solid tumors, another 19% in autoimmune/inflammation related assets, and 19% in rare diseases. It was a similar story in the public equity capital markets, with 29% of public financings in oncology, 22% in rare diseases, 14% in CNS, and 13% in immunology over the last twelve months.[2]

32%
of biotech acquisitions in the last year were in solid tumors

- In the 2023 Study, respondents were asked about their top innovative, disruptive technological priorities for the next 12 months. While respondents' views were widely distributed across a range of technologies, the most prioritized ones were precision medicine (37%), RNA approaches (34%), data analytics, AI, and machine learning (34%), and next-gen antibodies (31%). Over the past year, precision medicine and next-gen antibodies did feature prominently in biotech acquisitions, representing 17% and 13% of acquisitions. While data analytics, AI, and machine learning was not a key area for transaction activity, it has been a key area of strategic focus.

37%
cited precision medicine as the top innovative, disruptive technological priority for the next 12 months

- Since the Inflation Reduction Act (IRA) was passed and enacted on August 16, 2022, there has been significant and increasing focus among many in the industry on its impact on innovation, access, and strategic activity. In last year's study, the majority of respondents (60%) anticipated no changes to the IRA's drug pricing provisions in the next three years or only modest changes that would not meaningfully change the impact. Since then, there have not been any significant changes to the IRA's provisions.

60%
anticipated no changes to the IRA's drug pricing provisions in the next three years or only modest changes that would not meaningfully change the impact

1 Subsequent percentages provided are based on total number of transactions for both acquisitions and financings.
2 Assumes select biopharma transactions from September 1, 2023 to August 31, 2024, with transaction sizes over $100mm. Includes acquisitions of private and public biotech companies across all geographies. Assumes select biopharma financings from September 1, 2023, to August 31, 2024, with transaction sizes >$50mm.

Lazard Global Biopharmaceutical Leaders 2024 Study

Broadly, investors have exited the summer of 2024 with uncertainty still on the horizon. The deceleration of U.S. inflation, aided by restored supply chains, combined with a softening labor market and signs of slowing economic momentum, led many to speculate whether the Fed would cut rates in September and by how much. Indeed, on September 18th, the Fed settled the debate with a 50 basis point rate reduction. Nevertheless, the U.S. election in November could generate market volatility as potential changes in taxes, tariffs, and sector-specific regulatory policies come into play. Geopolitical consequences of the election could also potentially reshape the economic and market backdrop for many years going forward. Outside of the U.S., expectations for real GDP growth rates in 2024 are muted (2% or less) across developed economies, as central banks continue to grapple with inflationary pressures that have had an ongoing impact.

While financing activity has increased in 2024, investor sentiment continues to be risk averse, and the biopharma indices have been volatile. However, the breadth, depth and pace of biopharmaceutical innovation remains strong. Numerous companies have reported compelling data that generated very positive stock price reactions, and M&A activity continues at a strong pace. Large pharma remains highly focused on sustainable growth, especially in light of the significant amount of revenue at risk from upcoming patent expiries. In addition, the industry continues to navigate a challenging regulatory environment in light of the IRA, anti-trust climate, and now the U.S. BIOSECURE Act.

Against this backdrop, our 2024 Global Biopharmaceuticals Leaders Study was fielded in June and July 2024. This year's study included participation from 291 leaders[1] across many of the largest biopharma companies globally, as well as smaller public and private companies, and prominent investment firms. The respondents comprise 238 C-level corporate executives and 53 leading investors. Among the C-level executives, 33 are from large-cap public companies, 59 from mid-caps, and 60 from emerging biotechs, while 86 are from private companies.

SURVEY RESPONDENTS

291
Participants

238
Corporate Executives

53
Leading Investors

CORPORATE EXECUTIVE BREAKDOWN

152
Public Executives

86
Private Companies

1 C-level executives included CEOs, CFOs, and senior executives involved in strategic decision-making. Large-cap biopharma companies are defined as those with market capitalizations above $25bn; mid-cap with market capitalizations between $1bn and $25bn, and emerging biotechs with market capitalizations less than $1bn.

Our Central Findings

1 Bifurcated Views on Equity Market Valuation with Optimism on Innovation and Financing

Biopharmaceutical constituents disagree about biotechnology public market valuations. Large pharma executives tend to believe the biotech equity market is appropriately valued, whereas leaders at private, emerging, and mid-cap biotechnology companies tend to believe fair market valuations should be up to 30% higher. Macroeconomic challenges are the primary reason for market volatility, although an excessive number of companies that should not be public and insufficient positive newsflow are also important drivers. Innovation as well as the ability to finance are expected to remain the same or increase, but so are biotechnology bankruptcies.

2 IRA Expected to Generally Remain Unchanged

Biopharmaceutical leaders expect modest changes to the drug provisions of the Inflation Reduction Act (IRA) that, on balance, will not meaningfully change its impact, or no changes at all.

3 Bolt-on M&A and Collaborations Expected to Increase

While large-cap consolidation is expected to remain at the same low level, bolt-on acquisitions and strategic collaborations are expected to increase. The need for growth and innovation, positive clinical data, and more reasonable price levels and value expectations are the drivers for rising strategic activity. The top challenges to executing deals are seller price expectations, the impact of transactions on R&D budgets and the P&L, and a perceived scarcity of attractive counterparties.

4 Autoimmune, Inflammation, and Fibrosis Remains the Top Therapeutic Area

Autoimmune, inflammation and fibrotic diseases remain the top therapeutic area priority followed by solid tumors, rare diseases, neurology and metabolic diseases. Views on the top innovative technological modalities remain widely distributed, still reflecting the breadth of exciting innovation. Priorities are shifting away from immuno-oncology, gene editing and RNA approaches, towards next-generation antibodies, antibody drug conjugates, and radiopharmaceuticals. Precision medicine and artificial intelligence / machine learning remain of high interest.

5 Artificial Intelligence and Machine Learning Already Impacting Innovation

Today, Artificial Intelligence and Machine Learning (AI/ML) is having the most significant impact on the time and cost of the chemistry discovery process, followed by biological discovery and then clinical development and patient engagement. Looking forward five years, its impact is expected to shift more towards clinical development and be more broadly distributed across discovery. Limited impact is expected on supply chain and commercial over that timeframe.

6 China to be a Key Driver of Innovation But Concerns Remain

Biopharmaceutical activity in China will be driven by more confidence in the integrity of data, a rising level of impressive science and the availability of quality strategic targets. However, it will be constrained by regulatory uncertainty related to geopolitical tensions, ongoing concerns about the integrity of data, and continued perceptions of “me too” science. The majority of biopharmaceutical leaders intend to onshore more manufacturing, and a significant portion plan to do the same with research and clinical development.

1 Bifurcated Views on Equity Market Valuation with Optimism on Innovation and Financing

Biopharmaceutical constituents disagree about biotechnology public market valuations. Large pharma executives tend to believe the biotech equity market is appropriately valued, whereas leaders at private, emerging, and mid-cap biotechnology companies tend to believe fair market valuations should be up to 30% higher. Macroeconomic challenges are the primary reason for market volatility, although an excessive number of companies that should not be public and insufficient positive newsflow are also important drivers. Innovation as well as the ability to finance are expected to remain the same or increase, but so are biotechnology bankruptcies.

Valuation Expectations for the XBI and NBI

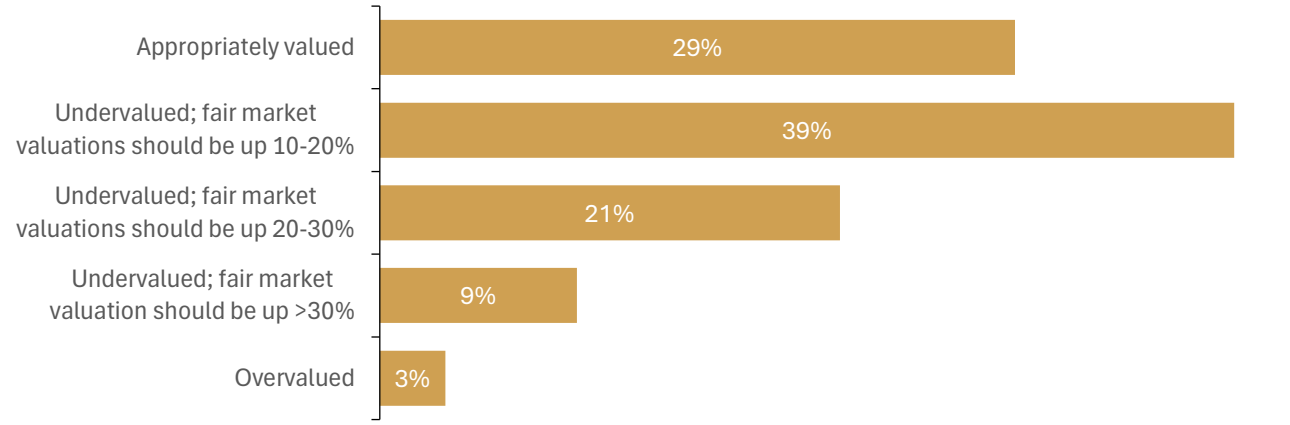
At the time of the conclusion of fielding this Study[1], the SPDR S&P Biotech ETF (XBI) had risen by 14.1% year-to-date and the NASDAQ Biotechnology Index (NBI) had risen by 12.1%, following significant volatility for each index over the course of the year. Despite the increase, 69% of all respondents believe the market is undervalued, and only 29% believe it is appropriately valued. However, there are discrepant views among healthcare leaders.

The majority of large pharmaceutical leaders (52%) believe the market is appropriately valued. Investors share this perspective with 42% believing the market is appropriately valued. In contrast, only 25% of mid-cap biopharma and 15% of emerging biotech respondents believe the same.

More than half (53%) of private biotechnology leaders view the biotech equity market as somewhat undervalued. A significant portion of emerging biotech leaders (37%) believe the biotech equity market is moderately undervalued.

Among all respondents, only 9% believe the market is significantly undervalued, and only 3% believe it is overvalued.

Q: At the time of this survey, the XBI is at 93 and the NBI is at 4,536. At these levels do you feel that the market is:



1 Survey concluded on July 16, 2024. Since July 16, 2024 through August 31, 2024, the XBI and NBI have fallen 0.6% and 0.4%, respectively. As of August 31, 2024, the XBI and NBI have risen YTD by 13.4% and 11.7%, respectively.

Drivers of Volatility

At the conclusion of fielding this Study[1], the XBI and the NBI had experienced significant volatility over the previous twelve months - approximately 2.5x and 1.5x times that of the S&P 500, respectively.[2]

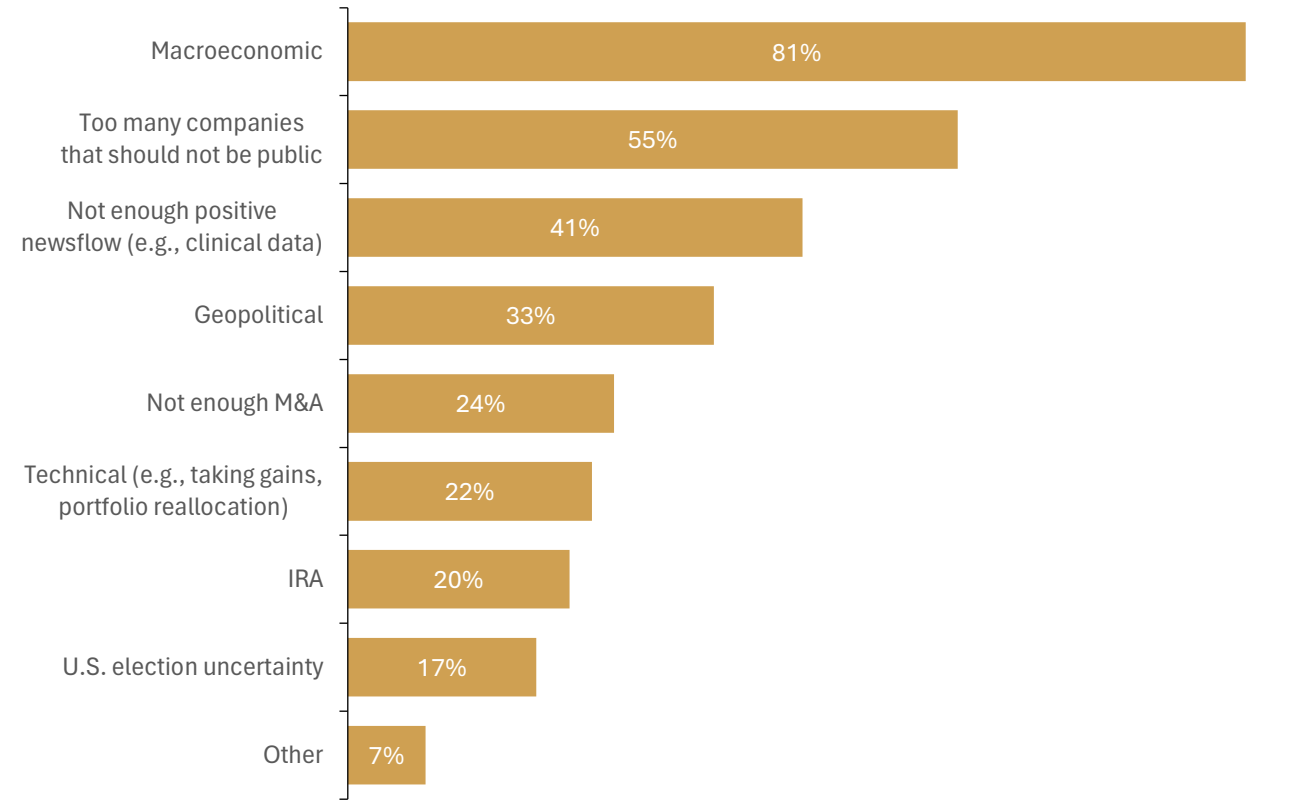
A significant majority of biopharmaceutical leaders (81%) believe the biotechnology market volatility has been driven by macroeconomic factors. In addition, 55% of respondents believe it is driven by too many companies that should not be public, while 41% cite a lack of positive newsflow and 33% attribute it to geopolitical issues.

It is notable that 75% of investors believe that a top driver of volatility is that too many companies are public and 58% of large pharma respondents cite insufficient positive newsflow. Notably only 17% of respondents cited U.S. election uncertainty as a top factor at the time of fielding this Study.

81%

of biopharmaceutical leaders believe biotechnology market volatility has been driven by macroeconomic factors

Q: 2024 was a strong start for the XBI / NBI markets but these indices have been volatile. What have been the main reasons why? (Select top three)



1 Survey concluded on July 16, 2024.
2 Represents a comparison of standard deviation of daily returns for the XBI (1.77%) and NBI (1.08%) to that of the S&P500 (0.70%) from July 17, 2023, to July 16, 2024.

Market Cycle Predictions

Expectations for biopharmaceutical innovation remain high, with 96% of biopharmaceutical leaders expecting the same or higher levels of innovation during the next 12 months. In fact, more than a third (36%) of respondents anticipate higher levels of innovation. Mid-cap biopharma leaders are particularly optimistic about innovation, with 48% expecting it to be higher in the next twelve months.

When asked about expectations for accessing capital through the public markets over the next twelve months, 90% of respondents expect access to public capital to be the same or higher. Similarly, 93% of respondents expect access to private capital to be the same or higher. Private biotech leaders displayed even higher optimism, with expectations of an increased ability to access capital through the public and private markets at 58% and 56%, respectively.

Respondents were evenly split about expectations for biotechnology bankruptcies over the next 12 months, with 42% of total respondents expecting a higher level and 43% expecting the same. The majority of investors (58%) expect a higher level of bankruptcies in the next 12 months.

96%

of biopharmaceutical leaders expect the same or higher levels of innovation during the next 12 months

Q: In the next 12 months, do you expect the following to be higher, lower or the same relative to 2023?

	Biomedical Innovation	Ability to Finance Biotech Through the Public Markets	Ability to Finance Biotech Through the Private Markets	Biotech Bankruptcies
Higher	36%	48%	39%	42%
The Same	60%	42%	54%	43%
Lower	4%	10%	7%	15%

0% 50% 100%

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 IRA Expected to Generally Remain Unchanged

Biopharmaceutical leaders expect modest changes to the drug provisions of the Inflation Reduction Act (IRA) that, on balance, will not meaningfully change its impact, or no changes at all.

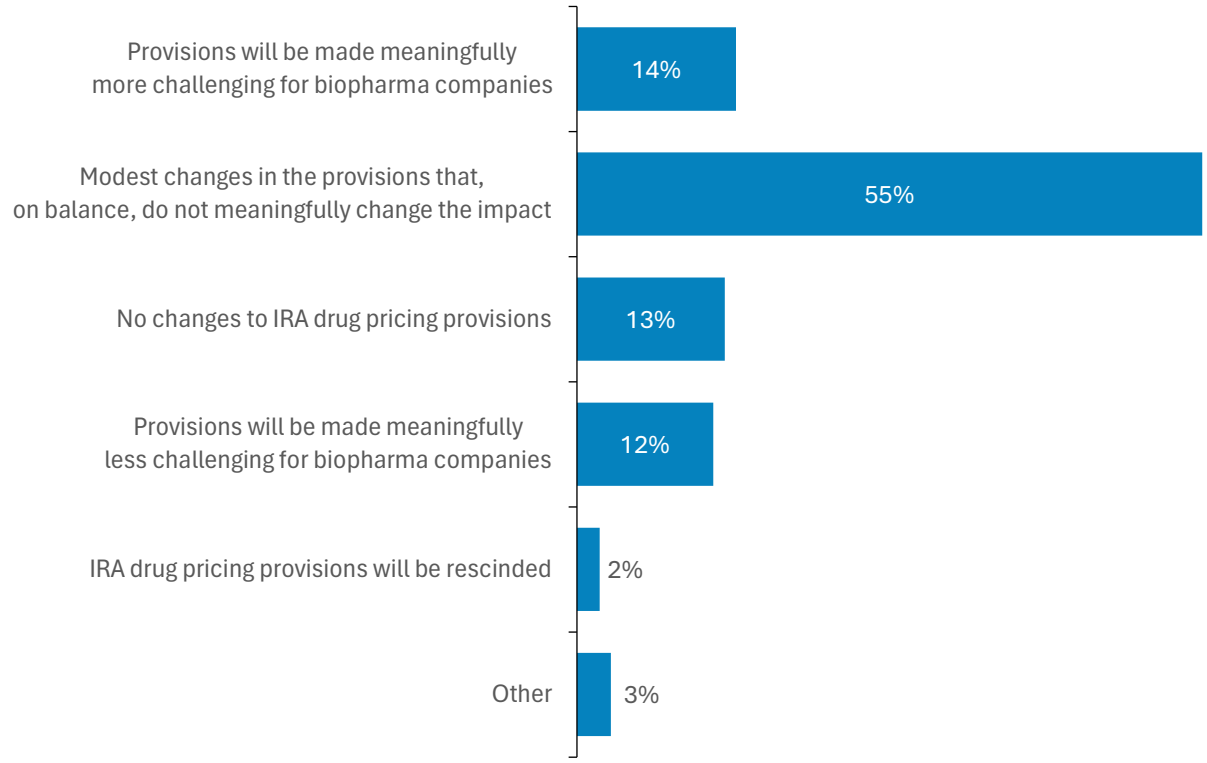
IRA Drug Pricing Provision Changes

More than half of biopharmaceutical leaders (55%) predict modest changes in IRA drug pricing provisions that will not meaningfully change its impact. Notably, two thirds of large pharmaceutical leaders (67%) and more than half of investors (51%) expect only modest changes. Consistently across groups of respondents, approximately 13% expect no changes to the IRA at all. Almost all biopharmaceutical leaders believe the drug pricing provisions of the IRA are here to stay, with only 2% expecting them to be rescinded. In fact, approximately 14% anticipate that the drug pricing provisions will be made more challenging for biopharmaceutical companies. These results are highly consistent with those in our 2023 Study.

67%

of large pharmaceutical leaders expect only modest changes in IRA drug pricing provisions

Q: What changes do you expect in the next 3 years will be made to the provisions in the IRA relating to drug pricing?



3 Bolt-on M&A and Collaborations Expected to Increase

While large-cap consolidation is expected to remain at the same low level, bolt-on acquisitions and strategic collaborations are expected to increase. The need for growth and innovation, positive clinical data, and more reasonable price levels and value expectations are the drivers for rising strategic activity. The top challenges to executing deals are seller price expectations, the impact of transactions on R&D budgets and the P&L, and a perceived scarcity of attractive counterparties.

Trends for M&A and Alliances

Compared to last year's Study, expectations for large cap consolidation are similarly muted, with 87% of total respondents predicting levels will remain at the same low level or will be even lower over the next year.

On the other hand, sentiment for bolt-on acquisition activity is much more optimistic, with 81% of total respondents anticipating an increase in bolt-on acquisitions relative to last year. Notably, 21% of large pharma executives expect bolt-on activity to be significantly higher while 75% of mid-cap leaders expect it to be somewhat higher. Only 3% of total respondents expect bolt-on activity to be lower.

In addition, 76% of respondents project an increase in strategic alliance and licensing activity over the next year relative to last year. Only 2% of total respondents expect strategic alliance and licensing activity to be lower.

81%

of total respondents anticipate an increase in bolt-on acquisitions relative to last year

Q: What do you expect the level of corporate development activity will be over the next year relative to the last year?

	Large Cap Consolidation	Bolt-On Acquisitions	Strategic Alliances / Licensing
Significantly higher	1%	14%	14%
Somewhat higher	12%	67%	62%
Stay same	62%	16%	22%
Somewhat lower	20%	3%	2%
Significantly lower	5%	0%	0%

0% 50% 100%

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 again considered the top barrier to executing deals in the current environment, with 61% highlighting this as a top challenge. Other key challenges include the impact of transactions on R&D budgets and the P&L (48%), and a scarcity of attractive counterparties (45%).

Large pharmaceutical respondents particularly cite the impact on R&D budgets and P&L, the scarcity of attractive counterparties, and anti-trust uncertainty as significant challenges to deal execution (79%, 58% and 42%, respectively).

Notably, concern among large pharmaceutical leaders about the impact of transactions on R&D budgets and the P&L (79%) has increased significantly since last year's Study (40%). On the other hand, this year, large pharmaceutical leader concern about anti-trust uncertainty (42%) has decreased considerably compared to last year's Study (70%).

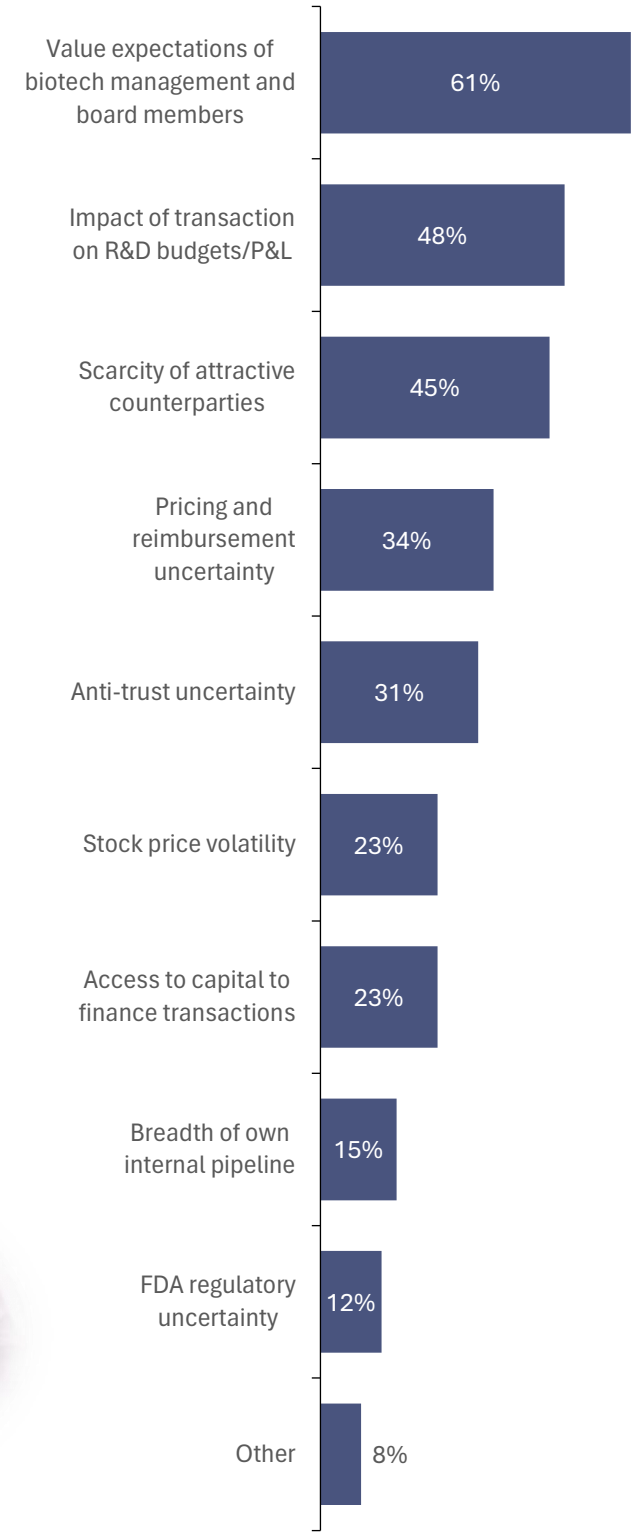
Emerging biotechs are more focused on stock price volatility (47%) and are less concerned about the impact of transactions on R&D budgets and the P&L (35%).

Relative to the 2023 Study, investors are less concerned about anti-trust uncertainty (30% now versus 49% then) and pricing and reimbursement uncertainty (32% now versus 41% then), and are more concerned about the scarcity of attractive counterparties (49% now versus 29% then).

79%

of large pharmaceutical leaders cite the impact of transactions on R&D budgets and the P&L as a top deal challenge

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



Catalysts for Greater Biopharma Activity

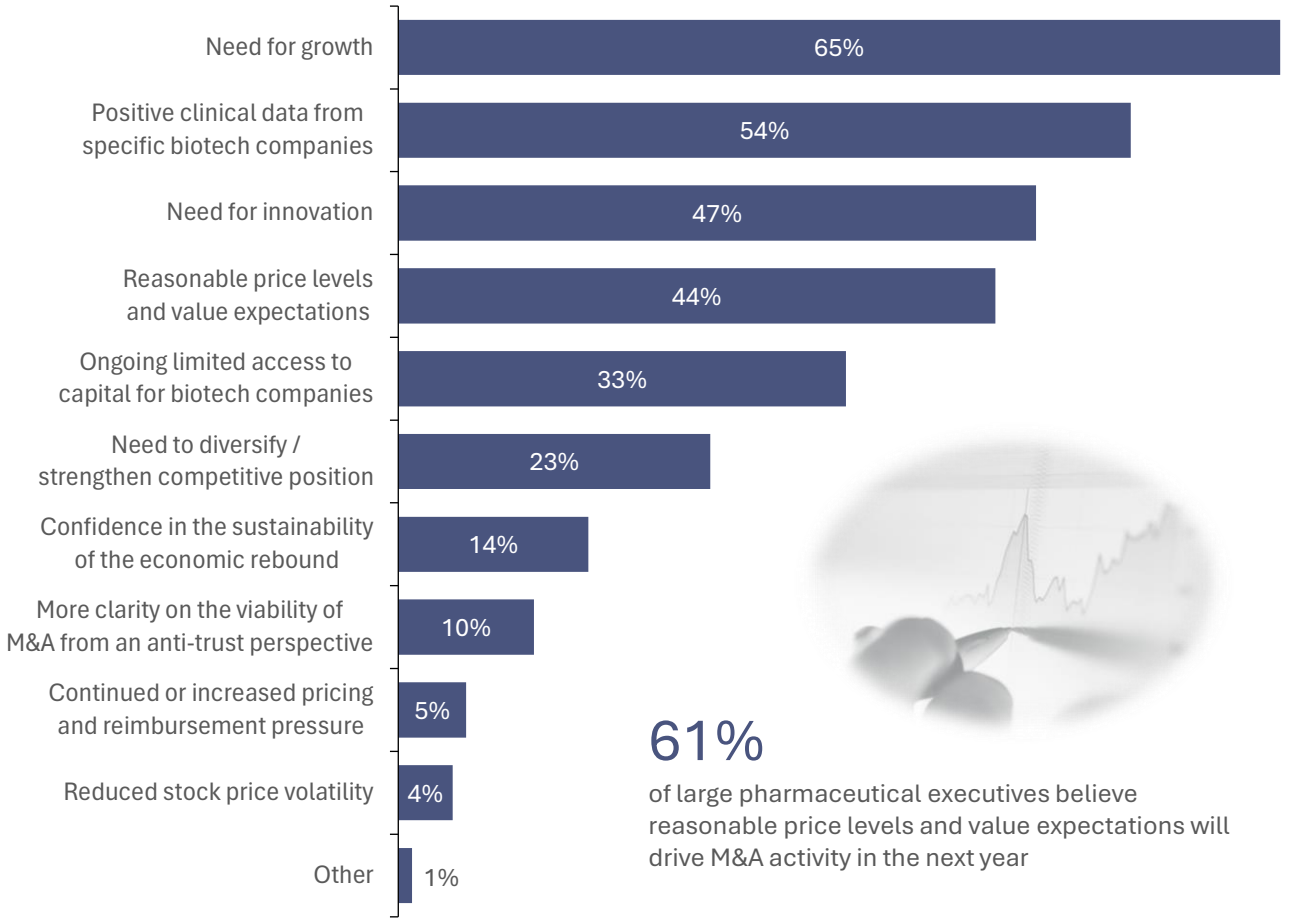
The majority of respondents (65%) believe that the need for growth will be the top catalyst for higher M&A activity in the biopharmaceutical sector. In particular, mid-cap biopharma leaders (70%), large pharma executives (79%), and investors (74%) cite the need for growth as the top catalyst. Relative to our Study in 2023, growth remains a top priority for each of these groups and has also increased for both big pharma and investors from 70% and 63%, respectively.

Other key catalysts include positive clinical data from specific biotech companies (54%), the need for innovation (47%), and reasonable price levels and value expectations (44%). Notably, positive clinical data and the need for innovation have increased from 45% and 38%, respectively, since last year.

Large pharmaceutical executives are more focused on reasonable price levels and value expectations (61%), relative to total respondents (44%). This year, large pharmaceutical executives cite the need for innovation (33%) less than they did in 2023 (65%).

Relatively fewer respondents cited ongoing limited access to capital for biotech companies (33%) as a catalyst for greater M&A activity, down from 47% in 2023.

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



61%

of large pharmaceutical executives believe reasonable price levels and value expectations will drive M&A activity in the next year

4 Autoimmune, Inflammation, and Fibrosis Remains the Top Therapeutic Area

Autoimmune, inflammation and fibrotic diseases remain the top therapeutic area priority followed by solid tumors, rare diseases, neurology and metabolic diseases. Views on the top innovative technological modalities remain widely distributed, still reflecting the breadth of exciting innovation. Priorities are shifting away from immuno-oncology, gene editing and RNA approaches, towards next-generation antibodies, antibody drug conjugates, and radiopharmaceuticals. Precision medicine and artificial intelligence / machine learning remain of high interest.

Therapeutic Area Priorities

Autoimmune, inflammation, and fibrosis remains the leading therapeutic area priority (58%), as it was in 2023. This is followed by solid tumors (41%), rare diseases (38%), neurology (non-psychiatry) (35%), and metabolic diseases (30%).

Notably, autoimmune, inflammation, and fibrosis as a top therapeutic priority has increased from 48% in 2021 to 58% in 2024, an overall level similar to 2023. This year, however, it increased substantially over 2023 as a priority for large pharma leaders (85% versus 70%) and investors (74% versus 61%).

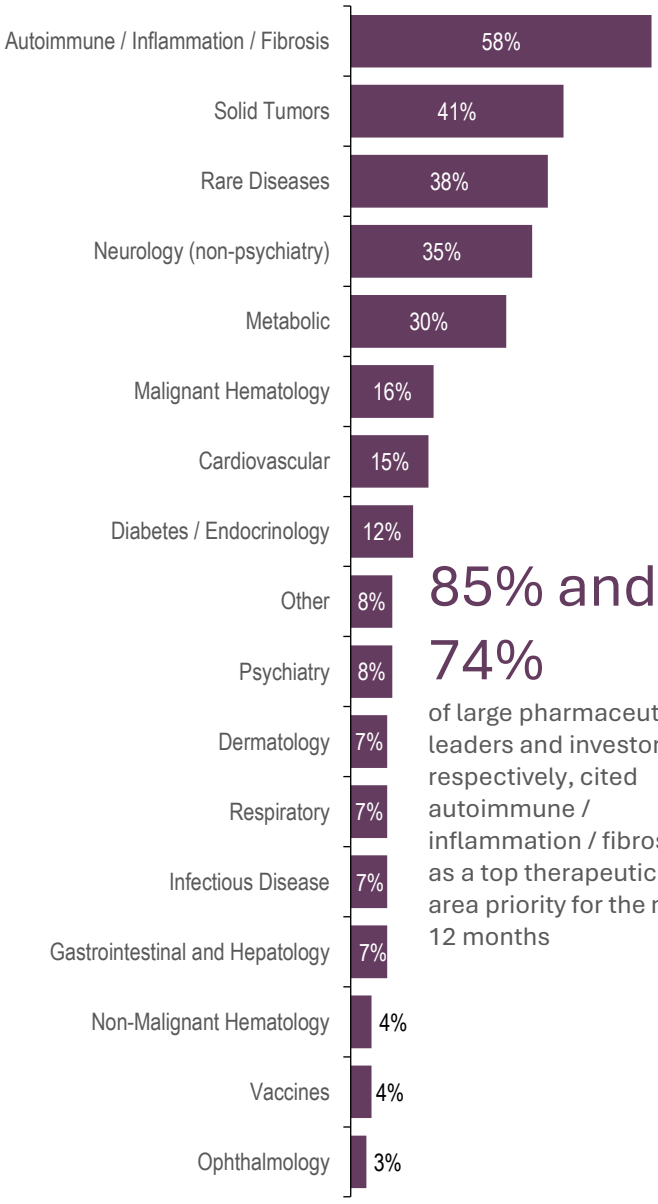
On the other hand, solid tumors has declined as a top therapeutic priority since the 2021 Study from 64% to 41% in 2024. This year, solid tumors declined as a priority for large pharmaceutical leaders to 36% from 60% in 2023.

Rare diseases declined from 53% in 2021 to 38% in 2024, although it increased as a priority for large pharma from 30% in 2023 to 45% this year.

Neurology (non-psychiatric) is down somewhat from 40% to 35% as a therapeutic priority to overall respondents. Notably, it has increased somewhat among large pharma leaders from 30% to 36%, while it has concurrently decreased as a priority among private, small cap and mid cap biopharmaceutical leaders and remained level among investors.

Metabolic diseases increased as a priority to overall respondents to 30% from 16% in 2023. There was a substantial divergence in views among groups of respondents, with investors (42%), private biotech (37%), and emerging biotech (30%) citing it as a top priority, but only 15% of large pharmaceutical and 15% of mid-cap pharmaceutical leaders citing it as a top priority.

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



85% and 74%

of large pharmaceutical leaders and investors, respectively, cited autoimmune / inflammation / fibrosis as a top therapeutic area priority for the next 12 months

Top Innovative, Disruptive Technologies

Views on the top, disruptive, innovative technological modalities remain widely distributed, once again reflecting the exciting level of innovation.

This year, next-generation antibodies leads as the top technological priority (40%, up 9% from last year). It is closely followed by precision medicine (36%, in line with last year), antibody drug conjugates (34%, up 10% from last year), data analytics, AI & ML (32%, in line with last year), and RNA (29%, down 5% from last year).

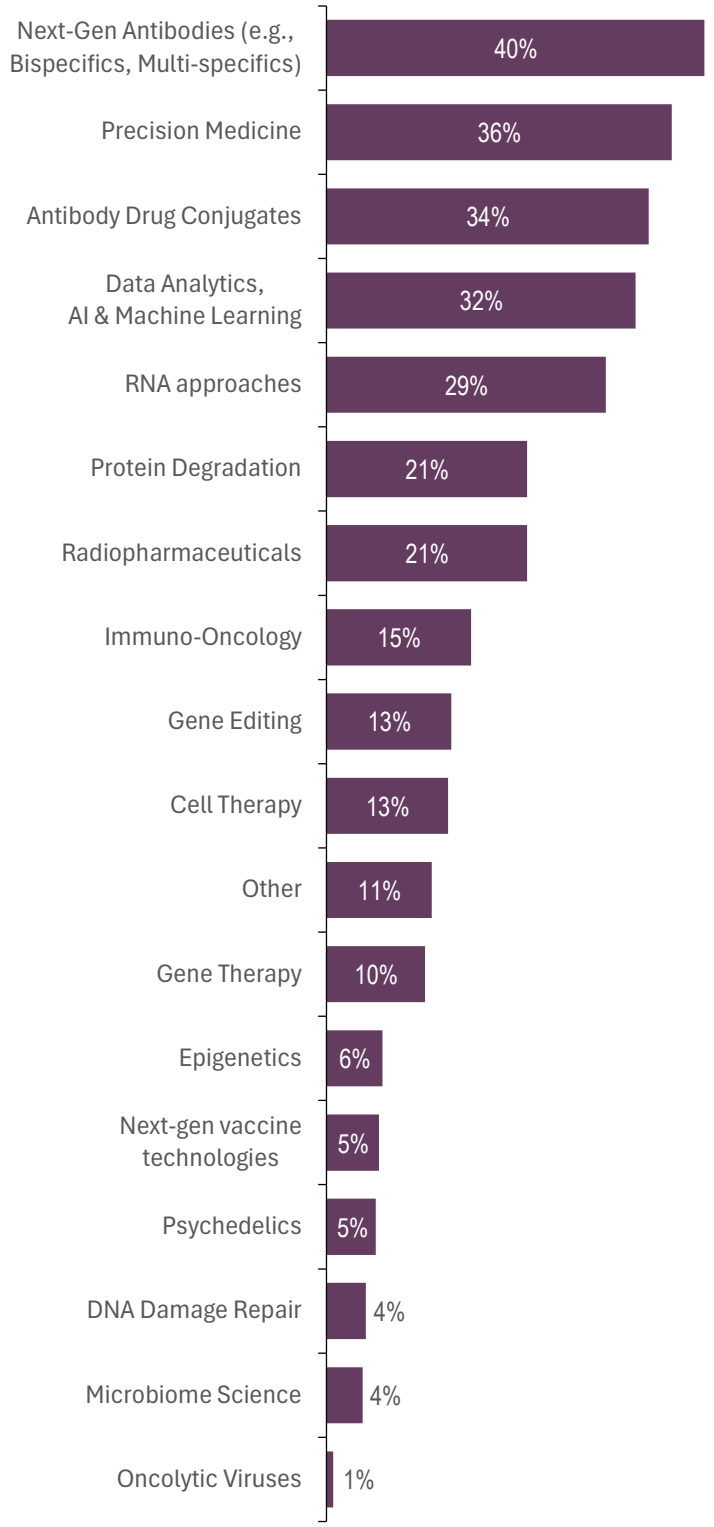
Notably radiopharmaceuticals as a priority increased significantly from 9% (2023) to 21% (2024) and entered the top ten for the first time.

Meanwhile, immuno-oncology and gene editing both experienced marked decreases relative to last year, declining from 25% to 15% and 24% to 13%, respectively.

Large pharma executives are particularly focused on next-gen antibodies (52%), data analytics, AI & machine learning (42%), and antibody drug conjugates (39%) and are somewhat less focused on precision medicine (18%), gene editing (9%), and gene therapy (6%). Large pharmaceutical leaders' focus on immuno-oncology has significantly decreased (18%, down from 35% last year). Interest in cell therapy among large pharma leaders is broadly in line with 2023 (24%).

Investors are broadly aligned with large pharma on technological priorities, with a significant focus on next-gen antibodies (55%) and antibody drug conjugates (38%) and lower focus on precision medicine (26%). Investors show relatively greater interest in RNA approaches (42%) and radiopharmaceuticals (36%), but lower interest in data analytics, AI & ML (19%) and immuno-oncology (4%). Investor focus on cell therapy has declined from 20% in 2023 to 8% now.

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



5 Artificial Intelligence and Machine Learning Already Impacting Innovation

Today, Artificial Intelligence and Machine Learning (AI/ML) is having the most significant impact on the time and cost of the chemistry discovery process, followed by biological discovery and then clinical development and patient engagement. Looking forward five years, its impact is expected to shift more towards clinical development and be more broadly distributed across discovery. Limited impact is expected on supply chain and commercial over that timeframe.

Expectations for AI / ML Impact

43% of respondents believe that AI / ML is currently having the most impact on chemistry discovery, followed by 19% citing its impact on biological discovery. However, there is a divergence in views among the groups of leaders. Large pharmaceutical leaders tend to be more focused on the impact of AI/ML on biological discovery (27%) and clinical development (21%), whereas mid-cap and private biotechnology leaders as well as investors more often cite its impact on chemistry discovery (42% to 55%). The view of the impact of AI/ML on discovery currently is followed by its impact on clinical development (11%) and patient engagement (10%).

In five years, biopharmaceutical leaders expect a broad impact of AI/ML across the R&D value chain, with a plurality (28%) citing clinical development as the area of greatest impact.

AI / ML is expected to have the least overall impact on the supply chain (7% today, declining to 3% in five years).

Q: In what areas are AI/ML having the most impact / will AI/ML have the most impact with respect to time and cost?

	Today	In 5 Years
Chemistry Discovery	43%	16%
Biological Discovery	19%	19%
Clinical Development	11%	28%
Patient Engagement	10%	13%
Supply Chain	7%	3%
Preclinical Development	5%	13%
Commercial	5%	8%

6 China to Be a Key Driver of Innovation But Concerns Remain

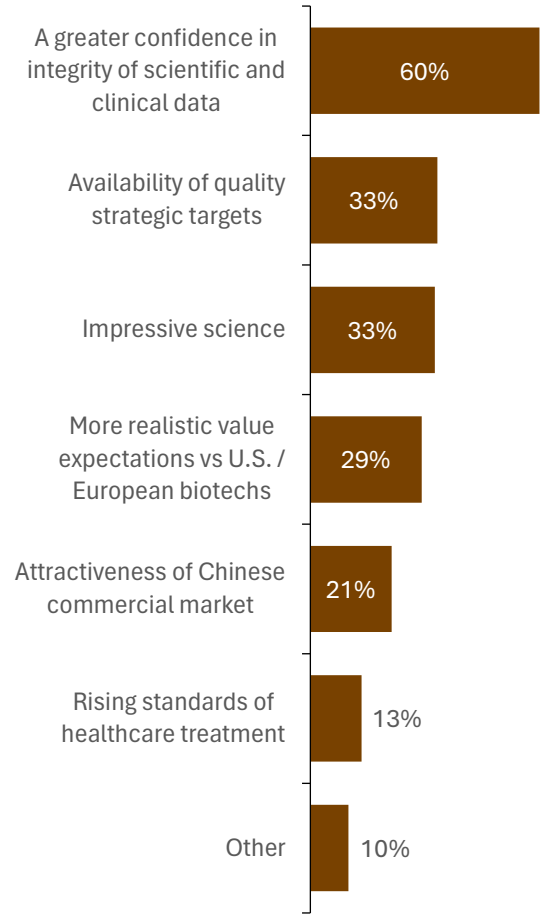
Biopharmaceutical activity in China will be driven by more confidence in the integrity of data, a rising level of impressive science and the availability of quality strategic targets. However, it will be constrained by regulatory uncertainty related to geopolitical tensions, ongoing concerns about the integrity of data, and continued perceptions of "me too" science. The majority of biopharmaceutical leaders intend to onshore more manufacturing, and a significant portion plan to do the same with research and clinical development.

China Activity Drivers and Impediments

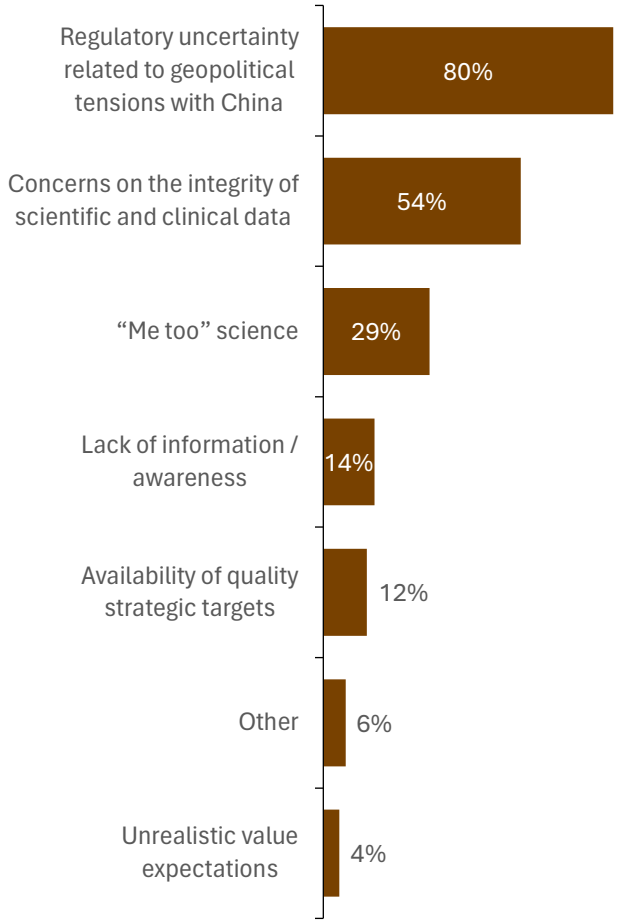
The majority of biopharmaceutical leaders cite greater confidence in the integrity of scientific and clinical data as a top driver of greater activity in China. This is followed by the availability of high-quality strategic targets (33%), and increasingly impressive science (33%).

A significant majority of biopharmaceutical leaders view regulatory uncertainty related to geopolitical tensions with China as a top impediment to further activity in China (80%). This is followed by concerns about the integrity of scientific and clinical data (54%) and "me too" science (29%).

Q: What are drivers to further activity in China? (select top 2 choices)



Q: What are the impediments to further activity in China? (select top 2 choices)



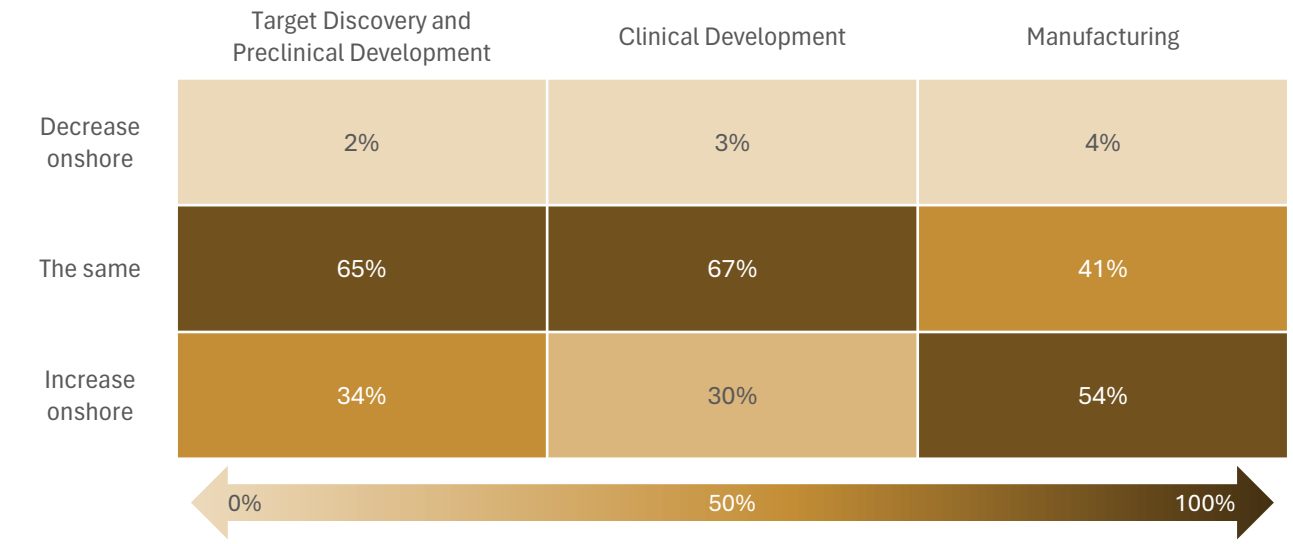
CRO / CDMO Onshoring

The majority of biopharmaceutical leaders intend to onshore more manufacturing (54%). This view is most strongly held by investors (75%). More than half of large pharmaceutical leaders intend to maintain the same level of manufacturing activity in China (52%), while 42% plan to increase onshoring. Other biopharmaceutical leaders tend to be evenly split between maintaining manufacturing activity in China and more onshoring. Investors, however, prioritize more onshoring (75%).

The majority of overall respondents plan to maintain the same clinical development activities in China (67%), while 30% expect to increase onshoring of this activity. Notably 75% or more of all biopharmaceutical leaders plan to maintain the same level of activity, whereas more than half of investors prioritize increased onshoring (55%).

Similarly, the majority of overall respondents plan to maintain the same target discovery and preclinical development activities in China (65%), while 34% expect to increase onshoring of this activity. Notably 70% or more of biopharmaceutical leaders across the groups of companies plan to maintain the same level of activity, whereas more than half of investors prioritize increased onshoring (55%).

Q: Given governmental concerns that the over-reliance on overseas CROs and CDMOs poses a threat to competitiveness, such as the recent U.S. BIOSECURE act and related legislation, do you plan to onshore more of your CRO or CDMO activity?



54%

of leaders intend to increase onshoring of manufacturing activity

Contact

David Gluckman Vice Chairman of Investment Banking and Global Head of Healthcare David.Gluckman@Lazard.com New York	Michele Colocci Vice Chairman of Investment Banking Michele.Colocci@Lazard.com London	Michael Kingston, *Managing Director* Co-Head of Global Biopharma and Co-Head of North America Healthcare Michael.Kingston@Lazard.com San Francisco	Dale Raine, *Managing Director* Co-Head of Global Biopharma and Co-Head of European Healthcare Dale.Raine@Lazard.com London
Rick Aldridge, *Managing Director* Rick.Aldridge@Lazard.com Boston	Medha Chadha, *Managing Director* Head of Healthcare Capital Markets Advisory Medha.Chadha@Lazard.com New York	Guillaume de Fréminet, *Managing Director* Guillaume.de.Freminet@Lazard.com Paris	Victor Kastensson, *Managing Director* Head of Investment Banking, Nordic Region Victor.Kastensson@Lazard.com Stockholm
Michael Lefferts, *Managing Director* Michael.Lefferts@Lazard.com New York	Guillaume Molinier, *Managing Director* Co-Head of European Healthcare Guillaume.Molinier@Lazard.com Paris	Prasad Parmeshwaran, *Managing Director* Prasad.Parmeshwaran@Lazard.com San Francisco	Frédérik Rothenburger, *Managing Director* Frederik.Rothenburger@Lazard.com Paris
Eric Stewart, *Managing Director* Eric.Stewart@Lazard.com London	Julian Temple, *Managing Director* Julian.Temple@Lazard.com New York	Michael Wiggins, *Managing Director* Head of Private Market Advisory, Healthcare Michael.Wiggins@Lazard.com Chicago	Ian Wijaya, *Managing Director* Co-Head of North America Healthcare Ian.Wijaya@Lazard.com New York	Molly Zhu, *Managing Director* Molly.Zhu@Lazard.com Hong Kong
Ajay Dhankhar, *Senior Advisor* Ajay.Dhankar@Lazard.com New York	Anand Mehta, *Senior Advisor* Anand.Mehta@Lazard.com San Francisco	Steve Sands, *Senior Advisor* Stephen.Sands@Lazard.com New York	Mervyn Turner, *Senior Advisor* Mervyn.Turner@Lazard.com New York
Oliver Dean, *Director* Oliver.Dean@Lazard.com New York	James Hay, *Director* James.Hay@Lazard.com London	Daniel Klodor, *Director* Daniel.Klodor@Lazard.com Chicago	Léo Scher, *Director* Leo.Scher@Lazard.com London
Matthew Schorr, *Director* Matthew.Schorr@Lazard.com New York	Orgil Sedvanchig, *Director* Orgil.Sedvanchig@Lazard.com London	Sid Varshney, *Director* Sid.Varshney@Lazard.com San Francisco	Paul Wang, *Director* Paul.Wang@Lazard.com San Francisco
Nikhil Agarwal, *Vice President* Nikhil.Agarwal@Lazard.com San Francisco	Katherine Bedkowski, *Vice President* Katherine.Bedkowski@Lazard.com New York	Ahmed Bensouda, *Vice President* Ahmed.Bensouda@Lazard.com Paris	Jacques Bourgeois, *Vice President* Jacques.Bourgeois@Lazard.com New York
Jean-Eric Castelli, *Vice President* Jean-Eric.Castelli@Lazard.com Paris	Derek Chait, *Vice President* Derek.Chait@Lazard.com New York	Natalie Gaisser, *Vice President* Natalie.Gaisser@Lazard.com New York	Martin Mo, *Vice President* Martin.Mo@Lazard.com San Francisco
David Ruch, *Vice President* David.Ruch@Lazard.com New York	Josh Tan, *Vice President* Josh.Tan@Lazard.com New York	Alfonso Torres, *Vice President* Alfonso.Torres@Lazard.com London	Nathan Weiss, *Vice President* Nathan.Weiss@Lazard.com New York