



BIOPHARMA

Biopharma Trends 2026

Pressures Mount—Now and into the Future

By Daniel Alvarez, Margot Bleys, Bilal Khan, John Wu, and Priya Chandran

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Biopharma navigated challenges, uncertainty, and disruption in 2025. The industry continues to innovate, delivering the clinical, commercial, and operational breakthroughs that will transform patients' lives. However, it also faces a host of business, scientific, technological, and geopolitical pressures. Leaders are navigating market shocks in the form of complex pricing pressures, tariffs, and trade policy that are contributing to a fragmented post-pandemic landscape. The result is an increase in disruption and uncertainty, fueling near-term questions about financial performance and long-term reservations about the viability of the industry's business model.

Near term, margins are under increasing strain at a time when the industry's performance lags that of other sectors. Biopharma's average total shareholder return was 0% from 2021 to 2025,

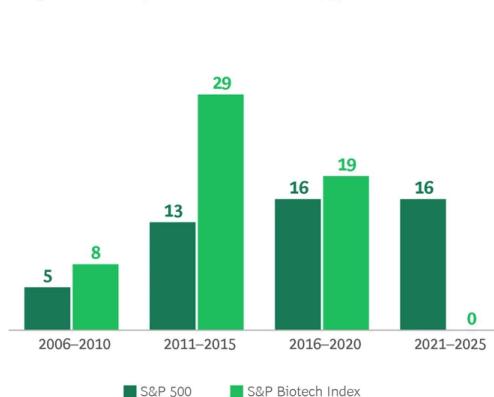
compared with 16% for the S&P 500. Over this five-year period, only 6 of the top 20 companies outperformed the S&P 500. Only 12 out of the top 20 companies outperformed from November 2024 through November 2025. (See Exhibit 1.)

EXHIBIT 1

Biopharma's Shareholder Returns Have Slowed, but Some Players Continue to Outperform

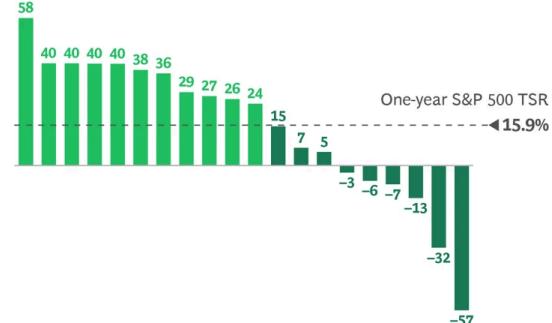
Biopharma has been a high-return segment in the S&P 500 but has slowed over the past five years

Biotechnology Select Industry Index versus the S&P 500, average annual TSR, November–November (%)



Twelve of the top 20 pharma companies outperformed the S&P 500 in 2025

TSR of top pharma companies versus the S&P 500, November 2024–November 2025 (%)



Sources: S&P Capital IQ; BCG analysis.

Longer term, the combined pressures are pushing companies to shift priorities in R&D and business development. Such shifts add fuel to the public's declining approval of the industry and further erode pharma's longstanding social contract (with the industry innovating and delivering new therapies in exchange for investment and commercial success). Harris and Gallup polling data show net perceptions of biopharma falling from a positive 60% to a negative 40% since 1998. Declining public approval has coincided with increased policy scrutiny, including tariffs and changes to pricing frameworks.

Looking ahead, these challenges are set to intensify. New US tariffs on branded products and continuing impacts from the Inflation Reduction Act are current realities. Add the rise of a most-favored-nation (MFN) approach to pricing and a steep patent cliff, which is putting some \$275 billion in revenue at the top 15 companies at risk from loss of exclusivity. Management teams that want to maintain or establish industry leadership must reimagine their business models across R&D, deal making, commercialization, manufacturing, and talent strategies.

Some major questions: Do companies double down on breakthrough science or stick with lower-risk R&D programs? Do they deepen international partnerships in China and India while reassessing the role of established markets such as the US and Europe? Maintain traditional sales and marketing models or adopt direct-to-customer approaches? Commit to US manufacturing or maintain an agile global blueprint? Invest in AI now or wait to see how the technology matures?

These questions and tradeoffs will affect margins, shape investments, promote public approval or disapproval, and determine the winners and losers of the next decade.

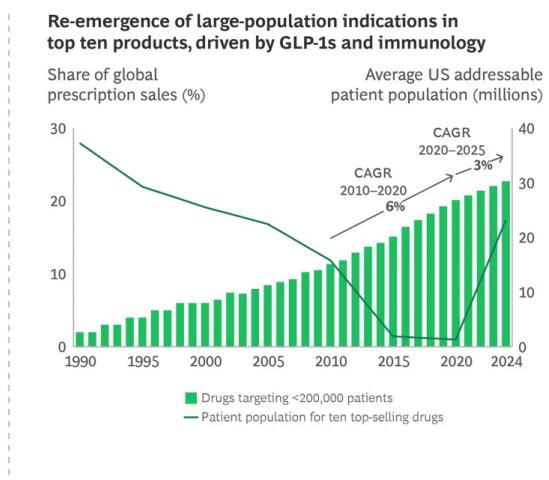
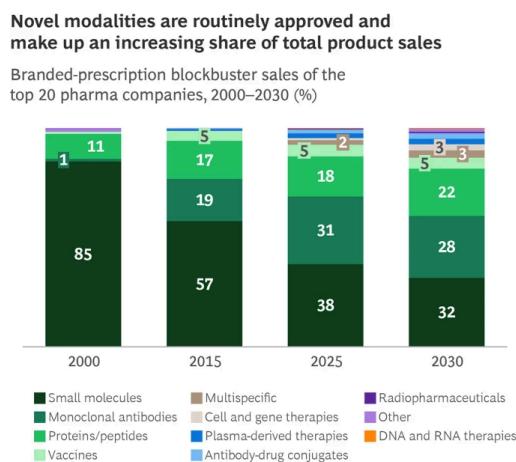
A New Balance for R&D

A disproportionate share of biopharma sales (almost 90% in 2025 for the top 20 firms) come from blockbusters or megablockbuster drugs, a trend we expect to hold steady through 2030. But the types of products that the industry is banking on to drive this growth are changing.

From 2010 to 2020, many biopharma companies targeted development of specialty biologics and novel modalities, such as CAR-T, siRNA, and gene therapy. Since 2020, there has been a re-emergence of therapeutics targeting diseases affecting large populations with high unmet need, such as GLP-1s for obesity and monoclonal antibodies for Alzheimer's. Novel modalities are now routinely approved and make up an increasing share of total product sales. (See Exhibit 2.)

EXHIBIT 2

The Focus of Biotech Innovation Is Now on Large Populations



Sources: Clarivate DRG; Evaluate Pharma; National Organization for Rare Diseases; BCG analysis.

Companies also are pursuing novel modalities with validated targets. They are investing in new treatments in established high-potential pathways, including PCSK9 orals and siRNA for high cholesterol and hypertension, GLP-1–amylin combinations for obesity and diabetes, and PD-1×VEGF bispecifics for cancer. One result is a kind of herd mentality in pipeline decision making. For example, there are more than 100 obesity compounds in the industry pipeline, and more than

35 have a GLP-1 component. This behavior increases the pressure to differentiate based on portfolio strategy, commercial decision making, and asset profiles (such as efficacy, safety, dosing, route of administration, and patient eligibility).

Adding to the profitability pressures are the provisions of the 2022 Inflation Reduction Act, which narrows the pricing power window for many new drugs. In response, companies are adjusting clinical development, shifting from a beachhead strategy (pursuing smaller or de-risked indications first and sequencing subsequent trials) to going all in on the biggest addressable opportunities first, or in parallel with smaller indications, to maximize ROI.

To sustain returns, companies must continue to balance risk and reward in their portfolios. This means pairing bold bets on new biologics and modalities with more engineered approaches for validated targets that offer lower risk while still promising respectable returns.

They also need to ensure that scientific innovations can succeed in the real world. Because of constraints in manufacturing and market access, we are seeing a shift away from highly personalized medicines with cumbersome logistics. Numerous transformative treatments in CAR-T and gene therapy have struggled because of these go-to-market challenges.

Near term, companies need to continue to innovate to decrease the complexity and cost of these therapies, and governments can find ways to incentivize and pay for them. The longer-term challenge for companies is to factor operational and economic considerations into R&D decision making earlier, ensuring that trial designs match real-world usage, indication sequences match opportunity, and endpoints enable market access.

More, but Different, Deal Making

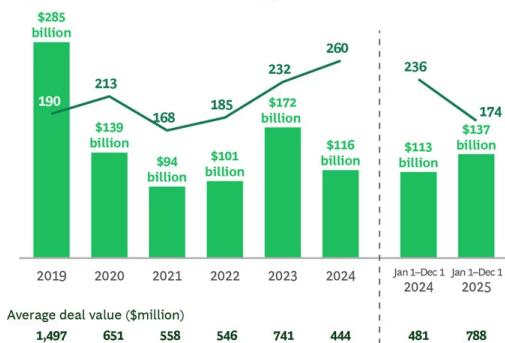
Deal making is accelerating. As we predicted in our [2025 report](#), the industry is seeing an uptick in both M&A and licensing, with M&A growth driven by marketed assets and major players accessing a more globally diverse biotech ecosystem taking shape in China and India. (See Exhibit 3.)

EXHIBIT 3

M&A Is Back, with Transactions Shifting to Marketed Assets

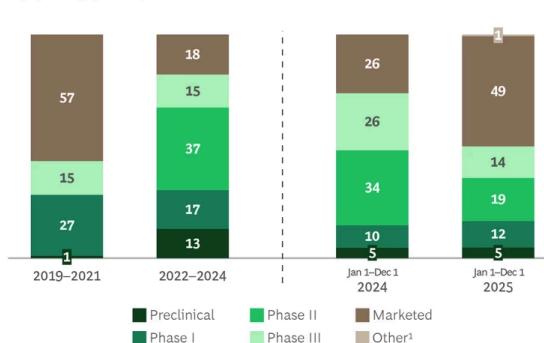
Average deal value has increased, even as the number of deals declined in the past year

M&A deal value and number of deals



A greater share of M&A is now focused on marketed assets

Share of deal value (%)



Source: GlobalData.

¹Other includes unknown, withdrawn, filing rejected/withdrawn, or inactive.

In M&A, companies are looking for derisked proof-of-concept or post-POC assets. Preclinical companies have collapsed in value from an average of about \$500 million in 2021 to less than \$50 million today, a reversal of the 2010–2020 trend that favored early-stage innovation. Furthermore, biotech firms are incentivized to pursue lower-risk or incrementally innovative therapies. This trend, coupled with reduced National Institutes of Health budgets, could result in fewer breakthrough innovations.

In licensing, the value of agreements is on the rise while the overall number declines, and there is significant year-over-year growth in the share of Phase I and Phase II deals. A significant share of the growth is driven by deals involving China. (See Exhibit 4.) These transactions represented almost half of licensing activity in 2025. Valuations of Chinese assets soared 150% in the last year, outpacing those of both EU and US companies.

EXHIBIT 4

Licensing Deals Are Increasing in Value and Tapping a Global Ecosystem

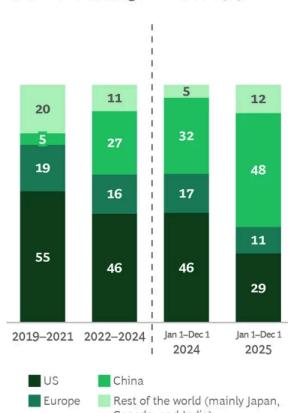
Deal value is rising while volumes decline

Licensing deal value and number of deals



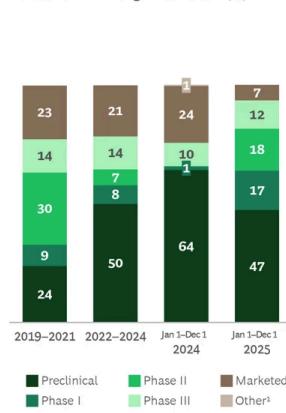
A rapid increase in licensing from China

Share of licensing deal value (%)



Phase I and II licensing increases

Share of licensing deal value (%)



Source: GlobalData.

¹Other includes withdrawn, filing rejected/withdrawn, or inactive.

China's biotech ecosystem is surging, and the country has become an established innovation hub, contributing about 30% of the global biotech pipeline. Chinese firms have also crafted a dominant niche in certain modalities. For example, they are responsible for about 50% of new antibody-drug conjugates. China does face geopolitical headwinds, especially in the US, where there is public-policy pressure to constrain the country's influence, including a recent executive order limiting the transfer of data to China. It remains to be seen if more restrictive regulation is enforced.

In parallel, India is emerging as a hub for AI, data, and manufacturing capabilities, as well as a source of diversified innovation. Here we see companies investing across all stages of the value chain. For example, Roche has invested more than \$1.5 billion in R&D and commercial capabilities, and Amgen has invested \$200 million in AI and data science. In addition, India continues to be an active destination for offshoring capabilities because of both its own advantages and companies' broader efforts to diversify geopolitical and operational risk.

The rise of international deal making has implications for biopharma management teams. To identify high-value assets being developed and validated in emerging hubs, they must pair expertise in biology with a solid understanding of multinational trial design. And as they expand the geographic scope of deals, they need to adapt their post-merger integration strategies, including developing capabilities to integrate culturally diverse teams and leveraging data from patients outside the US. At the same time, they'll need to navigate a geopolitical landscape increasingly hostile to multinational collaboration.

New Manufacturing Complexity

Shifting geopolitical winds have made manufacturing much more complex and put production decisions at the top of the C-suite priority list. Industry leaders are investing in large capital projects to balance modality complexity and demand capacity against geopolitical shifts.

Specifically, manufacturers are racing to expand their capacity and build flexibility into their supply chains. Many newer modalities (antibody-drug conjugates and CAR-T, for example) are operationally complex. Furthermore, many therapies now require multiple delivery devices, such as autoinjectors and patch pumps, requiring innovative manufacturing capabilities upstream and downstream. At the same time, demand for expanded capacity has risen with the increase in drugs targeting large populations.

In parallel, companies are reevaluating the manufacturing and sourcing of key product components. In September, the US administration announced tariffs of 100% on branded pharmaceutical imports unless companies could meet "shovel in ground" exemptions. A dozen of the largest players have announced plans to invest more than \$350 billion in new US capacity by 2030.

In the near term, the shift toward increased US-based manufacturing makes cost excellence a critical capability if margins are to be maintained. As companies adapt their network strategy and build larger US facilities, talent and resources will become more significant bottlenecks and cost drivers. Leaders will need to consider sequencing, prioritization, and R&D strategy to optimize their approaches. Takeda and Novo Nordisk recently exited in-house cell therapy manufacturing to reduce fixed costs and refocus on core R&D priorities.

Longer term, companies are imagining factories of the future, which will use AI to improve everything from procurement to demand planning and process engineering. Many of these tools are currently deployed either piecemeal or as part of siloed processes (such as demand planning algorithms) that interface with traditional steps in the workflow. In the future, they will be integrated into end-to-end workflows that lower costs, reduce labor requirements, and improve quality consistency. These solutions will integrate data from across the supply chain and leverage AI and AI agents to make actual manufacturing decisions involving such factors as demand planning and batch timing.

Rising Commercialization Challenges

Rising pricing and go-to-market complexity have made commercialization and patient access more challenging than ever before. As a result, companies are turning to faster product launches, AI-driven sales strategies, deals to expand access, and consumer-style patient engagement through direct-to-patient and direct-to-employer models.

Pricing Complexity. The most significant pricing pressures are coming from MFN pricing proposals and deals in the US, which affect both the US and non-US markets and create the potential for big changes in global access to drugs.

MFN aims to equalize prices paid in the US (by consumers and insurance plans such as Medicaid and Medicare) with those paid in other countries, particularly other affluent nations. Given budgetary pressures and priorities outside the US, however, it's unclear whether prices in these countries will in fact rise. For most pharma companies, substantially lowering US prices to match those in other markets may not be economically sustainable, given the significant investment required for R&D and the need to maintain a viable model for continued innovation while also supporting broad patient access. A notable exception may turn out to be the deals struck between GLP-1 manufacturers and the US government; these allow manufacturers to essentially trade price concessions for expanded access to US consumers through government insurance programs such as Medicare. One estimate puts the Medicare market for these drugs at about 30 million people, or more than \$25 billion in potential annual sales.

Companies are responding to MFN pricing pressures with various strategies. One involves setting global prices that are equivalent across markets and making net price agreements country by country. Another is raising prices in some countries outside the US while establishing partnerships for low-price regions. Some companies have made deals directly with the US government, with concessions on pricing in exchange for other benefits, such as priority regulatory review on a future asset. In the case of GLP-1s, the value of these concessions exceeds price reductions that would have been imposed by other mechanisms, such as the Inflation Reduction Act.

Over the longer term, we see a world where access to medicines is constrained in European markets for all but the most innovative and lucrative treatments. This could leave large populations underserved for many diseases. MFN pricing may also push pharma companies to seek growth in markets other than large European economies. To serve them, innovation would be funded through lower-cost channels, such as China or India. Such a dynamic could lead to a greater bifurcation in the innovation engine for global markets and cause companies to shift launch sequencing, with different molecules introduced in each market based on pricing ability.

Go-to-Market Complexity. In addition to pricing challenges, selling products has become increasingly complicated. Health systems are instituting more complex procurement processes involving larger numbers of participants and approvals, and individual physicians have become harder for pharma sales teams to access. In parallel, advanced therapeutics are shifting to more accessible sites of care. More complex assets (such as CAR-T and infused immunomodulators) are being administered in community, outpatient, and home settings. This shift is expanding the eligible prescriber population, boosting the number of patients who can receive transformative treatments, and stretching manufacturer resources.

Biopharma is responding to these changes in multiple ways, including front-loaded investment in product launches, AI-driven sales strategies, streamlined customer experiences, and consumer-style engagement through direct-to-patient and direct-to-employer models.

As the Inflation Reduction Act and MFN pressures limit companies' ability to recoup R&D investments, companies are emphasizing strong starts for new products to capitalize on pricing power. For products with quick starts and early success signals, companies are doubling down by front-loading commercial investment earlier in the product life cycle.

Sales teams are being revamped with new ways of working and AI tools. Companies are applying lessons from complex hospital products to specialty brands, creating structured team "pods" that leverage collaboration across the commercial, medical, and patient support and market access functions. In parallel, they are building AI into their selling strategies through tools and resources that provide field teams with new capabilities (such as next-best decision engines, patient locating, and agentic AI assistance). In addition to advancing their provider strategies, leading pharma companies are engaging broader groups, such as managed-service organizations, that can influence provider decision making.

Finally, we are seeing an increase in alternative commercial models, such as direct to patient and direct to employer, that bypass traditional intermediaries. These channels are not right for every

product (we are far from direct-to-patient gene therapy, for example). However, they do offer an incremental upside to therapeutics with poor coverage but high patient willingness to pay (such as those for obesity and erectile dysfunction).

Even more valuable for most companies are the capabilities that these channels require them to build, such as engaging patients, leveraging data, and applying lessons from consumer products to branded drugs. Long term, we believe these capabilities will enable more data-driven patient support solutions that will create a better integrated and seamless patient care experience. New solutions will leverage agentic AI and individual data (such as personal habits or location) from multiple sources to create more personalized patient journeys and improve treatment adherence. These types of solutions are especially critical as product differentiation narrows and the overall customer experience and ease of initiating treatment become greater drivers of success.

Margin Pressures on Talent and Resources

Margin pressures and the promise of AI are compelling pharma companies to rethink their talent and resourcing models.

Cost discipline has become a core capability. In the past year, 7 of the top 20 companies announced major cost optimization programs, targeting reductions of 5% to 16% in the cost base and 2% to 8% in the workforce.

In parallel, companies are hopeful that AI can help improve organizational efficiency and preserve margins. Long term, we see potential for AI to augment talent (via agentic copilots, for example) and transform virtually every part of the value chain, including drug discovery, trial design, manufacturing, and health care professional engagement.

We are still far from this state. Most companies remain in the early stages of AI adoption, and real-world impact is limited and fragmented. Moreover, the AI hiring boom is showing signs of stabilization and perhaps even decline. (See Exhibit 5.) Companies are consolidating their AI and data teams and investing in partnerships to outsource capabilities. To move ahead, biopharma organizations must make deliberate choices about where to deploy AI to maximize impact.

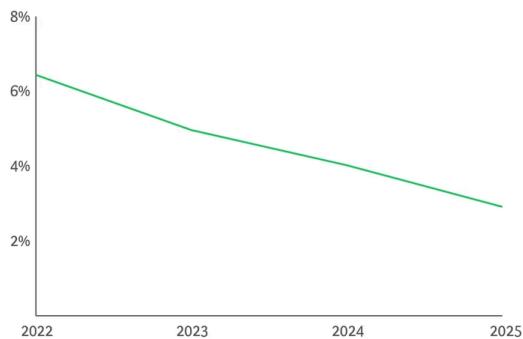
EXHIBIT 5

AI Hiring Stalled at the Top 20 Biopharma Companies in 2025

After spiking in 2022, the total number of job postings for AI roles across the top 20 pharma companies has stabilized



These roles now make up a smaller share of the total, suggesting that manufacturers are feeling adequately resourced



Sources: Revelio Labs; BCG analysis.

Note: In the right-hand graph, 2025 data is through September/October.

We expect that in 2026, the companies that have already invested in end-to-end infrastructure and talent will start to pull away from peers that are still in the experimentation stage and emerge as leaders. In the meantime, and until the potential of AI is realized at scale, companies face mounting pressure to sustain growth with leaner teams. Leaders must actively manage workloads, reskill teams, and reinforce engagement to prevent burnout and attrition.

Biopharma's business model is under pressure across every facet of the value chain. Many of the traditional advantages of commercial scale and R&D heft are being worn away, forcing companies to rethink business models and margin protection. The industry will evolve to meet these challenges. There is significant opportunity to develop and commercialize innovative treatments, leverage AI for greater efficiency, and transform patient lives. The question is, which companies will move fastest.

Authors



Daniel Alvarez

Principal
Boston



Margot Bleys

Partner
Boston



Bilal Khan

Managing Director & Partner
Washington, DC



John Wu

Managing Director & Partner
Boston



Priya Chandran

Managing Director & Senior
Partner, Global Sector Leader,
Biopharmaceuticals

New Jersey



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