

Quarterly Insights

4Q 2025

Entering the fourth quarter of 2025, global market sentiment demonstrated remarkable resilience despite persistent macro headwinds, while safe-haven demand and inflation concerns propelled precious metal prices to record highs. Although the Federal Reserve completed a cycle of consecutive rate cuts to support liquidity, the future easing path has turned cautious due to mixed labor market signals. Meanwhile, China achieved its annual growth target driven by robust exports, though domestic demand recovery requires further policy support. In parallel, global equity markets recorded solid gains, and the Hong Kong IPO market showed signs of resurgence, reflecting a warming in capital formation activity.

We invite you to read the report and explore the latest insights, with key takeaways from our focused sub-sectors below:

Key Takeaways

Healthcare –

*AI Biotech Funding Rebounds;
Generative Biology Redefines
R&D*

AI driven drug discovery is entering a capital-intensive “flight-to-quality” phase where generative biology, lab-in-the-loop platforms, and AI-enabled CDMOs are emerging as the true winners, concentrating funding, IP and competitive advantage in a small number of scalable platforms.

Technology –

*AI Adoption Deepens; Hard Tech
Delivers Results*

AI commercialization has crossed a real inflection point as competition shifts from model capability to control of distribution gateways, usage volume, and cost-efficient inference, driving capital concentration, semiconductor repricing, and clearer winners across platforms, chips and robotics.

Consumer –

*Global Assets, China Ops;
Intelligence Drives Upgrades*

Chinese capital reshapes global brands via local operations. AI hardware evolves into daily essentials, while auto consumption enters the “smart democratization” phase, with user experience driving the next value chain upgrade.

Macro Pulse

Risk appetite rebounds, amidst cautious policy outlook

Market sentiment remained resilient throughout 4Q 2025, with risk appetite rebounding despite significant headwinds. The Federal Reserve completed three consecutive rate cuts, lowering borrowing costs to their lowest levels since 2022, while international equity markets dramatically outperformed their US counterparts. Meanwhile, precious metals—particularly gold and silver—surged to unprecedented levels, reflecting persistent inflation concerns and geopolitical uncertainty. China's economy decelerated to its slowest pace in three years while maintaining its full-year growth target, supported by robust export performance but constrained by persistent weakness in domestic consumption and real estate.

US Macroeconomic Update

The Federal Reserve delivered its third consecutive 25-basis-point rate cut in December 2025, bringing the federal funds rate to a range of 3.5% to 3.75%, the lowest level since 2022. This action concluded with a three-month cutting cycle that began in September, driven by a deteriorating labor market. Nonfarm payrolls expanded by just 50,000 in December, significantly below the forecast of 73,000, while the unemployment rate edged down to 4.4% from a revised 4.5% in November.¹ However, substantial downward revisions to prior months painted a sobering picture: October employment losses were revised to -173,000 from an initially reported -105,000, suggesting the 43-day government shutdown inflicted greater damage than initially apparent.

Looking ahead, the Fed's December meeting minutes and updated economic projections signaled a pause in its easing cycle. The Committee's median "dot plot" now projects just one additional rate cut for 2026, a significant shift from earlier expectations. Three FOMC members dissented against the December cut, the highest dissent count since September 2019, reflecting deep divisions over the appropriate policy stance. Fed Chair Jerome Powell emphasized the Fed's willingness to "wait and see" how the economy evolves, effectively signaling an end to the cutting phase barring material deterioration.

On the positive side, real GDP growth registered a robust 4.4% in 3Q 2025, with Atlanta Fed's real-time GDPNow estimates suggesting 4Q growth could reach 5.4% annualized.² Consumer spending remained steady, with personal consumption expenditures expanding 0.5% in both October and November 2025, supported by the tax cuts included in the July 4 fiscal bill and sustained wealth gains from soaring equity valuations. However, inflation persists above the Fed's 2% target. The PCE price index, the Fed's preferred

¹ <https://www.prnewswire.com/news-releases/the-conference-board-leading-economic-index-lei-for-the-us-declined-in-both-october-and-november-302669086.html>

² <https://www.atlantafed.org/cqer/research/gdpnow#:~:text=Latest%20estimate:%205.4%20percent%20%E2%80%94%20January,3.2%20percent%20and%206.4%20percent>

inflation gauge, grew 2.8% year-over-year in November, unchanged from October, with core inflation similarly elevated at 2.8%.

China Macroeconomic Update

China's economy expanded 5.0% in full-year 2025, achieving the government's stated target despite pronounced fourth-quarter deceleration.³ 4Q GDP growth slowed to 4.5% year-over-year—the weakest reading in nearly three years—down from 4.8% in 3Q, though quarter-on-quarter expansion of 1.2% beat market expectations of 1.0%. This deceleration reflects a structural imbalance: while exports surged to historic levels, both domestic consumption and investment contracted sharply.

December economic data revealed the severity of internal demand pressures. Retail sales grew just 0.9% year-over-year, marking the slowest pace in three years and falling significantly short of the forecasted 1.2%.⁴ This weakness occurred despite ongoing consumer subsidy programs, underscoring persistent deflationary psychology gripping households. In contrast, industrial production rebounded to 5.2% year-over-year growth in December, exceeding expectations and improving from November's 4.8%, signaling that the manufacturing sector retained some momentum.⁵ Fixed-asset investment contracted 3.8% year-over-year, worse than the -3.0% forecast, with property development investment plummeting 17.2% for the full year 2025—a sharp deterioration from 2024's -10.6% decline.⁶

The deflationary environment persists despite Consumer Price Index reaching 0.8% in December, the highest in nearly three years. Producer prices fell 1.9%, indicating that deflation remains entrenched in the industrial sector. Facing both external and domestic challenges, China adopted "more proactive and effective macro policies" to expand domestic demand.⁷ The People's Bank of China responded with a 25-basis-point reduction in rates on various lending instruments and increased credit quotas for agriculture, technology, and private enterprises, though new bank loans plummeted to a seven-year low of RMB 16.27tn in 2025, highlighting weak borrowing demand.⁸

³ https://english.www.gov.cn/archive/statistics/202601/19/content_WS696ddb7dc6dooca5fgao8a7f.html

⁴ <https://www.cnbc.com/2026/01/19/china-q4-gdp-growth-2025-target-retail-sales-industrial-output-investment-income-employment.html>

⁵ <https://tradingeconomics.com/china/corporate-profits>

⁶ <https://www.marketscreener.com/news/china-s-property-investment-falls-17-2-in-2025-ce7e58dfdc8af322>

⁷ https://english.www.gov.cn/archive/statistics/202601/19/content_WS696ddb7dc6dooca5fgao8a7f.html

⁸ <https://www.reuters.com/world/asia-pacific/china-central-bank-cut-policy-tool-rates-by-25-bps-2026-01-15/>

<https://www.reuters.com/world/asia-pacific/chinas-december-new-bank-loans-beat-forecast-stimulus-juices-credit-demand-2026-01-15/>

Capital Market Update

Global equity markets delivered solid gains in 4Q 2025. The S&P 500 rose 2.7% in the fourth quarter, bringing its full-year 2025 return to 17.9%—the third consecutive year of double-digit gains and marking its 39th all-time high of the year.⁹ The broader Russell 3000 returned 2.4% in 4Q and 17.1% for the full year, while small-cap equities (Russell 2000) trailed slightly with +2.2% quarterly and +12.8% annual returns.¹⁰ Large-cap stocks outperformed mid- and small-cap indices, with value shares gaining 3.0% in 4Q and meaningfully outpacing growth (+2.2%), a notable reversal from 2025's earlier trends where growth dominated. Healthcare emerged as the strongest-performing sector with an 11.7% 4Q gain.¹¹

Precious metals reached extraordinary levels during 4Q. Gold appreciated approximately 60% for the full year 2025, reaching prices exceeding USD 4,087 per ounce and touching multi-decade highs.¹² Silver outpaced even gold with an extraordinary 95% annual gain, driven by a confluence of industrial demand, shrinking global inventories, and monetary policy shifts.¹³

Hong Kong capital markets showed signs of renewed activity. The Hong Kong IPO pipeline contained nearly 300 active applications as of end-September 2025, according to KPMG estimates, indicating sustained capital formation activity in the region.

Despite the robust market advances, the rally proceeded against what investors termed a "wall of worry." The longest US government shutdown in history, a spike in corporate job cuts, consumer sentiment hovering near record lows, and persistent geopolitical tensions tested risk appetite throughout the quarter. The fact that markets reached 39 all-time highs while public anxiety remained elevated underscores the disconnect between equity valuations—increasingly concentrated in mega-cap technology names driving AI-related gains—and underlying economic anxiety. Looking ahead, 2026 valuations likely depend more on earnings growth than multiple expansion, making earnings quality and diversification critical to navigating a market where concentration risk remains elevated.

⁹ <https://www.callan.com/blog/global-markets-in-4q25/#:~:text=U.S.%20Equities%3A%20The%20S%26P%20500,Day%20weighed%20heavily%20on%20sentiment.>

¹⁰ <https://corient.com/us/en/insights/articles/q4-2025-thoughts-on-the-investment-markets>

¹¹ <https://www.sageadvisory.com/article/sage-advice-4q25-market-review-and-outlook>

¹² <https://www.gold.org/goldhub/research/gold-outlook-2026#:~:text=Gold%20has%20experienced%20a%20remarkable,high%20and%20returning%20over%2060%25.&text=This%20performance%20has%20been%20supported,dollar%2C%20and%20positive%20price%20momentum.>

¹³ https://finance.yahoo.com/news/silver-hits-record-95-market-115947340.html?guccounter=1&guce_referrer=aHRocHM6Ly93d3cuZ29vZ2xlLnNvbS88&guce_referrer_sig=AQAAAKuk4jgbAplO79S7AojEgHhZlZggDKedvyaqy9AK_-6qqv6qkL_hatqrGQoV4aBFoip8xpob2ozq9G4CJeBYQeadrbsrL1o6OnAqeYwZfw3qHij43bL-trFAFISDbic6PZeq4Hq8xwBKO5NEog8pKwOmjR1hwiQd5aqDorJBzary2

Healthcare Sector

Artificial Intelligence (AI) Drug Discovery: Rebounded Investor Enthusiasm and Heated Up Competition

Artificial Intelligence (AI) assisted drug discovery is entering a selective, capital-intensive growth phase where funding has rebounded (USD 6.7bn in 2024, accelerating into late 2025) and consolidated into mega rounds targeting platforms with proprietary data and clinical traction. The winning models combine generative design (de novo proteins/antibodies), biology focused language models, and "lab in the loop" automation to compress cycle times and strengthen IP. The competitive field is bifurcating between data and automation scale players (i.e., Recursion) and generative biology leaders (i.e., Generate Biomedicines, DeepMind/Isomorphic), with emerging entrants like OPUSBio speeding up protein drug discovery process. Chime Biologics, a global leading biologics CDMO, is differentiating itself from CDMO competitors with Chime AI platform, enabling its clients to accelerate from molecule design to IND/BLA and commercialization with greater speed, precision, and efficiency.

- **Funding Flow in AI Drug Discovery Sector**

In 2025, despite broader macroeconomic volatility, venture capital investment in AI-driven biotechnology has been experiencing a significant recovery following a cyclical downturn. After peaking at USD 12.5bn in 2021 and falling to a low of USD 4.8bn in 2023, funding rebounded to approximately USD 6.7bn in 2024, with momentum accelerating through late 2025.

The current market is characterized by a "flight to quality," where investors are concentrating capital into fewer, larger "mega-rounds"—such as Xaira Therapeutics' USD 1bn and Isomorphic Labs' USD 600mn round—rather than spreading small bets on speculative early-stage startups. Capital is flowing primarily into generative drug discovery and protein design platforms, driven by a diverse mix of traditional life science funds, corporate pharmaceutical arms, and big tech investors like Nvidia and AWS.¹⁴

¹⁴ IntuitionLabs. (2026) *AI Biotech Funding: A 2025 Analysis of VC Investment Trends*. <https://intuitionlabs.ai/articles/ai-biotech-funding-trends>

Illustration 1: Flight to quality, capital concentrates to mega rounds



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Source: VMS Internal

While optimism remains high regarding AI's ability to drastically reduce drug development costs and timelines, healthcare investing specialists are exercising increased discipline, prioritizing companies that can demonstrate proprietary data assets and tangible clinical progress over those simply relying on the "AI" buzzword.

- **Notable Trends in AI for Protein Drugs**

Our analysis shows that AI drug discovery is:

- shifting from predictive tools to generative design that can create novel proteins and small molecules tailored to a target (boosting success rates and patentability);
- being powered by biology-focused language models trained on billions of sequences that can anticipate mutations and propose more stable, potent drugs without lengthy lab work;
- accelerating blockbuster biologics via AI-driven de novo antibody creation and instant epitope mapping to tackle "undruggable" targets, and
- gaining a durable competitive moat where "lab-in-the-loop" platforms couple AI with robotic synthesis/testing in a closed feedback cycle that compounds proprietary data and speeds iteration.¹⁵

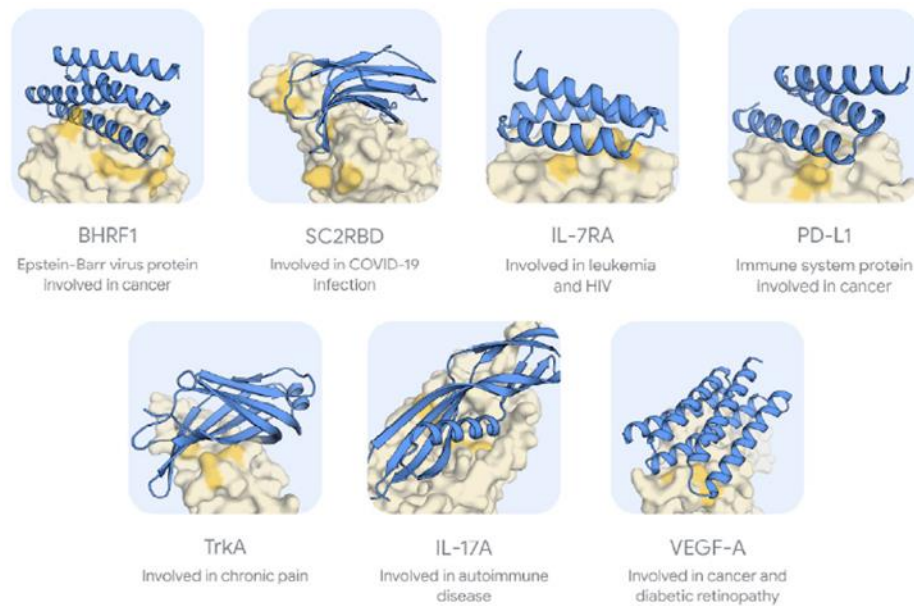
¹⁵ *Artificial Intelligence Index Report 2025*, Chapter 5. AI Index Steering Committee, Institute for Human-Centered AI, Stanford University, Stanford, CA

1. From Prediction to Generative Design¹⁶

Historically, AI (like AlphaFold 2) was used to *predict* what a protein looked like. The current breakthrough, however, is in *Generative Design*. Much like how ChatGPT generates text, new AI models can generate entirely new protein structures that do not exist in nature.

- **De Novo Antibody Design:** Creating biological drugs from scratch rather than harvesting them from immunized mice. This allows for targeting "undruggable" diseases that immune systems usually ignore.

Illustration 2: AlphaProteo generating successful binder to drug targets¹⁷



Source: Stanford University

- **The Value Proposition:** Instead of screening millions of existing molecules to find one that fits a disease target, scientists can now design a custom molecule specifically shaped to bind to that target. This increases the probability of success and creates intellectual property that is easier to patent.

2. Language Models for Biology (Bio-LLMs)

Just as Large Language Models (LLMs) learn the grammar of English to write essays, Bio-LLMs—such as Evolutionary Scale Modeling (ESM)¹⁸—learn the "grammar" of protein sequences (amino acids).

¹⁶ Abramson, J., Adler, J., Dunger, J. et al. *Accurate structure prediction of biomolecular interactions with AlphaFold 3*. *Nature* 630, 493–500 (2024). <https://doi.org/10.1038/s41586-024-07487-w>

¹⁷ Artificial Intelligence Index Report 2025, Chapter 5. AI Index Steering Committee, Institute for Human-Centered AI, Stanford University, Stanford, CA

¹⁸ Lin, Zeming et al. "Evolutionary-scale prediction of atomic-level protein structure with a language model." *Science (New York, N.Y.)* vol. 379,6637 (2023): 1123-1130. doi:10.1126/science.ade2574

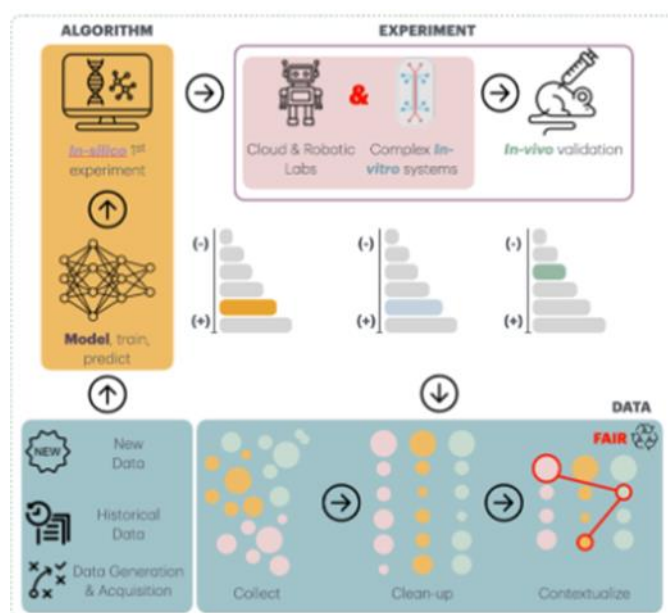
- **The Impact:** These models can predict how a virus might mutate (aiding vaccine design) or suggest changes to a drug to make it more stable or potent without needing months of physical testing.

3. *Lab-in-the-Loop (The "Self-Driving" Lab)*

The biggest bottleneck in AI is the lack of clean data. The "Lab-in-the-Loop" paradigm revolutionizes drug discovery by integrating robotics with AI.

- **How It Works:** Lab-in-the-Loop establishes a continuous, self-improving cycle where AI algorithms design candidate molecules that are instantly synthesized and tested by automated robotic systems, generating real-world results that are fed back to refine the AI's predictive capabilities.

Illustration 3: Lab-in-the-Loop concept¹⁹



Source: Thibault GEOUI

- **Investment Implication:** Companies possessing this closed-loop infrastructure (wet-lab + dry-lab) have a significant competitive moat because their data assets grow proprietarily and exponentially.

¹⁹ Thibault GEOUI. *Closing the Data Loop: Genentech's Lab-in-the-Loop Model in Drug R&D*. <https://www.linkedin.com/pulse/closing-data-loop-genentechs-lab-in-the-loop-model-rd-geoui--ffcge/>

- **Competitive Landscape in AI-enabled drug discovery and protein design market**

The AI-enabled drug discovery and protein design market is bifurcating into two primary archetypes: (1) data-and-automation scale players seeking to industrialize discovery through proprietary experimental datasets, and (2) generative biology leaders focused on de novo protein creation. The most defensible platforms increasingly combine computational generation with high-throughput experimental validation (“lab-in-the-loop”), as this closed loop compounds data advantages and accelerates iteration cycles.

- **Public Market Comparables**

Recursion Pharmaceuticals (RXXR.O) is positioned as a scaled discovery infrastructure company, with differentiation anchored in its automated wet-lab footprint and large proprietary cellular imaging datasets used to train models. The Exscientia acquisition further consolidates capabilities in chemistry-centric AI. The principal investor consideration is capital intensity: the same infrastructure that creates a data moat also drives a higher cash burn profile, elevating financing and execution risk.

Insilico Medicine (03696.HK) presents as an execution-speed story with an end-to-end platform spanning target discovery through clinical advancement. Its key strategic asset is cycle-time compression—demonstrated ability to advance AI-designed assets rapidly relative to traditional timelines—supporting a thesis around productivity and throughput. The portfolio emphasis on aging and fibrosis provides thematic focus, while platform credibility is tied to continued clinical translation and reproducibility of timelines.

- **Private Leaders and Strategic Incumbents**

Generate Biomedicines (Flagship Pioneering) represents a leading pure-play in generative protein therapeutics, with a platform explicitly designed for de novo protein generation—i.e., engineering proteins with functions not found in nature. From an investor lens, the company’s appeal centers on platform-driven optionality (multiple programs from one engine) and perceived category leadership in generative biology. Its high valuation and potential late-2026 IPO trajectory suggest the market is already pricing in substantial upside, increasing sensitivity to execution and pipeline milestones.

Google DeepMind / Isomorphic Labs functions as the strategic technology incumbent. AlphaFold’s progression (including AlphaFold 3’s broader biomolecular modeling) strengthens the enabling layer for structure-based discovery. The competitive edge is elite talent density and compute, which may translate into disproportionate influence over standards, partnerships, and tooling. For investors, the key implication is that frontier capabilities may be partnered rather than directly investable, and they can reset the bar for what smaller platforms must demonstrate.

○ Emerging Platforms

OPUSBio is positioned around AI-driven protein design tightly integrated with experimental validation, emphasizing a lab-in-the-loop moat supported by substantial wet-lab infrastructure (including Cryo-EM). The company claims differentiated performance in side-chain modeling accuracy via its OPUS-Fold/OPUS-Rota models, which—if independently validated—could be strategically meaningful for antibody and enzyme engineering where structural fidelity impacts developability. The investment case hinges on whether the closed-loop system produces repeatable improvements in stability, function, and manufacturability, and whether those translate into defensible commercial programs (i.e., industrial enzymes and optimized antibodies).

● Chime Biologics - AI Initiatives

A VMS key ecosystem portfolio company, Chime Biologics is differentiating itself by launching its Chime AI platform in drug development and manufacturing activities. Chime Biologics is a premier global biologics Contract Development and Manufacturing Organization (CDMO), focusing on the development and commercialization of innovative biologics, biosimilars and ADC.

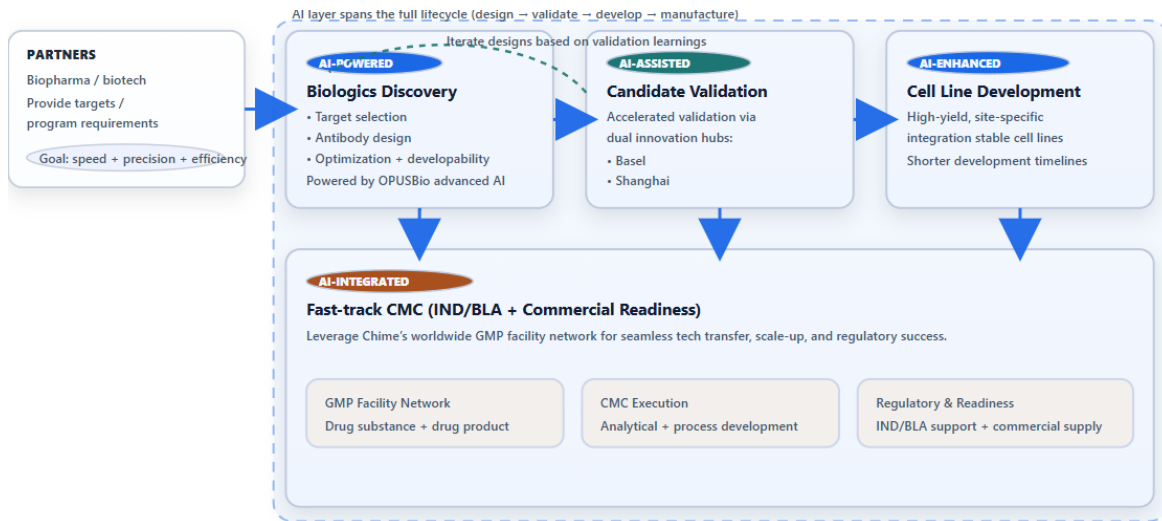
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The Chime AI platform empowers partners to move from molecule design to commercialization with unprecedented speed, precision, and efficiency by leveraging Chime Biologics' proven global development and manufacturing expertise. It consists of four key components ²⁰:

- **AI-Powered Biologics Discovery:** Using OPUSBio's advanced AI for target selection, antibody design, antibody optimization and developability analysis.
- **AI-Assisted Candidate Validation:** Accelerating candidate validation through Chime Biologics' dual innovation hubs in Basel and Shanghai.
- **AI-Enhanced Cell Line Development:** Partnering with Great Bay Bio to achieve high-yield, site-specific integration stable cell lines with shorter development timelines.
- **AI-Integrated Fast-Track CMC:** Leveraging Chime's worldwide GMP facility network for seamless IND/BLA success and commercial readiness.

²⁰ Chime. (2025) *Chime Biologics Launches Chime AI Platform to Bring Biologics into the Era of AI*. <https://chimebiologics.com/chime-biologics-launches-chime-ai-platform-to-bring-biologics-into-the-era-of-ai/>

Illustration 4: Chime AI platform



Source: Chime Biologics

As Nobel Laureate in Chemistry, Professor Michael Levitt point out, "AI has the transformative potential to redefine how biologics are conceived and developed. The Chime AI Platform demonstrates how the convergence of computation and biotechnology can unlock a new era of intelligent biologics innovation." We believe this "AI-enabled CDMO" concept has transformative potential and will enable Chime to offer superior value to its clients than traditional CDMO could deliver.

Technology Sector

AI Adoption Accelerates; Hard Tech Delivers Results

Entering 4Q 2025, the Hong Kong technology sector transitioned from a robust 3Q rally to high-level volatility and a distinct correction phase. The Hang Seng Tech Index (HSTECH) retraced from 6,466 on 30 September to 5,499 by 24 December, marking a quarter-to-date decline of approximately 14.9%. Concurrently, the Hang Seng Index (HSI) pulled back from 26,856 to 25,819 (-3.9%), signaling that the tech sector has entered a "digestion period" following earlier valuation repair and earnings upgrades. However, on a full-year basis, the HK market maintains a strong structural trend—as of 23 December market close, the HSI and HSTECH recorded year-to-date gains of approximately 28.5% and 22.9%, respectively.

The A-share market exhibited a "stable broad index, divergent tech sector" dynamic in 4Q 2025. As of 25 December, the Shanghai Composite Index rose ~2.0% to 3,960, while the Shenzhen Component and ChiNext Index remained essentially flat. The STAR 50 Index (Science and Technology Innovation Board 50), following a surge in 3Q, experienced a more pronounced correction, falling 9.8% to 1,349. This reflects a sector-wide repricing, shifting focus from "high-beta themes" to "earnings delivery and valuation discipline." Meanwhile, daily trading volume moderated from ~RMB 2.20tn in late September to ~RMB 1.88tn in late December, indicating a cooling of risk appetite relative to 3Q 2025.

- **AI commercialization has reached a dual inflection point centered on "Distribution Layer + Usage Volume," with Agent competition evolving from capability battles to platform gateway dominance.** In 4Q 2025, the "hard metrics" for AI adoption shifted decisively from narrative to actual usage and distribution power. OpenAI's focus at DevDay 2025 on AgentKit and Apps in ChatGPT (supported by Apps SDK and MCP for standardized enterprise integration) signals that Agents are no longer mere "features" but have integrated directly into the platform's distribution layer and workflow entry points. OpenAI disclosed significant scale anchors: 800mn+ WAUs, 6bn tokens/minute, and 4mn developers, alongside verifiable usage data showing >2.5bn daily messages globally (>330mn in the US).²¹ Domestically, Alibaba Cloud's Model Studio (Bailian) reported rapid ecosystem expansion with 800k+ Agents created and a 15x YoY increase in model call volume, further validating the scaling of "Agentization + Low-threshold Integration."

We believe that as distribution gateways and call volumes align, the competitive core will accelerate towards toolchain standards, industry workflow penetration, integration depth, and

²¹ Open AI. (2025) *OpenAI DevDay 2025*. <https://openai.com/devday/>

sustainable cost curves. Capital markets show signs of high concentration and improved exit liquidity: PitchBook-NVCA data indicates the top 10 AI companies absorbed 41% of annual VC funding, while AI contributed 26%/34% to exit count/value in 2025.²² This resonates with IDC's projection of surging AI expenditure (\$307 billion in 2025²³; +31.9% CAGR 2025–2029).²⁴

- **On the cost curve front, the promise of "stronger inference + lower unit cost" in next-gen models continues to materialize.**

OpenAI priced GPT-5.2 at USD 1.75/1mn input tokens and USD 14/1mn output tokens, while the workhorse GPT-5 model is positioned at a lower tier of USD 1.25/USD 10.²⁵ Google aggressively targeted high-concurrency scenarios with Gemini 3 Flash priced at USD 0.50/USD 3, while Gemini 3 Pro (Preview) on Vertex AI is set at USD 2/USD 12 (for <=200K context; higher tiers for larger contexts), establishing a clear stratification: "Pro for quality, Flash for scale." regarding commercialization paths, the US remains dominated by large private enterprises and cloud platforms accelerating penetration via toolchains and ecosystems.²⁶ In contrast, China continues its dual approach of "State/Local Industrial Capital + Tech Giant Investment," emphasizing scale advantages in price-performance ratio and engineering implementation.

- **4Q signaled a marginal easing in external export controls, with Nvidia's H200 potentially resuming shipments to China.**

In December, US policy shifted to allow exports of the high-end H200 to "approved customers" in China under specific conditions, subject to a 25% fee/tariff.²⁷ This established a market expectation anchor for "supply restoration." Reuters reported that Nvidia plans to commence shipments as early as mid-February 2026, initially fulfilling demand for ~5,000–10,000 modules (~40k–80k H200 chips) from existing inventory.²⁸ However, execution remains contingent on Chinese regulatory approval and is under scrutiny from US congressional members regarding license reviews. Consequently, the overall pacing and scale of implementation remain uncertain.

- **Competition in AI inference chips is heating up, with Nvidia accelerating its low-latency capabilities via "Licensing + Acqui-hire."**

Following rumors of a ~USD 20bn acquisition of Groq in late December, the finalized deal (later confirmed by Reuters and Groq) emerged as a non-exclusive technology licensing agreement

²² PitchBook. (2025) *Q3 2025 Global VC First Look*. <https://pitchbook.com/news/reports/q3-2025-global-vc-first-look>

²³ IDC. (2025) *AI & GenAI Predictions: Key Insights for 2025 and Beyond-eBook*. <https://info.idc.com/futurescape-generative-ai-2025-predictions.html>

²⁴ IDC. (2025) *Worldwide Spending on AI-Centric Systems Forecast to Reach \$115 Billion in 2025, According to IDC Spending Guide*. <https://www.idc.com/getdoc.jsp?containerId=prUS53765225>

²⁵ OpenAI. (2025) *Pricing*. <https://platform.openai.com/docs/pricing>

²⁶ Google Cloud. (2025) *Cost of building and deploying AI models in Vertex AI*. <https://cloud.google.com/vertex-ai/generative-ai/pricing>

²⁷ CNN Business. (2025) *Trump greenlights exports of Nvidia H200 chips to China*. <https://edition.cnn.com/2025/12/08/tech/nvidia-h200-chips-china-trump-export>

²⁸ Reuters. (2025) *Nvidia aims to begin H200 Chip shipments to China by mid-February, source say*. <https://www.reuters.com/world/china/nvidia-aims-begin-h200-chip-shipments-china-by-mid-february-sources-say-2025-12-22/>

combined with an acqui-hire of core talent, including founder/CEO Jonathan Ross, to fast-track deployment; Groq remains independent.²⁹ We view this "partial acquisition" strategy as evidence of mounting strategic anxiety among giants regarding low-latency/high-throughput inference. The competitive focal point is shifting from "training compute" to "inference efficiency and cost," likely triggering a new cycle of consolidation and repricing within the inference chip and service ecosystem.

- **China's "AI+" initiative has entered a phase of systematic implementation, shifting from policy slogans to "engineering levers + pilot projects."**

In 4Q 2025, the State Council released the Opinions of the State Council on Further Implementing the "Artificial Intelligence Plus" Action (No. 11 [2025] of the State Council) as a master document. It outlines a systematic deployment covering compute and data supply, key industry scenario adoption, and safety governance standards, providing a top-level framework for scaling "AI+" from pilots to mass adoption.³⁰ On the data factor front, the National Data Bureau announced the 2025 Trusted Data Space Innovation Pilot List in July, comprising 63 pilots (13 cities, 22 industries, 28 enterprises). This advances the narrative of "data factor circulation" from exchange-based concepts to replicable levers of "trusted spaces + pilot engineering," facilitating a practical transmission link of "Policy → Pilot → Scenario/Order."

- **Differentiation among China's top three Robotaxi players became distinct in 4Q:**

1) Momenta ("Mass-produced ADAS + Overseas Platform Partnerships") :

Building on its confirmed 2026 L4 Robotaxi pilot with Uber in Munich, Momenta further expanded its global commercial boundaries in 4Q by striking a strategic partnership with Grab in December to deploy autonomous driving in Southeast Asia.³¹ Concurrently, its mass-production ADAS co-developed with Mercedes-Benz (based on the Momenta Flywheel model) entered the launch window, reinforcing its dual-curve strategy: "Cash in on ADAS first, scale L4 later."³²

2) Baidu Apollo Go (Scaled Operations + Mainstream Platform Global Expansion):

Baidu's 3Q report disclosed 3.1mn fully driverless orders for Apollo Go in 3Q25 (+212% YoY). Weekly fully driverless orders exceeded 250k in October, with cumulative rides surpassing 17mn by November across 22 cities.³³ The key 4Q increment is "Platform-based Globalization": Uber and Lyft both announced partnerships with Baidu in December to pilot Apollo Go RT6 vehicles in

²⁹ CNBC. (2025) *Nvidia buying AI chip startup Groq's assets for about \$20 billion in its largest deal on record.* <https://www.cnbc.com/2025/12/24/nvidia-buying-ai-chip-startup-groq-for-about-20-billion-biggest-deal.html>

³⁰ State Council of the People's Republic of China. (2025) *China issues guideline to accelerate 'AI Plus' integration across key sectors.* https://english.www.gov.cn/policies/latestreleases/202508/27/content_WS68ae7976c6do868f4e8f51ao.html

³¹ Reuters. (2025) *Uber, Momenta to begin self-driving testing in Munich next year.* <https://www.reuters.com/business/autos-transportation/uber-momenta-begin-self-driving-testing-munich-next-year-2025-09-08/>

³² Momenta. (2025) *Uber and Momenta Announce Testing to Begin in Munich in 2026.* <https://www.momenta.cn/en/article/316.html>

³³ Baidu, Inc. (2025) *Baidu Announces Second Quarter 2025 Results.* <https://ir.baidu.com/news-releases/news-release-details/baidu-announces-second-quarter-2025-results>

London by 2026. This marks a strategic shift from regional expansion to a combination of "Core European Markets + Mainstream Ride-hailing Platforms."³⁴

3) Pony.ai (Sustained City-level Commercialization):

In October, Pony.ai secured Shenzhen's first "city-wide" fully driverless commercial Robotaxi permit (jointly with Shenzhen Xihu Group). Operations will launch in Nanshan, Qianhai, and Bao'an before expanding city-wide. This reflects regulatory relaxation from "district pilots" to "city-level coverage," unlocking greater operational space for fleet scaling and unit economics optimization.³⁵

- Embodied AI/Robotics is transitioning from "Policy Hype" to "Capital Market Realization," with rising exit expectations for hard tech on the STAR Market.

Unitree Robotics initiated IPO tutoring in July (advised by CITIC Securities) and stated in September that it expects to file listing applications between October and December. Subsequent media reports have tracked its progress and anticipation of a STAR Market listing. As a bellwether in the embodied AI sector, Unitree's clarified "Initiation-Tutoring-Filing Window" reinforces the signal that "frontier hard tech (including robotics) is accessing STAR Market financing/exit channels at an accelerated pace," creating resonance with the dense rollout of embodied AI policies across regions in 4Q.

³⁴ BBC News. (2025) *Uber and Lyft announce plans to trial Chinese robotaxis in UK in 2026*. <https://www.bbc.com/news/articles/cy8jmx1dlgro>

³⁵ Pony.ai Inc. and Xihu Group. (2025) *Pony.ai Inc. and Xihu Group Jointly Secure Shenzhen's First City-Wide Autonomous Driving Operation Permit*. <https://ir.pony.ai/news-releases/news-release-details/pony-ai-inc-and-xihu-group-jointly-secure-shenzhens-first-city>

Consumer Sector

Global Assets, China Ops; Intelligence Drives Upgrades

Macro data remains steady, though basic consumption is still constrained by insufficient demand, while select service consumption sectors continue to surge. From Jan-Nov 2025, total retail sales of consumer goods reached RMB 45.6mn, up 3.0% YoY (vs. +2.5% in 2024).³⁶ Durable goods showed mixed performance due to seasonal disbursement/settlement of national subsidies: home appliances grew 14.8% YoY (vs. +22.2% in 2024), while auto sales declined 1% YoY (vs. +6.6% in 2024), underscoring the need for further fiscal stimulus. Catering revenue rose 4.1% YoY (vs. +5.7% in 2024), showing a moderation. However, specific service consumption categories maintained high growth; arts, leisure, and cultural entertainment services sustained double-digit growth across both 2024 and 2025 periods. Consumer focus on experiential and spiritual consumption remains resilient.³⁷

In the A-share market, "structural differentiation" was the defining keyword for the consumer sector in 4Q 2025. The CS Consumer 50 Index remained stable amidst volatility, gaining 1.4%. In contrast, the Food & Beverage Index fell 1.6%, underperforming the broader sector, while the Commercial Retail Index rose 2.9%, significantly outperforming. Overall goods consumption recovery remained sluggish, whereas service consumption sectors hit successive inflection points. Driven by Hainan's customs closure policy and the implementation of offshore duty-free policies, the duty-free sector performed strongly, and select restaurant chains achieved earnings turnarounds. Within goods consumption, divergence persisted: pre-processed foods and snack discount channels maintained high prosperity, while discretionary categories like Baijiu (white liquor) remained in deep correction. Categories reliant on traditional channels and business/government consumption still require time to find a bottom.

4Q Industry Themes and Observations:

- **Chinese Capital is emerging as the "Operational Controlling Shareholder" of global consumer brands, shifting from buying brands/channels to acquiring operating rights + reshaping growth curves**

As multinational brands in China enter a phase of stock competition and efficiency wars, HQs are increasingly inclined to hand over heavy-asset operations and localization speed to Chinese

³⁶ Sina Finance. (2025) *The Ministry of Commerce: Retail sales of consumer goods totaled 45.6 trillion yuan in the first 11 months, up 4.0%*. <https://finance.sina.com.cn/stock/bxjj/2025-12-19/doc-inhcicej7386054.shtml>

³⁷ National Bureau of Statistic. (2025) *Total retail sales of consumer goods increased by 1.3% in November 2025*. https://www.stats.gov.cn/sj/zxfbjd/202512/t20251215_1962071.html

capital/teams. Simultaneously, Chinese capital has begun systematically acquiring overseas mid-to-high-end brands, re-rating global consumer assets via "Asian Growth + Chinese Operational Capability."

Acquisitions fall into two main types:

1) China Operations Control (i.e., Starbucks, Burger King): Global brands outsource growth velocity and operational complexity to local controlling partners via JVs, retaining brand IP and partial equity/revenue rights.³⁸

2) Outbound Brand Buyouts (i.e., Sequoia China acquiring Golden Goose, Marshall Group): Chinese capital is bottom-fishing premium brands during global volatility, re-rating them via Asian growth and DTC capabilities. Chinese PE/Industrial Capital is aligning with mature global markets, treating consumer goods as an asset class where ROIC can be enhanced through operations, rather than merely betting on sector beta.³⁹

Structural Drivers for Chinese Capital Controlling Multinational Corporation Assets:

1) MNCs shift from "Brand Wars" to "Efficiency Wars" in China, exposing global HQ latency. The commonality between Burger King China and Starbucks China is that while brand equity remains strong, winning in China increasingly relies on heavy operational systems—store tiering, supply chain, digitalization, franchise governance, and instant fulfillment. Ceding control to local capital essentially localizes incentives, decision-making, and resource allocation. RBI's path with Burger King China is archetypal: first repurchasing control, then introducing a local controlling partner and injecting primary capital, aiming for faster expansion and a shift to a more franchised, asset-light model.

2) Transaction structures becoming increasingly hybrid: Equity + Licensing + Milestone Earn-Outs. Both Starbucks China and Burger King China emphasize that the brand owner retains IP and partial equity, while the local controller drives operations and expansion. The essence of this structure is using contracts and governance to balance brand consistency with local velocity.

3) As global valuation and exit windows open, Chinese capital has both the motive and capacity to strike. The Golden Goose transaction occurred after its IPO setback; Canada Goose privatization rumors surfaced amidst Bain's holding and market valuation volatility. Both fit a typical profile: high-quality assets facing obstructed public market/exit paths or valuation retracements.

Investment Implication: Prioritize identifying and allocating to consumer platform assets that possess scarce capabilities on both ends—Brand Power + Operational Systems (supply chain, franchise governance, digital fulfillment)—and can sustainably enhance ROIC amidst stock competition.

³⁸ Starbucks. (2025) *Starbucks and Boyu Announce Joint Venture for the Next Chapter of Growth in China*. <https://about.starbucks.com/press/2025/starbucks-and-boyu-announce-joint-venture-for-the-next-chapter-of-growth-in-china/>

³⁹ Jiemian News. (2025) *Sequoia China buys majority stake in Golden Goose after shelved IPO*. <https://m.jiemian.com/article/13792601.html>

- **AI consumer hardware is evolving from niche geek toys into daily portable gateways—now verifiable by sales and viable for everyday use**

From a macro perspective, the Ministry of Commerce explicitly highlighted "robust demand for new consumption types" in its November market analysis. It disclosed that sales of action cameras, embodied AI robots, and Grade-1 energy-efficient TVs on key monitoring platforms all grew by over 20%, marking the first time "Embodied AI/Robotics" has been incorporated into the official consumption growth narrative at both policy and statistical levels.

On the micro level, a confluence of form factor fission, price band downward penetration, ecosystem integration, and channel volume expansion occurring simultaneously. The user experience of AI hardware is becoming significantly more akin to mature consumer electronics—lighter, more wearable, with stable connectivity/battery life and smoother voice/visual interaction. Consequently, the form factor evolves from standalone AI glasses into a diverse array of entry points that better address daily friction points:

1) Glasses: Addressing first-person perspective (POV) and hand-free operation. Tech giants are entering the fray: Alibaba's Quark AI Glasses launched at RMB 1,899, emphasizing synergy with its service ecosystem (local services, payment, mobility)⁴⁰; Baidu's Xiaodu AI Glasses Pro entered at RMB 2,299, focusing on utility features like capture + translation.⁴¹

2) Novel Wearables: Earbuds/Ear-hooks enhance continuous listening and real-time translation/communication, while pendants shift camera/recording from the head to the chest to optimize comfort and battery life. Looki chose a 30g chest pendant form factor to better satisfy battery and wearability constraints, selling on "continuous recording + memory retrieval/summarization."⁴² Guangfan Tech launched a "full-sensory wearable" combo (camera-equipped AI ear-hook + smartwatch), highlighting visual perception and Agentic AI capable of automating high-frequency tasks like scheduling and booking.⁴³

3) Toys/Companions: Applying LLM capabilities to emotional value and parent-child interaction. Taobao/Tmall data shows daily search volume for "AI Toys" in 4Q increased >10x vs. 1Q, with YoY growth in the thousands of percent. Children's companion robot firm LING.ai reported its "Ling!" robot topped charts on JD and Tmall during the Double 11 e-commerce shopping festival.⁴⁴

⁴⁰ Sina Finance. (2025) *Alibaba enters AI hardware market with Quark AI glasses Starting at 1,899 yuan, Powered by QianWen Large Model.* <https://finance.sina.com.cn/stock/hkstock/ggscyd/2025-11-27/doc-infyvthao088946.shtml>

⁴¹ Tencent News. (2025) *2,299 yuan! Baidu's Xiaodu AI Glasses Pro is officially on sale, with AI translation and 4K photography as highlights.* <https://news.qq.com/rain/a/20251110A04PVMoo>

⁴² 36Kr. (2025) *Two Top Tech Executives from Meituan jointly started a business and launched the world's first multi-modal AI wearable device.* <https://www.36kr.com/p/3429884454751617>

⁴³ Sina Finance. (2025) *Guangfan Technology released the world's first active AI headset with visual perception capabilities.* <https://finance.sina.com.cn/roll/2025-12-25/doc-inhcznyf3403499.shtml>

⁴⁴ Sina Finance. (2025) *AI Children's Companion robot company Lingyu completed a 200 million yuan PreA round of financing, and sales increased by more than 230% on Double 11.* <https://finance.sina.com.cn/tech/roll/2025-11-17/doc-infxtehe3623413.shtml>

4) Consumer Robotics: Mechanical dogs and companion robots are moving embodied AI from exhibition booths to living rooms via playability, companionship, and interactivity. Vbot's sub-RMB 10k mechanical dog reportedly sold 1,000 units in 52 minutes during year-end pre-sales (priced ~RMB 9,988), rapidly breaking out as a social media hit.⁴⁵

Simultaneously, the AI consumer hardware landscape is bifurcating into two distinct trajectories: "Tech Giant Platformization" and "Startup Categorization."

Tech giants leverage ecosystem and distribution advantages—such as system-level entry, accounts/payments, content/services, and app synergy—alongside superior capital and supply chain channels. Their motive is to position AI hardware as service terminals extending their ecosystem, using cross-device synergy and subscription/service loops to dilute hardware margin pressure.

Conversely, startups excel in form factor innovation and iteration speed, being bolder in adopting non-consensus wearability and interaction paradigms. They focus on extreme productization in single scenarios (i.e., meeting notes, portable memory, sports/mobility, companionship) and flexible supply chain combinations, making them more likely to emerge as Category Definers in niche verticals before seeking interface cooperation or acquisition by major ecosystems.

Investment Implication: Rather than betting on a single terminal form factor, prioritize competent players that can sustainably deliver experience upgrades and ecosystem synergy in a multi-terminal era. Look for entities that either control platform & service loops or define products in vertical scenarios with the potential to be amplified by ecosystems. Concurrently, closely monitor beneficiaries in the upstream supply chain of edge AI hardware.

- **Auto consumption remains a key policy focus amidst industrial transformation, entering the "Second Half" defined by intelligent democratization and experience upgrades**

In November 2025, retail auto sales reached ~2.263m units, with new energy vehicle retail penetration climbing to 59.8%. By mid-December (1st–21st), this figure hit 60.6%.⁴⁶ While consumers weigh decisions against subsidies, trade-ins, and purchase taxes, the state's commitment to extending trade-in subsidies and NEV purchase tax exemptions into 2026 injects a potent booster shot for the coming year.⁴⁷ Competition has gradually entered the "Second Half," mirroring the 3C/smartphone sector: the focus has shifted from raw specs to closed-loop experience. Success no longer relies solely on "bigger batteries," but on a combo punch of fast-charging availability, low motion sickness/comfort, and controllable energy consumption.

⁴⁵ Sina Finance. (2025) *The robot industry ushered in the "New Year" carnival in advance? Vbot super robot dog pre-sale orders exceeded 1,000 in 52 minutes.* <https://finance.sina.com.cn/tech/roll/2025-12-25/doc-inhcywam9022274.shtml>

⁴⁶ Tencent News. (2025) *CPCA: 1.3 Million passenger cars retailed from Dec 1 to 21, new energy vehicle penetration reaches 60.6%.* <https://news.qq.com/rain/a/20251224A063ZC00>

⁴⁷ ThinkChina. (2026) *China's economy is heading for a rough 2026.* <https://www.thinkchina.sg/economy/chinas-economy-heading-rough-2026>

During 4Q launches and auto shows, Intelligent Driving/NOA emerged as the critical variable driving test drives and orders, extending beyond NEVs. Reports from the Guangzhou Auto Show highlight that LiDAR and high-level NOA are accelerating their downward penetration into the mainstream family segment. ⁴⁸ Toyota, for instance, pushed LiDAR + high-level intelligent driving into the sub-RMB 150k price bracket, signaling a shift from "high-end novelty" to "mainstream necessity."

Features like Highway NOA, City NOA, "Parking-to-Parking," and enhanced active safety are becoming baseline decision factors, akin to ESP or airbag counts in the past. This signifies a shift in OEM competition from "screen stacking" to a systemic war over algorithms, compute power, and scenario-based execution. The convergence of domestic brands pushing "Intelligent Democratization," joint ventures playing catch-up in intelligence, and ICE vehicles adopting "ICE-EV Intelligence Parity" is transforming intelligent driving from an option to a standard feature across all powertrains. Latecomer OEMs will need to leverage top-tier third-party suppliers to close the gap rapidly.

Investment Implication: Aligning with the evolution and up-dimensioning of consumer trends, closely monitor beneficiaries within the auto consumption value chain during this "Second Half" of competition.

⁴⁸ 36Kr. (2025) *Ultimate Preview of Guangzhou Auto Show: Large SUVs and personalization draw attention, and there may be new breakthroughs in solid-state batteries.* <https://eu.36kr.com/en/p/3532816636680579>

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