

Animal Health

BofA 2024 Animal Health Conference

takeaways: What did we learn?

Industry Overview

Animal Health Summit: Quick takes from the conference

On February 29th, we hosted the 7th annual BofA Animal Health summit (virtually). The conference included fireside chats with management teams from covered companies Zoetis (ZTS), IDEXX Labs (IDXX), Elanco (ELAN) and Phibro Animal Health (PAHC), as well as Petfolk (private). We also hosted a number of vets and vet market experts.

ZTS: Unpacking the outlook for Librela

Our fireside chat with ZTS's Wetteny Joseph (CFO) focused largely on trends for key products. Mgmt. remains very encouraged by Librela's rollout in the US, citing higher than anticipated levels of clinic penetration which have caused ZTS's to accelerate the timing of its direct-to-consumer awareness campaign. While Mr. Joseph did not offer guidance for Librela sales in 1Q24, he suggested that something approaching the \$44mn seen in 4Q would be reasonable, and a solid result (given the estimated \$12-\$15mn in stocking-related benefit in 4Q).

Meaningful margin benefit over time

Mr. Joseph also reiterated the margin ramp targets for Librela, which was dilutive in 2023, is expected to be accretive to total company in 2024, then will approach other innovative Companion product margins in 2025. Mr. Joseph highlighted that given the long lead times involved in antibody manufacturing, ZTS is currently producing doses of Librela which will be sold late in 2024 or even 2025. The per-unit costs of these doses is already accretive to ZTS's overall gross margin, and this dynamic gives mgmt. ample visibility into the product's profitability as it continues to ramp.

Confident in Librela safety profile

While ZTS has been monitoring adverse event reports as is typical for any drug launch, it has yet to see any concerning patterns (contrary to much of the noise around Librela). Mr. Joseph noted that data collected from the 11mn Librela doses dispensed OUS over the last three years lend added confidence to his view of the drug's safety profile.

Derm., Triple Combo, and other questions

Outside of Librela, Mr. Joseph was also constructive on the prospects for the key Derm and Trio franchises despite increasing competition. ZTS believes Trio continued to gain patient share in 2H23 even after the release of Boehringer Ingelheim's NexGard Plus (Trio's first direct competitor), and expects further growth in FY24 even as ELAN's Credelio Quattro is introduced. Similarly, key Derm is also expected to continue its growth this year in the face of ELAN's Zenrelia launch, supported in part by lifecycle management efforts such as Apoquel Chewables (and eventually a long acting Cytoint formulation). Overall, the conversation offered an added layer of detail on the factors underpinning the ZTS's outlook for some of the most important product lines in Animal Health. We maintain our Buy rating given ZTS leading portfolio and market positioning.

(Please see back pages for **IDXX**, **ELAN**, **PAHC**, Privates, and KOLs)

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Timestamp: 01 March 2024 05:01AM EST

IDXX: LRP intact despite visit trends; inVue launch coming

Our conversation with IDXX's Brian McKeon (CFO) and Tina Hunt (EVP, Strategy, Sector Development and Global Operations) centered on trends in the vet clinic channel, as well as the company's recently announced inVue cytology platform. Clinic visit growth is expected to be flat after 1Q (which faced weather-related headwinds in January). Although this suggests continued volume weakness and is well below the +3% visit growth assumed in the LRP for IDXX's US Companion Animal Group recurring revenues, mgmt. remained confident in IDXX's long-term growth algorithm. While mgmt. did not offer a timeline for when they expect visit growth to return to historical trends, they underscored that many of the other LRP growth components (i.e. price, new business gains) are more directly within IDXX's control. Despite the ~20% increase between FY21-FY24e, mgmt. views customers as "comfortable" with IDXX's pricing strategy and did not report seeing any potential issues relating to demand elasticity. On inVue, mgmt. clarified that they chose to unveil the system early in 2024 to highlight the end-product of the initial R&D in-licensing expense related to the platform, with the company using the months before inVue's 4Q launch to test and refine the system in an in-clinic setting. IDXX does not anticipate that potential customers will delay their inVue purchases until fine-needle aspirate compatibility is implemented, noting that ear swabs and blood morphology (both of which will be supported at launch) comprise a sizable portion of a typical clinic's cytology volumes (which is increasingly consistent with feedback from vets). We reiterate our Neutral rating as we see IDXX's strong competitive position as being balanced by its robust valuation and still choppy end-market fundamentals.

ELAN: All eyes on 2024 launches

Our fireside chat with ELAN's Todd Young (CFO) primarily focused on ELAN's upcoming 2024 product launches, and recent corporate actions. Mr. Young continues to expect ELAN to meet its timelines for 1H24 approval of Credelio Quattro, Zenrelia, and Bovaer, with launches for each following 2-4 months later. Beyond their individual sales contributions, Mr. Young noted that these innovation launches will also benefit ELAN's legacy portfolio by filling gaps in its offerings and making it a more attractive vendor to vets (particularly corporate groups). With regards to differentiation, ELAN continues to see Credelio Quattro's tapeworm coverage as a meaningful value add versus other broad spectrum parasiticides. While Mr. Young refrained from commenting on the specifics of Zenrelia, he indicated that private focus groups have seen particular value in its undisclosed differentiating feature(s). Mr. Young also touched on ELAN's most recently announced round of restructuring which has been implemented to fund its investments in Pet Health innovation. Mr. Young suggested that the restructuring trims roughly 2% from FY24 OpEx growth as ELAN continues to pursue Pet Health opportunities. While these savings are expected to be realized in 2H24, they will be offset in part by ELAN's plans to ramp its commercial spend in 1H ahead of the North American parasiticide season. Mr. Young also walked through some of the rationale behind the sale of ELAN's aquaculture business to Merck, noting that while the business was financially attractive it lacked operational synergies with either ELAN's Farm Animal or Pet Health divisions, with its sale allowing for accelerated deleveraging. All-in-all, the conversation gave added insight to a number of moving pieces in what is shaping up to be a pivotal year for ELAN. We maintain our Buy rating given ELAN's upcoming product cycle and relatively undemanding valuation. Separate from Mr. Young's presentation, earlier in the day an activist investor also announced plans to elect four new board members and push for management changes. While ELAN has faced several activists in recent years, the situation bears watching.

PAHC: Livestock mkts improving; Vax strength continues

Our discussion with Daniel Bendheim (Director & EVP, Corporate Strategy) and Glenn David (CFO) focused on the state of global livestock markets and the implications for PAHC's businesses. Following several years of turbulent end-market fundamentals, mgmt. struck a generally constructive tone across most species and regions (save for US Dairy and China). Protein producer inventory levels and purchasing patterns are

normalizing, which is expected to drive improvements in F2H in the Performance Products and Mineral Nutrition segments that have been drags through F1H24. While the Vaccines sub-segment of the Animal Health division has posted strong results over the last several quarters, mgmt. still sees opportunities for further share gains and growth. PAHC cited momentum in regulatory registrations for its conventional vaccine portfolio globally, as well as continued strength in its bespoke autogenous vaccine services (both of which are accretive to total company margins). Mgmt. refrained from providing a specific sales outlook for Rejensa but noted they're pleased with the product's ramp and reiterated their goal of expanding deeper into the Companion Animal space (although cautioned they'd be judicious with R&D spend). We maintain our Underperform rating given PAHC's below-peer margin structure and limited operating leverage.

General thoughts on Companion/Livestock markets

We hosted Q&A/fireside sessions with a number of veterinarians and animal health market experts throughout the day. Brett Stuart, Founding Partner, Global AgriTrends discussed the state of global protein markets. Dr. Robert Mankowski (Mount Laurel Animal Hospital), Dr. Marguerite Gleason (Hambright Animal Hospital), and Dr. Stewart "Chip" Beckett, (Beckett and Associates Veterinary Services) and Win Lippincott (Ackerman Group) shared their outlook on recent trends in companion animal practices.

Vet visits: Still a black box

The most hotly debated aspect of the veterinary market in recent years has been the decline in vet visits seen since early 2022. Several factors have been blamed, including tough comps, an over-expansion of the pet population during 2020-2021, labor/supply challenges at the vet clinic level, and reduced demand from pet owners. Our various panelists and experts cited many of these factors, but there was no over-arching agreement as to the primary cause, nor as to whether/when vet visits can be expected to improve. While several speakers agreed that persistent labor challenges are playing a role, others did state that they believe elevated price is leading to lower demand for some 'discretionary' visits. There was also a view that many new pets led to a bolus of visits as puppies, but now require less care as adults (another common thesis).

Pricing: Elevated price is here to stay

Across our conversations with various veterinarians and KOLs, price was a recurring topic. The Companion Animal market has historically seen robust pricing power, but this has increased even further during the COVID pandemic. In the last few years, vendors/manufacturers (ZTS, ELAN, IDXX) took 2x-3x more price than normal, and vet clinics routinely passed on these price increases to consumers. Entering 2024, there is some growing concern that these elevated prices could lead to demand destruction or pushback from pet owners, particularly in more discretionary or non-emergency care. In some cases, the vets we spoke with believe that is already happening and could be responsible for the subdued vet visit trends seen in the industry. At the end of the day, vets are not as worried here, as overall practice revenue remains solid, and for now they do not see meaningful risk of further demand deterioration.

Brett Stuart (Global AgriTrends)

On the livestock/production animal front, we spoke with Brett Stuart (Global AgriTrends), and touched on recent trends in cattle, swine, and poultry around the world. Mr. Stuart sees an almost unprecedented global synchronization in herd reduction across all 3 species, due to drought, disease, oversupply, and elevated input costs. While consumer demand should lead to an eventual recovery in animal herds/flocks, this could take several years to play out in the cattle market. Of the 3 species, dynamics are most positive for poultry, while beef cattle and swine are stuck in a multi-year glut. Still, there's reason for optimism – overall global protein demand continues to grow, input costs are stabilizing/declining, and disease risks and climate policy (ie, growing interest

in 'food sustainability') present new opportunities for livestock therapeutics and vaccine manufacturers (ie, ZTS, ELAN, PAHC).

Exhibit 1: Stocks mentioned

Prices and ratings for stocks mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
ELAN	ELAN US	Elanco Animal Health	US\$ 15.89	C-1-9
IDXX	IDXX US	IDEXX	US\$ 575.23	B-2-9
PAHC	PAHC US	Phibro Animal Health	US\$ 12.93	B-3-7
ZTS	ZTS US	Zoetis Inc.	US\$ 198.33	B-1-7

Source: BofA Global Research

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Price objective basis & risk

Elanco Animal Health (ELAN)

Our \$18 PO is based on 14x our FY24 EV/EBITDA estimate.

Our target multiple is a roughly 5x discount to the company's closest animal health peer, given the slower sales growth and lower margin profile, but reflects some expectation of further improvements by Elanco.

Downside risks to our price objective are continued pressure from negative news flow on Seresto safety, market challenges from ongoing Coronavirus outbreak, deal integration challenges, competitive and generic launches for key products, slower-than-expected ramp for new product launches, increased regulation on antibiotic use in livestock, macroeconomic conditions, and currency risks.

IDEXX Laboratories (IDXX)

IDXX shares are trading at a significant premium to the broader animal health peer group and many other high growth healthcare companies. However, given the many positive secular and product tailwinds the company currently enjoys, we believe a premium valuation is justified. Our \$600 PO is based on roughly 54x our 2024E EPS estimate, which is in-line with (but at the higher end of) the company's historic valuation range, which we feel is justified given current macro and company-specific concerns.

Downside risks to our PO are continued market challenges from ongoing Coronavirus outbreak, lower spending on vet services in the event of an economic slowdown, slower-than-expected uptake of new products or OUS expansion, competition, lower-than-expected margin expansion, weather disruptions, and currency fluctuations.

Upside risks are a faster recovery in core vet volume trends in the US and abroad.

Phibro Animal Health (PAHC)

Our \$11 PO is based on 10x our CY24E EPS estimate, a discount to the company's past five-year historical trading multiples. We believe this valuation is warranted given the headwinds from ongoing Coronavirus outbreak, inflation and macroeconomic / supply chain pressures, challenges facing the company's MFA business, challenges in the dairy markets, broadly choppy end-market conditions, and heavy investment planned by the company in coming years which limit operating leverage.

Upside risks to our PO are faster uptake of new products, improved operating leverage, acquisition of the company, improving market conditions, and accretive M&A. Downside risks are additional regulations, weather patterns, and disease outbreaks in production animals.

Zoetis Inc. (ZTS)

Our \$205 price objective (PO) is based on 31x our FY25 EPS estimates. This is roughly in-line with the historic ZTS multiple, which we believe is justified given upside from new product launches and incremental capital deployment, further margin expansion opportunity, and the defensive nature of the business, as well as reflects the near-term headwinds due to the Coronavirus outbreak.

Upside risks are continued ramp of new products, larger-than-expected contribution from future and ongoing launches, and accelerating growth from Abaxis acquisition.

Downside risks to our price objective are continued challenges from ongoing Coronavirus outbreak, competition in select markets or new product launches by competitors, weaker demand for animal health products, regulatory issues such as failure to get approval of key products in the pipeline, macroeconomic conditions, currency risks, and headwinds related to regulations of antibiotic use in animal feed additives.

Analyst Certification

I, Michael Ryskin, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

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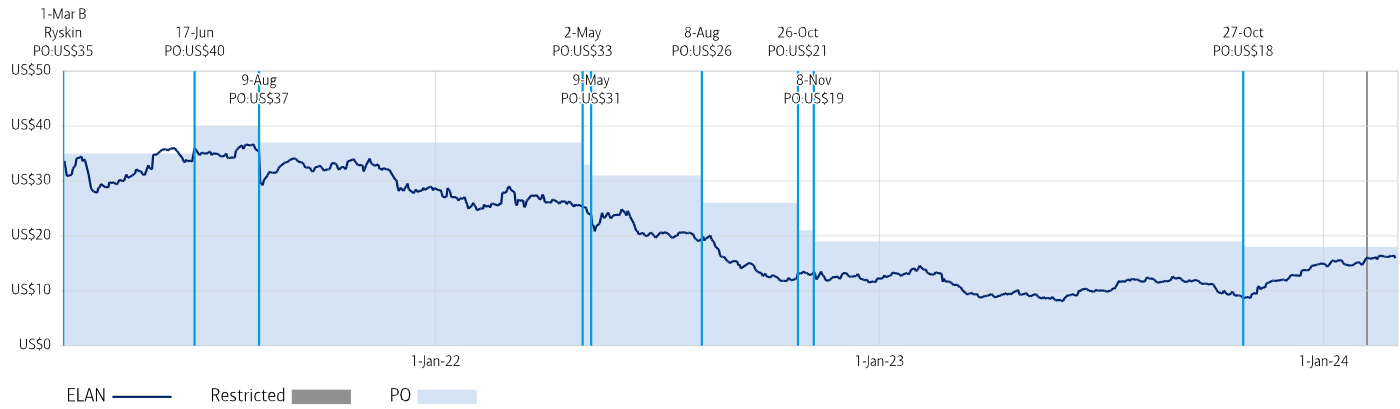
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US - Life Science, Diagnostic Tools and Animal Health Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Avantor, Inc.	AVTR	AVTR US	Michael Ryskin
	Brucker Corporation	BRKR	BRKR US	Derik de Bruin
	Certara	CERT	CERT US	Michael Ryskin
	Charles River Laboratories	CRL	CRL US	Derik de Bruin
	Elanco Animal Health	ELAN	ELAN US	Michael Ryskin
	Exact Sciences	EXAS	EXAS US	Derik de Bruin
	Guardant Health	GH	GH US	Derik de Bruin
	ICON plc	ICLR	ICLR US	Derik de Bruin
	IQVIA Holdings Inc	IQV	IQV US	Derik de Bruin
	LabCorp	LH	LH US	Derik de Bruin
	Maravai	MRVI	MRVI US	Michael Ryskin
	Qiagen	QGEN	QGEN US	Derik de Bruin
	Qiagen N.V.	XQGNF	QIA GY	Derik de Bruin
	Quest Diagnostics	DGX	DGX US	Derik de Bruin
	Stevanato Group S.p.A.	STVN	STVN US	Derik de Bruin
	Thermo Fisher Scientific	TMO	TMO US	Derik de Bruin
	West Pharmaceutical Services	WST	WST US	Derik de Bruin
	Zoetis Inc.	ZTS	ZTS US	Michael Ryskin
NEUTRAL				
	10x Genomics, Inc.	TXG	TXG US	Michael Ryskin
	Agilent Technologies	A	A US	Derik de Bruin
	Danaher Corporation	DHR	DHR US	Michael Ryskin
	Evotec SE	EVO	EVO US	Michael Ryskin
	Hologic, Inc.	HOLX	HOLX US	Derik de Bruin
	IDEXX Laboratories	IDXX	IDXX US	Michael Ryskin
	Mettler-Toledo	MTD	MTD US	Derik de Bruin
	NeoGenomics Inc.	NEO	NEO US	Derik de Bruin
	Revvity Inc	RVTY	RVTY US	Derik de Bruin
	Schrodinger, Inc.	SDGR	SDGR US	Michael Ryskin
	Waters Corp.	WAT	WAT US	Derik de Bruin
UNDERPERFORM				
	Align Technology	ALGN	ALGN US	Michael Ryskin
	Fortrea	FTRE	FTRE US	Derik de Bruin
	Ginkgo Bioworks Holdings, Inc	DNA	DNA US	Derik de Bruin
	Illumina, Inc.	ILMN	ILMN US	Michael Ryskin
	Myriad Genetics	MYGN	MYGN US	Derik de Bruin
	Phibro Animal Health	PAHC	PAHC US	Michael Ryskin

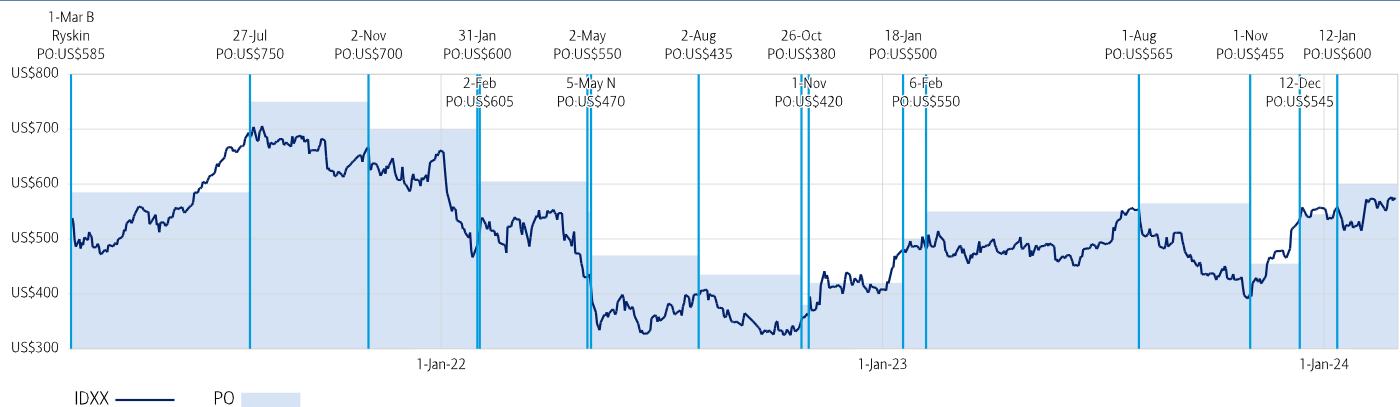
Disclosures

Important Disclosures

Elanco Animal Health (ELAN) Price Chart

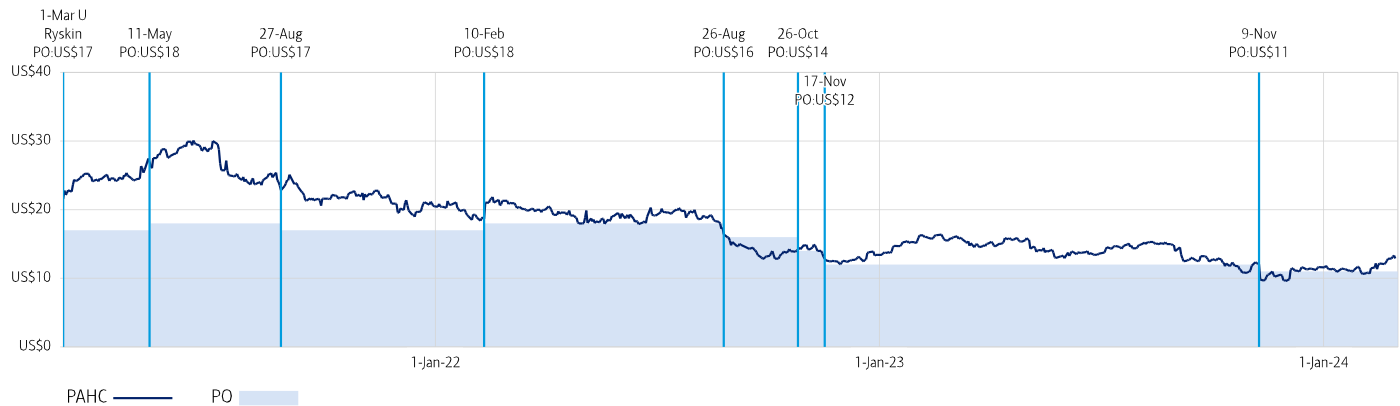
B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

IDEXX (IDXX) Price Chart

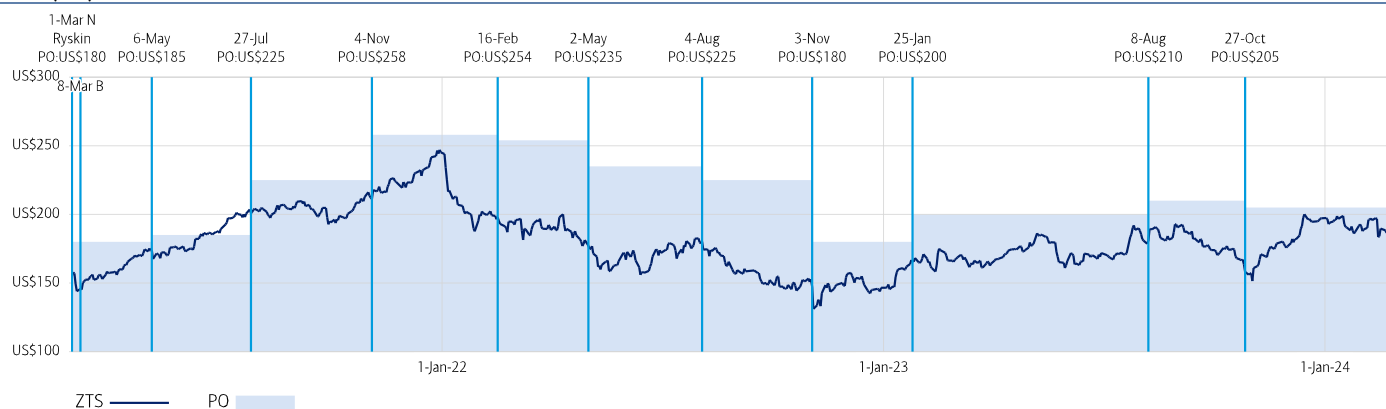
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Phibro Animal Health (PAHC) Price Chart

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Zoetis Inc. (ZTS) Price Chart

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Equity Investment Rating Distribution: Health Care Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	234	60.94%	Buy	115	49.15%
Hold	80	20.83%	Hold	36	45.00%
Sell	70	18.23%	Sell	29	41.43%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

^{R1} Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R2} Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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