

# US Equity Strategy & US Derivatives Research

## Navigating Earnings with Options

### Options screens for 4Q23 earnings

Ahead of this week's US earnings reports, we provide screens to help navigate the announcements with options. The screens rank Russell 1000 stocks reporting this week by how cheap or expensive it is to position for a potential earnings surprise with options.

We go beyond the frequently cited implied moves (the size of the earnings reaction implied by option markets) and rely on historical option costs and post-earnings reactions, proprietary positioning metrics, and this quarter's BofA EPS estimates from our fundamental equity research analysts.

We also highlight those stocks that appear on our US Equity & Quant Strategy *Earnings Surprise* screens (see [4Q Earnings Tracker](#)).

See inside for all tables and details.

05 February 2024

Equity and Quant Strategy  
United States

**Nicholas Dunne**  
Equity-Linked Analyst  
BofAS  
+1 646 855 2631  
[nicholas.dunne@bofa.com](mailto:nicholas.dunne@bofa.com)

**Ohsung Kwon, CFA**  
Equity & Quant Strategist  
BofAS  
[ohsung.kwon@bofa.com](mailto:ohsung.kwon@bofa.com)

**Savita Subramanian**  
Equity & Quant Strategist  
BofAS  
[savita.subramanian@bofa.com](mailto:savita.subramanian@bofa.com)

**Gonzalo Asis**  
Equity-Linked Analyst  
BofAS  
[gonzalo.asis@bofa.com](mailto:gonzalo.asis@bofa.com)

**Nitin Saxena**  
Equity-Linked Analyst  
BofAS  
[nitin.saxena@bofa.com](mailto:nitin.saxena@bofa.com)

Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in relevant markets and the financial resources to absorb any losses arising from applying these ideas or strategies.

**BofA Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Refer to important disclosures on page 9 to 10.**

12654900

Timestamp: 05 February 2024 12:22AM EST

# Earnings Options Screens

Starting from the universe of Russell 1000 stocks expected to report earnings during the week of 5-Feb, we rank the stocks based on:

- *Option-based measures:* how expensive vs history are calls and puts expiring on the Friday after earnings
- *Fundamental measures:* how this quarter's BofA EPS estimates compare to the Bloomberg consensus (which is predictive of subsequent stock returns; see [Quant Profiles](#) report)
- *Positioning measures:* how heavily owned or shorted the underlying stocks are

The first screen (Exhibit 1) focuses simply on option-based measures, ranking the stocks purely by how cheap or expensive option prices are compared to (i) the stock's reaction during its last 8 earnings releases and (ii) option prices during the last 3m (since the last earnings release).

We then produce screens for Long Calls, Long Puts, Short Calls, and Short Puts (Exhibits 2-5). The inputs for the screens include option-based measures, but also incorporate fundamental and positioning indicators that may be relevant for the possible direction of the stock and magnitude of its reaction post-earnings.

For more details on the construction of each variable and score, see the Methodology section.

## Exhibit 1: Implied vol screen: Companies rank higher if they have low implied moves and straddle premiums vs history

The companies are ranked by how cheap it is to own options to position for a potential earnings surprise

Ticker	Company Name	Report Date	Implied move	Implied move vs history <sup>a</sup>	Earnings straddle premium <sup>b</sup>	Implied vol Score
NLY	Annaly Capital Management	7-Feb (Aft-mkt)	2.7%	-0.18	1.06	0.44
VRTX	Vertex Pharmaceuticals	5-Feb (Aft-mkt)	1.4%	-0.87	3.68	1.41
KKR	KKR	6-Feb (Bef-mkt)	3.6%	-0.38	3.23	1.42
BAX	Baxter International	8-Feb (Bef-mkt)	4.1%	-0.39	3.30	1.45
DXCM	Dexcom	8-Feb (Aft-mkt)	7.1%	0.03	4.00	2.01
PYPL	PayPal	7-Feb (Aft-mkt)	7.2%	-0.46	4.95	2.25
ILMN	Illumina	8-Feb (Aft-mkt)	6.9%	-0.03	4.53	2.25
APO	Apollo Global Management	8-Feb (Bef-mkt)	4.3%	0.03	4.75	2.39
UBER	Uber	7-Feb (Bef-mkt)	6.2%	-0.48	5.29	2.41
PM	Philip Morris	8-Feb (Bef-mkt)	2.6%	0.27	4.74	2.51
DIS	Walt Disney	7-Feb (Aft-mkt)	5.4%	-0.02	19.23	9.60
SPOT	Spotify	6-Feb (Bef-mkt)	9.1%	-0.95	23.42	11.23
EMR	Emerson Electric	7-Feb (Bef-mkt)	3.4%	-0.17	22.66	11.24
NET	Cloudflare	8-Feb (Aft-mkt)	10.8%	-0.50	24.41	11.95
EXPE	Expedia	8-Feb (Aft-mkt)	8.3%	-0.10	25.45	12.68
EL	Estee Lauder	5-Feb (Bef-mkt)	8.3%	0.03	25.58	12.80
RBLX	Roblox	7-Feb (Bef-mkt)	13.8%	-0.12	26.02	12.95
FTNT	Fortinet	6-Feb (Aft-mkt)	9.6%	-0.25	26.38	13.07
CMG	Chipotle Mexican Grill	6-Feb (Aft-mkt)	6.2%	-0.53	30.08	14.77
BILL	BILL Holdings	8-Feb (Aft-mkt)	17.8%	-0.26	32.49	16.12

**Source:** BofA Securities, Bloomberg, FactSet. Data as of 2-Feb-2024. <sup>a</sup> current implied move vs the average return on earnings day over the last 8 quarters (Z-score). <sup>b</sup> compares the current cost of next week's straddle with the average cost of the weekly straddles over the last 3m (Z-score). The table shows only the names ranked in the top and bottom 10 of the screen. This is a screen and not a recommended list either individually or as a group of stocks and options. Investors should consider the fundamentals of the companies and their own individual circumstances / objectives before making any investment decisions.

BofA GLOBAL RESEARCH



**Exhibit 2: Long Call: companies rank higher if they have low implied vol, high BofA EPS estimates, and are heavily shorted and/or lightly owned**

The companies are ranked by how cheap it is to position with calls for a potential earnings surprise. For Implied vol Score, BofA EPS Score, and Positioning Score, a higher number means the stock ranks higher in that category.

Ticker	Company Name	Report Date	Implied move	Implied move vs history <sup>a</sup>	Earnings straddle premium <sup>b</sup>	Implied vol Score	BofA EPS Score <sup>c</sup>	Fund holdings <sup>*</sup>	Short Interest <sup>*</sup>	Positioning Score	Aggregate Score
LLY	Eli Lilly	6-Feb (Bef-mkt)	5.2%	0.09	10.65	-5.37	9.43	1.24	-0.67	-0.95	<b>1.03</b>
NLY	Annaly Capital Management	7-Feb (Aft-mkt)	2.7%	-0.18	1.06	-0.44	0.53	-0.84	-0.18	0.33	<b>0.14</b>
DXCM	Dexcom	8-Feb (Aft-mkt)	7.1%	0.03	4.00	-2.01	0.61	0.71	-0.05	-0.38	<b>-0.59</b>
APO	Apollo Global Management	8-Feb (Bef-mkt)	4.3%	0.03	4.75	-2.39	0.78	0.50	0.01	-0.24	<b>-0.62</b>
PYPL	PayPal	7-Feb (Aft-mkt)	7.2%	-0.46	4.95	-2.25	-0.08	-0.44	-0.44	0.00	<b>-0.78</b>
KKR	KKR	6-Feb (Bef-mkt)	3.6%	-0.38	3.23	-1.42	0.45	2.22	-0.61	-1.41	<b>-0.80</b>
BAX	Baxter International	8-Feb (Bef-mkt)	4.1%	-0.39	3.30	-1.45	-1.40	-0.24	-0.45	-0.10	<b>-0.99</b>
VRTX	Vertex Pharmaceuticals	5-Feb (Bef-mkt)	1.4%	-0.87	3.68	-1.41	-0.32	1.92	-0.54	-1.23	<b>-0.99</b>
UAA	Under Armour	8-Feb (Bef-mkt)	9.2%	0.12	5.86	-2.99	-0.46	-0.82	0.14	0.48	<b>-0.99</b>
SPGI	S&P Global	8-Feb (Bef-mkt)	3.2%	-0.07	5.67	-2.80	-0.04	0.61	-0.59	-0.60	<b>-1.14</b>
PM	Philip Morris	8-Feb (Bef-mkt)	2.6%	0.27	4.74	-2.51	-0.13	0.88	-0.85	-0.87	<b>-1.17</b>
GILD	Gilead Sciences	6-Feb (Aft-mkt)	3.3%	-0.45	8.97	-4.26	1.30	0.70	-0.51	-0.60	<b>-1.19</b>
UBER	Uber	7-Feb (Bef-mkt)	6.2%	-0.48	5.29	-2.41	-0.51	1.52	-0.17	-0.85	<b>-1.25</b>
CNC	Centene	6-Feb (Bef-mkt)	4.0%	0.06	5.31	-2.69	-0.82	0.23	-0.54	-0.38	<b>-1.30</b>
COP	ConocoPhillips	8-Feb (Bef-mkt)	3.1%	0.20	6.52	-3.36	0.27	1.00	-0.66	-0.83	<b>-1.31</b>
AFRM	Affirm	8-Feb (Aft-mkt)	15.1%	-0.50	8.94	-4.22	-0.45	2.26	2.22	-0.02	<b>-1.56</b>
WYNN	Wynn Resorts	7-Feb (Aft-mkt)	5.3%	1.02	8.80	-4.91	-0.11	-0.50	-0.14	0.18	<b>-1.61</b>
PEP	PepsiCo	9-Feb (Bef-mkt)	2.3%	0.43	9.58	-5.01	-0.60	-0.24	-0.64	-0.20	<b>-1.93</b>
ON	ON Semiconductor	5-Feb (Bef-mkt)	8.5%	0.11	10.30	-5.21	-0.41	0.40	-0.23	-0.31	<b>-1.98</b>
GEHC	Ge HealthCare	6-Feb (Bef-mkt)	3.9%	-0.06	7.15	-3.54	-1.24	2.24	-0.16	-1.20	<b>-1.99</b>
MCK	McKesson	7-Feb (Aft-mkt)	3.7%	0.02	9.30	-4.66	-1.17	0.71	-0.56	-0.64	<b>-2.16</b>
MCD	McDonald's	5-Feb (Bef-mkt)	2.6%	0.80	11.98	-6.39	-0.24	-0.37	-0.73	-0.18	<b>-2.27</b>
HOG	Harley-Davidson	8-Feb (Bef-mkt)	8.2%	0.27	12.86	-6.56	-0.73	-0.87	0.05	0.46	<b>-2.28</b>
PLTR	Palantir	5-Feb (Aft-mkt)	12.3%	-0.75	14.31	-6.78	-1.00	-0.95	0.58	0.77	<b>-2.34</b>
HSY	Hershey	8-Feb (Bef-mkt)	3.9%	1.12	13.86	-7.49	0.35	-0.63	-0.41	0.11	<b>-2.34</b>
LIN	Linde	6-Feb (Bef-mkt)	2.3%	0.39	13.35	-6.87	0.37	0.65	-0.62	-0.63	<b>-2.38</b>
CAT	Caterpillar	5-Feb (Bef-mkt)	4.2%	-0.25	15.35	-7.55	0.73	0.28	-0.51	-0.40	<b>-2.40</b>
F	Ford	6-Feb (Aft-mkt)	6.1%	0.21	14.02	-7.11	-0.67	-0.87	-0.32	0.28	<b>-2.50</b>
PINS	Pinterest	8-Feb (Aft-mkt)	11.1%	-0.13	17.79	-8.83	0.53	0.26	0.26	0.00	<b>-2.77</b>
COTY	Coty	7-Feb (Aft-mkt)	7.1%	0.77	17.26	-9.02	-0.24	-0.26	1.42	0.84	<b>-2.80</b>
TPR	Tapestry	8-Feb (Bef-mkt)	6.1%	0.33	10.48	-5.40	-4.24	-0.39	-0.42	-0.01	<b>-3.22</b>
DIS	Walt Disney	7-Feb (Aft-mkt)	5.4%	-0.02	19.23	-9.60	-0.55	-0.49	-0.61	-0.06	<b>-3.41</b>
EMR	Emerson Electric	7-Feb (Bef-mkt)	3.4%	-0.17	22.66	-11.24	-0.09	-0.59	-0.59	0.00	<b>-3.78</b>
SPOT	Spotify	6-Feb (Bef-mkt)	9.1%	-0.95	23.42	-11.23	-0.41	0.15	-0.61	-0.38	<b>-4.01</b>
EXPE	Expedia	8-Feb (Aft-mkt)	8.3%	-0.10	25.45	-12.68	0.23	-0.71	-0.26	0.22	<b>-4.07</b>
FTNT	Fortinet	6-Feb (Aft-mkt)	9.6%	-0.25	26.38	-13.07	-0.43	-0.43	-0.52	-0.04	<b>-4.51</b>
RBLX	Roblox	7-Feb (Bef-mkt)	13.8%	-0.12	26.02	-12.95	-0.79	-0.66	-0.31	0.17	<b>-4.52</b>
EL	Estee Lauder	5-Feb (Bef-mkt)	8.3%	0.03	25.58	-12.80	-1.22	1.14	-0.44	-0.79	<b>-4.94</b>
CMG	Chipotle Mexican Grill	6-Feb (Aft-mkt)	6.2%	-0.53	30.08	-14.77	0.12	2.15	-0.47	-1.31	<b>-5.32</b>
BILL	BILL Holdings	8-Feb (Aft-mkt)	17.8%	-0.26	32.49	-16.12	-0.08	0.08	0.38	0.15	<b>-5.35</b>

**Source:** BofA Securities, Bloomberg, FactSet. Data as of 2-Feb-2024. \* Z-score. <sup>a</sup> current implied move vs the average return on earnings day over the last 8 quarters (Z-score). <sup>b</sup> compares the current cost of next week's straddle with the average cost of the weekly straddles over the last 3m (Z-score). <sup>c</sup> BofA EPS estimate vs consensus (Z-score). Fund holdings as of 31-Dec-2023. Note: Implied vol Score, BofA EPS Score, and Positioning Score, a higher number means the stock ranks higher in that category. This is a screen and not a recommended list either individually or as a group of stocks and options. Investors should consider the fundamentals of the companies and their own individual circumstances / objectives before making any investment decisions.

BofA GLOBAL RESEARCH

**Exhibit 3: Long Puts: companies rank higher if they have low implied vol, low BofA EPS estimates, and are lightly shorted and/or heavily owned**

The companies are ranked by how cheap it is to position with puts for a potential earnings surprise. For Implied vol Score, BofA EPS Score, and Positioning Score, a higher number means the stock ranks higher in that category.

Ticker	Company Name	Report Date	Implied move	Implied move vs history <sup>a</sup>	Earnings straddle premium <sup>b</sup>	Implied vol Score	BofA EPS Score <sup>c</sup>	Fund holdings <sup>*</sup>	Short Interest <sup>*</sup>	Positioning Score	Aggregate Score
ILMN†	Illumina	8-Feb (Aft-mkt)	6.9%	-0.03	4.53	-2.25	-1.23	0.48	-0.25	0.36	-1.04
DD	Dupont De Nemours	6-Feb (Bef-mkt)	3.4%	-0.54	10.20	-4.83	-0.50	0.46	-0.43	0.45	-1.63
TSN	Tyson Foods	5-Feb (Bef-mkt)	5.6%	-0.26	17.72	-8.73	1.41	-0.75	-0.47	-0.14	-2.49
VFC	VF Corp	6-Feb (Aft-mkt)	10.8%	1.33	15.18	-8.26	-0.47	0.89	0.25	0.32	-2.80
ENPH	Enphase Energy	6-Feb (Aft-mkt)	13.5%	0.17	13.58	-6.87	-1.48	-0.91	1.20	-1.06	-3.14
NET	Cloudflare	8-Feb (Aft-mkt)	10.8%	-0.50	24.41	-11.95	-5.80	1.03	0.09	0.47	-5.76

**Source:** BofA Securities, Bloomberg, FactSet. Data as of 2-Feb-2024. \* Z-score. †Name appears in our equity strategists' negative surprise screen. <sup>a</sup> current implied move vs the average return on earnings day over the last 8 quarters (Z-score). <sup>b</sup> compares the current cost of next week's straddle with the average cost of the weekly straddles over the last 3m (Z-score). <sup>c</sup> BofA EPS estimate vs consensus (Z-score). Fund holdings as of 31-Dec-2023. Note: Implied vol Score, BofA EPS Score, and Positioning Score, a higher number means the stock ranks higher in that category. This is a screen and not a recommended list either individually or as a group of stocks and options. Investors should consider the fundamentals of the companies and their own individual circumstances / objectives before making any investment decisions.

BofA GLOBAL RESEARCH

**Exhibit 4: Short Calls: companies rank higher if they have high implied vol, low BofA EPS estimates, and are lightly shorted and/or heavily owned**

The companies are ranked by how expensive it is to position with calls for a potential earnings surprise. For Implied vol Score, BofA EPS Score, and Positioning Score, a higher number means the stock ranks higher in that category.

Ticker	Company Name	Report Date	Implied move	Implied move vs history <sup>a</sup>	Earnings straddle premium <sup>b</sup>	Implied vol Score	BofA EPS Score <sup>c</sup>	Fund holdings <sup>*</sup>	Short Interest <sup>*</sup>	Positioning Score	Aggregate Score
TSN	Tyson Foods	5-Feb (Bef-mkt)	5.6%	-0.26	17.72	8.73	1.41	-0.75	-0.47	-0.14	3.33
VFC	VF Corp	6-Feb (Aft-mkt)	10.8%	1.33	15.18	8.26	-0.47	0.89	0.25	0.32	2.70
NET	Cloudflare	8-Feb (Aft-mkt)	10.8%	-0.50	24.41	11.95	-5.80	1.03	0.09	0.47	2.21
DD	Dupont De Nemours	6-Feb (Bef-mkt)	3.4%	-0.54	10.20	4.83	-0.50	0.46	-0.43	0.45	1.59
ENPH	Enphase Energy	6-Feb (Aft-mkt)	13.5%	0.17	13.58	6.87	-1.48	-0.91	1.20	-1.06	1.44
ILMN†	Illumina	8-Feb (Aft-mkt)	6.9%	-0.03	4.53	2.25	-1.23	0.48	-0.25	0.36	0.46

**Source:** BofA Securities, Bloomberg, FactSet. Data as of 2-Feb-2024. \* Z-score. †Name appears in our equity strategists' negative surprise screen. <sup>a</sup> current implied move vs the average return on earnings day over the last 8 quarters (Z-score). <sup>b</sup> compares the current cost of next week's straddle with the average cost of the weekly straddles over the last 3m (Z-score). <sup>c</sup> BofA EPS estimate vs consensus (Z-score). Fund holdings as of 31-Dec-2023. Note: Implied vol Score, BofA EPS Score, and Positioning Score, a higher number means the stock ranks higher in that category. This is a screen and not a recommended list either individually or as a group of stocks and options. Investors should consider the fundamentals of the companies and their own individual circumstances / objectives before making any investment decisions.

BofA GLOBAL RESEARCH



**Exhibit 5: Short Puts: companies rank higher if they have high implied vol, high BofA EPS estimates, and are heavily shorted and/or lightly owned**

The companies are ranked by how expensive it is to position with puts for a potential earnings surprise. For Implied vol Score, BofA EPS Score, and Positioning Score, a higher number means the stock ranks higher in that category.

Ticker	Company Name	Report Date	Implied move	Implied move vs history <sup>a</sup>	Earnings straddle premium <sup>b</sup>	Implied vol Score	BofA EPS Score <sup>c</sup>	Fund holdings <sup>*</sup>	Short Interest <sup>*</sup>	Positioning Score	Aggregate Score
BILL	BILL Holdings	8-Feb (Aft-mkt)	17.8%	-0.26	32.49	16.12	-0.08	0.08	0.38	0.15	<b>5.40</b>
LLY	Eli Lilly	6-Feb (Bef-mkt)	5.2%	0.09	10.65	5.37	9.43	1.24	-0.67	-0.95	<b>4.62</b>
CMG	Chipotle Mexican Grill	6-Feb (Aft-mkt)	6.2%	-0.53	30.08	14.77	0.12	2.15	-0.47	-1.31	<b>4.53</b>
EXPE	Expedia	8-Feb (Aft-mkt)	8.3%	-0.10	25.45	12.68	0.23	-0.71	-0.26	0.22	<b>4.38</b>
FTNT	Fortinet	6-Feb (Aft-mkt)	9.6%	-0.25	26.38	13.07	-0.43	-0.43	-0.52	-0.04	<b>4.20</b>
RBLX	Roblox	7-Feb (Bef-mkt)	13.8%	-0.12	26.02	12.95	-0.79	-0.66	-0.31	0.17	<b>4.11</b>
EMR	Emerson Electric	7-Feb (Bef-mkt)	3.4%	-0.17	22.66	11.24	-0.09	-0.59	-0.59	0.00	<b>3.72</b>
EL	Estee Lauder	5-Feb (Bef-mkt)	8.3%	0.03	25.58	12.80	-1.22	1.14	-0.44	-0.79	<b>3.60</b>
SPOT	Spotify	6-Feb (Bef-mkt)	9.1%	-0.95	23.42	11.23	-0.41	0.15	-0.61	-0.38	<b>3.48</b>
COTY	Coty	7-Feb (Aft-mkt)	7.1%	0.77	17.26	9.02	-0.24	-0.26	1.42	0.84	<b>3.21</b>
PINS	Pinterest	8-Feb (Aft-mkt)	11.1%	-0.13	17.79	8.83	0.53	0.26	0.26	0.00	<b>3.12</b>
DIS	Walt Disney	7-Feb (Aft-mkt)	5.4%	-0.02	19.23	9.60	-0.55	-0.49	-0.61	-0.06	<b>3.00</b>
HSY	Hershey	8-Feb (Bef-mkt)	3.9%	1.12	13.86	7.49	0.35	-0.63	-0.41	0.11	<b>2.65</b>
CAT	Caterpillar	5-Feb (Bef-mkt)	4.2%	-0.25	15.35	7.55	0.73	0.28	-0.51	-0.40	<b>2.63</b>
F	Ford	6-Feb (Aft-mkt)	6.1%	0.21	14.02	7.11	-0.67	-0.87	-0.32	0.28	<b>2.24</b>
LIN	Linde	6-Feb (Bef-mkt)	2.3%	0.39	13.35	6.87	0.37	0.65	-0.62	-0.63	<b>2.20</b>
PLTR	Palantir	5-Feb (Aft-mkt)	12.3%	-0.75	14.31	6.78	-1.00	-0.95	0.58	0.77	<b>2.18</b>
HOG	Harley-Davidson	8-Feb (Bef-mkt)	8.2%	0.27	12.86	6.56	-0.73	-0.87	0.05	0.46	<b>2.10</b>
MCD	McDonald's	5-Feb (Bef-mkt)	2.6%	0.80	11.98	6.39	-0.24	-0.37	-0.73	-0.18	<b>1.99</b>
WYNN	Wynn Resorts	7-Feb (Aft-mkt)	5.3%	1.02	8.80	4.91	-0.11	-0.50	-0.14	0.18	<b>1.66</b>
GILD	Gilead Sciences	6-Feb (Aft-mkt)	3.3%	-0.45	8.97	4.26	1.30	0.70	-0.51	-0.60	<b>1.65</b>
ON	ON Semiconductor	5-Feb (Bef-mkt)	8.5%	0.11	10.30	5.21	-0.41	0.40	-0.23	-0.31	<b>1.49</b>
PEP	PepsiCo	9-Feb (Bef-mkt)	2.3%	0.43	9.58	5.01	-0.60	-0.24	-0.64	-0.20	<b>1.40</b>
AFRM	Affirm	8-Feb (Aft-mkt)	15.1%	-0.50	8.94	4.22	-0.45	2.26	2.22	-0.02	<b>1.25</b>
UAA	Under Armour	8-Feb (Bef-mkt)	9.2%	0.12	5.86	2.99	-0.46	-0.82	0.14	0.48	<b>1.00</b>
APO	Apollo Global Management	8-Feb (Bef-mkt)	4.3%	0.03	4.75	2.39	0.78	0.50	0.01	-0.24	<b>0.97</b>
MCK	McKesson	7-Feb (Aft-mkt)	3.7%	0.02	9.30	4.66	-1.17	0.71	-0.56	-0.64	<b>0.95</b>
COP	ConocoPhillips	8-Feb (Bef-mkt)	3.1%	0.20	6.52	3.36	0.27	1.00	-0.66	-0.83	<b>0.93</b>
DXCM	Dexcom	8-Feb (Aft-mkt)	7.1%	0.03	4.00	2.01	0.61	0.71	-0.05	-0.38	<b>0.75</b>
PYPL	PayPal	7-Feb (Aft-mkt)	7.2%	-0.46	4.95	2.25	-0.08	-0.44	-0.44	0.00	<b>0.72</b>
SPGI	S&P Global	8-Feb (Bef-mkt)	3.2%	-0.07	5.67	2.80	-0.04	0.61	-0.59	-0.60	<b>0.72</b>
PM	Philip Morris	8-Feb (Bef-mkt)	2.6%	0.27	4.74	2.51	-0.13	0.88	-0.85	-0.87	<b>0.50</b>
CNC	Centene	6-Feb (Bef-mkt)	4.0%	0.06	5.31	2.69	-0.82	0.23	-0.54	-0.38	<b>0.49</b>
NLY	Annaly Capital Management	7-Feb (Aft-mkt)	2.7%	-0.18	1.06	0.44	0.53	-0.84	-0.18	0.33	<b>0.43</b>
TPR	Tapestry	8-Feb (Bef-mkt)	6.1%	0.33	10.48	5.40	-4.24	-0.39	-0.42	-0.01	<b>0.38</b>
GEHC	Ge HealthCare	6-Feb (Bef-mkt)	3.9%	-0.06	7.15	3.54	-1.24	2.24	-0.16	-1.20	<b>0.37</b>
UBER	Uber	7-Feb (Bef-mkt)	6.2%	-0.48	5.29	2.41	-0.51	1.52	-0.17	-0.85	<b>0.35</b>
KKR	KKR	6-Feb (Bef-mkt)	3.6%	-0.38	3.23	1.42	0.45	2.22	-0.61	-1.41	<b>0.15</b>
BAX	Baxter International	8-Feb (Bef-mkt)	4.1%	-0.39	3.30	1.45	-1.40	-0.24	-0.45	-0.10	<b>-0.02</b>
VRTX	Vertex Pharmaceuticals	5-Feb (Aft-mkt)	1.4%	-0.87	3.68	1.41	-0.32	1.92	-0.54	-1.23	<b>-0.05</b>

**Source:** BofA Securities, Bloomberg, FactSet. Data as of 2-Feb-2024. \* Z-score. #Name appears in our equity strategists' positive surprise screen. <sup>a</sup> current implied move vs the average return on earnings day over the last 8 quarters (Z-score). <sup>b</sup> compares the current cost of next week's straddle with the average cost of the weekly straddles over the last 3m (Z-score). <sup>c</sup> BofA EPS estimate vs consensus (Z-score). Fund holdings as of 31-Dec-2023. Note: Implied vol Score, BofA EPS Score, and Positioning Score, a higher number means the stock ranks higher in that category. This is a screen and not a recommended list either individually or as a group of stocks and options. Investors should consider the fundamentals of the companies and their own individual circumstances / objectives before making any investment decisions.

BofA GLOBAL RESEARCH

**Exhibit 6: Underlying Data**

Data behind the Z-scores shown in Exhibits 1-5

Ticker	Company Name	Sector	Report Date	Implied move	Average absolute move vs past 8Q	Earnings straddle premium vs 3m avg.	BofA EPS Estimate	Fund weight relative to index	Fund weight relative to sector	Short Interest	Days to cover
AFRM	Affirm	Financials	8-Feb (Aft-mkt)	15.1%	19.6%	2.09	-0.68	254.8%	264.5%	16.7%	2.09
	Apollo Global Management	Financials	8-Feb (Bef-mkt)	4.3%	4.2%	1.67	1.77	110.4%	114.7%	4.3%	7.43
BAX	Baxter International	Health Care	8-Feb (Bef-mkt)	4.1%	5.7%	2.10	0.85	56.7%	49.2%	1.9%	2.75
BILL	BILL Holdings	Information Technology	8-Feb (Aft-mkt)	17.8%	20.1%	3.57	0.40	81.5%	80.9%	5.7%	3.62
CAT	Caterpillar	Industrials	5-Feb (Bef-mkt)	4.2%	4.9%	2.31	4.91	94.9%	93.0%	1.4%	2.56
CMG	Chipotle Mexican Grill	Consumer Discretionary	6-Feb (Aft-mkt)	6.2%	8.3%	3.55	9.75	272.4%	260.6%	2.8%	4.19
CNC	Centene	Health Care	6-Feb (Bef-mkt)	4.0%	3.8%	1.66	0.39	95.8%	83.2%	1.4%	2.45
COP	ConocoPhillips	Energy	8-Feb (Bef-mkt)	3.1%	2.7%	1.67	2.08	166.7%	194.4%	0.9%	2.02
COTY	Coty	Consumer Staples	7-Feb (Aft-mkt)	7.1%	4.5%	2.60	0.19	53.7%	72.8%	9.3%	10.69
DD	Dupont De Nemours	Materials	6-Feb (Bef-mkt)	3.4%	5.0%	2.50	0.86	113.1%	124.1%	1.8%	1.96
DIS	Walt Disney	Communication Services	7-Feb (Aft-mkt)	5.4%	5.5%	2.49	0.92	32.8%	25.6%	1.5%	2.47
DXCM	Dexcom	Health Care	8-Feb (Aft-mkt)	7.1%	6.9%	1.99	0.45	135.2%	117.4%	4.4%	6.81
EL	Estee Lauder	Consumer Staples	5-Feb (Bef-mkt)	8.3%	8.1%	2.66	0.50	169.0%	229.1%	2.1%	1.76
EMR	Emerson Electric	Industrials	7-Feb (Bef-mkt)	3.4%	3.8%	2.43	1.03	24.2%	23.7%	0.9%	2.29
ENPH	Enphase Energy	Information Technology	6-Feb (Aft-mkt)	13.5%	12.5%	2.59	0.72	3.7%	3.7%	9.2%	2.84
EXPE	Expedia	Consumer Discretionary	8-Feb (Aft-mkt)	8.3%	8.9%	3.08	1.76	15.4%	14.8%	4.3%	2.82
F	Ford	Consumer Discretionary	6-Feb (Aft-mkt)	6.1%	5.3%	2.06	0.11	1.2%	1.1%	3.9%	3.00
FTNT	Fortinet	Information Technology	6-Feb (Aft-mkt)	9.6%	11.3%	3.20	0.43	41.2%	40.9%	1.9%	2.01
GEHC	Ge HealthCare	Health Care	6-Feb (Bef-mkt)	3.9%	4.1%	2.22	1.05	261.8%	227.2%	3.7%	5.94
GILD	Gilead Sciences	Health Care	6-Feb (Aft-mkt)	3.3%	4.7%	1.91	1.86	134.3%	116.6%	1.6%	2.90
HOG	Harley-Davidson	Consumer Discretionary	8-Feb (Bef-mkt)	8.2%	6.7%	2.48	-0.08	1.2%	1.2%	6.4%	7.02
HSY	Hershey	Consumer Staples	8-Feb (Bef-mkt)	3.9%	2.9%	2.22	1.97	23.0%	31.2%	2.2%	2.11
ILMN	Illumina	Health Care	8-Feb (Aft-mkt)	6.9%	7.1%	1.63	0.15	116.3%	100.9%	3.2%	2.59
KKR	KKR	Financials	6-Feb (Bef-mkt)	3.6%	4.2%	1.47	0.96	251.3%	260.9%	0.8%	1.77
LIN	Linde	Materials	6-Feb (Bef-mkt)	2.3%	1.8%	1.92	3.51	130.6%	143.4%	0.8%	2.78
LLY	Eli Lilly	Health Care	6-Feb (Bef-mkt)	5.2%	4.8%	2.08	2.77	179.2%	155.5%	0.6%	1.80
MCD	McDonald's	Consumer Discretionary	5-Feb (Bef-mkt)	2.6%	1.8%	2.14	2.81	46.3%	44.3%	1.1%	2.82
MCK	McKesson	Health Care	7-Feb (Aft-mkt)	3.7%	3.7%	2.27	6.90	135.7%	117.8%	1.2%	2.39
NET	Cloudflare	Information Technology	8-Feb (Aft-mkt)	10.8%	14.5%	2.55	0.18	155.7%	154.6%	4.5%	4.63
	Annaly Capital Management	Financials	7-Feb (Aft-mkt)	2.7%	3.0%	1.27	0.65	0.0%	0.0%	3.1%	4.07
ON	ON Semiconductor	Information Technology	5-Feb (Bef-mkt)	8.5%	7.8%	2.44	1.20	106.1%	105.3%	3.1%	1.80
PEP	PepsiCo	Consumer Staples	9-Feb (Bef-mkt)	2.3%	1.8%	1.87	1.71	55.2%	74.9%	1.3%	3.72
PINS	Pinterest	Communication Services	8-Feb (Aft-mkt)	11.1%	11.7%	3.44	0.53	92.2%	71.9%	7.3%	5.47
PLTR	Palantir	Information Technology	5-Feb (Aft-mkt)	12.3%	16.6%	2.57	0.07	0.3%	0.3%	6.6%	3.09
PM	Philip Morris	Consumer Staples	8-Feb (Bef-mkt)	2.6%	2.2%	1.68	1.45	148.0%	200.7%	0.5%	1.70
PYPL	PayPal	Financials	7-Feb (Aft-mkt)	7.2%	10.2%	2.22	1.36	33.0%	34.2%	1.7%	0.95
RBLX	Roblox	Communication Services	7-Feb (Bef-mkt)	13.8%	15.0%	3.18	-0.64	18.9%	14.7%	3.5%	2.65
SPGI	S&P Global	Financials	8-Feb (Bef-mkt)	3.2%	3.4%	1.98	3.10	119.0%	123.6%	0.9%	2.68
SPOT	Spotify	Communication Services	6-Feb (Bef-mkt)	9.1%	12.1%	2.92	-0.40	83.5%	65.1%	1.5%	1.20
TPR	Tapestry	Consumer Discretionary	8-Feb (Bef-mkt)	6.1%	4.6%	2.16	1.39	44.2%	42.2%	3.2%	2.25
TSN	Tyson Foods	Consumer Staples	5-Feb (Bef-mkt)	5.6%	6.8%	2.61	0.34	12.8%	17.3%	1.9%	2.45
UAA	Under Armour	Consumer Discretionary	8-Feb (Bef-mkt)	9.2%	8.3%	2.38	0.10	5.4%	5.2%	7.0%	2.03
UBER	Uber	Industrials	7-Feb (Bef-mkt)	6.2%	8.5%	2.12	0.21	196.2%	192.2%	3.4%	3.18
VFC	VF Corp	Consumer Discretionary	6-Feb (Aft-mkt)	10.8%	5.3%	2.16	0.82	159.7%	152.8%	7.8%	4.13
	Vertex Pharmaceuticals	Health Care	5-Feb (Aft-mkt)	1.4%	3.7%	2.04	4.03	235.6%	204.5%	1.3%	2.63
WYNN	Wynn Resorts	Consumer Discretionary	7-Feb (Aft-mkt)	5.3%	3.3%	1.79	1.14	34.5%	33.0%	5.1%	2.68

**Source:** BofA Securities, Bloomberg, FactSet. Data as of 2-Feb-2024. The column "earnings straddle premium vs 3m avg." compares the current cost of next week's straddle with the average cost of the weekly straddles over the last 3m. Fund holdings as of 31-Dec-2023.

BofA GLOBAL RESEARCH



## Methodology

Starting from the universe of Russell 1000 stocks expected to report earnings during the week of 5-Feb (and which have listed weekly options), we rank the stocks based on:

- *Option-based measures*: how expensive vs history are calls and puts expiring on the Friday after earnings
- *Fundamental measures*: how this quarter's BofA EPS estimates compare to the Bloomberg consensus
- *Positioning measures*: how heavily owned or shorted the underlying stocks are

To be included, stocks must have weekly options that trade on average more than \$1 million notional per day.

Stocks rated Buy/Neutral by BofA fundamental analysts are included in the Long Calls and Short Puts screens. Stocks with BofA Underperform ratings are included in the Short Calls and Long Puts screens.

The inputs to the screens are the following:

- **Option-based measures**: how cheap or expensive options are going into earnings.
  - *Implied move vs history*: A stock's implied move around this quarter's earnings release, compared to the realized moves on earnings days in the last 8 quarters (or however many quarters a stock has been listed for, if less than 8). Realized moves are the 1-day moves from the close prior to the earnings announcement to the following close.
  - *Earnings straddle premium*: The cost of a straddle expiring Friday of earnings week, compared to the average cost of that stock's weekly straddle over the last 3 months
- **Fundamental BofA estimates**: how the stocks' BofA EPS estimates compare to other firms' estimates (Bloomberg consensus).
  - The BofA EPS Score column is formatted such that a higher number yields a higher ranking. In other words, a high BofA EPS vs consensus yields a higher ranking in the Long Calls and Short Puts screens, and a lower ranking in the Long Puts and Short Calls screens.
- **Positioning measures**: how heavily owned or shorted the underlying stocks are.
  - *Fund holdings*: A stock's average weight in fund holdings (from 13F reports, compiled by FactSet), relative to stocks in both the same sector and the Russell 1000 index (average of the two)
  - *Short interest*: A stock's estimated short interest as a percentage of float (reported with a 2-day lag), relative to stocks in both the same sector and the Russell 1000 index (average of the two)

The scores for each category and the aggregate score are computed as follows:

### Options Score:

- **Long calls**: average[-(Implied move vs history), -(Earnings straddle premium)]
- **Long puts**: average[-(Implied move vs history), -(Earnings straddle premium)]
- **Short calls**: average[+(Implied move vs history), +(Earnings straddle premium)]
- **Short puts**: average[+(Implied move vs history), +(Earnings straddle premium)]s





**BofA EPS Score:**

- **Long calls:** + BofA EPS estimates vs consensus
- **Long puts:** - BofA EPS estimates vs consensus
- **Short calls:** - BofA EPS estimates vs consensus
- **Short puts:** + BofA EPS estimates vs consensus

**Positioning Score:**

- **Long calls:** average[-(Fund holdings), +(Short interest)]
- **Long puts:** average[+(Fund holdings), -(Short interest)]
- **Short calls:** average[+(Fund holdings), -(Short interest)]
- **Short puts:** average[-(Fund holdings), +(Short interest)]

**Aggregate Score** is the average of *Implied vol Score*, *BofA EPS Score*, and *Positioning Score*.

**Note:** These screens are intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. These screens were not created to act as benchmarks.

## Options Risk Statement

### Potential Risk at Expiry & Options Limited Duration Risk

Unlike owning or shorting a stock, employing any listed options strategy is by definition governed by a finite duration. The most severe risks associated with general options trading are total loss of capital invested and delivery/assignment risk... all of which can occur in a short period.

### Investor suitability

The use of standardized options and other related derivatives instruments are considered unsuitable for many investors. Investors considering such strategies are encouraged to become familiar with the "Characteristics and Risks of Standardized Options" (an OCC authored white paper on options risks). U.S. investors should consult with a FINRA Registered Options Principal.

For detailed information regarding risks involved with investing in listed options:

<http://www.theocc.com/about/publications/character-risks.jsp>



# Disclosures

## Important Disclosures

Due to the nature of the market for derivative securities, the issuers or securities recommended or discussed in this report are not continuously followed. Accordingly, investors must regard this report as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or securities.

BofA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.

## Other Important Disclosures

Prices are indicative and for information purposes only. Except as otherwise stated in the report, for any recommendation in relation to an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report and in relation to a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including BofA Securities trading desks.

The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

This report may refer to fixed income securities or other financial instruments that may not be offered or sold in one or more states or jurisdictions, or to certain categories of investors, including retail investors. Readers of this report are advised that any discussion, recommendation or other mention of such instruments is not a solicitation or offer to transact in such instruments. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor for information relating to such instruments. Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.

Officers of BofAS or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

Refer to [BofA Global Research policies relating to conflicts of interest](#).

**"BofA Securities" includes BofA Securities, Inc. ("BofAS") and its affiliates. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BofA Securities" is a global brand for BofA Global Research.**

### Information relating to Non-US affiliates of BofA Securities and Distribution of Affiliate Research Reports:

BofAS and/or Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BofASE (France): BofA Securities Europe SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BofA Securities Europe SA ("BofASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BofASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BofASE's share capital can be found at [www.bofam.com/BofASEdisclaimer](http://www.bofam.com/BofASEdisclaimer); BofA Europe (Milan): Bank of America Europe Designated Activity Company, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); BofA Europe (Frankfurt): Bank of America Europe Designated Activity Company, Frankfurt Branch regulated by BaFin, the ECB and the CBI; BofA Europe (Madrid): Bank of America Europe Designated Activity Company, Sucursal en España, regulated by the Bank of Spain, the ECB and the CBI; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSF); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Canadian Investment Regulatory Organization; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BofAS Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BofAS India: BofA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.

This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofAS Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSF; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BofAS India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. BofA Europe (Frankfurt) distributes this information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securities entities, including BofA Europe and BofASE (France), may outsource/delegate the marketing and/or provision of certain research services or aspects of research services to other branches or members of the BofA Securities group. You may be contacted by a different BofA Securities entity acting for and on behalf of your service provider where permitted by applicable law. This does not change your service provider. Please refer to the [Electronic Communications Disclaimers](#) for further information.

This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.

### General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities.



This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Securities, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. Digital assets are extremely speculative, volatile and are largely unregulated. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

This report may contain a short-term trading idea or recommendation, which highlights a specific near-term catalyst or event impacting the issuer or the market that is anticipated to have a short-term price impact on the equity securities of the issuer. Short-term trading ideas and recommendations are different from and do not affect a stock's fundamental equity rating, which reflects both a longer term total return expectation and attractiveness for investment relative to other stocks within its Coverage Cluster. Short-term trading ideas and recommendations may be more or less positive than a stock's fundamental equity rating.

Futures and options are not appropriate for all investors. Such financial instruments may expire worthless. Before investing in futures or options, clients must receive the appropriate risk disclosure documents. Investment strategies explained in this report may not be appropriate at all times. Costs of such strategies do not include commission or margin expenses.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned herein. Investors in such securities and instruments, including ADRs, effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information.

In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

#### Copyright and General Information:

Copyright 2024 Bank of America Corporation. All rights reserved. iQdatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Securities clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Securities. BofA Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Securities and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Securities.

Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Securities in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to BofA Securities and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Securities is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Securities. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Securities is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without notice. BofA Securities is under no obligation to update this information and BofA Securities ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Securities will not update any fact, circumstance or opinion contained herein.

Certain outstanding reports or investment opinions relating to securities, financial instruments and/or issuers may no longer be current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither BofA Securities nor any officer or employee of BofA Securities accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.