

Restaurants Industry

Restaurants Weekly: Triangulating 2024

Price Objective Change

W/e 12/22: Restaurants in-line, Small caps lead

For the week ended 12/22, the S&P Restaurant Index (+0.7%) performed mostly in-line with the market (S&P 500: +0.9%). Performance was mixed by segment, with both limited- and full-service restaurants among the week's leaders and laggards. Small cap restaurants broadly led the Index, reflecting risk on positioning. SG (+6.3%), DNUT (5.4%), and FWRG (4.6%) strongly outperformed. Year-to-date, WING, SHAK, and CMG continue lead the sector, with gains of 86.5%, 77.5%, and 66.0% respectively.

Charts of the week: Plotting growth for F24

This week's charts of the week compare projected y/y growth rates for F24 U.S. restaurant sales by segment and operator type. Exhibits 3&4 compare industry forecasts from Euromonitor and Technomic, respectively. Overall, for F24 both Euromonitor and Technomic forecast higher growth for Limited Service (LSR) restaurants relative to Full Service (FSR) restaurants, consistent with historical trend. In comparing growth rates by operator type, Euromonitor estimates point to higher growth for Independent restaurants relative to their Chained restaurant counterparts. To this point, while Chained FSR restaurant sales are expected to grow 3.1% y/y in F24 to \$100 bb, Independent FSR restaurant sales are expected to grow 4.7% to \$172 bb. In contrast, Technomic forecasts higher growth in F24 for Chained FSR restaurants (at 0.6% for top 100 chains and 0.7% for top 100-500 chains) relative to Small chains & independents (at 0.5%). For LSR, the gap between forecasted growth rates is wider. For F24, Technomic forecasts the top 100 LSR chains and top 100-500 LSR chains to grow 2.0% and 2.4%, respectively, outpacing Small chains & independents (+1.1%).

Updating JACK PO on higher market multiple

We update our relative valuation based PO for JACK to reflect higher market multiples. Applying a 0.7x (0.6X prior) relative P/E multiple (implies 13.1x absolute, higher vs 11.0x previously on market multiple expansion) to our 12 month forward earnings estimate, we arrive at a \$95 PO, up from \$80 previously. Our target valuation for JACK is a material discount to highly franchised peers MCD, YUM and QSR given historically slower growth and more capital-intensive ownership model, though we see room for expansion as JACK transforms its business.

Industry relative valuation & restaurants comps sheet

Relative to the broader market, the S&P 500 restaurants index is trading at a 5% premium (vs the 10-year average relative P/E multiple of 1.3x), flat versus 5% for the prior week. Our restaurants valuation and KPI sheets can be found on page 7.

Upcoming events: Happy holidays!

Please reach out to Sara Senatore or your salesperson if you are interested in catching up in the New Year.

26 December 2023

Equity
United States
Restaurants

Sara Senatore
Research Analyst
BofAS
+1 646 743 2110
sara.senatore@bofa.com

Katherine Griffin
Research Analyst
BofAS
+1 646 855 2849
katherine.griffin@bofa.com

Jessica Owusu Afari
Research Analyst
BofAS
+1 646 617 9040
jessica.owusu-afari@bofa.com

Stock symbol key:

BLMN: Bloomin' Brands
BROS: Dutch Bros
DRI: Darden Restaurants
CAKE: Cheesecake Factory
CBRL: Cracker Barrel
CMG: Chipotle
DNUT: Krispy Kreme
DPZ: Domino's
EAT: Brinker International
FWRG: First Watch
JACK: Jack in the Box
MCD: McDonald's
PZZA: Papa Johns
PTLO: Portillo's
QSR: Restaurant Brands Int'l
SBUX: Starbucks
SG: Sweetgreen
SHAK: Shake Shack
TXRH: Texas Roadhouse
WEN: Wendy's
WING: Wingstop
YUM: Yum Brands

Glossary of terms:

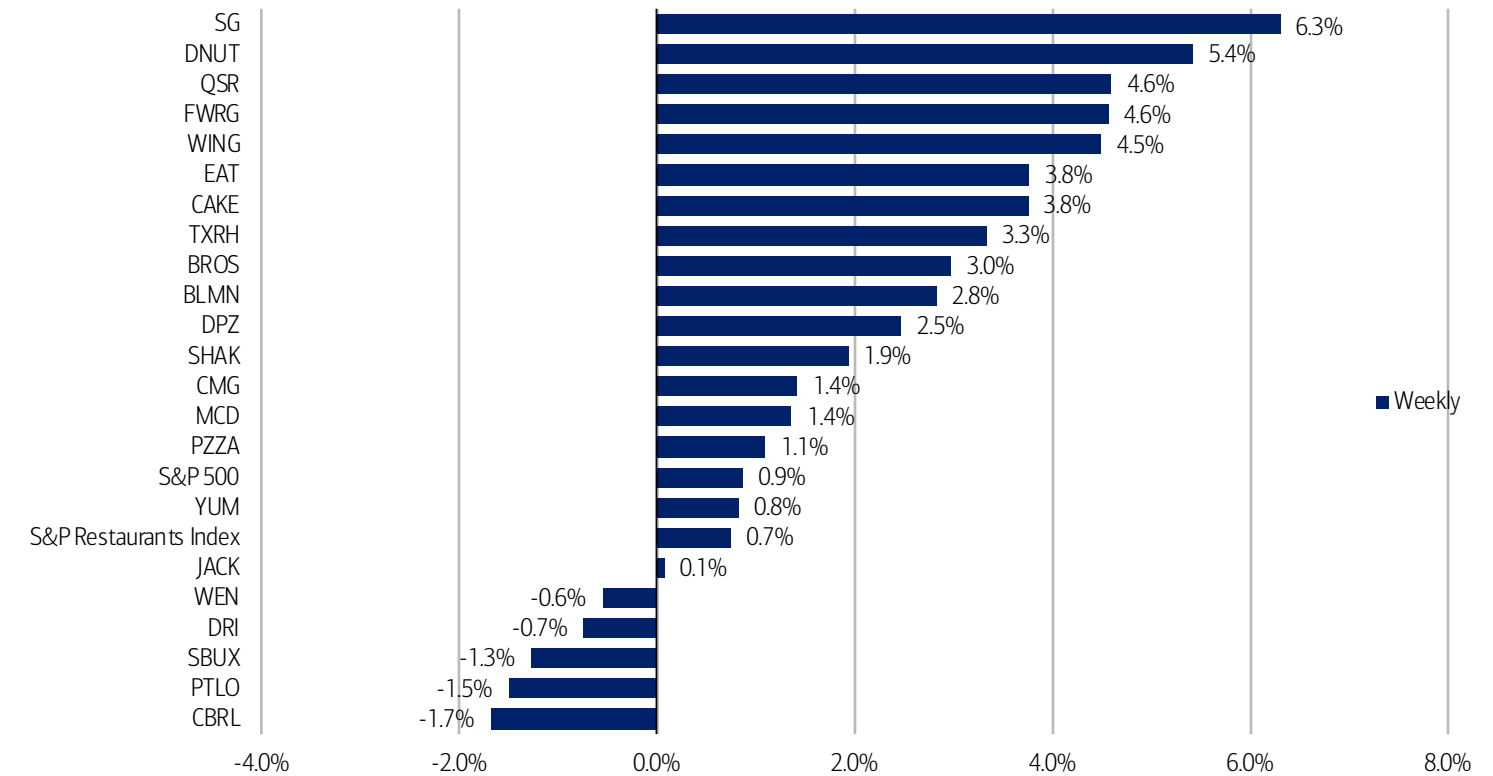
SSSG – same-store sales growth, or comparable sales ("comps")

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 19 to 21. Analyst Certification on page 17. Price Objective Basis/Risk on page 12.

12639354

Timestamp: 26 December 2023 05:00AM EST

Exhibit 1: Restaurant stocks lagged the market last week
BofA Restaurants Coverage Weekly (5-day) Share Price Performance



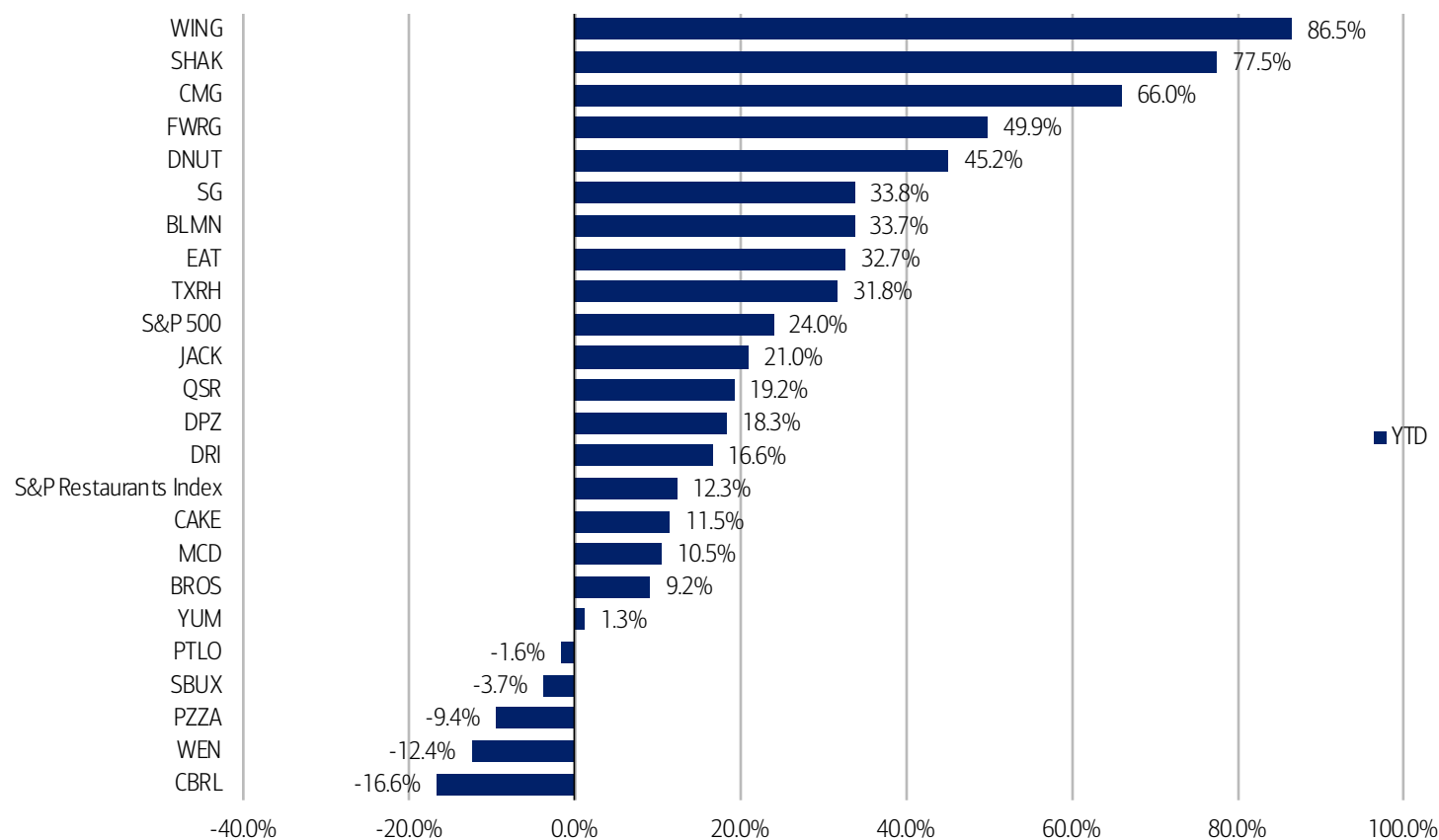
Source: Bloomberg

BofA GLOBAL RESEARCH



Exhibit 2: YTD, WING and SHAK lead

BofA Restaurants Coverage YTD Share Price Performance



Source: Bloomberg

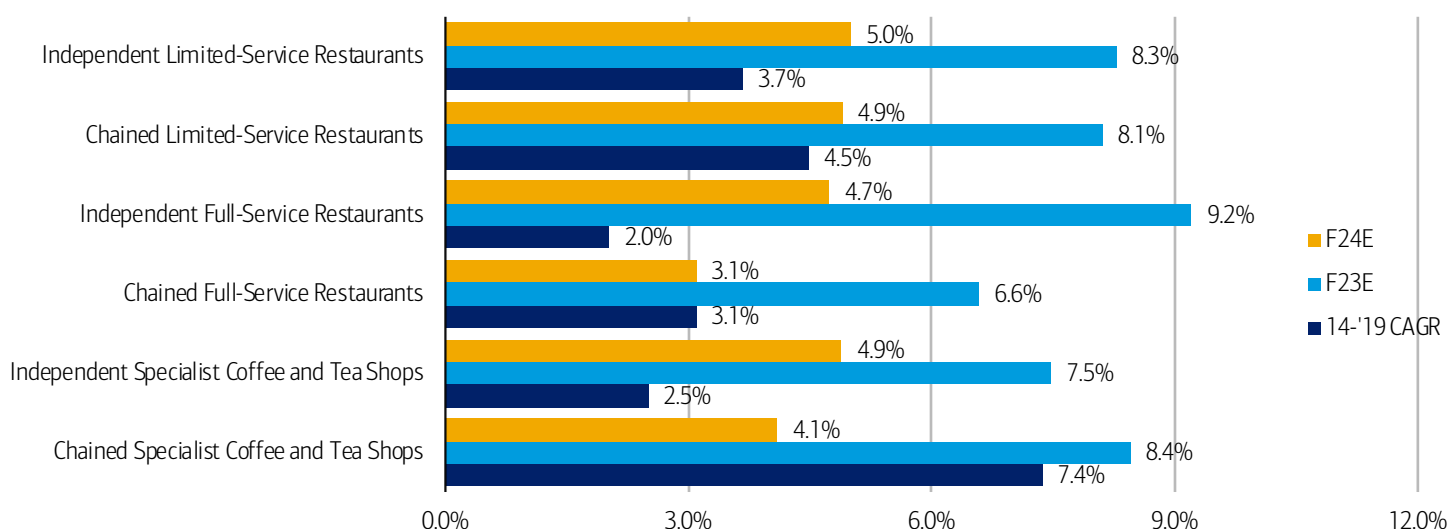
BofA GLOBAL RESEARCH

Charts of the week: Plotting growth for restaurants

This week's charts of the week compare projected y/y growth rates for F24 U.S. restaurant sales by segment and operator type. Exhibits 3&4 compare industry forecasts from Euromonitor and Technomic, respectively. Overall, for F24 both Euromonitor and Technomic forecast higher growth for Limited Service (LSR) restaurants relative to Full Service (FSR) restaurants, consistent with historical trend. In comparing growth rates by operator type, Euromonitor estimates point to higher growth for Independent restaurants relative to their Chained restaurant counterparts. To this point, while Chained FSR restaurant sales are expected to grow 3.1% y/y in F24 to \$100 bb, Independent FSR restaurant sales are expected to grow 4.7% to \$172 bb. In contrast, Technomic forecasts higher growth in F24 for Chained FSR restaurants (at 0.6% for top 100 chains and 0.7% for top 100-500 chains) relative to Small chains & independents (at 0.5%). For LSR, the gap between forecasted growth rates is wider. For F24, Technomic forecasts the top 100 LSR chains and top 100-500 LSR chains to grow 2.0% and 2.4%, respectively, outpacing Small chains & independents (+1.1%).

Exhibit 3: Overall, expected growth in F24 for Independent operators exceeds that of Chained operators

y/y growth in U.S. restaurant sales by segment and operator type

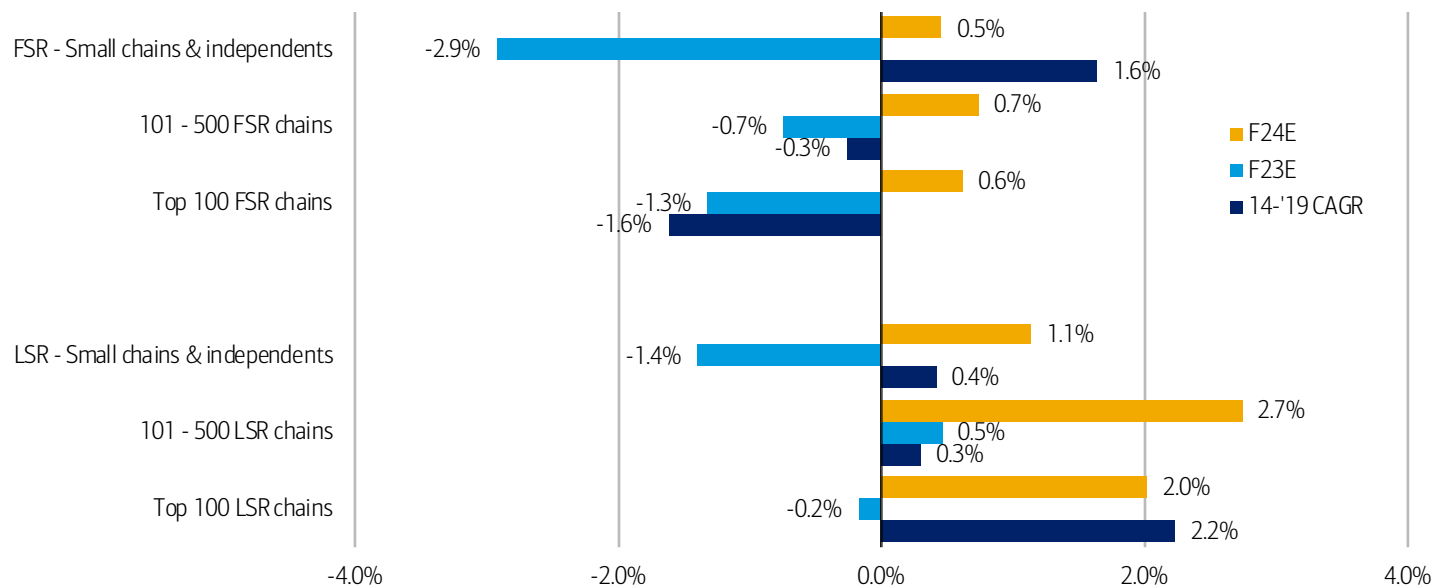


Source: Euromonitor, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 4: Technomic forecasts higher growth for LSRs relative to FSRs in F24

y/y growth in U.S. restaurant sales by segment and operator type



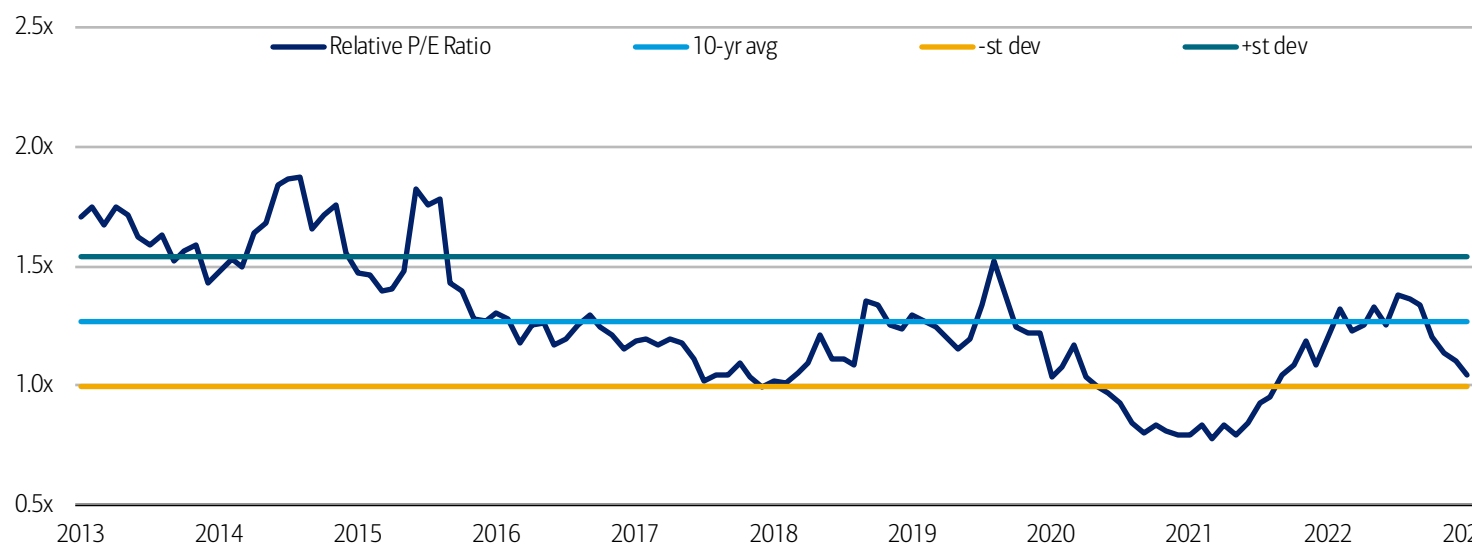
Source: Technomic

BofA GLOBAL RESEARCH

Valuation & comps sheet

Exhibit 5: The S&P 500 Restaurant Index Relative P/E is below its 10-year average

S&P 500 Restaurants Index P/E (10-year history)

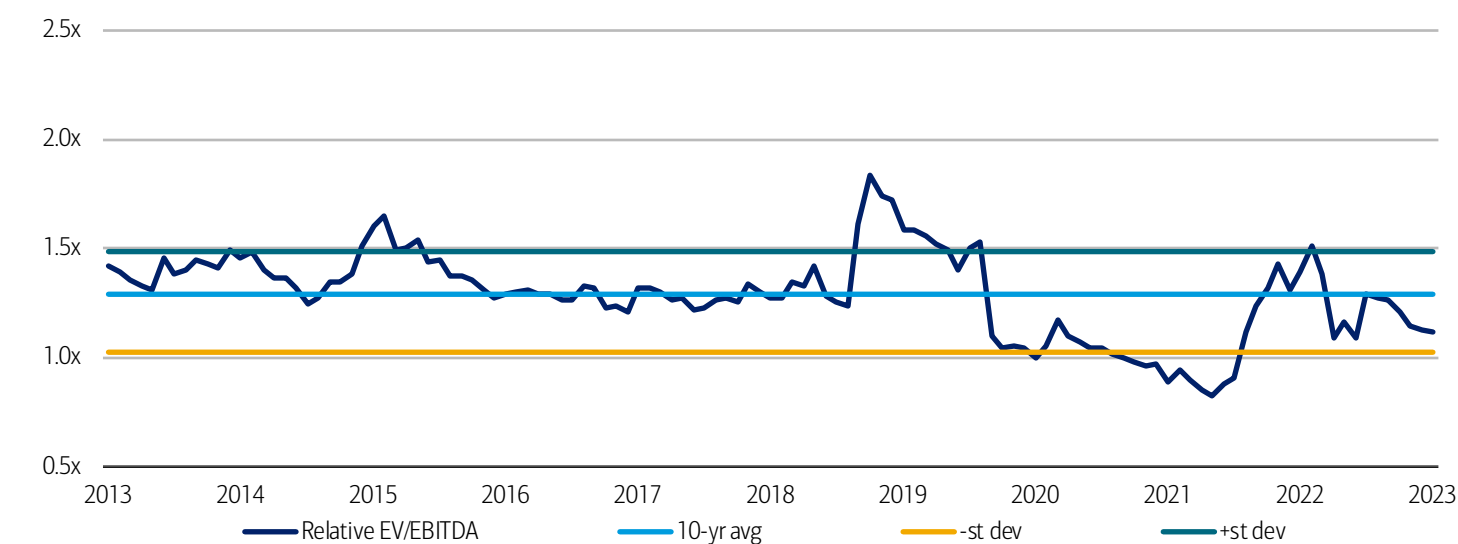


Source: Bloomberg

BofA GLOBAL RESEARCH

Exhibit 6: The S&P 500 Restaurants Index Relative EV/EBITDA is below its 10-year average

S&P 500 Restaurants Index Relative EV/EBITDA (10-year history)



Source: Bloomberg

BofA GLOBAL RESEARCH







Exhibit 7: Restaurant companies across the Limited Service and Full Service industries

Restaurants valuation sheet

\$ in mm except per share values						Price Performance					EV/EBITDA			P/E			EBITDA			EPS		
					Potential Upside/Downside to PO (%)	1 wk	3M	YTD	Market Cap	Enterprise Value	2022	2023E	2024E	2022	2023E	2024E	2022	2023E	2024E	2022	2023E	2024E
Limited Service																						
Company	Rating	Last Price	Price Objective																			
Limited Service																						
Dutch Bros	BROS	Buy	\$30.76	\$48	56%	3%	30%	9%	\$5,448	\$5,414	60.7x	35.8x	26.3x	185.7x	82.9x	67.2x	\$89	\$151	\$206	\$0.17	\$0.37	\$0.46
Krispy Kreme	DNUT	Buy	\$15.03	\$19	26%	6%	17%	46%	\$2,533	\$3,435	18.0x	16.1x	12.3x	50.3x	48.0x	33.0x	\$191	\$214	\$278	\$0.30	\$0.31	\$0.45
Starbucks	SBUX	Buy	\$95.68	\$121	26%	-1%	2%	-4%	\$108,759	\$121,481	19.3x	17.0x	14.5x	32.4x	27.1x	22.9x	\$6,304	\$7,163	\$8,404	\$2.96	\$3.54	\$4.18
Domino's Pizza	DPZ	Buy	\$410.43	\$483	18%	3%	8%	18%	\$14,316	\$19,192	22.6x	21.3x	18.8x	32.8x	28.1x	24.9x	\$848	\$903	\$1,019	\$12.53	\$14.63	\$16.51
Jack in the Box	JACK	Buy	\$82.45	\$95	15%	0%	18%	21%	\$1,627	\$3,366	6.0x	10.4x	10.0x	NM	13.4x	12.2x	\$559	\$324	\$337	\$5.82	\$6.15	\$6.74
McDonald's	MCD	Neutral	\$291.33	\$291	0%	1%	7%	11%	\$211,317	\$245,763	21.9x	17.8x	16.6x	28.8x	24.8x	23.3x	\$11,242	\$13,783	\$14,848	\$10.11	\$11.77	\$12.49
Papa John's	PZZA	Buy	\$74.59	\$89	19%	1%	4%	-9%	\$2,443	\$3,225	15.4x	14.6x	13.2x	25.5x	28.2x	23.0x	\$209	\$220	\$245	\$2.93	\$2.64	\$3.24
Carrols Restaurant Group	TAST	NC	\$7.41			2%	19%	445%	\$404	\$839	5.0x	5.7x	5.7x	-10.6x	NM	15.2x	\$168	\$146	\$148	-\$0.70	\$0.48	\$0.49
Restaurant Brands International	QSR	Underperform	\$77.24	\$65	-16%	5%	14%	19%	\$35,566	\$47,205	21.4x	19.9x	18.6x	25.0x	24.5x	23.6x	\$2,201	\$2,366	\$2,542	\$3.09	\$3.15	\$3.27
Wendy's	WEN	Underperform	\$19.81	\$21	6%	-1%	-3%	-12%	\$4,085	\$6,353	12.8x	11.8x	11.1x	23.0x	19.8x	18.4x	\$498	\$539	\$572	\$0.86	\$1.00	\$1.08
Wingstop	WING	Buy	\$256.79	\$285	11%	5%	52%	87%	\$7,553	\$8,187	75.8x	60.2x	53.6x	140.1x	110.2x	90.3x	\$108	\$136	\$153	\$1.83	\$2.33	\$2.84
Yum! Brands	YUM	Neutral	\$129.71	\$130	0%	1%	4%	1%	\$36,357	\$47,176	20.5x	19.2x	17.7x	28.8x	24.6x	22.7x	\$2,307	\$2,454	\$2,670	\$4.51	\$5.28	\$5.71
Chipotle Mexican Grill	CMG	Buy	\$2,306.05	\$2,570	11%	2%	23%	66%	\$63,289	\$62,080	42.3x	32.9x	27.5x	70.4x	52.1x	42.6x	\$1,468	\$1,888	\$2,258	\$32.78	\$44.26	\$54.13
Portillo's	PTLO	Buy	\$16.07	\$25	56%	-1%	3%	-2%	\$1,172	\$1,465	18.1x	14.7x	13.3x	20.4x	23.8x	20.4x	\$81	\$99	\$110	\$0.79	\$0.68	\$0.79
Sweetgreen	SG	Buy	\$11.47	\$16	39%	6%	0%	34%	\$1,290	\$1,045	-21.5x	-238.4x	71.2x	-11.3x	-18.0x	-31.3x	-\$49	-\$4	\$15	-\$1.01	-\$0.64	-\$0.37
Shake Shack	SHAK	Neutral	\$73.71	\$75	1%	2%	27%	77%	\$3,118	\$3,136	27.5x	24.5x	20.7x	NM	NM	NM	\$114	\$128	\$151	-\$0.31	\$0.45	\$0.46
Cava	CAVA	NC	\$42.90			7%			\$4,874	\$4,864	88.1x	69.0x	62.1x	NM	NM	NM	\$55	\$70	\$78	NM	\$0.13	\$0.14
Limited Service Average											22.1x	7.4x	20.8x	43.8x	33.4x	27.6x						
Full Service																						
BJ's Restaurants	BJRI	NC	\$33.13			1%	40%	26%	\$770	\$850	6.6x	8.1x	6.8x	NM	NM	25.4x	\$128	\$105	\$124	\$0.07	\$0.79	\$1.30
Bloomin' Brands	BLMN	Neutral	\$26.89	\$26	-3%	3%	11%	34%	\$2,334	\$3,401	6.7x	6.2x	6.3x	10.7x	9.4x	9.8x	\$506	\$546	\$541	\$2.51	\$2.86	\$2.74
Dine Brands	DIN	NC	\$48.71			-1%	-6%	-25%	\$752	\$1,904	9.7x	7.7x	7.7x	7.9x	7.6x	7.6x	\$197	\$247	\$248	\$6.20	\$6.40	\$6.43
Darden Restaurants	DRI	Buy	\$161.20	\$193	20%	-1%	12%	17%	\$19,395	\$20,917	13.7x	13.2x	11.6x	21.8x	20.1x	18.1x	\$1,531	\$1,590	\$1,800	\$7.40	\$8.00	\$8.88
Brinker International	EAT	Underperform	\$42.38	\$37	-13%	4%	41%	33%	\$1,873	\$2,831	7.9x	8.3x	6.9x	13.7x	14.9x	12.1x	\$358	\$340	\$408	\$3.09	\$2.85	\$3.51
Dave & Buster's	PLAY	NC	\$53.03			7%	48%	50%	\$2,131	\$3,428	5.5x	6.6x	6.0x	NM	16.2x	12.4x	\$629	\$519	\$567	NM	\$3.28	\$4.27
Red Robin Gourmet Burgers	RRGB	NC	\$12.10			6%	47%	117%	\$187	\$372	2.9x	5.1x	4.9x	-3.7x	-10.3x	-16.9x	\$129	\$73	\$77	-\$3.26	-\$1.17	-\$0.72
Texas Roadhouse	TXRH	Buy	\$119.77	\$123	3%	3%	25%	32%	\$7,998	\$7,929	17.3x	15.6x	13.0x	NM	26.2x	21.6x	\$457	\$509	\$609	\$3.97	\$4.57	\$5.54
Cracker Barrel	CBRL	Underperform	\$78.92	\$68	-14%	-2%	18%	-17%	\$1,751	\$2,284	8.6x	10.0x	8.9x	12.9x	14.4x	13.7x	\$266	\$229	\$255	\$6.10	\$5.47	\$5.78
Denny's	DENN	NC	\$10.62			0%	25%	15%	\$564	\$826	11.7x	9.6x	9.1x	20.4x	17.3x	15.3x	\$71	\$86	\$91	\$0.52	\$0.61	\$0.70
First Watch	FWRG	Buy	\$20.29	\$28	38%	5%	13%	50%	\$1,214	\$1,315	18.8x	14.1x	12.5x	NM	41.8x	37.9x	\$70	\$93	\$105	\$0.22	\$0.48	\$0.54
ONE Group Hospitality	STKS	NC	\$6.08			1%	9%	-3%	\$190	\$247	5.0x	6.2x	4.7x	NM	27.0x	14.9x	\$50	\$40	\$53	NM	\$0.23	\$0.41
Full Service Average											9.2x	9.3x	8.3x	14.9x	16.5x	14.3x						
SPX			\$4,765.26			24%				\$5,247	14.7x	14.6x	13.1x	22.8x	22.1x	19.7x	\$356	\$360	\$400	\$217.72	\$215.40	\$241.85

Source: BofA Global Research estimates, Bloomberg for companies not covered; NC – Not Covered

BofA GLOBAL RESEARCH



**Exhibit 8: Restaurant companies across the Limited Service and Full Service industries**

Restaurants key performance indicators sheet

\$ in mm except per share values					EPS			growth y/y (%)			FCF		
Company	Rating	Last Price	Price Objective	Potential Upside/Downside to PO (%)	2022	2023E	2024E	2022	2023E	2024E	2022	2023E	2024E
Limited Service													
BROS	Buy	\$30.76	\$48	56%	\$0.17	\$0.37	\$0.46	-44%	124%	23%	-\$97	-\$74	-\$54
DNUT	Buy	\$15.03	\$19	26%	\$0.30	\$0.31	\$0.45	-11%	5%	45%	\$17	\$19	\$49
SBUX	Buy	\$95.68	\$121	26%	\$2.96	\$3.54	\$4.18	-8%	20%	18%	\$2,556	\$3,675	\$1,599
DPZ	Buy	\$410.43	\$483	18%	\$12.53	\$14.63	\$16.51	-7%	17%	13%	\$388	\$812	\$693
JACK	Buy	\$82.45	\$95	15%	\$5.82	\$6.15	\$6.74	-9%	6%	10%	\$140	\$67	\$95
MCD	Neutral	\$291.33	\$291	0%	\$10.11	\$11.77	\$12.49	9%	16%	6%	\$5,488	\$8,294	\$9,054
PZZA	Buy	\$74.59	\$89	19%	\$2.93	\$2.64	\$3.24	-16%	-10%	23%	\$39	\$112	\$122
TAST	NC	\$7.41			-\$0.87	\$0.48	\$0.49	50%	-155%	3%	-\$17	NM	NM
WEN	Underperform	\$19.81	\$21	6%	\$0.86	\$1.00	\$1.08	5%	16%	8%	\$182	\$267	\$301
WING	Buy	\$256.79	\$285	11%	\$1.83	\$2.33	\$2.84	-23%	27%	22%	\$52	\$71	\$89
YUM	Neutral	\$129.71	\$130	0%	\$4.51	\$5.28	\$5.71	-1%	17%	8%	\$0	\$0	\$0
CMG	Buy	\$2,306.05	\$2,570	11%	\$32.78	\$44.26	\$54.13	29%	35%	22%	\$493	\$1,245	\$1,510
KRUS	NC	\$74.99			\$0.12	\$0.42	\$0.76	-72%	253%	79%	-\$21	NM	NM
PBPB	NC	\$10.63			\$0.04	\$0.15	\$0.22	NM	NM	NM	\$4	NM	NM
PTLO	Buy	\$16.07	\$25	56%	\$0.79	\$0.68	\$0.79	NM	-14%	17%	\$2	\$15	\$8
SG	Buy	\$11.47	\$16	39%	-\$1.01	-\$0.64	-\$0.37	-82%	-37%	-42%	\$0	\$0	\$0
SHAK	Neutral	\$73.71	\$75	1%	-\$0.31	\$0.45	\$0.46	-188%	-247%	2%	-\$66	-\$25	-\$9
Limited Service Average													
Full Service													
BJRI	NC	\$33.13			\$0.03	\$0.79	\$1.30	-96%	2520%	66%	-\$27	-\$5	\$3
BLMN	Neutral	\$26.89	\$26	-3%	\$2.51	\$2.86	\$2.74	-7%	14%	-4%	\$171	\$310	\$300
CHUY	NC	\$37.51			\$1.29	\$1.90	\$1.96	-32%	48%	3%	\$15	\$21	\$23
DIN	NC	\$48.71			\$6.09	\$6.40	\$6.43	-5%	5%	0%	\$54	\$86	\$107
DRI	Buy	\$161.20	\$193	20%	\$7.40	\$8.00	\$8.88	71%	8%	11%	\$888	\$1,050	\$892
EAT	Underperform	\$42.38	\$37	-13%	\$3.09	\$2.85	\$3.51	-1%	-8%	24%	\$132	\$86	\$142
PLAY	NC	\$53.03			\$2.76	\$3.28	\$4.27	NM	NM	30%	\$210	\$116	\$166
RRGB	NC	\$12.10			-\$2.53	-\$1.17	-\$0.72	116%	-54%	-39%	-\$3	NM	NM
TXRH	Buy	\$119.77	\$123	3%	\$3.97	\$4.57	\$5.54	13%	15%	21%	\$248	\$156	\$244
CBRL	Underperform	\$78.92	\$68	-14%	\$6.10	\$5.47	\$5.78	18%	-10%	6%	\$107	\$151	\$110
DENN	NC	\$10.62			\$0.50	\$0.61	\$0.70	-18%	22%	14%	\$28	NM	NM
FWRG	Buy	\$20.29	\$28	38%	\$0.22	\$0.48	\$0.54	NM	124%	10%	\$0	\$33	\$31
STKS	NC	\$6.08			NM	\$0.23	\$0.41	NM	NM	81%	-\$7	-\$23	-\$9
Full Service Average													
SPX		\$4,765.26			\$217.72	\$215.40	\$241.85	1%	-1%	12%	\$169	\$186	\$216

Source: BofA Global Research estimates, Bloomberg for companies not covered; NC – Not Covered

BofA GLOBAL RESEARCH

Exhibit 9: Stocks mentioned

Prices and ratings for stocks mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
BROS	BROS US	Dutch Bros	US\$ 29.76	C-1-9
BLMN	BLMN US	Bloomin Brands	US\$ 26.79	C-2-7
CBRL	CBRL US	Cracker Barrel	US\$ 79.63	B-3-7
CMG	CMG US	Chipotle Mex Grill	US\$ 2307.1	B-1-9
DRI	DRI US	Darden Restaurants	US\$ 162.21	B-1-7
DPZ	DPZ US	Domino's Pizza	US\$ 408.8	B-1-7
DNUT	DNUT US	Krispy Kreme	US\$ 15.03	C-1-7
EAT	EAT US	Brinker Intl	US\$ 42.73	C-3-9
FWRG	FWRG US	First Watch	US\$ 20.28	C-1-9
MCD	MCD US	McDonald's	US\$ 291.39	A-2-7
PZZA	PZZA US	Papa Johns Int	US\$ 73.44	B-1-7
PTLO	PTLO US	Portillo's Inc.	US\$ 16.12	C-1-9
QSR	QSR US	Restaurant Brands In	US\$ 76.34	B-3-7
SBUX	SBUX US	Starbucks	US\$ 95.33	B-1-7
SG	SG US	Sweetgreen	US\$ 11.42	C-1-9
SHAK	SHAK.US	Shake Shack	US\$ 73.74	C-2-9
TXRH	TXRH US	Texas Roadhouse	US\$ 119.49	B-1-7
YUM	YUM US	Yum Brands Inc	US\$ 129.98	B-2-7
WEN	WEN US	Wendy's Co	US\$ 19.73	B-3-7
WING	WING US	Wingstop Inc	US\$ 256.05	C-1-7

Source: BofA Global Research

BofA GLOBAL RESEARCH

Price objective basis & risk**Bloomin Brands (BLMN)**

Relative to the S&P 500, BLMN's present P/E multiple is 0.5x, below its 5-year average (excluding the COVID-19 spike). We believe the multiple is unlikely to expand in the near term given the lack of visibility on the demand environment. We apply this multiple of 0.5x (8.6x absolute) to our 12 month forward estimates - 4Q24-3Q25 EPS of \$2.97- to arrive at our \$26 PO.

Downside Risks: 1) Bloomin' Brands same-store sales growth could be slower than expected if macro headwinds translate into lower restaurant consumption or sales driving initiatives lack traction, 2) Restaurant-level margins could come under further pressure if topline growth falters, 3) Normalizing G&A expense could pressure margins.

Upside Risks: 1) Same-store sales growth could exceed expectations if menu or marketing initiatives prove better than expected, 2) Cost saving initiatives could drive restaurant level margins above historical averages, 3) Ability to improve already low G&A expense ratio could support margins.

Brinker International (EAT)

Brinker's relative valuation to the S&P is 0.6x, in line with its 5-year historical average (0.6x), which we view as the relevant time frame given higher leverage and slower growth vs the more distant past. We valuation to remain in line with the historical range as Chili's growth trajectory normalizes, and the market is less willing to ascribe a premium multiple for a potential turnaround. Applying a 0.6x relative multiple (absolute P/E 9.2x) to our 12-month-forward EPS (F25: \$4.01) we arrive at our \$37 PO.

Upside risks are i) higher-than-expected demand from consumer trade-down into lower price point casual dining brands, which could drive Chili's sales volumes above our forecasts, ii) higher than forecasted debt pay down, which could expand Chili's relative multiple above our target valuation, iii) higher margins and returns at Chili's as a result

of moderating commodities and wage inflation.

Downside risks are i) a significant slowdown in consumer spending could pressure EAT's topline growth, exacerbating the risk of company's high operating and financial leverage, ii) increased competitive intensity from casual dining peers, which would put downward pressure on Chili's average volumes and unit level returns.

Chipotle Mexican Grill (CMG)

Our \$2,570 price objective is based on earnings power. At the current unit growth rate, we think Chipotle should be able to reach its targeted 8000 store count in roughly 8 years. By then we'd expect AUVs to be \$4.2 mm - under the assumption that comps increase in-line with cost inflation - and margins to be in line with prior peaks of 27%. Assuming a G&A of 5%, which is more similar to mature company operated systems, this system would generate \$6.8bb in EBITDA. At a 20x multiple, consistent with current valuation multiples on high growth companies, the implied EV would be \$159bb, or \$63bb discounted back to today at WACC of 10%. We then add the current net cash and project out 12 months at cost of equity of 10% to derive our price objective of \$2,570.

Downside risks are: 1) lower than expected consumer uptake of new product innovations or digital ordering capabilities, 2) higher than expected food or labor costs that Chipotle is unable to offset with increased pricing, and 3) macroeconomic pressures that slow consumer income growth or otherwise dampen consumption.

Cracker Barrel (CBRL)

Relative to the market, CBRL's P/E multiple is below its 10-year historical average of 0.9x. We expect valuation to remain compressed as demand headwinds among CBRL's largest customer base (65+ and older, lower income) and broader discretionary spending pressures persist. We apply a 0.7x relative P/E multiple to our forward estimates 12 months from now (2Q25-1Q26, \$5.52) to arrive at a \$68 PO, that translates into an absolute PE of 12.3x.

Upside risks: higher-than-expected same store sales growth from digital/off-premise sales initiatives, faster-than-expected recovery in post-pandemic travel and tourism demand, better-than-expected contributions from the Maple Street Biscuit Company acquisition. Downside risks: higher-than-expected wage inflation, worse-than-expected margin contraction from elevated food costs, sluggish recovery in leisure travel demand.

Darden Restaurants (DRI)

Our 12-month \$193 price objective is based on a target relative P/E multiple (1.0x) on our forward estimates (\$10.25). Our target relative multiple (vs the S&P) is in-line with Darden's 10-year historical average multiple, and implies an 18.9x absolute P/E multiple. While investors remain cautious on restaurant spending, we believe fundamental outperformance by best-in-class operators like DRI will prove attractive.

Downside risks are 1) lower-than-expected customer acceptance of menu price increases, 2) inability to offset higher than expected food or labor costs with increased pricing, 3) macroeconomic pressures that slow consumer income growth, 4) slower-than-expected unit growth as a result of inflationary pressures (i.e., utilities costs) and supply-chain constraints.

Domino's Pizza (DPZ)

Given that Domino's returns and growth have consistently outpaced those of the broader market, we believe its historical range remains relevant and we expect the multiple to be stable. We apply the historical average relative P/E multiple of 1.3x to our EPS estimates 12 months from now (4Q24-3Q25: \$18.14) to arrive at our \$483 PO, or PE of 26.7x.

Downside risks: Market share gains for other larger competitors in the pizza category



that impedes Domino's growth, global economic or social issues could disrupt same store sales growth or affect expansion in international markets, and competitive activity in the pizza category remaining high.

Dutch Bros (BROS)

Our \$48 price objective denotes estimated fair value based on normalized earnings power for BROS. We estimate that at \$9.2 bb in sales, assuming stable RLMs and 8% G&A, BROS would generate \$1.5 bb in EBITDA. Applying a 14x multiple and discounting back equates to a \$48 fair value in one year. We believe a 14x multiple is justified by Dutch Bros' long growth runway and high returns, and we note it is comparable to other restaurants and retailers with similar growth profiles that have sustained elevated earnings multiples over time.

Risks to our price objective: Dutch Bros could face execution risks to sustain a mid-teens store growth rate which would impede the implied sales growth of our saturation analysis. Margins and returns could also be lower-than-expected if Dutch Bros faces greater margin pressures than anticipated.

First Watch (FWRG)

We believe FWRG should trade a premium consistent with its faster growth and higher returns. FWRG currently trades in line with its peer group of restaurants and retailers with similar above-market growth rates. We believe a valuation in line with other high growth peers is justified owing to FWRG's faster than average topline growth, extended growth runway, as the brand goes national, and higher incremental returns, with restaurant level ROIs of about 40% or 2x other full service restaurants. We apply a 14x multiple to our forward EBITDA estimates (4Q24-3Q25, \$22mm) to arrive at our \$28 PO. This target multiple is in line with high growth peers' average of 14x.

Downside risks: higher-than-expected cannibalization of existing restaurants due to new store openings, staffing challenges and/or higher-than-expected wage inflation, higher-than-expected occupancy costs as First Watch ramps-up new stores at a faster rate.

Upside risks: higher-than-expected AUVs of new units, faster-than-expected SSS growth, lower labor and G&A costs.

Jack in the Box (JACK)

Our \$95 price objective is based on a 0.7x relative PE multiple (13.1x absolute) applied to our 12 month forward earnings estimates (F25: \$7.29). This is a material discount to highly franchised peers MCD, YUM and QSR given historically slower growth and more capital-intensive ownership model.

Downside risks to our price objective are: 1) sales could soften due to economic or competitive pressures, 2) food and labor costs rise and margins come under renewed pressure, 3) execution risk around speed of service, menu and marketing initiatives which are critical to driving sales at Jack in the Box.

Krispy Kreme (DNUT)

We believe a premium valuation is justified owing to DNUT's robust double digit topline growth, extended growth runway, and higher incremental returns. We apply a 13x multiple (similar to high growth peers) to our forward estimate 12 months from now (4Q24-3Q25: \$299mm) to arrive at our \$19 PO.

Downside risks: potential industry headwinds from higher-than-expected wages, logistics, and commodity cost inflation, competition from other indulgence and foodservice businesses, and failure to achieve targeted unit growth due to higher than expected costs or other factors.

Upside risks: faster than expected growth in global access points, organic growth above the company's stated long-term growth targets, higher than expected share gains in the global indulgence and foodservice markets.

McDonald's (MCD)

Our 12-month \$291 price objective is based on a 22x P/E multiple on our forward estimates, in line with a relative P/E multiple of 1.3x reflecting limited opportunities for margin expansion due to the franchised model, despite continued topline strength. We apply the relative P/E multiple to our 4Q24-3Q25 estimates (of \$13.22) to arrive at our \$291 PO.

Risks to our price objective:

To the upside, McDonald's could sustain elevated comps for longer than expected based on company-specific initiatives or industry dynamics. Margins and returns could exceed expectations if McDonald's reduces the pace of investments or identifies unexpected savings opportunities. If investor risk tolerance shifts sharply lower, the relative attractiveness of McDonald's defensive positioning would increase.

To the downside, McDonald's comps could decelerate faster than we anticipate, from either a lack of traction in company initiatives or a deteriorating demand environment. Margins could compress more than expected if McDonald's fails to pass through inflation in food and labor costs.

Papa John's International (PZZA)

Our \$89 PO is based on 4Q24-3Q25 EPS (\$3.73) and a 1.5x multiple relative to the S&P (23.9x absolute multiple), in line with its 10-year historical average.

Downside risks: slower-than-expected consumer growth, increased competition in response to slower consumer spending driving promotional intensity, higher-than-expected inflationary pressures, labor shortages.

Portillo's Inc. (PTLO)

We set our \$25 PO based on steady state earnings power. We assume PTLO grows its store base at 13% to reach 725 stores in the long term, and that average volumes grow with inflation. At \$7.7 bb in sales, assuming stable RLMs and 8% G&A, PTLO would generate \$1.4 bb in EBITDA. Applying an 11x multiple and discounting back equates to a \$25 fair value in one year.

Risks to our PO: potential industry headwinds from wage inflation (MSD-HSD run rate for the industry) and food cost volatility, inability to fully offset downward pressure on volumes and margins from new store openings, and execution risks as the company looks to sustain a 10% unit growth rate.

Restaurant Brands International Inc. (QSR / YQSR)

Relative to the S&P 500, currently QSR's earnings multiple stands at 1.1x, in line with its 5-yr average. We view this multiple as appropriate as lagging sales trends and greater investment needs drive lower estimate revisions. We apply a 1.1x multiple to our 12 months forward EPS estimate (4Q24-3Q25) EPS to arrive at a price objective of \$65 (C\$89.80). Our 1.1x relative multiple (vs the S&P 500) translates to an absolute P/E multiple of 18.2x.

Upside risks: better-than-expected results on sales trends and market share gains as a result of investments in stores, technology, and marketing spend. Faster than expected turnaround in the Burger King brand. Faster-than-expected growth of the Tim Horton's brand.

Downside risks: Higher than expected G&A spending, continued lag in topline growth

trends relative to competitors, slower than expected recovery in supply chain and/or labor constraints associated with COVID-19.

Shake Shack (SHAK)

We set our \$75 PO based on steady state earnings power. We assume SHAK grows its store base at 14% to reach 860 domestic stores in 9 years, and that average volumes grow with inflation. At \$7.3 bb in sales, assuming stable RLM expansion from 18% to 21% and 9% G&A, SHAK would generate \$652mm in EBITDA. Applying an 11x terminal multiple and discounting back equates to a \$75 PO.

Downside risks to our price objective are: 1) lower than expected consumer uptake of new product innovations or other sales drivers, 2) higher than expected food or labor costs that Shake Shack is unable to offset with increased pricing, 3) macroeconomic pressures that slow consumer income growth or otherwise dampen consumption.

Upside risks to our price objective are: 1) higher than expected consumer uptake of new product innovations or other sales drivers (digital, Kiosks), 2) higher than expected menu pricing, 3) higher than expected consumer income growth that exceeds our consumption expectations.

Starbucks (SBUX)

Starbucks should trade at 1.5x relative to the S&P 500. This translates to an absolute multiple of 24.7x. We apply this multiple to our F25 EPS of \$4.92 to arrive at our PO of \$121. We believe that the multiple is justified given tailwinds as China reopens, increased investments associated with labor, operations, and unit development, as well as a return to a higher long term growth algorithm.

Downside risks: Starbucks' comps could decelerate faster than anticipated either from a lack of traction in company initiatives or a deteriorating demand environment. Margins could compress more than expected if Starbucks fails to pass through inflation in labor costs.

Sweetgreen (SG)

Our \$16 PO is based on normalized earnings power. Assuming SG is able to reach its long-term target of 1000 stores in ten years, with 18% restaurant-level margin and 8% G&A, we arrive at \$274mm EBITDA. We apply a 16.5x terminal multiple - consistent with mature growth restaurant peers - after adjusting for SG's domestic, company-operated status - to arrive at EV of \$4.5 bb, or \$1.5 bb discounted back to today at 12%.

Downside risks include i) slower SSSG as a result of lower discretionary spending, ii) inability to gain traction in new markets outside of the urban core, iii) failure to offset food and labor cost inflation through pricing and volume growth, iv) worse than expected development challenges (construction costs, permitting) which could limit unit growth.

Texas Roadhouse (TXRH)

Relative to the S&P 500, TXRH's P/E multiple is below its 5-year average of 1.2x (we exclude COVID valuation spikes from 5-year history). We view its 5-year average as the appropriate target multiple given TXRH's best-in-class traffic trends and topline growth and our expectations for further operating leverage. Our PO of \$123 is based on a relative multiple of 1.2x (vs the S&P 500 index, or a 19.4x absolute multiple) on our 12-month forward EPS (4Q24-3Q25, \$6.36).

Downside risks are: i) lower-than-expected retail beef prices and as a result, decreased value proposition for steakhouses, ii) traffic growth deceleration in response to menu price increases, iii) greater than expected slowdown in consumer spending / macroeconomic risk pressuring discretionary income, iv) slower than expected unit growth at Texas Roadhouse.

Wendy's Co (WEN)

Relative to the S&P 500, Wendy's valuation is currently trading below its 5-year average (1.3x). Despite efforts to bolster the new unit pipeline, we see risks to the unit growth target. We apply a 1.1x relative multiple (17.8x absolute multiple) to our EPS 12 months from now (4Q24-3Q25: \$1.17) to arrive at our \$21 PO.

Upside risks: higher than expected incremental tailwinds / higher sales mix from breakfast or other menu innovation, faster than expected international unit growth, greater than expected market share gains as a result of strategic initiatives or competitive advantages.

Downside risks: comps could disappoint if consumers resume pre-COVID behavior faster than expected, Wendy's could miss international unit growth targets if licensees fail to open new units at the expected pace.

Wingstop Inc (WING)

We set our \$285 PO based on steady state earnings power. We assume WING grows its store base at 14% to reach 9,123 restaurants. Assuming RLMs of 30% and G&A at 1.8% of system sales we arrive at EBITDA of \$1.2bb. Applying a 18x terminal multiple in-line with mature growth franchised restaurants and discounting back we arrive at our \$285 PO.

Risks to our PO: potential industry headwinds from wage inflation, and food cost volatility, inability to fully offset downward pressure on volumes and margins from new store openings, and execution risks as the company looks to sustain a 10%+ unit growth rate.

Yum Brands Inc (YUM)

Our \$130 PO is based on YUM trading at a 1.3x relative P/E multiple and works out to a PE of 20.9x on 4Q24-3Q25 EPS. On valuation, Yum Brands currently sits above its historical 5-year averages. Although EPS growth exceeded that of the market against last year's COVID depressed results, we expect growth to moderate from here. Yum's returns on assets have been stable relative to the market. We believe the historical range remains relevant and supports our estimates.

Upside risks: faster than expected recovery from COVID restrictions in China, better than expected unit growth in China, and ability for top-line growth to offset a difficult YoY comparison given 2020's strong comps.

Downside risks: weak China comp and unit growth due to slower recovery, ongoing competitive challenges in China, continued soft sales trends in the KFC and Pizza Hut brands.

Analyst Certification

We, Sara Senatore and Katherine Griffin, hereby certify that the views each of us has expressed in this research report accurately reflect each of our respective personal views about the subject securities and issuers. We also certify that no part of our respective compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

US - Restaurants Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Chipotle Mexican Grill	CMG	CMG US	Sara Senatore
	Darden Restaurants	DRI	DRI US	Sara Senatore
	Domino's Pizza	DPZ	DPZ US	Sara Senatore
	Dutch Bros	BROS	BROS US	Sara Senatore
	First Watch	FWRG	FWRG US	Sara Senatore
	Jack in the Box	JACK	JACK US	Sara Senatore
	Krispy Kreme	DNUT	DNUT US	Sara Senatore
	Papa John's International	PZZA	PZZA US	Sara Senatore
	Portillo's Inc.	PTLO	PTLO US	Sara Senatore
	Starbucks	SBUX	SBUX US	Sara Senatore
	Sweetgreen	SG	SG US	Katherine Griffin
	Texas Roadhouse	TXRH	TXRH US	Sara Senatore
	Wingstop Inc	WING	WING US	Sara Senatore
NEUTRAL				
	Bloomin Brands	BLMN	BLMN US	Sara Senatore
	McDonald's	MCD	MCD US	Sara Senatore
	Shake Shack	SHAK	SHAK US	Sara Senatore
	The Cheesecake Factory	CAKE	CAKE US	Katherine Griffin
	Yum Brands Inc	YUM	YUM US	Sara Senatore
UNDERPERFORM				
	Brinker International	EAT	EAT US	Katherine Griffin
	Cracker Barrel	CBRL	CBRL US	Katherine Griffin
	Restaurant Brands International	YQSR	QSR CN	Sara Senatore
	Restaurant Brands International Inc.	QSR	QSR US	Sara Senatore
	Wendy's Co	WEN	WEN US	Sara Senatore

Disclosures

Important Disclosures

Equity Investment Rating Distribution: Restaurants Group (as of 30 Sep 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	18	56.25%	Buy	8	44.44%
Hold	8	25.00%	Hold	4	50.00%
Sell	6	18.75%	Sell	5	83.33%

Equity Investment Rating Distribution: Global Group (as of 30 Sep 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1869	53.48%	Buy	1046	55.97%
Hold	828	23.69%	Hold	461	55.68%
Sell	798	22.83%	Sell	370	46.37%

^{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.

FUNDAMENTAL EQUITY OPINION KEY: Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. **VOLATILITY RISK RATINGS**, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. **INVESTMENT RATINGS** reflect the analyst's assessment of both a stock's absolute total return potential as well as its attractiveness for investment relative to other stocks within its Coverage Cluster (defined below). Our investment ratings are: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperform stocks are the least attractive stocks in a coverage cluster. An investment rating of 6 (No Rating) indicates that a stock is no longer trading on the basis of fundamentals. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

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.

INCOME RATINGS, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure), 8 - same/lower (dividend not considered to be secure) and 9 - pays no cash dividend. **Coverage Cluster** is comprised of stocks covered by a single analyst or two or more analysts sharing a common industry, sector, region or other classification(s). A stock's coverage cluster is included in the most recent BofA Global Research report referencing the stock.

Price Charts for the securities referenced in this research report are available on the [Price Charts website](#), or call 1-800-MERRILL to have them mailed.

BofAS or one of its affiliates acts as a market maker for the equity securities recommended in the report: Bloomin' Brands, Brinker Intl, Chipotle Mex Grill, Cracker Barrel, Darden Restaurants, Domino's Pizza, Dutch Bros, First Watch, Jack in the Box, Krispy Kreme, McDonald's, Papa John's Intl, Portillo's Inc., Restaurant Brands Inc, Shake Shack, Starbucks, Sweetgreen, Texas Roadhouse, Wendy's Co, Wingstop Inc, Yum Brands Inc.

BofAS or an affiliate was a manager of a public offering of securities of this issuer within the last 12 months: Brinker Intl., Darden Restaurants, Dutch Bros, McDonald's, Restaurant Brands Inc, Starbucks.

The issuer is or was, within the last 12 months, an investment banking client of BofAS and/or one of its affiliates: Bloomin' Brands, Brinker Intl., Cracker Barrel, Darden Restaurants, Dutch Bros, First Watch, Jack in the Box, Krispy Kreme, McDonald's, Papa John's Intl, Portillo's Inc., Restaurant Brands Inc, Starbucks, Wendy's Co, Yum Brands Inc.

BofAS or an affiliate has received compensation from the issuer for non-investment banking services or products within the past 12 months: Bloomin' Brands, Brinker Intl., Chipotle Mex Grill, Cracker Barrel, Darden Restaurants, Domino's Pizza, First Watch, Jack in the Box, Krispy Kreme, McDonald's, Papa John's Intl, Portillo's Inc., Restaurant Brands Inc, Starbucks, Wendy's Co, Yum Brands Inc.

The issuer is or was, within the last 12 months, a non-securities business client of BofAS and/or one of its affiliates: Bloomin' Brands, Brinker Intl., Chipotle Mex Grill, Cracker Barrel, Darden Restaurants, Domino's Pizza, First Watch, Jack in the Box, Krispy Kreme, McDonald's, Papa John's Intl, Portillo's Inc., Restaurant Brands Inc, Starbucks, Wendy's Co, Wingstop Inc, Yum Brands Inc.

BofAS or an affiliate has received compensation for investment banking services from this issuer within the past 12 months: Bloomin' Brands, Brinker Intl., Darden Restaurants, Dutch Bros, First Watch, Krispy Kreme, McDonald's, Papa John's Intl, Portillo's Inc., Restaurant Brands Inc, Starbucks, Yum Brands Inc.

BofAS or an affiliate expects to receive or intends to seek compensation for investment banking services from this issuer or an affiliate of the issuer within the next three months: Bloomin' Brands, Brinker Intl., Cracker Barrel, Darden Restaurants, Dutch Bros, First Watch, Jack in the Box, Krispy Kreme, McDonald's, Restaurant Brands Inc, Starbucks, Wendy's Co, Yum Brands Inc.

BofAS together with its affiliates beneficially owns one percent or more of the common stock of this issuer. If this report was issued on or after the 9th day of the month, it reflects the ownership position on the last day of the previous month. Reports issued before the 9th day of a month reflect the ownership position at the end of the second month preceding the date of the report: Bloomin' Brands, Cracker Barrel, Darden Restaurants, Domino's Pizza, Dutch Bros, Jack in the Box, McDonald's, Papa John's Intl, Starbucks, Texas Roadhouse, Yum Brands Inc.

BofAS or one of its affiliates is willing to sell to, or buy from, clients the common equity of the issuer on a principal basis: Bloomin' Brands, Brinker Intl, Chipotle Mex Grill, Cracker Barrel, Darden Restaurants, Domino's Pizza, Dutch Bros, First Watch, Jack in the Box, Krispy Kreme, McDonald's, Papa John's Intl, Portillo's Inc., Restaurant Brands Inc, Shake Shack, Starbucks, Sweetgreen, Texas Roadhouse, Wendy's Co, Wingstop Inc, Yum Brands Inc.

The issuer is or was, within the last 12 months, a securities business client (non-investment banking) of BofAS and/or one of its affiliates: Bloomin' Brands, Chipotle Mex Grill, Cracker Barrel, Darden Restaurants, Domino's Pizza, First Watch, Krispy Kreme, McDonald's, Papa John's Intl, Portillo's Inc., Restaurant Brands Inc, Starbucks, Yum Brands Inc.

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

From time to time research analysts conduct site visits of covered issuers. BofA Global Research policies prohibit research analysts from accepting payment or reimbursement for travel expenses from the issuer for such visits.



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.

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 BofA 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. ("BofA") 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:

BofA 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; 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; BofA 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; BofA 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 BofA 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 BofA 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 BofA 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. BofA and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofA 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 BofA 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.

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.

BofA ESGMeter Methodology:

ESGMeter is a proprietary metric based on quantitative analysis and fundamental analyst inputs that reflects our assessment of a company's Environmental, Social and Governance-related attributes. The ESGMeter is intended to indicate a company's likelihood of experiencing stronger financial stability (higher return on equity and lower earnings and price volatility) over the next three years relative to peer group. There are three ESGMeter levels - Low, Medium, and High - which indicate whether a company has attributes most likely to translate into superior financial stability (in the case of a High level) or weaker financial stability (in the case of a Low level) over the next three years relative to its peer group. A Medium level suggests that a company exhibits ESG characteristics that are likely associated with financial stability results in line with its peer group over the next three years. Full details of our methodology, financial stability definition and disclaimers are available at [BofA ESGMeter methodology](#). ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating.

ESGMeter is independent of the BofA Global Research fundamental equity analyst's investment rating, volatility risk rating, income rating or price objective for that company.

Copyright and General Information:

Copyright 2023 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 or 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.

Subject to the quiet period applicable under laws of the various jurisdictions in which we distribute research reports and other legal and BofA Securities policy-related restrictions on the publication of research reports, fundamental equity reports are produced on a regular basis as necessary to keep the investment recommendation current.

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.