Restaurants Industry

ICR 2024 Key Takeaways

Industry Overview

10 January 2024

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

We attended ICR's 2024 conference from Jan 8-9 where we attended meetings with companies including BROS, DNUT, DPZ, DRI, FWRG, JACK, PTLO, and PZZA as well as private and public companies outside our coverage.

US demand generally resilient, some Int'l weakness

Restaurants generally reported seeing no signs of incremental consumer weakness in the US in 4Q (PZZA reported BTE NA comps, FWRG comps in-line, DRI noted demand resilience). Companies with International exposure called out weakness in Middle East markets weighing on demand. JACK highlighted mixed consumption trends for lower income cohorts (lower breakfast traffic, higher competitive intensity in QSR broadly). In response to increased promotional activity, companies are emphasizing value messaging (i.e., PTLO emphasizing 'pairings,' a bundle offering on digital menus) and looking for ways to innovate discounting (DPZ's 'Emergency Pizza' promotion is a 'BOGO' with a required redemption and higher attach rate, rather than a free item).

MSD inflation; Ops, price offset discrete wage pressures

With the CA law AB1228 taking effect this year (see our report: Restaurants Industry: Not so FAST), restaurants are focused on optimizing labor productivity to mitigate the impact of anticipated wage increases. JACK, which has elevated CA store exposure, sees scheduling and staffing improvements as opportunities to drive labor efficiency. Price increases remain a lever to offset wage inflation (PTLO announced a 1.5% price increase slated in January). Despite mandated wage increases (CA plus additional statutory wage increases in other markets are due in C24), companies were mostly sanguine on the looser labor market and normalizing rate of wage inflation (mid-single digits, consistent with pre-COVID). Additionally, most companies noted commodities are tracking in line with mid-single digit (MSD) expectations.

Build costs higher than pre-COVID but stabilizing

Restaurants' build costs remain elevated (up ~20-30% vs pre-COVID). The development environment remains challenging (permitting delays still an issue) but has eased relative to C22. DRI reaffirmed that it has received more contract bids in line with project budgets. Restaurants continue to navigate higher interest rates and capex costs by improving margins (i.e., menu simplification), value engineering (prototype changes, materials substitution), and in some cases greater willingness to accept higher rent in favor of TI allowances.

Preannouncements & other guidance updates

PZZA, BROS, and FWRG released preliminary results for 4Q23, with BROS also giving new unit opening guidance for F24 (see our ICR Quick Takes note). PTLO provided F24 guidance on certain metrics including i) 9 new unit openings, ii) 4-6% commodities inflation, and iii) G&A of $85-$87mm. JACK provided guidance quantifying the estimated impact (EBITDA and EPS dilution) of refranchising 130 Del Taco units over the next 3 years; for F24, JACK estimates EPS dilution of $0.08-$0.12. JACK plans to provide updated LT growth targets at its upcoming Investor Day on 1/24.

Stock symbol key:
JACK: Jack in the Box
PZZA: Papa John's
BROS: Dutch Bros
FWRG: First Watch
PTLO: Portillo's
DRI: Darden

QSR: quick service restaurant
BTE: better-than-expected
BOGO: Buy one, get one free
G&A: general & administrative expense

Exhibit 1: Companies mentioned
Companies mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
DRI	DRI US	Darden Restaurants	US$ 161.6	B-1-7
DPZ	DPZ US	Domino's Pizza	US$ 410.14	B-1-7
BROS	BROS US	Dutch Bros	US$ 28.63	C-1-9
FWRG	FWRG US	First Watch	US$ 18.96	C-1-9
JACK	JACK US	Jack in the Box	US$ 79.93	C-1-7
DNUT	DNUT US	Krispy Kreme	US$ 14.24	C-1-7
PZZA	PZZA US	Papa Johns Int	US$ 73.09	B-1-7
PTLO	PTLO US	Portillo's Inc.	US$ 15.12	C-1-9

Source: BofA Global Research

BofA GLOBAL RESEARCH

Price objective basis & risk

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.

Papa Johns 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.

Analyst Certification

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

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 Johns 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 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships [R1]	Count	Percent
Buy	21	58.33%	Buy	10	47.62%
Hold	10	27.78%	Hold	3	30.00%
Sell	5	13.89%	Sell	4	80.00%

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

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

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

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: Darden Restaurants, Domino's Pizza, Dutch Bros, First Watch, Jack in the Box, Krispy Kreme, Papa Johns Int, Portillo's Inc.
BofAS or an affiliate was a manager of a public offering of securities of this issuer within the last 12 months: Darden Restaurants, Dutch Bros.
The issuer is or was, within the last 12 months, an investment banking client of BofAS and/or one or more of its affiliates: Darden Restaurants, Dutch Bros, First Watch, Jack in the Box, Krispy Kreme, Papa John's Intl, Portillo's Inc.
BofAS or an affiliate has received compensation from the issuer for non-investment banking services or products within the past 12 months: Darden Restaurants, Domino's Pizza, First Watch, Jack in the Box, Krispy Kreme, Papa John's Intl, Portillo's Inc.
The issuer is or was, within the last 12 months, a non-securities business client of BofAS and/or one or more of its affiliates: Darden Restaurants, Domino's Pizza, First Watch, Jack in the Box, Krispy Kreme, Papa John's Intl, Portillo's Inc.
BofAS or an affiliate has received compensation for investment banking services from this issuer within the past 12 months: Darden Restaurants, Dutch Bros, First Watch, Krispy Kreme, Papa John's Intl, Portillo's 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: Darden Restaurants, Dutch Bros, First Watch, Jack in the Box, Krispy Kreme.
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: Darden Restaurants, Domino's Pizza, Dutch Bros, Jack in the Box, Papa John's Intl.
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: Darden Restaurants, Domino's Pizza, Dutch Bros, First Watch, Jack in the Box, Krispy Kreme, Papa Johns Int, Portillo's Inc.
The issuer is or was, within the last 12 months, a securities business client (non-investment banking) of BofAS and/or one or more of its affiliates: Darden Restaurants, Domino's Pizza, First Watch, Krispy Kreme, Papa John's Intl, Portillo's 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 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.bofaml.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 (HKSFC); 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 HKSFC; 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.

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: