

Zillow

4Q Preview: We expect 4Q Rev/EPS above Street but 1Q outlook could be light

Maintain Rating: NEUTRAL | PO: 60.00 USD | Price: 54.26 USD

Nov & Dec home volumes better than expected

Zillow reports on 2/13. We expect 4Q'23 revenues of \$459mn (up 5% y/y), above Street at \$450mn and Adj. EBITDA of \$64mn (vs Street at \$57mn). Zillow usually has 2 months revenue visibility when guiding and existing home vol improved into Nov/Dec (4Q vols were down 6% y/y vs guide implied down 11% y/y), so we expect a 4Q beat. However, we think 1Q'24 guide will be more important for post print share performance and we are below Street. For 1Q'23, we expect revenues of \$479mn (up 2% y/y) vs Street at \$501mn and Adj. EBITDA of \$93mn (vs Street at \$113mn). Our more cautious view is supported by commentary from our [2/5/24 real estate expert call](#) citing soft January trends and we model higher OPEX vs. the Street (\$333mn vs. \$315mn).

Potential 4Q positive and negatives

Potential positives from 4Q could include: 1) 1Q revenue/EBITDA outlook above Street and commentary suggesting better than expected housing market recovery, 2) Growth initiatives gaining strong traction and guidance for higher 1Q relative market outperformance (our estimate at 4pts), and 3) Strong focus on expenses management (or new cost cuts) driving higher profitability outlook. Negatives could include: 1) 1Q outlook below Street, suggesting sluggish volume recovery (or impacted by soft Jan trends and tough Feb comps), 2) Outlook for lower market outperformance on tough comps and slower ramp of initiatives (Zillow outperformed by 13pts in 2023 and going forward, we believe outperformance will be increasingly dependent on housing "super app" initiatives), and 3) Growth investments driving outlook for higher OPEX.

Neutral on regulatory uncertainty & limited vol upside

Zillow is trading at 17x Street's 2025 EBITDA estimate and we believe the stock is pricing a steady recovery in the housing market. However, we think near record low home affordability could limit volume upside (even with lower rates). We estimate 2024 transaction growth of 2% y/y (incl. flat vols) and expect Zillow to outperform market by 5pts. Moreover, uncertainty from real estate commission lawsuits remain an overhang on Zillow's buy side lead generation segment (nearly 50% of revenue), which could potentially result in reduced number of agents and lower commissions, negatively impacting Zillow's growth outlook and multiple. Maintain Neutral and \$60 PO.

Estimates (Dec) (US\$)	2021A	2022A	2023E	2024E	2025E
EPS	(0.84)	1.71	1.22	1.19	2.02
GAAP EPS	(2.05)	(0.42)	(0.77)	(0.86)	(0.14)
EPS Change (YoY)	NM	NM	-28.7%	-2.5%	69.7%
Consensus EPS (Bloomberg)			1.13	1.05	1.74
DPS	0	0	0	0	0
EPS (Z - US\$)	(0.84)	1.71	1.22	1.19	2.02
DPS (Z - US\$)	0	0	0	0	0
Valuation (Dec)					
P/E	NM	31.7x	44.5x	45.6x	26.9x
EV / EBITDA*	49.1x	22.0x	34.0x	28.8x	19.8x
Free Cash Flow Yield*	-25.2%	34.0%	2.2%	2.6%	5.0%

* For full definitions of *IQmethod*SM measures, see page 7.

06 February 2024

Equity

Curtis Nagle, CFA
Research Analyst
BofAS
+1 646 855 2939
c.nagle@bofa.com

Nitin Bansal, CFA
Research Analyst
BofAS
nbansal7@bofa.com

Stock Data

Price (NAS / NAS)	54.26 USD / 56.09 USD
Price Objective	60.00 USD / 60.00 USD
Date Established	10-Jan-2024 / 10-Jan-2024
Investment Opinion	C-2-9 / C-2-9
52-Week Range	33.23 USD - 58.82 USD
Market Value (mn)	12,914 USD
Free Float	67.9%
Average Daily Value	30.77 USD
Shares Outstanding (mn)	238.0 / 238.0
BofA Ticker / Exchange	ZG / NAS
BofA Ticker / Exchange	Z / NAS
Bloomberg / Reuters	ZG US / ZG.OQ
ROE (2023E)	6.7%
Net Dbt to Eqty (Dec-2022A)	4.3%
ESGMeter™	High

ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of BofA Global Research's equity investment rating, volatility risk rating, income rating, and price objective for that company. For full details, refer to ["BofA ESGMeter Methodology"](#).

OPEX – operating expenses

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 8 to 11. Analyst Certification on page 6. Price Objective Basis/Risk on page 6.

12655655

Timestamp: 06 February 2024 05:00AM EST

iQprofileSM Zillow

iQmethodSM – Bus Performance*

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Return on Capital Employed	-4.0%	-0.7%	-3.9%	-3.5%	-0.8%
Return on Equity	-4.3%	8.4%	6.7%	6.9%	12.3%
Operating Margin	-4.0%	-1.0%	-10.2%	-5.2%	3.1%
Free Cash Flow	(3,250)	4,389	287	330	651

iQmethodSM – Quality of Earnings*

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Cash Realization Ratio	NM	10.9x	1.4x	1.7x	1.7x
Asset Replacement Ratio	0.6x	0.7x	0.7x	0.7x	0.7x
Tax Rate	NM	NM	NM	NM	NM
Net Debt-to-Equity Ratio	-1.6%	4.3%	2.2%	15.1%	18.6%
Interest Cover	-1.7x	-0.8x	-7.5x	-6.0x	-1.3x

Income Statement Data (Dec)

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Sales	8,147	6,184	1,930	2,106	2,423
% Change	143.9%	-24.1%	-68.8%	9.1%	15.1%
Gross Profit	1,788	1,834	1,611	1,783	2,083
% Change	18.4%	2.6%	-12.2%	10.7%	16.9%
EBITDA	267	596	386	456	663
% Change	-22.0%	122.9%	-35.3%	18.3%	45.3%
Net Interest & Other Income	(199)	(38)	86	17	14
Net Income (Adjusted)	(215)	415	291	279	467
% Change	NM	NM	-30.0%	-4.1%	67.6%

Free Cash Flow Data (Dec)

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Net Income from Cont Operations (GAAP)	(528)	(101)	(183)	(201)	(33)
Depreciation & Amortization	130	157	182	195	210
Change in Working Capital	0	0	0	0	0
Deferred Taxation Charge	NA	NA	NA	NA	NA
Other Adjustments, Net	(2,779)	4,448	422	476	624
Capital Expenditure	(73)	(115)	(133)	(140)	(150)
Free Cash Flow	-3,250	4,389	287	330	651
% Change	NM	NM	-93.5%	15.0%	97.3%
Share / Issue Repurchase	127	46	66	60	(40)
Cost of Dividends Paid	0	0	0	0	0
Change in Debt	0	0	0	0	0

Balance Sheet Data (Dec)

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Cash & Equivalents	2,611	1,466	1,570	477	361
Trade Receivables	155	72	73	85	97
Other Current Assets	4,687	2,063	1,641	1,662	1,573
Property, Plant & Equipment	215	271	347	448	556
Other Non-Current Assets	3,028	2,691	2,723	2,724	2,724
Total Assets	10,695	6,563	6,354	5,395	5,310
Short-Term Debt	1,209	0	607	0	0
Other Current Liabilities	2,674	270	360	375	389
Long-Term Debt	1,319	1,660	1,057	1,057	1,057
Other Non-Current Liabilities	152	151	129	129	129
Total Liabilities	5,354	2,081	2,153	1,561	1,575
Total Equity	5,341	4,482	4,201	3,834	3,748
Total Equity & Liabilities	10,695	6,563	6,354	5,395	5,323

* For full definitions of iQmethodSM measures, see page 7.

Company Sector

Internet/e-Commerce

Company Description

Zillow Group (ZG/Z) is the category leader for online real estate advertising with over 300mn average monthly unique users across multiple sites. Zillow operates the top two online and mobile real estate lead generating services Zillow.com and Trulia.com, as well as high growth segments in rentals and mortgage lead generation. We believe Zillow occupies a lucrative position in the market relative to competitors due to its dominant and growing share of user traffic and advertiser spending

Investment Rationale

Given Zillow's sizable real estate-focused audience, we are positive on its ability to expand share in home-related markets such as real estate, rentals, and mortgage and through several initiatives that should increase agent productivity. However, in the near- to medium-term, we believe uncertainty over mounting real estate commission lawsuits could be disruptive to ZG's buy side revs (nearly 50% of total) and weigh on investor sentiment.

Stock Data

Average Daily Volume	567,034
Shares / Common - Dual Listed	1.00

Quarterly Earnings Estimates

	2022	2023
Q1	0.56A	0.37A
Q2	0.50A	0.42A
Q3	0.41A	0.35A
Q4	0.22A	0.09E

4Q'23 Key Metrics

Exhibit 1: 4Q'23 Key Metrics (\$ mn)

We are above Street for 4Q Revenue and EBITDA.

Metric	BofA Ests.	Consensus	Comments
Total Revenue	\$459	\$450	We are slightly above Street for 4Q'23 total revenues
Growth	5%	3%	We model 5% y/y growth in 4Q'23 (down 8% q/q) and vs up 3% y/y growth in 3Q
Residential Revenue	\$340	\$331	We expect residential revenues flat y/y in 4Q (vs down 3% y/y in 3Q)
Rental Revenue	\$90	\$90	We expect rental revenues to grow 32% y/y (vs up 34% y/y in 3Q)
Mortgage Revenue	\$20	\$20	We expect mortgage revenues to grow 10% y/y in 4Q (vs down 8% in 3Q)
Gross Profit (ex-SBC)	\$362	\$353	We expect gross profit of 79%
Total Expenses (including SBC)	\$562	\$549	We expect total expenses to grow 9% y/y (vs up 3% y/y in 3Q)
SBC	\$120	\$109	We expect SBC at 20% of revenues (vs 17% in 3Q)
GAAP Operating Income	(\$104)	(\$98)	We estimate GAAP operating loss of (\$104mn) vs (\$53) loss in 3Q
Adj. EBITDA	\$64	\$57	We estimate Adj. EBITDA margin of 14% in 4Q'23 (vs 22% in 3Q'23 and 17% in 4Q'22)
GAAP Net Income	(\$98)	(\$87)	We estimate GAAP net loss of (\$98mn) vs (\$28mn) loss in 3Q'23
non-GAAP EPS	\$0.09	\$0.09	We are in line with Street for 4Q'23 non-GAAP EPS

Source: Visible Alpha, BofA Global Research

BofA GLOBAL RESEARCH

Estimate vs Consensus

We estimate 4Q'23 total revenues of \$459mn (up 5% y/y) above Street at \$450mn (up 3% y/y). We expect 4Q residential revenues at \$340mn, flat y/y and accelerating 3pts vs 3Q. We estimate 4Q Adj. EBITDA of \$64mn above Street at \$57mn, and non-GAAP EPS of 0.09, in line with Street. For 1Q'23, we expect total revenues of \$479mn (up 2% y/y) below Street at \$501mn (up 7% y/y). We expect 1Q residential revenues at \$354mn, down 2% y/y, decelerating 2pts vs 4Q. We estimate Adj. EBITDA of \$93mn, below Street at \$113mn, and non-GAAP EPS of \$0.21 vs Street at \$0.33.

Exhibit 2: Estimates vs Consensus

We are below Street for 1Q'24 Revenue and EBITDA.

	4Q'23	1Q'24	2024	2025
Revenue				
BofA est.	\$459	\$479	\$2,106	\$2,423
Y/Y %	5%	2%	9%	15%
Street	\$450	\$501	\$2,113	\$2,406
Y/Y %	3%	7%	10%	14%
BofA vs Street	Above	Below	Below	Above
EBITDA				
BofA est.	\$64	\$93	\$456	\$663
% Margin	14%	19%	22%	27%
Street	\$57	\$113	\$493	\$670
% Margin	13%	23%	23%	28%
BofA vs Street	Above	Below	Below	Below
Non-GAAP EPS				
BofA est.	\$0.09	\$0.21	\$1.19	\$2.02
Street	\$0.09	\$0.33	\$1.46	\$2.08
BofA vs Street	Above	Below	Below	Below

Source: Visible Alpha, BofA Global Research

BofA GLOBAL RESEARCH

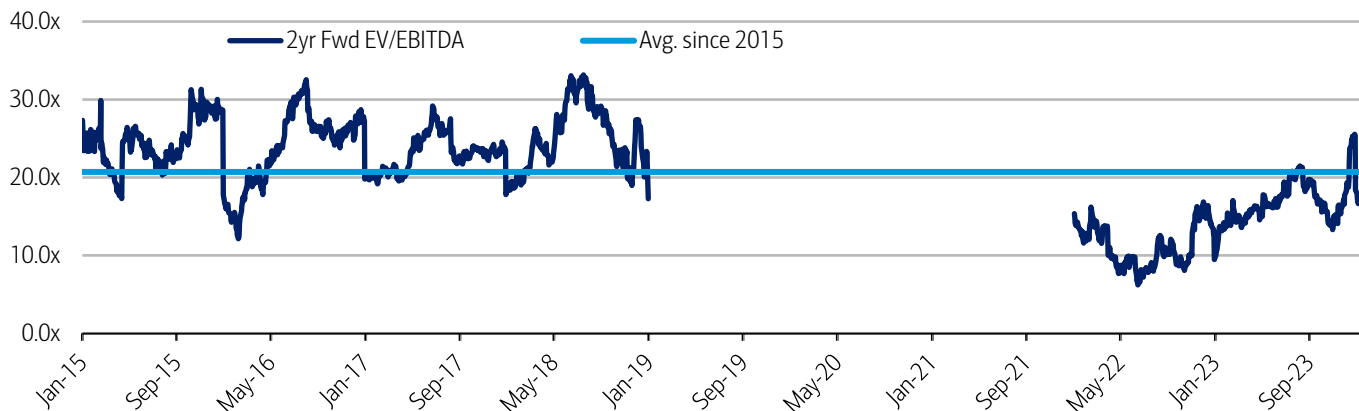


Valuation

On a 2yr forward EV/EBITDA basis, Zillow is trading at 17x, vs. the historical average of 20x. On a 2yr forward EV/Rev, basis the stock is trading at 5.6x, ~25% above its historical average of 4.5x.

Exhibit 3: 2yr Forward EV/EBITDA trend

Zillow is trading slightly below its historic average valuation.



Source: Bloomberg, BofA Global Research | *excludes period for discontinued Zillow Homes Segment

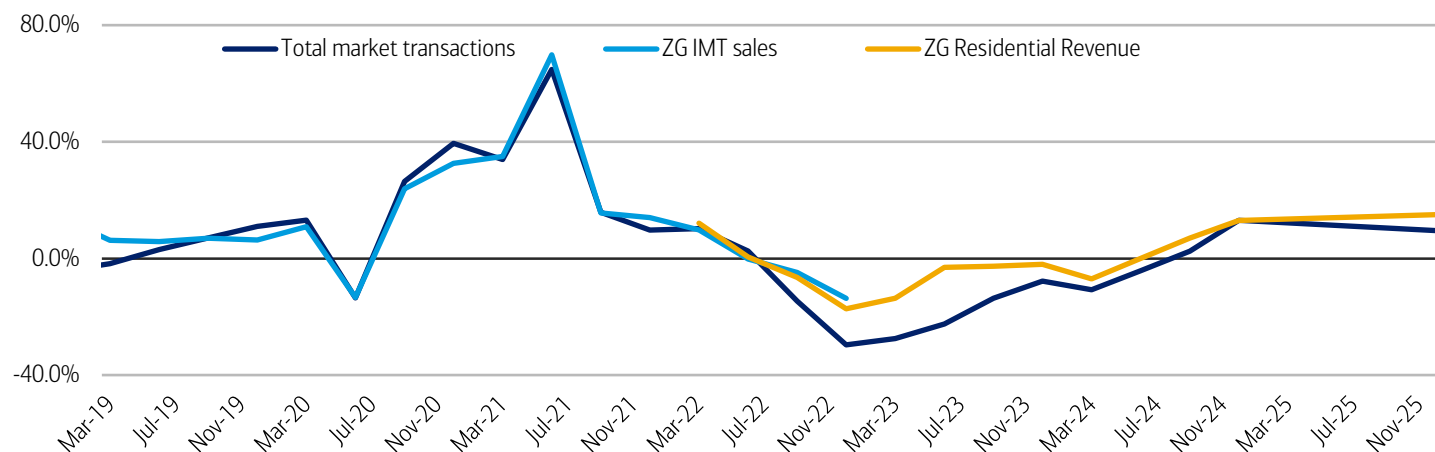
BofA GLOBAL RESEARCH

ZG Residential vs. Market

Over the past several years, ZG Residential revenues have closely tracked total real estate transactions growth and turned to outperformance in 4Q22. Given high mortgage rates, low inventory and affordability, we expect continued pressure on transactions till 2Q'24, though with improving trends. We expect market to return to growth in 2H'24 largely on improving home affordability as well as a degree of mean reversion as existing average homes volumes in 2023 were 23% below average since 1999 and 38% below peak volume in January 2021. We estimate Zillow Residential revenue to grow 7% y/y in 2024 (vs broader RE transactions growth up 2% y/y) and 15% y/y in 2025 (vs market up 11% y/y).

Exhibit 4: ZG Residential segment sales vs. total real estate transactions

We estimate for Core ZG revenues to outperform total market transactions.



Source: BofA Global Research, Bloomberg
*Note: ZG IMT Sales discontinued after 4Q22

BofA GLOBAL RESEARCH

*In 4Q22, Zillow adjusted the segmentation of its revenue base and as such ZG IMT was discontinued. We now track Residential revenue relative to total market transactions.



Price objective basis & risk

Zillow (ZG / Z)

Our \$60 price objective for both Class A (ticker ZG) and Class C (ticker Z) shares is based on a 20x EV/EBITDA estimate, in line with ZG's average historic EBITDA multiple. Our 20x multiple is above the peer lead generation average of 14x given our forecast for double EBITDA margins and growth in 2024-25.

Downside risks are: 1) a slower than expected recovery in the US housing market, 2) potential disruption to buy side revenues from several agent commission lawsuits and 3) execution risk around new growth initiatives and 4) increased competition from Costar's new residential advertising marketplace.

Upside risks are: 1) faster-than-expected growth and S&M leverage, 2) better than expected trends in the US existing home market on lower rates, and 3) faster than expected progress in ZG hitting its long term targets.

Analyst Certification

I, Curtis Nagle, CFA, 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 - Internet Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Alphabet	GOOGL	GOOGL US	Justin Post
	Alphabet	GOOG	GOOG US	Justin Post
	Amazon.com	AMZN	AMZN US	Justin Post
	AppLovin	APP	APP US	Omar Dessouky, CFA
	DoorDash	DASH	DASH US	Michael McGovern
	DoubleVerify Holdings, Inc.	DV	DV US	Omar Dessouky, CFA
	Electronic Arts	EA	EA US	Omar Dessouky, CFA
	Expedia	EXPE	EXPE US	Justin Post
	Integral Ad Science Holding Corp.	IAS	IAS US	Omar Dessouky, CFA
	LegalZoom	LZ	LZ US	Michael McGovern
	Match Group	MTCH	MTCH US	Curtis Nagle, CFA
	Meta Platforms Inc	META	META US	Justin Post
	Pinterest	PINS	PINS US	Justin Post
	RH	RH	RH US	Curtis Nagle, CFA
	Roblox Corp. Class A	RBLX	RBLX US	Omar Dessouky, CFA
	Squarespace, Inc.	SQSP	SQSP US	Michael McGovern
	Uber	UBER	UBER US	Justin Post
	Udemy Inc	UDMY	UDMY US	Curtis Nagle, CFA
	Vivid Seats	SEAT	SEAT US	Curtis Nagle, CFA
	Wayfair	W	W US	Curtis Nagle, CFA
	Wix.com	WIX	WIX US	Michael McGovern
NEUTRAL				
	ACV Auctions	ACVA	ACVA US	Curtis Nagle, CFA
	Airbnb	ABNB	ABNB US	Justin Post
	Beyond Inc	BYON	BYON US	Curtis Nagle, CFA
	Booking Holdings Inc	BKNG	BKNG US	Justin Post
	Bumble	BMBL	BMBL US	Curtis Nagle, CFA
	Digital Turbine, Inc	APPS	APPS US	Omar Dessouky, CFA
	Duolingo	DUOL	DUOL US	Curtis Nagle, CFA
	eBay	EBAY	EBAY US	Justin Post
	Etsy, Inc.	ETSY	ETSY US	Curtis Nagle, CFA
	Instacart	CART	CART US	Justin Post
	Magnite, Inc.	MGNI	MGNI US	Omar Dessouky, CFA

US - Internet Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	Snap	SNAP	SNAP US	Justin Post
	Take-Two Interactive	TTWO	TTWO US	Omar Dessouky, CFA
	Zillow	ZG	ZG US	Curtis Nagle, CFA
	Zillow	Z	Z US	Curtis Nagle, CFA
UNDERPERFORM				
	Chewy Inc	CHWY	CHWY US	Curtis Nagle, CFA
	Lyft, Inc.	LYFT	LYFT US	Michael McGovern
	Opendoor Technologies	OPEN	OPEN US	Curtis Nagle, CFA
	Peloton	PTON	PTON US	Curtis Nagle, CFA
	Playtika	PLTK	PLTK US	Omar Dessouky, CFA
	Redfin Corp	RDFN	RDFN US	Curtis Nagle, CFA
	Shutterstock	SSTK	SSTK US	Curtis Nagle, CFA

iQmethodSM Measures Definitions**Business Performance**

Return On Capital Employed

Return On Equity

Operating Margin

Earnings Growth

Free Cash Flow

Numerator

NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization

Net Income

Operating Profit

Expected 5 Year CAGR From Latest Actual

Cash Flow From Operations – Total Capex

Denominator

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill Amortization

Shareholders' Equity

Sales

N/A

N/A

Quality of Earnings

Cash Realization Ratio

Asset Replacement Ratio

Tax Rate

Net Debt-To-Equity Ratio

Interest Cover

Numerator

Cash Flow From Operations

Capex

Tax Charge

Net Debt = Total Debt – Cash & Equivalents

EBIT

Denominator

Net Income

Depreciation

Pre-Tax Income

Total Equity

Interest Expense

Valuation Toolkit

Price / Earnings Ratio

Price / Book Value

Dividend Yield

Free Cash Flow Yield

Enterprise Value / Sales

Numerator

Current Share Price

Current Share Price

Annualised Declared Cash Dividend

Cash Flow From Operations – Total Capex

EV = Current Share Price × Current Shares + Minority Equity + Net Debt +

Other LT Liabilities

Enterprise Value

Denominator

Diluted Earnings Per Share (Basis As Specified)

Shareholders' Equity / Current Basic Shares

Current Share Price

Market Cap = Current Share Price × Current Basic Shares

Sales

Basic EBIT + Depreciation + Amortization

iQmethodSM is the set of BofA Global Research standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and valuations. The key features of iQmethod are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

iQdatabase[®] is our real-time global research database that is sourced directly from our equity analysts' earnings models and includes forecasted as well as historical data for income statements, balance sheets, and cash flow statements for companies covered by BofA Global Research.

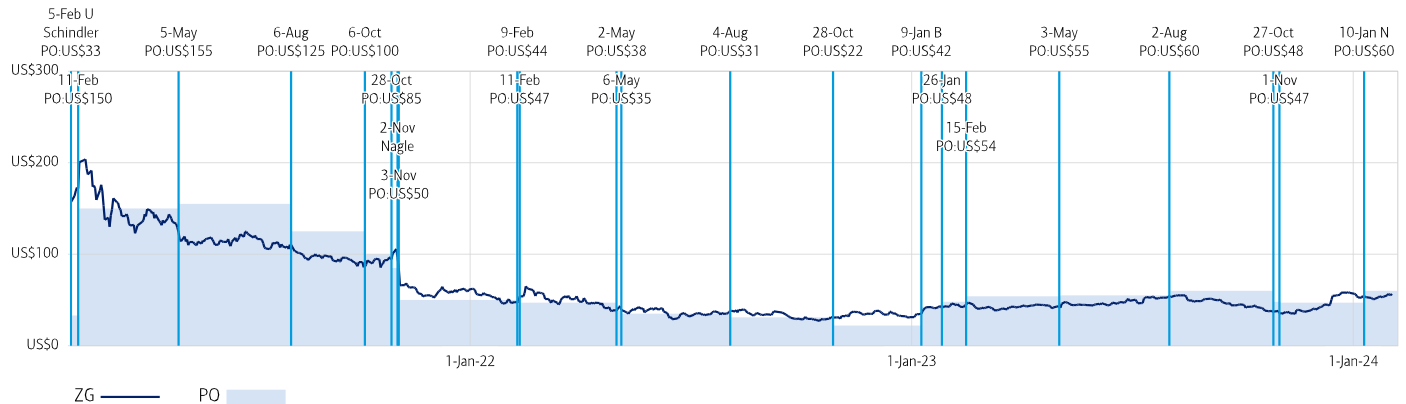
iQprofileSM, iQmethodSM are service marks of Bank of America Corporation. iQdatabase[®] is a registered service mark of Bank of America Corporation.



Disclosures

Important Disclosures

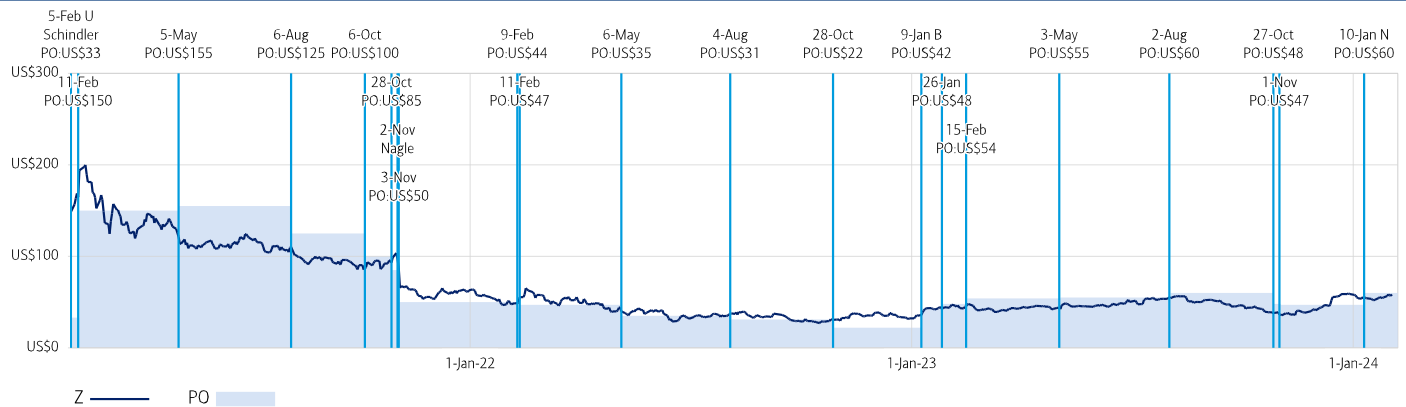
Zillow A (ZG) Price Chart



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

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

Zillow C (Z) Price Chart



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

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

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

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	215	53.09%	Buy	111	51.63%
Hold	97	23.95%	Hold	45	46.39%
Sell	93	22.96%	Sell	24	25.81%

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: Zillow A, Zillow C.

BofAS or an affiliate has received compensation from the issuer for non-investment banking services or products within the past 12 months: Zillow.

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: Zillow.

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: Zillow A, Zillow C.

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: Zillow.

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.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 (HKSCF); 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 HKSCF; 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:

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

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

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS 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.