Amazon.com

Still see room for margin upside in 2024, with Prime video ads providing nice boost

Maintain Rating: BUY | PO: 168.00 USD | Price: 149.93 USD

2024 should be a solid year for Amazon advertising

Advertising checks for ad spend on Amazon remain strong (Skai 4Q marketplace ad spend increased 48% y/y through Nov), and we expect Amazon's 2024 ad growth to aided by new initiatives, including more ads in Prime Video and the ramp of new ad partnerships. Ad revenue strength has the potential to contribute to our margin upside thesis on the stock, as our analysis suggests advertising revenue will contribute 370bps to '23 North America (N.A.) margins. In addition to retail efficiencies (see Retail Margin Checkup), we see potential for ad revenue upside to drive margin upside in 2024.

Time for more returns on Prime content investment

CEO Andy Jassy indicated that $7bn of Amazon's $17bn 2022 media content spend was for Prime Video content production & licensing. Amazon's recent announcement of a $3 N.A. monthly premium for ad-free Prime Video (starting 1/29 in US & 2/5 Intl) suggests that Amazon will more aggressively ramp video ads in '24. Netflix commentary suggests that an ad sub can monetize better than an ad-free sub, and if we assume Prime has 150mn Video users and 70% choose lower-cost subscription with ads, we estimate $3bn in potential incremental ad rev, and $4.8bn in total incremental ad+subscription revenue.

New ad partnerships could drive ad spend or aid GMV

Amazon signed a 3P advertising deal with Pinterest for Sponsored Product ads in April and recently signed deals with Meta and Snap to boost Amazon's ad performance on their sites. While financial details are limited, for the Sponsored product deals, we see potential for modest expansion in Amazon's network ad revenues. For the separate Meta and Snap deals, there is potential to improve ROIs of Amazon's ads, boosting GMV.

Ad growth to help drive margin growth and upside; Buy

Amazon made big progress with N.A. margins in 2023; we estimate N.A. margins at 3.5% vs. -0.9% in 2022. Still, backing out est. advertising margin contribution, we estimate N.A. retail margins at -0.2% in 2023 vs. an average of 3.0% in 2018-2019. Therefore, we believe Amazon's N.A. retail margins still have significant room to grow with potential to reach 7% based on Amazon's commentary and our advertising estimates, well above Street estimates at 5.7% in 2025. We also think the 130bps improvement in Street models for 2024 NA margins (to 4.8%) is conservative given the 450bps expected improvement in 2023, and our ests. for close to a 50bps contribution from Prime Video.

Estimates (Dec) (US$)	**2021A**	**2022A**	**2023E**	**2024E**	**2025E**
EPS	4.12	1.19	4.72	6.52	7.78
GAAP EPS	3.24	(0.27)	2.74	3.78	4.64
EPS Change (YoY)	51.5%	-71.1%	296.6%	38.1%	19.3%
Consensus EPS (Bloomberg)			3.57	4.51	5.67
DPS	0	0	0	0	0
Valuation (Dec)					
P/E	36.4x	126.0x	31.8x	23.0x	19.3x
GAAP P/E	46.3x	NM	54.7x	39.7x	32.3x
EV / EBITDA*	22.2x	21.5x	15.1x	11.8x	10.2x
Free Cash Flow Yield*	-0.6%	-0.8%	1.9%	3.1%	4.8%

* For full definitions of *iQmethod* SM measures, see page 9.

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Refer to important disclosures on page 10 to 12. Analyst Certification on page 8. Price Objective Basis/Risk on page 8. 12640318

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Stock Data

Price	149.93 USD
Price Objective	168.00 USD
Date Established	27-Oct-2023
Investment Opinion	B-1-9
52-Week Range	81.43 USD - 155.63 USD
Mrkt Val (mn) / Shares Out (mn)	1,524,938 USD / 10,171.0
Free Float	87.7%
Average Daily Value (mn)	7070.88 USD
BofA Ticker / Exchange	AMZN / NAS
Bloomberg / Reuters	AMZN US / AMZN.OQ
ROE (2023E)	28.6%
Net Dbt to Eqty (Dec-2022A)	62.5%
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".

N.A.: North America

GMV: Gross Merchandise Value

ROI: Return on Investment

AVOD: Advertising-based video on demand

iQprofile℠ Amazon.com

iQ**method* ℠ – **Bus Performance

(US$ Millions)	2021A	2022A	2023E	2024E	2025E
Return on Capital Employed	14.6%	6.0%	15.3%	18.4%	21.0%
Return on Equity	38.7%	9.1%	28.6%	31.8%	35.9%
Operating Margin	8.0%	6.4%	10.3%	12.8%	13.7%
Free Cash Flow	(9,069)	(11,569)	29,044	46,893	72,949

iQ**method* ℠ – **Quality of Earnings

(US$ Millions)	2021A	2022A	2023E	2024E	2025E
Cash Realization Ratio	1.1x	3.8x	1.6x	1.5x	1.6x
Asset Replacement Ratio	1.6x	1.4x	1.0x	0.9x	1.0x
Tax Rate	12.7%	54.2%	17.9%	19.7%	19.9%
Net Debt-to-Equity Ratio	42.6%	62.5%	39.7%	20.6%	21.4%
Interest Cover	20.8x	14.0x	17.9x	25.3x	30.1x

Income Statement Data (Dec)

(US$ Millions)	2021A	2022A	2023E	2024E	2025E
Sales	469,822	513,983	570,669	637,255	710,719
% Change	21.7%	9.4%	11.0%	11.7%	11.5%
Gross Profit	197,478	225,152	265,610	302,766	342,566
% Change	29.3%	14.0%	18.0%	14.0%	13.1%
EBITDA	71,994	74,487	106,159	135,263	156,812
% Change	25.7%	3.5%	42.5%	27.4%	15.9%
Net Interest & Other Income	13,272	(18,184)	298	176	376
Net Income (Adjusted)	**41,795**	**12,170**	**48,448**	**67,007**	**79,920**
% Change	**53.0%**	**-70.9%**	**298.1%**	**38.3%**	**19.3%**

Free Cash Flow Data (Dec)

(US$ Millions)	2021A	2022A	2023E	2024E	2025E
Net Income from Cont Operations (GAAP)	32,877	(2,717)	28,117	38,871	47,685
Depreciation & Amortization	34,296	41,461	47,374	53,724	59,724
Change in Working Capital	(24,048)	(21,544)	(18,241)	(9,404)	(5,963)
Deferred Taxation Charge	(292)	(4,192)	(4,408)	16	16
Other Adjustments, Net	3,494	33,744	22,980	14,279	28,579
Capital Expenditure	(55,396)	(58,321)	(46,778)	(50,592)	(57,092)
Free Cash Flow	**-9,069**	**-11,569**	**29,044**	**46,893**	**72,949**
% Change	**NM**	**-27.6%**	**NM**	**61.5%**	**55.6%**
Share / Issue Repurchase	0	10,230	(1,943)	5	5
Cost of Dividends Paid	0	0	0	0	0
Change in Debt	17,346	13,678	(3,416)	(120)	(120)

Balance Sheet Data (Dec)

(US$ Millions)	2021A	2022A	2023E	2024E	2025E
Cash & Equivalents	85,722	70,026	81,991	111,754	111,754
Trade Receivables	32,891	42,360	51,596	61,459	70,271
Other Current Assets	32,640	34,405	39,048	45,357	51,497
Property, Plant & Equipment	153,820	186,715	195,935	192,803	190,171
Other Non-Current Assets	96,723	129,169	147,420	147,420	147,420
Total Assets	**401,796**	**462,675**	**515,990**	**558,793**	**571,114**
Short-Term Debt	0	0	0	0	0
Other Current Liabilities	141,613	155,393	164,027	172,728	194,972
Long-Term Debt	137,798	161,239	158,646	158,596	158,396
Other Non-Current Liabilities	NA	NA	NA	NA	NA
Total Liabilities	**279,411**	**316,632**	**322,673**	**331,324**	**353,368**
Total Equity	**122,385**	**146,043**	**193,317**	**227,470**	**217,746**
Total Equity & Liabilities	**401,796**	**462,675**	**515,990**	**558,793**	**571,114**

* For full definitions of *iQmethod* ℠ measures, see page 9.

Company Sector

Internet/e-Commerce

Company Description

Amazon.com is one of the world's largest online retailers with a global brand and country specific sites in the U.S., UK, Germany, France, Japan, Canada, China, Spain, Italy, Mexico and India. Amazon also owns several other online retailers and online properties including Zappos.com, Diapers.com, Woot.com, Twitch.com and others. Amazon also operates Amazon Web Services (AWS), a leading cloud-based computing platform for developers and enterprises, and Whole Foods Markets.

Investment Rationale

Amazon is an eCommerce and cloud computing leader with higher market share and margin potential stemming from its global scale, fulfillment footprint and technology platform investments. We think Amazon's focus on the customers and the buyer experience is right for the Internet. We think Amazon is well positioned to capitalize on the global growth of eCommerce and other secular trends such as cloud computing, online advertising and connected devices.

Stock Data

Average Daily Volume	47,161,216

Quarterly Earnings Estimates

	2022	2023
Q1	-0.14A	0.73A
Q2	0.21A	1.18A
Q3	0.70A	1.46A
Q4	0.43A	1.35E

Advertising on Prime Video

In September 2023, Amazon announced that Prime Video content will start to include limited advertisements. Ads are set to rollout on Jan. 29 in the US with future markets including the UK, Germany, Canada (launching 2/5) followed by France, Italy, Spain, Mexico, and Australia. Per Amazon, Prime Video aims to have "meaningfully fewer ads" than linear TV and other streaming services. Also, Prime Users will be able to opt-into an ad-free tier for an additional $2.99/mo ($36/yr) for US Prime members, with the cost difference between tiers significantly less than several streaming peers. International markets are priced at £2.99/mo or €2.99.

Exhibit 1: Monthly cost of streaming services in the US

Prime Video's ad-free tier cost difference is lower than peers

	Ads	Ad-free
Prime Video (w/ Prime)	Incl. w/ Prime	$2.99
Prime Video (standalone)	$8.99	$11.98
Peacock	$5.99	$11.99
Disney+	$7.99	$13.99
Netflix	$6.99	$15.49
HBO Max	$9.99	$15.99
Hulu	$7.99	$17.99

Source: Company reports, BofA Global Research

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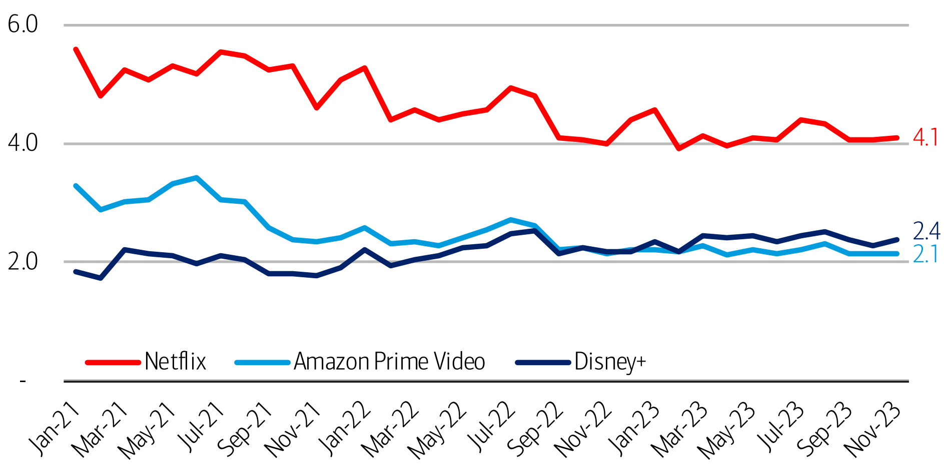
Estimating Amazon's ad revenue potential

Commentary from Netflix indicates that a US user with ads can monetize better than a paid user without ads, with Netflix CEO Sarandos stating, "our overall ads [average revenue per member] continues to be… higher than standard ad-free in the US". In our view, this commentary suggests that Netflix could be generating ad revenue above $8.50/mo ($102/yr) per subscriber, which is the difference between a subscriber with advertising and ad-free subscription cost in the US. We also note, per Netflix, users interact with ads 4.5x more than Linear TV, likely leading to higher CPMs.

With Netflix as a potential revenue benchmark, we also considered relative usage. Per SensorTower mobile data, time spent per monthly active user on Amazon Prime video is roughly half of Netflix. This is consistent with Nielsen data suggesting Netflix captures 7.2% of TV consumption in the US compared to 3.6% for Amazon Prime Video (and 54% for Linear TV). Given less time spent on Amazon and potentially lower ad loads, we expect Amazon's ad monetization to be a fraction of Netflix.

Exhibit 2: Average hours spent per MAU on mobile apps

MAUs spend approx. half the time on the Amazon Prime Video mobile app than Netflix



Source: Sensor Tower, BofA Global Research

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We estimate close to $5bn in potential incremental subscription and ad revenue

For our full ramped ad revenue estimates (perhaps by 2025, Int'l will take time), we assume 150mn Prime members (of over 200mn total subs) use Prime Video (our recent eCommerce survey suggested around 70% of Prime subs use Prime Video). We then assumed 30% choose to pay for an ad-free experience at $36/yr, which yields an estimate of $1.6bn in incremental subscription revenue. We then assume a slightly lower ad monetization rate of $30/yr for the remaining 105mn Prime Video households, yielding a potential opportunity for $3.2bn in incremental ad revenue.

Exhibit 4: Prime Video monetization opportunity ($mn)

Assuming slight lower revenue for ad members, advertising on Prime could be a $3bn opportunity

Prime Video Monetization Opportunity			
Video users (mn)	150		
% users paying for ad-free	30%	% users with ads	70%
Users with ad-free (mn)	45	Users with ad-tier (mn)	105
Ad-free cost (annual)	$36.00	Assumed ad monetization	$30.00
Ad-free opportunity ($mn)	$1,620	Ad opportunity	$3,150
Total monetizable opportunity	**$4,770**		

Source: BofA Global Research

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In our ad revenue scenario matrix below, we assume a range of 75-135mn Prime members get ads and an annual monetization rate range of $15-45.

Exhibit 5: Prime Video ad revenue sensitivity analysis ($mn)

We see potential upside to our $3bn est. given Netflix suggests ad-supported users monetize better than paid members

		Video users with ad-tier (mn)				
		75	**90**	**105**	**120**	**135**
	$15	$1,125	$1,350	$1,575	$1,800	$2,025
	$20	$1,500	$1,800	$2,100	$2,400	$2,700
Ad Monetization	**$25**	$1,875	$2,250	$2,625	$3,000	$3,375
Rate	**$30**	$2,250	$2,700	$3,150	$3,600	$4,050
	$35	$2,625	$3,150	$3,675	$4,200	$4,725
	$40	$3,000	$3,600	$4,200	$4,800	$5,400
	$45	$3,375	$4,050	$4,725	$5,400	$6,075

Source: BofA Global Research

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Prime ads ramp can help offset growing content costs

On the 4Q'22 earnings call, Amazon CEO Andy Jassy said that "we regularly evaluate the return on [Prime video content] spend and continue to be encouraged by what we see as Video has proven to be a strong driver of Prime member engagement and new Prime member acquisition." He indicated that $7bn of Amazon's $16.6bn media content expense in '22 was related to video content production/licensing, up from $5bn in '21. If we assume a 60% incremental EBIT margin (excludes content costs) on our $3.2bn ad rev. estimate, we est. Prime ads can generate $1.9bn in income. Ad-only margins on content spend in this scenario would still be quite negative, suggesting increasing ad loads could drive further revenue upside given TV network industry margin benchmarks.

Exhibit 6: Prime content spend

In 2022, Amazon spend approx.. $7bn on Prime production and licensing, up from about $5bn in 2021

$bn	2018A	2019A	2020A	2021A	1Q22A	2Q22A	3Q22A	4Q22A	2022A	1Q23A	2Q23A	3Q23A	4Q23E	2023E
Subscription Revenue	**$14.2**	**$19.2**	**$25.2**	**$31.8**	**$8.4**	**$8.7**	**$8.9**	**$9.2**	**$35.2**	**$9.7**	**$9.9**	**$10.2**	**$10.4**	**$40.1**
Y/Y		*36%*	*31%*	*26%*	*11%*	*10%*	*9%*	*13%*	*11%*	*15%*	*14%*	*14%*	*13%*	*14%*
Q/Q					*4%*	*4%*	*2%*	*3%*		*5%*	*2%*	*3%*	*2%*	
Digital Video & Music Content Expense	**$6.7**	**$7.8**	**$11.0**	**$13.0**	**$3.5**	**$3.7**	**$4.2**	**$5.2**	**$16.6**	**$4.0**	**$4.4**	**$4.6**	**$5.6**	**$18.6**
Y/Y		*16%*	*41%*	*18%*	*17%*	*19%*	*27%*	*44%*	*28%*	*14%*	*19%*	*10%*	*7%*	*12%*
Q/Q					*-3%*	*6%*	*14%*	*24%*		*-23%*	*10%*	*5%*	*21%*	

Source: Company reports, BofA Global Research

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New advertising partnerships

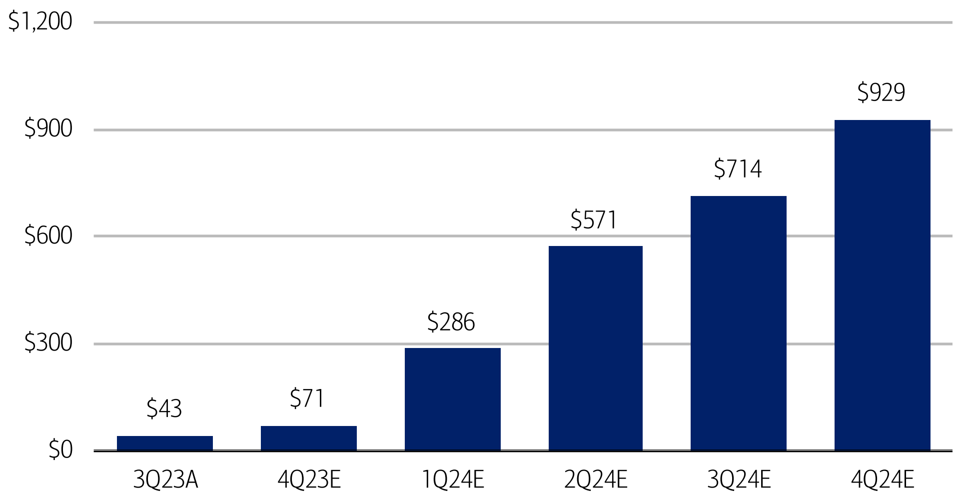
Third-party deals for expansion of Sponsored Product Ads

In April 2023, Amazon announced partnerships Pinterest, BuzzFeed, Ziff Davis, and others to bring third-party ads to their respective platforms. Merchants who buy Sponsored Ads on Amazon are automatically opted into these 3P ads, which enable merchants to reach wider audiences beyond Amazon.com while maintaining the same cost-per-click parameters and campaign objectives. When a user clicks on an ad on a 3P platform, they will be routed to Amazon product pages to make the purchase.

At Pinterest's September 2023 Investor Day, the company noted Amazon ads had over a 50% improvement in search relevance vs. current advertisements, and a 2x improvement on relevance vs. offline ads. Pinterest CEO Bill Ready indicated that he has been "very pleased" with the pace of implementation and added that "we see [Amazon ads are] contributing to more relevant shopping content that further bolsters our view that we can take ad load much higher."

Deal economics disclosures are limited, though we estimate Pinterest could generate $175mn in 2024 revenue from the ad partnership. Assuming this represents 70% of the total gross ad revenue generated (Google pays publishers 68% of AdSense revenue for display ads), Amazon could generate around $75mn in incremental ad sales from Pinterest, and possibly over $100mn including other partners. Also, if we assume a 10% effective commission rate on this ad spend on Amazon, these ads placed on Pinterest and other partners could yield $3bn in additional GMV on Amazon's platform in 2024.

Exhibit 6: Potential incremental Amazon GMV from Pinterest partnership ($mn)
We estimate Amazon could generate $3bn in 2024 GMV with the partnership with Pinterest



Source: BofA Global Research estimates | assumes 30/70% revenue share for Amazon/Pinterest and 10% effective commission rate
BofA GLOBAL RESEARCH

Enhancing first-party ads on Meta and Snap

In November, Amazon announced partnerships with Meta and Snap that are structured differently than with Pinterest. With these first-party ad deals, users on Meta and Snap will be able to link their Amazon accounts and shop directly from promoted listings on Meta and Snap without leaving the respective apps. Amazon indicated that users will be able to see real-time pricing, Prime eligibility, delivery time estimates, and product details in the Amazon ads.

There is little deal precedence to help indicate how much incremental GMV Amazon could generate from improved ads and shopping on Meta/Snap, and we expect some customer resistance on linking accounts to limit potential transactions. However, the collaboration should increase top of mind product awareness for Amazon's inventory given Meta's strong targeting capabilities, and likely improve ad conversion given less friction before purchase.

In 2022, Amazon spent $20.6bn on advertising to promote its products. If we assume half was spent Online and 33% of that was spent on Meta & Snap, we estimate about $3.4bn was spent on these two social platforms. Assuming a 10% commission equivalent cost for advertising, we could estimate that this social ad spend may have generated $34bn in GMV for Amazon. A 20% improvement in ROI on this spend from users being able to link their Amazon account could generate an additional $7bn in GMV.

Exhibit 8: Incremental GMV from partnership with Meta & Snap
We estimate an additional $6.8bn in GMV from improving Amazon ad performance by 20%

Meta/Snap Analysis	
2022 Amazon advertising spend	$20,600
Portion spent Online	50%
Portion spent on Meta/Snap	33%
Advertising spent on Meta/Snap	$3,400
Effective commission rate	10%
Assumed GMV generation from ads	$34,000
Improvement in ad performance (ROI)	20%
Incremental GMV from partnership	**$6,800**

Source: Company reports, BofA Global Research

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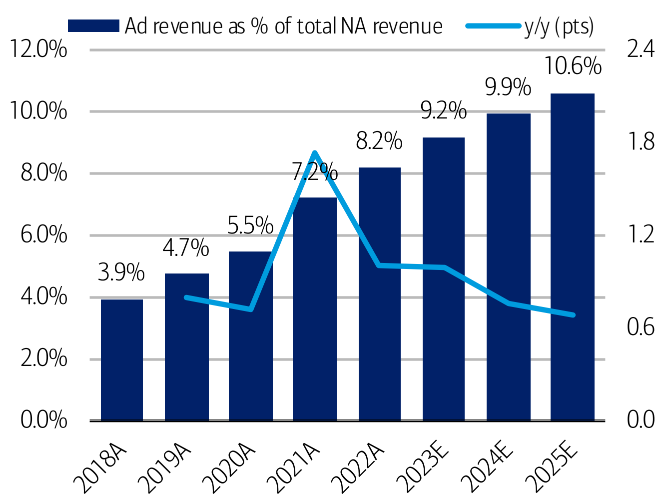
A lot of room to go in Amazon's margin improvement cycle

We estimate Amazon's North America margins will reach 3.5% in 2023E, up from -0.9% in 2022 as Amazon realizes leverage from growing scale, cost cuts, and its regionalized logistics network. However, a large part of recent margin expansion has also been from advertising, with advertising expected to represent 9% of total North America revenue in 2023 ($32.2bn, 24% y/y). Backing out the estimated advertising profit contribution at a 40% operating margin, we estimate 2023 N.A. retail margins ex-advertising at -0.2%, an improvement from -4.6%E in 2022 but well below the 3.0% average in 2018-2019.

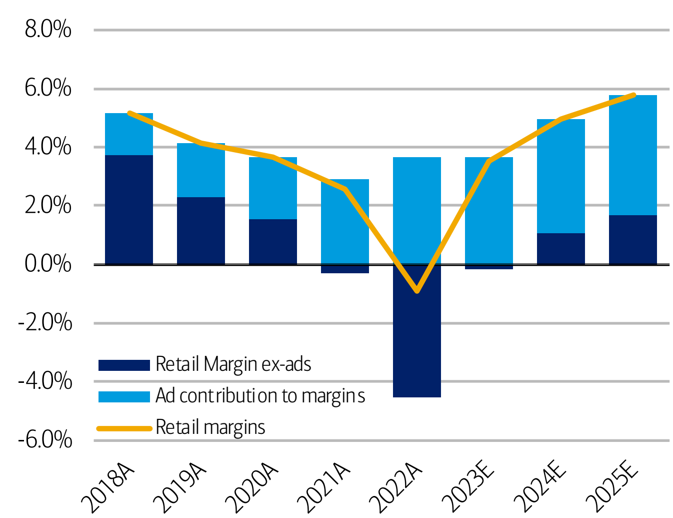
Exhibit 8: Ad revenue as percent of total North America revenue
We estimate North America advertising revenue will represent roughly 10% of total N.A. revenue in 2024



Source: BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 9: North America retail margins
We estimate 2023 retail margins ex-advertising at -0.2%, still well below 2018/2019 average levels at approx. 3%

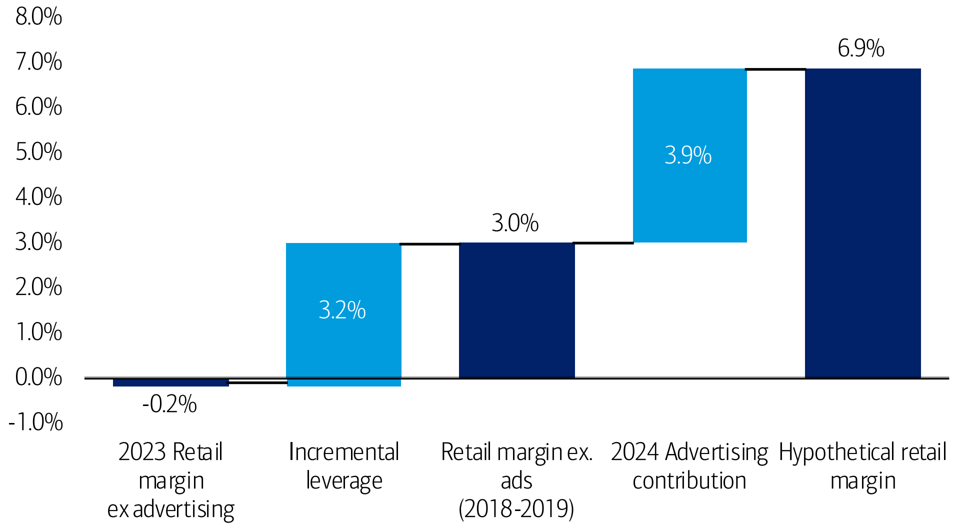


Source: Company reports, BofA Global Research

BofA GLOBAL RESEARCH

Amazon management has indicated that North America retail margins, ex-advertising, can recover toward pre-pandemic levels (we estimate Amazon had 3% NA average margins without advertising based on 2018/2019 reported margins), suggesting a comparable retail margin of 7% is possible with the benefit of roughly a 400 basis point contribution from advertising. Drivers of N.A retail margin improvement ex-ads to 3% (from -0.2% in 2023E) include further efficiencies from continued optimization of Amazon's regionalized network, higher consumer and 3P fees, subdued capex investments in retail, and advancements in robotics to drive labor efficiencies. See Retail Margin Checkup for more detailed thoughts on Amazon's core margin drivers.

Exhibit 10: Potential North America retail margins with advertising contribution
Given comparable pre-pandemic retail margins of 3%, there is potential for 7% retail margins w/ advertising



Source: BofA Global Research estimates

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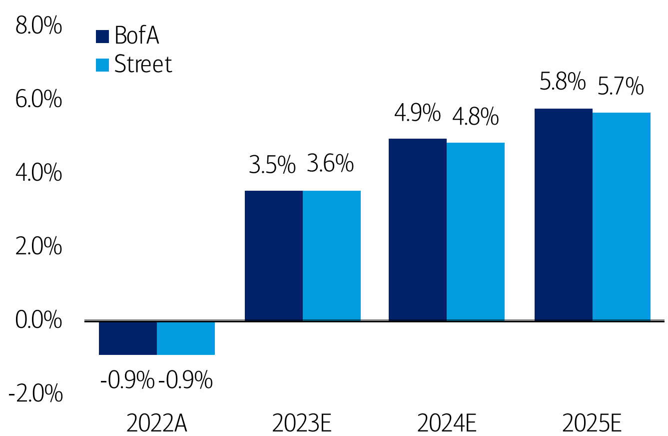
We see upside potential to Street 2024 margin estimates

We are slightly above Street estimates projecting retail margins expand to 4.8% in 2024. We think Street and BofA projections may be conservative given the rate of Amazon's margin improvement in 2023, lack of big investment areas in 2024 (grocery and delivery station investment expected to remain limited), and our estimates for close to $3bn in incremental N.A. subscription and advertising revenue from Prime Video, which could contribute both $1.8bn in incremental profit (assuming 60% contribution margins) and roughly 50bps to 2024 y/y margin improvement.

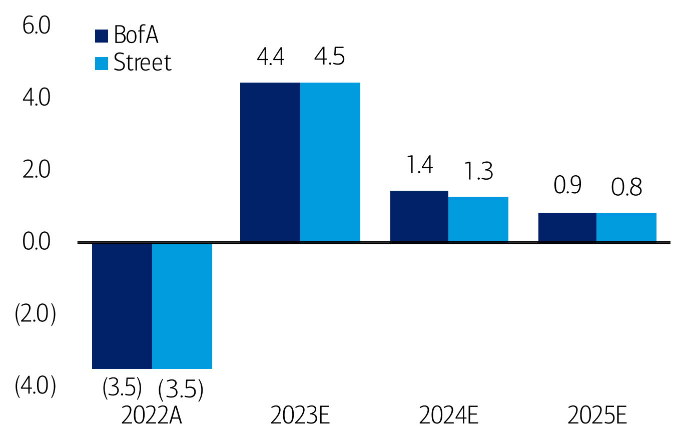
Exhibit 11: North America retail margins
We are slightly above Street for N.A. retail margins



Source: Company reports, Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 12: Y/Y change in North America retail margins (pts)
Street sees much less improvement in 2024 vs 2023



Source: Company reports, Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Price objective basis & risk

Amazon.com (AMZN)

Our PO of $168 is based on our SOTP analysis that values the 1P retail business at 0.9x 2024E Revenue (including subscription/Prime membership fees), 3P retail business at 3.0x 2024E Revenue, AWS at 7.5x 2024 Sales, and the advertising business at 3.5x 2024 Sales. For 2024E, our 7.5x AWS multiple is relatively in line with our SaaS comps at 7.9x, our 0.9x GMV multiple is a discount to our retail comps at 1.1x, and our 3.5x advertising multiple is a discount to our digital advertising comps at 3.6x. We think some conglomerate discount is warranted with elevated regulatory/antitrust risk, but long-term we believe that in-line to discount multiples are warranted given growth rates in-excess of peers.

Downside risks to our price objective are increasing competition from offline and local retailers, AWS client cost optimization impact on revenues and margins, and regulatory pressure on the 3P marketplace. The stock has been subject to heavy volatility in the past, based on margin trends, and this volatility could increase due to economic uncertainty.

Analyst Certification

I, Justin Post, 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
	Electronic Arts	EA	EA US	Omar Dessouky, CFA
	Expedia	EXPE	EXPE US	Justin Post
	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
	Zillow	ZG	ZG US	Curtis Nagle, CFA
	Zillow	Z	Z US	Curtis Nagle, CFA
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

US - Internet Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	Playtika	PLTK	PLTK US	Omar Dessouky, CFA
	Snap	SNAP	SNAP US	Justin Post
	Take-Two Interactive	TTWO	TTWO US	Omar Dessouky, 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
	Redfin Corp	RDFN	RDFN US	Curtis Nagle, CFA
	Shutterstock	SSTK	SSTK US	Curtis Nagle, CFA

*iQ*method SM Measures Definitions

Business Performance	Numerator	Denominator
Return On Capital Employed	NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization	Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill Amortization
Return On Equity	Net Income	Shareholders' Equity
Operating Margin	Operating Profit	Sales
Earnings Growth	Expected 5 Year CAGR From Latest Actual	N/A
Free Cash Flow	Cash Flow From Operations – Total Capex	N/A
Quality of Earnings	**Numerator**	**Denominator**
Cash Realization Ratio	Cash Flow From Operations	Net Income
Asset Replacement Ratio	Capex	Depreciation
Tax Rate	Tax Charge	Pre-Tax Income
Net Debt-To-Equity Ratio	Net Debt = Total Debt – Cash & Equivalents	Total Equity
Interest Cover	EBIT	Interest Expense
Valuation Toolkit	**Numerator**	**Denominator**
Price / Earnings Ratio	Current Share Price	Diluted Earnings Per Share (Basis As Specified)
Price / Book Value	Current Share Price	Shareholders' Equity / Current Basic Shares
Dividend Yield	Annualised Declared Cash Dividend	Current Share Price
Free Cash Flow Yield	Cash Flow From Operations – Total Capex	Market Cap = Current Share Price × Current Basic Shares
Enterprise Value / Sales	EV = Current Share Price × Current Shares + Minority Equity + Net Debt + Other LT Liabilities	Sales
EV / EBITDA	Enterprise Value	Basic EBIT + Depreciation + Amortization

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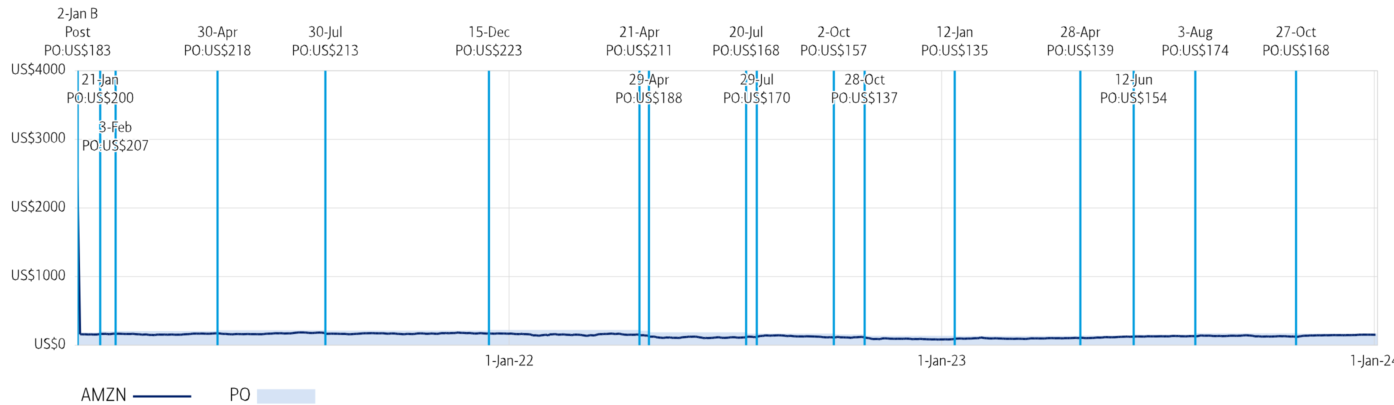

B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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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%

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

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