Magnite, Inc.

Differentiated AdTech player in a competitive market; Initiate at Neutral

Initiating Coverage: NEUTRAL | PO: 11.00 USD | Price: 9.39 USD

11 January 2024

Equity

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Solid foothold offset by near-term growth headwinds

Magnite's technology helps publishers (i.e. the "supply side") open their ad inventory to the widest possible array of advertisers by connecting them to advertisers' DSPs (aka the "demand side") like TTD (not covered). Its supply-side technology (the SSP) runs the programmatic auction that determines which ads get placed into CTV channels (eg Roku, Fubo, Tubi, etc.), desktop PCs, and mobile devices. MGNI's focus on CTV publishers positions it to ride the coattails of an ad market in secular growth (2x in 5 years) as it transitions to programmatic execution. In the short term, however, the pace of such transition remains uncertain, and a still tepid ad spend environment could pressure growth in 2024. We initiate at Neutral with an $11 PO.

Defensible tech leadership & high barriers to entry

MGNI's technology for placing programmatic ads on CTV is widely considered best in class. We think its foothold in the industry is defensible as the cost of replication is likely prohibitive for new entrants, and unappealing for larger competitors (Comcast & Alphabet) given the relatively small addressable market (<$2bn). Its position is protected by high barriers to entry since its products are so deeply integrated into publishers' workflows, making a replacement costly.

Concern over sustainability to be dispelled over time

While bears believe MGNI's long-term relevance could be challenged by competition from Big Tech (e.g. Alphabet, Amazon), we think MGNI could play an integral role in CTV advertising because: 1) the market needs independent Sell Side Platforms (SSPs) to facilitate audience targeting, which is critical to advertiser return, 2) unlike in the open Internet, content supply in CTV is too fragmented for select few players to monopolize, and 3) resource allocation for a full-fledged SSP is not a strategic priority for Big Tech.

Fair valuation, emerging leadership to be tested

Our PO values the company at 10.5x FY24E EBITDA, below Alphabet at 12x and Meta at 11x, but at the high end of small AdTech peers (<$2bn market cap). While 7 of the 8 publicly-listed comps trade at sub-10x EBITDA, we think MGNI's emerging leadership in CTV advertising justifies a premium valuation, and see a case for re-rating if it shows potential to be a viable contender (like TTD) to Walled Gardens (GOOGL/AMZN/META).

Estimates (Dec) (US$)	2021A	2022A	2023E	2024E	2025E
EPS	0.54	0.64	0.53	0.72	1.02
GAAP EPS	(0.04)	(0.98)	(1.25)	0.20	0.59
EPS Change (YoY)	440.0%	18.5%	-17.2%	35.8%	41.7%
Consensus EPS (Bloomberg)			0.52	0.45	0.81
DPS	0	0	0	0	0
Valuation (Dec)					
P/E	17.4x	14.7x	17.7x	13.0x	9.2x
GAAP P/E	NM	NM	NM	47.0x	15.9x
EV / EBITDA*	10.8x	9.0x	9.6x	8.6x	7.1x
Free Cash Flow Yield*	7.5%	11.4%	11.2%	14.8%	19.0%

* For full definitions of *iQmethod* SM measures, see page 32.

Stock Data

Price	9.39 USD
Price Objective	11.00 USD
Date Established	11-Jan-2024
Investment Opinion	C-2-9
52-Week Range	6.28 USD - 15.73 USD
Mrkt Val (mn) / Shares Out (mn)	1,294 USD / 137.9
Free Float	95.9%
Average Daily Value (mn)	8.72 USD
BofA Ticker / Exchange	MGNI / NAS
Bloomberg / Reuters	MGNI US / MGNI.OQ
ROE (2023E)	10.4%
Net Dbt to Eqty (Dec-2022A)	58.9%

Acronyms:

CTV: Connected TV

DSP: Demand-Side Platform

SSP: Suppy-Side Platform

TAM: Total Addressable Market

FAST: Free Ad Supported TV

OEM: Original Equipment Manufacturer

TTD: The Trade Desk

Walled Garden: a closed ecosystem controlled by a single platform

Refer to important disclosures on page 33 to 35. Analyst Certification on page 31. Price Objective Basis/Risk on page 31. **12644563**

Timestamp: 11 January 2024 06:00AM EST

iQprofile SM Magnite, Inc.

*iQ*method SM – **Bus Performance***

(US$ Millions)	2021A	2022A	2023E	2024E	2025E
Return on Capital Employed	-1.0%	-1.1%	-3.6%	7.6%	9.1%
Return on Equity	12.1%	11.0%	10.4%	14.2%	17.0%
Operating Margin	-8.8%	-8.4%	-14.5%	16.5%	21.8%
Free Cash Flow	97	148	145	192	247

*iQ*method SM – **Quality of Earnings***

(US$ Millions)	2021A	2022A	2023E	2024E	2025E
Cash Realization Ratio	1.7x	2.1x	2.4x	2.2x	2.0x
Asset Replacement Ratio	1.2x	1.4x	0.9x	1.1x	1.1x
Tax Rate	100.1%	3.9%	NM	18.0%	18.0%
Net Debt-to-Equity Ratio	63.5%	58.9%	43.6%	13.1%	-15.5%
Interest Cover	NA	NA	NA	NA	NM

Income Statement Data (Dec)

(US$ Millions)	2021A	2022A	2023E	2024E	2025E
Sales	468	577	610	662	742
% Change	111.4%	23.2%	5.8%	8.4%	12.1%
Gross Profit	268	272	204	379	444
% Change	85.3%	1.5%	-24.9%	86.0%	17.1%
EBITDA	149	179	166	186	226
% Change	245.2%	20.3%	-7.0%	12.0%	21.4%
Net Interest & Other Income	14	23	5	11	(6)
Net Income (Adjusted)	**76**	**92**	**77**	**105**	**149**
% Change	**653.4%**	**20.5%**	**-15.9%**	**36.8%**	**41.4%**

Free Cash Flow Data (Dec)

(US$ Millions)	2021A	2022A	2023E	2024E	2025E
Net Income from Cont Operations (GAAP)	0	(130)	(169)	27	81
Depreciation & Amortization	25	32	39	42	44
Change in Working Capital	32	40	47	67	83
Deferred Taxation Charge	(99)	(9)	(1)	0	0
Other Adjustments, Net	168	260	264	101	89
Capital Expenditure	(29)	(44)	(37)	(45)	(51)
Free Cash Flow	**97**	**148**	**145**	**192**	**247**
% Change	**NM**	**52.0%**	**-2.1%**	**32.2%**	**28.6%**
Share / Issue Repurchase	(6)	(16)	(140)	(35)	0
Cost of Dividends Paid	0	0	0	0	0
Change in Debt	749	(2)	(5)	0	0

Balance Sheet Data (Dec)

(US$ Millions)	2021A	2022A	2023E	2024E	2025E
Cash & Equivalents	230	326	321	477	724
Trade Receivables	928	977	1,088	1,175	1,342
Other Current Assets	20	24	23	26	29
Property, Plant & Equipment	34	45	47	51	58
Other Non-Current Assets	1,500	1,341	1,122	1,091	1,077
Total Assets	**2,713**	**2,712**	**2,601**	**2,821**	**3,230**
Short-Term Debt	4	4	4	4	4
Other Current Liabilities	1,026	1,121	1,279	1,436	1,689
Long-Term Debt	787	789	619	578	572
Other Non-Current Liabilities	16	7	6	6	6
Total Liabilities	**1,832**	**1,921**	**1,908**	**2,024**	**2,271**
Total Equity	**881**	**791**	**692**	**797**	**958**
Total Equity & Liabilities	**2,713**	**2,712**	**2,601**	**2,821**	**3,230**

* For full definitions of *iQmethod* SM measures, see page 32.

Company Sector

PC Software

Company Description

Magnite is a leading independent omni-channel sell-side advertising platform ("SSP"), helping publishers monetize their ad inventory across desktop, mobile devices, CTV, and other channels. Magnite's platform processes trillions of ad requests per month, giving buyers access to a global, scaled, independent alternative to the Walled Gardens (e.g. Alphabet, Meta). Magnite generates revenue from the use of its software, usually as a percentage of ad spend.

Investment Rationale

Digital advertising is a competitive market dominated by companies like Alphabet and Meta, and MGNI offers a scaled, independent solution to these Walled Gardens. We think MGNI's emerging leadership in programmatic CTV advertising sets it apart from other small AdTech peers, and are optimistic on a multiyear growth trajectory driven by secular tailwinds in the CTV ad market. However, near-term growth headwinds from a subdued ad budget environment could weigh on the stock.

Stock Data

Average Daily Volume	928,501

Quarterly Earnings Estimates

	2022	2023
Q1	0.08A	0.04A
Q2	0.14A	0.09A
Q3	0.18A	0.12A
Q4	0.24A	0.28E

Contents

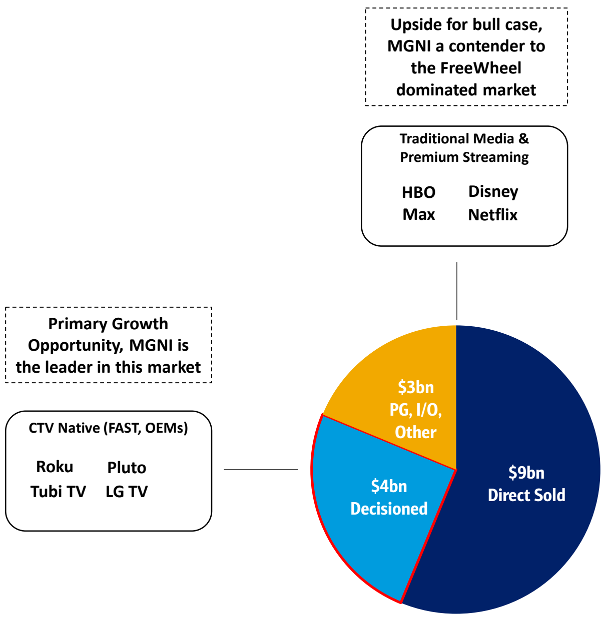
Executive Summary

Emerging CTV leader distinguishes from commodity SSPs

The online advertising industry's rapid expansion has given rise to a plethora of intermediaries such as Demand Side Platforms ("DSP") and Supply Side Platforms ("SSP"), and their long-term relevance has been an ongoing debate. These AdTech companies are often viewed as indistinguishable, their roles somewhat ambiguous, and investors often struggle to assess their terminal value. Yet we think Magnite could emerge as an exception to the rule, by penetrating an end market (CTV advertising) yet to be dominated by Big Tech and establishing a moat. As a top independent omni-channel SSP, Magnite has diversified beyond Desktop and Mobile advertising and established itself as an emerging category leader in the burgeoning CTV ad market. Through its specialized technology and focus strategy, Magnite has established market leadership in programmatic CTV advertising, and is strategically positioned to benefit from the industry's secular shift into programmatic advertising over the long term.

Exhibit 1: MGNI Opportunity in the $16bn CTV Ad Market

With its industry leading technology, MGNI has established a strong foothold in the programmatic CTV ad market, which consisting primarily of CTV native publishers (FAST & OEMs) currently. MGNI could further gain shares as traditional media publishers shift to programmatic ad sales, which would represent upside to our thesis



Source: Trade Desk, Company Reports, BofA Global Research

BofA GLOBAL RESEARCH

Gaining traction in the fastest-growing digital ad market

CTV advertising is widely believed to be the fastest growing segment within digital advertising, and we expect secular growth in the market to support 10%+ consolidated topline growth Y/Y for multiple years, assuming only modest share gains (Exhibit 2). Magnite is the leading SSP in programmatic advertising (aka "decisioned" ad on Exhibit 1), an end market that provides immediate growth opportunity for the company given that ad spend is forecast to more than double in 5 years to >$20bn, and Magnite's penetration is under 30% (BofA est.).

While programmatic remains the preferred form of ad transactions for CTV native publishers (i.e. FAST channels and OEMs), gradual adoption from traditional media companies could lead to additional growth opportunities. Today, the majority of ad inventory from broadcasters and premium streaming services is sold through direct deals with advertisers and executed through competitor FreeWheel, but we see potential for Magnite to contend for a greater role as ad buyers increasingly experiment with programmatic channels. For these traditional media companies with large direct salesforce, the transition from direct to programmatic sales could be a multiyear tailwind, and a faster-than-expected realization could mean upside to our base case.

Exhibit 2: Magnite CTV Revenue & TAM Build, 2021 - 2028E

We expect MGNI's CTV revenue to start outgrowing spend in 2025 driven by take rate recovery and market share gains

($ bn)	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E
Global CTV Ad Spend	**16.8**	**19.7**	**23.2**	**27.2**	**31.3**	**35.3**	**39.6**	**43.9**
Y/Y Growth		*17%*	*18%*	*17%*	*15%*	*13%*	*12%*	*11%*
Programmatic Spend	**8.7**	**10.4**	**11.6**	**13.6**	**15.6**	**17.9**	**20.5**	**23.2**
Programmatic mix %	*52%*	*53%*	*50%*	*50%*	*50%*	*51%*	*52%*	*53%*
MGNI Spend	**2.0**	**2.5**	**2.8**	**3.3**	**3.9**	**4.6**	**5.4**	**6.3**
MGNI Share %	*23%*	*23%*	*24%*	*24%*	*25%*	*25%*	*26%*	*27%*
Y/Y Growth		*23%*	*14%*	*19%*	*17%*	*17%*	*18%*	*17%*
MGNI CTV Revenue (ex-TAC, $mn)	**185**	**215**	**217**	**242**	**292**	**350**	**431**	**538**
Take Rate %	*9.3%*	*8.8%*	*7.8%*	*7.3%*	*7.5%*	*7.6%*	*8.0%*	*8.5%*
Y/Y Growth		*16%*	*1%*	*12%*	*21%*	*20%*	*23%*	*25%*

Source: GroupM, Company Reports, BofA Global Research estimates

Note: MGNI CTV ad spend & take rate estimated by BofA Global Research

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Defensible market position with tailwinds for share gains

Magnite's value proposition to publishers is similar to that of The Trade Desk on the demand side: as the largest independent SSP on CTV, it offers scale and access without the inherent conflicts of interest of its main competitors FreeWheel (a Comcast subsidiary) and Google, both of which also own first party advertising properties that could compete directly with publisher content. In addition, the addressable market (<$2bn) is not big enough to incentivize significant resource allocation from companies like Google and Comcast, making their products less competitive over time. As such, we think Magnite has carved out a nice niche for itself with highly defensible moats:

- **Specialized tech & focus strategy a differentiation vs peers:** Magnite's specially designed technology is widely viewed as the best in class for handling programmatic CTV ads. Its ad server, SpringServe, boasts feature superiority over FreeWheel's and Google Ad Manager's repurposed legacy technology. CTV ads require more complex technology than traditional display or online video ads, and replicating such a specialized tech stack is a costly undertaking that larger competitors may not view as worthwhile given the small addressable market.

- **High switching cost due to deep integration:** SpringServe's CTV-focused design features advanced functions like forecasting and yield optimization that add significant value to publishers' ad monetization process and are deeply integrated into their workflow, making it costly and complex to replace.

- **High barriers to entry for new entrants:** Most programmatic ads on CTV are transacted through reserved auctions, which are invite-only auctions open to select advertisers. This format will likely remain predominant among premium streaming publishers (e.g. Netflix, Disney+, Paramount+ etc.) who prioritize viewer experience and ad quality. This limits the opportunity for new entrants as publishers are less motivated to widen the funnel in the same manner as in the open web.

We believe Magnite's technology leadership in programmatic advertising positions it well for further share gains as CTV publishers gradually transition towards more automated, data-driven ad selling. Magnite's implementation is non-disruptive to publishers' existing workflow, and is significantly easier to integrate than competitive products. We see several opportunities for Magnite to grow market share:

- **Riding the OEM & FAST advertising growth tailwind:** Magnite holds market leadership among CTV first publishers such as FAST channels (e.g. Pluto, Tubi etc.) and OEMs (Roku, Samsung, Vizio, etc.), who transact ~70% of their ads programmatically. Both publisher groups are expected to see significant demand growth in the next several years (ad spend >2x by 2028) and are still underpenetrated (MGNI 25-30% share). Magnite is best positioned to gain share in this segment and benefit disproportionately from their growth.

- **Broadcasters' transition to programmatic ads:** Traditional media companies who sell most of their ad inventory through direct sales are undergoing a gradual yet definitive shift towards programmatic ads, as buyers increasingly look for more automation and more granular audience targeting. Disney's aspiration to conduct 50% of its ad transactions programmatically by 2024 exemplifies this industry trend. While most of these publishers uses FreeWheel's basic ad server, there is potential for Magnite to play a bigger role (and share the economics), through its non-disruptive, lightweight implementation on top of an existing ad server.

Investment risks & mitigants

Risk of disintermediation feels exaggerated

Bears who extrapolate experiences from the open Internet are concerned that independent SSPs such as Magnite, could be bypassed, when publishers, DSPs, and Big Tech assume a more prominent role in facilitating CTV ad transactions. We think there are several important distinctions between the CTV ad ecosystem and the open Internet ad ecosystem, and see a strong case for independent SSPs to remain relevant:

- **Independent SSPs plays integral role in audience matching:** The absence of universal device identifiers or third-party cookies on CTV means user targeting will rely on disparate data sets and IDs that are scattered across multiple parties (publishers, advertisers, third party vendors). SSPs serve as a central hub for unifying these data sets, and constructing enriched audience segments for precise targeting. Given publishers' reluctance to share first party data directly with DSPs and advertisers, SSPs are essential for facilitating audience matching while safeguarding publisher data.

- **Fragmented content landscape means no real Walled Gardens on CTV:** Developing a full-fledged SSP business is not a strategic priority for Big Tech, given that their entry into the business on the open Internet is primarily a byproduct of their monopoly on content supply (e.g. Google on Search, Meta on Social). We think this is unlikely to happen in CTV advertising due to content fragmentation (40 other publishers competing with Big Tech). Neither Big Tech nor any single publisher is likely to wield enough market power to compel advertisers to use their in-house ad platforms. The same audience could be reached through many different channels, so limiting buyers' path to access could risk losing demand to other publishers. Moreover, concern over conflict of interest is another reason that could impede Big Tech-operated SSPs from gaining widespread traction.

Ad spend shift to premium inventory pressures near-term growth

Advertisers' budget shift into premium ad inventory (e.g. Disney+, Netflix etc.) represents a major growth headwind for Magnite, as this inventory is typically sold through direct deals and carry a lower take rate for SSPs. We expect the pressure on take rate to persist in 2024, as 1) premium ad-supported subscriptions continue to ramp up (e.g. Disney+, Netflix etc.), 2) Amazon Prime Video's ads rollout could add ~150mn viewers to the supply (see our Amazon note), with much of the inventory inaccessible by Magnite, and 3) advertisers continue to flock to the highest quality media content in an restrictive budget environment. Nevertheless, we expect headwinds to begin to subside in 2025 because:

- **Supply of premium CTV content is ultimately constricted:** Like in traditional media, the supply of premium CTV content is limited. In a normalized ad budget environment, the increase in inventory should attract incremental dollars rather than cannibalizing existing spend.

- **Growth of premium ad-supported subscriptions could flatten in 2025, and ad spend should spill over to other services:** By 2024, growth of the premium ad inventory should substantially slow, because 1) all ad tiers of Plus services would have been in the market for at least two years, and 2) one-time impact from Prime Video's ad rollout would have already hit. Market research firm Insider Intelligence expects growth in premium AVOD viewers to flatten in 2025, growing low single digits thereafter. As such, we see potential for incremental ad spend to spill over to other services (e.g. FAST channels), resulting in a favorable mix shift for Magnite and lifting the average take rate.

Exhibit 3: Illustration of Ad Spend Mix Shift and Impact on Overall Take Rate

MGNI charges different take rate on ad spend flowing through its platform depending on how the demand is sourced. The shift of ad spend towards broadcasters and premium streaming has led to a significant take rate decline and represents a near-term revenue headwind

Revenue Source	Take Rate (BofA Est.)	Who Sourced Demand	Execution	Typical Publisher Profile	FY22 Mix of Ad Spend (BofA Est.)	3Q23 Mix of Ad Spend (BofA Est.)
Programmatic Direct	5-6%	Publisher	Programmatic or Direct	Premium streaming	61%	81%
Programmatic	11%	MGNI	Programmatic	OEMs, FAST	35%	16%
Managed Service	38%	MGNI	Programmatic	Mid-market	3%	3%
Wgt. Avg. Take Rate					**8.8%**	**6.8%**

Source: Company Reports, BofA Global Research

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Valuation reasonable for a differentiated AdTech player

Our PO of $11 is valued on 10.5x FY24E EBITDA, below the valuation of Alphabet (12x) and Meta (11x), which we view as key valuation benchmarks of the digital ad ecosystem. Our target valuation screens inexpensive relative to the growth profile (15% EBITDA CAGR), justified by higher perceived uncertainty around terminal value as compared to the Walled Gardens. The main valuation overhang, in our view, stems from investor concern over the commoditization of independent SSPs, which could alleviate over time if Magnite emerges as a category leader in CTV advertising. However, we acknowledge that challenge in altering the investor perception, particularly for small AdTech players, due to their opaque economic model and hard-to-understand technologies. In the meantime, investors will likely favor Walled Garden stocks with similar valuations but better revenue visibility, particularly as advertisers continue to over-allocate to their most proven channels (e.g. premium CTV), creating near-term revenue headwinds for Magnite.

We see potential for a re-rate if Magnite could demonstrate consistent share gains against 1) FreeWheel within the broadcaster / premium CTV publisher segment, and 2) Alphabet/Meta in open web and mobile advertising.

Exhibit 4: BofA vs. Consensus, Valuations & Price Objective

Our Price Objective of $11/share represents 17% upside potential from current valuation, and is driven by 10x FY24E EV/EBITDA

Magnite, Inc. -- Valuation Worksheet
($ in millions, except per share amounts)

	BofA Target Valuation		BofA Market Valuation (1/9/24)		Market Consensus Valuation (1/9/24)	
(Mn)	**FY24E**	**FY25E**	**FY24E**	**FY25E**	**FY24E**	**FY25E**
Upside/Downside	17.3%					
Price Objective	$11.00					
Share Price			$9.38	-	$9.38	
Diluted Shares Outst.	150.9	150.9	150.9	150.9	150.9	150.9
Market Value	$1,660	$1,660	$1,415	$1,415	$1,415	$1,415
Net Cash	($295)	($295)	($295)	($295)	($295)	($295)
Enterprise Value	$1,955	$1,955	$1,710	$1,710	$1,710	$1,710
EV/EBITDA	10.5x	8.6x	9.2x	7.6x	9.2x	7.7x
EBITDA (BofA/STREET)	$186	$226	$186	$226	$185	$221
FCF Yield	7.5%	10.6%	8.8%	12.4%	8.4%	10.9%
FCF (BofA/STREET)	$125	$175	$125	$175	$119	$154
EV/Sales	3.3x	3.0x	2.9x	2.6x	2.9x	2.6x
Sales (BofA/STREET)	$589	$660	$589	$660	$589	$658

Source: BofA Global Research, Bloomberg, FactSet, Visible Alpha

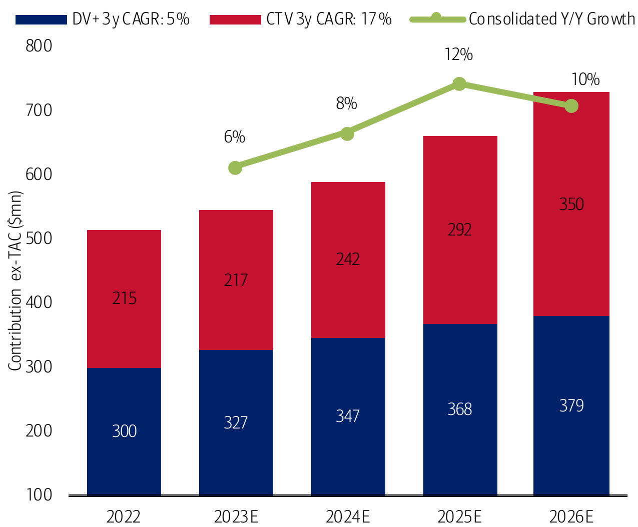
BofA GLOBAL RESEARCH

Secular growth drives 15% EBITDA CAGR

Magnite is gaining share in programmatic CTV advertising, an end market that is expected to double in the next 5 years. Its unit economics and operating leverage allow over 50% of incremental revenue to flow through to the bottom line. We forecast MGNI's consolidated Adj. EBITDA to grow at 16% CAGR through 2026, driven by above-industry growth in the CTV segment, and steady margin improvements (average +170bps each year). During the company's September 2021 Investor Day, management outlined its a long-term aspiration to achieve annual top-line growth of 25%+ with EBITDA margin >40% in the following 5+ years, hinging on a much more sanguine macro environment and end market growth (i.e. 20-25% per year) than has materialized since.

Exhibit 5: Magnite Revenue (ex-TAC) Forecast, 2022A - 2026E

We forecast consolidated Revenue (ex-TAC) to grow at 10% CAGR through 2026 driven by the CTV segment



Source: Company Reports, BofA Global Research

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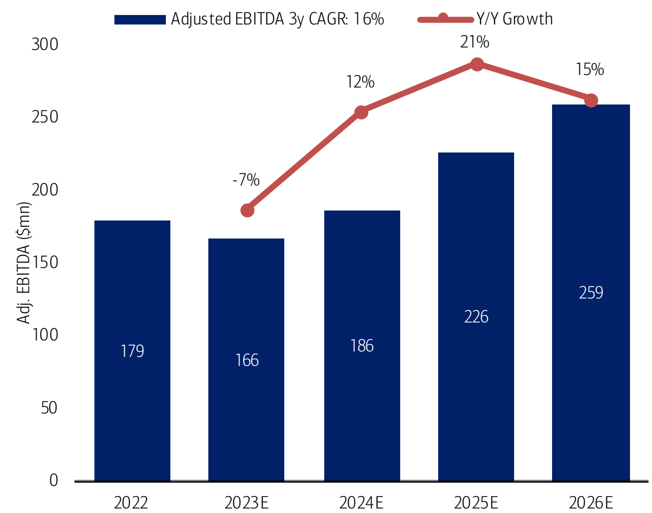
Exhibit 6: Magnite Adj. EBITDA Forecast, 2022A - 2026E

We expect Adj. EBITDA to outgrow revenue due to leverage in the cost structure



Source: Company Reports, BofA Global Research

BofA GLOBAL RESEARCH

CTV growth to support 10%+ consolidated topline growth

CTV advertising is widely believed to be the fastest growing segment in digital advertising, and we expect secular growth in the market to support 10%+ consolidated topline growth Y/Y for multiple years, assuming only modest share gains.

Magnite is a leader in programmatic advertising technology, which helps place ads in an automated fashion on CTV. While programmatic remains the preferred form of ad transactions for CTV native publishers (i.e. FAST channels and OEMs), gradual adoption from traditional media companies could lead to additional growth opportunities. Today, the majority of ad inventory from broadcasters and premium streaming services is sold through direct advertiser deals and executed through competitor FreeWheel, but we see potential for Magnite to contend for a greater role as ad buyers increasingly experiment with programmatic channels. For these traditional media companies with large direct salesforce, the transition from direct to programmatic sales could be a multiyear tailwind, and a faster-than-expected realization could mean upside to our base case.

Exhibit 7: Magnite CTV Revenue & TAM Build, 2021 - 2028E
We expect MGNI's CTV revenue to start outgrowing spend in 2025 as average take rate improves

($ bn)	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E
Global CTV Ad Spend	**16.8**	**19.7**	**23.2**	**27.2**	**31.3**	**35.3**	**39.6**	**43.9**
Y/Y Growth		*17%*	*18%*	*17%*	*15%*	*13%*	*12%*	*11%*
Programmatic Spend	**8.7**	**10.4**	**11.6**	**13.6**	**15.6**	**17.9**	**20.5**	**23.2**
Programmatic mix %	*52%*	*53%*	*50%*	*50%*	*50%*	*51%*	*52%*	*53%*
MGNI Spend	**2.0**	**2.5**	**2.8**	**3.3**	**3.9**	**4.6**	**5.4**	**6.3**
MGNI Share %	*23%*	*23%*	*24%*	*24%*	*25%*	*25%*	*26%*	*27%*
Y/Y Growth		*23%*	*14%*	*19%*	*17%*	*17%*	*18%*	*17%*
MGNI CTV Revenue (ex-TAC, $mn)	**185**	**215**	**217**	**242**	**292**	**350**	**431**	**538**
Take Rate %	*9.3%*	*8.8%*	*7.8%*	*7.3%*	*7.5%*	*7.6%*	*8.0%*	*8.5%*
Y/Y Growth		*16%*	*1%*	*12%*	*21%*	*20%*	*23%*	*25%*

Source: GroupM, Company Reports, BofA Global Research estimates
Note: MGNI CTV ad spend & take rate estimated by BofA Global Research

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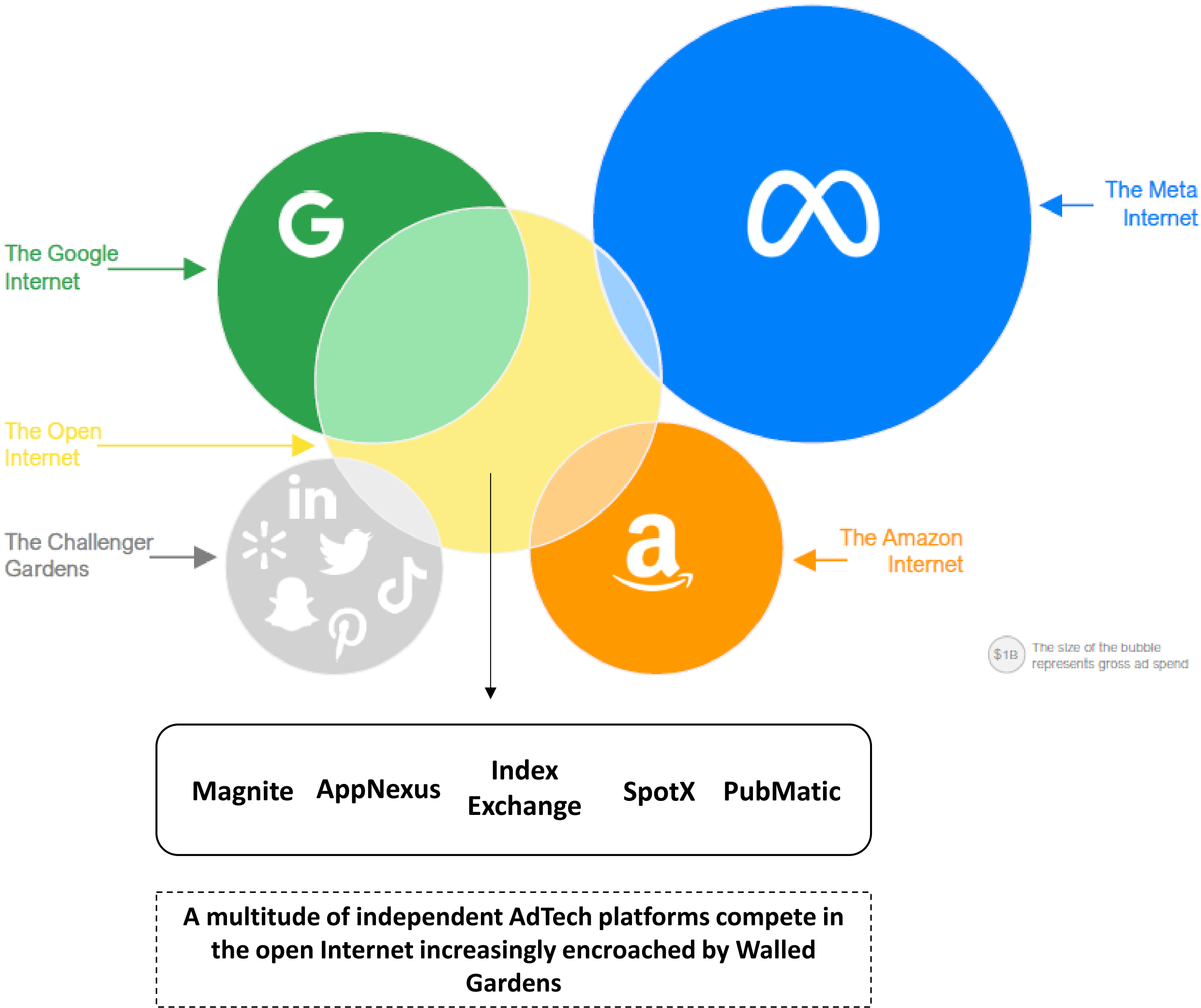
DV+ a single digit grower in a competitive market

While we expect the CTV segment to be the primary growth driver in the next few years, Magnite's DV+ (Display Video and Plus) segment, which facilitates ad transactions in the open Internet (Desktop + Mobile), still contributes 60% of consolidated revenue today. Although Magnite could expand market share in the open Internet at the margin, capitalizing on industry consolidations, we foresee challenges to significantly outgrow the industry in the long term, widely believed to be a single-digit grower. Independent AdTech intermediaries like Magnite face significant competitive pressure from the Walled Gardens, notably Google, Meta, and Amazon, as they increasingly extend their dominance beyond into the open internet. According to Jounce Media, in 2022, the three Walled Gardens combined accounted for over 50% of all open internet ad demand, almost double the level in 2017. While the supply side has consolidated to just six major SSPs (including Google), we still see considerable challenges for Magnite to grow significantly in a low growth end market.

Exhibit 8: Market Landscape in Open Internet Advertising

Walled Gardens (e.g. Google, Meta, Amazon) have increasingly encroached into the open Internet, leaving a shrinking and crowded market for a multitude of independent DSPs and SSPs to compete in



Source: Jounce Media, BofA Global Research

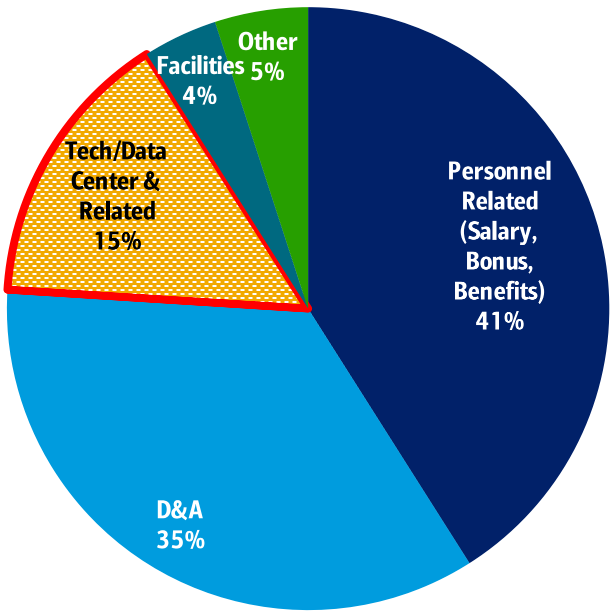
BofA GLOBAL RESEARCH

10% revenue Y/Y + 50% flow-thru = 20% EBITDA growth

Magnite has attractive unit economics and high operating leverage in its cost model. We estimate normalized gross margin (excl. amortization of acquired intangibles) to be greater than 60%. Operating expenses are mostly fixed, with personnel and facility related costs constituting 45% of the expense base and only 15% being directly variable (some are step function fixed). In the CTV segment, which we expect to be the primary growth driver, investment into Sales & Marketing should be minimal as Magnite already has existing relationships with most major publishers. Management is confident in the inherent operating leverage of its business model, projecting over 50% of incremental revenue to flow through to Adjusted EBITDA.

Exhibit 9: Operating Expense by Cost Bucket as of 2Q21

MGNI's cost structure has high operating leverage, only 15% of its expense is directly variable



Source: Company Reports

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Exhibit 10: Illustration of EBITDA Flow-through Economics (Hypothetical)

Operating leverage in MGNI's cost model allows high flow-through to the bottom line, we estimate a 10% revenue growth could lead to a 17% growth in Adj. EBITDA

R	Revenue Growth (%)	10%
F	Flow Through Rate (%)	50%
M	EBITDA Margin (%)	30%
(R x F) / M	EBITDA Growth (%)	17%

Source: Company Reports, BofA Global Research

BofA GLOBAL RESEARCH

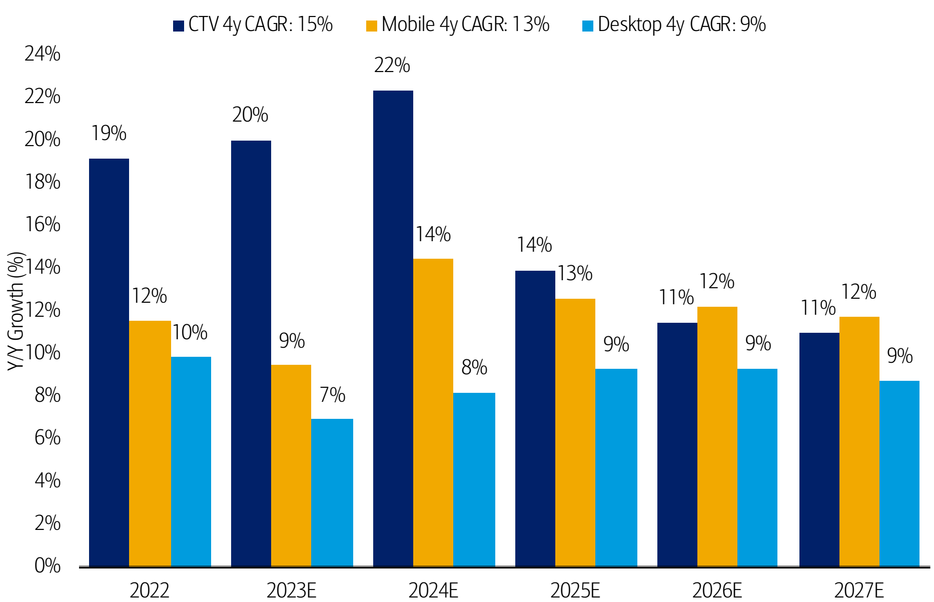
Gaining share in a rapidly expanding TAM

CTV is the fastest growing video ad channel

Since the dawn of advertising, dollars have always followed eyeballs. As consumers continue to shift away from linear TV, CTV is clearly becoming the new digital frontier for brands to engage with their audience. Research firm Insider Intelligence projects that CTV advertising will emerge as the fastest-growing ad medium in the United States, with a 15% CAGR in the next 4 years, eclipsing ad spend growth on other devices such as Desktop (+9%) and Mobile (+13%).

Exhibit 11: US Digital Ad Spend Growth Forecast by Device, 2022 - 2027E

CTV is expected to be the fastest growing digital ad channel, with a forecasted CAGR of 15% through 2027



Source: Insider Intelligence

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We see three secular tailwinds that will drive rapid expansion of the CTV ad market:

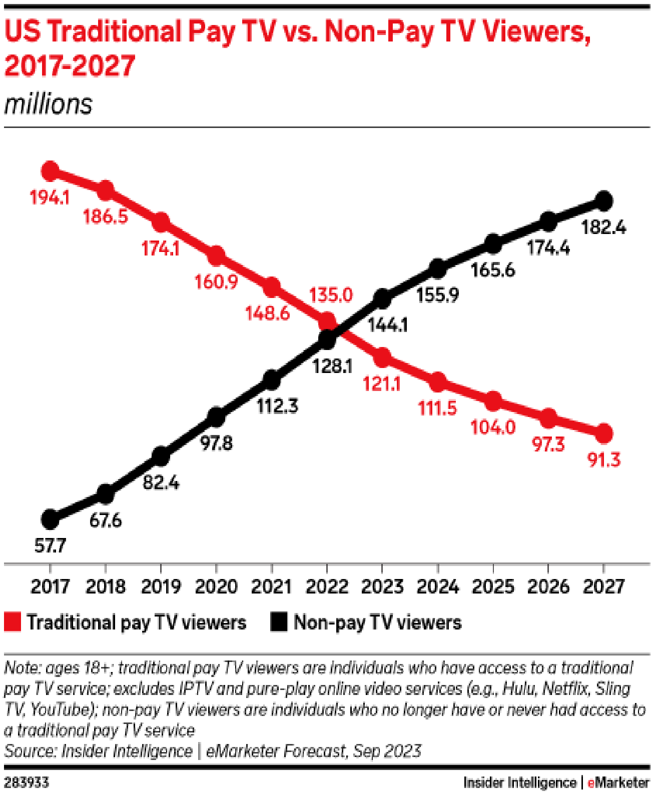
- **Transition from linear TV to CTV:** CTV offers clear advantages compared to traditional linear TV: great variety of content, more flexible programming, and bespoke content recommendations. The path to 100% CTV penetration provides a multiyear growth tailwind for the ad ecosystem.

- **Growing popularity of ad-supported streaming (aka AVOD):** Consumers are increasingly gravitating towards more affordable streaming options that incorporate advertising, and streaming services (e.g. Netflix, Disney+) are catering to consumer demand by offering cheaper ad supported subscriptions. The shift to an ad centric monetization model is most evident in the rapid ascension of Free Ad-Supported Streaming TV ("FAST") channels in recent years.

- **Enhanced audience segmentation and targeting:** Arguably the most distinct advantage of digital ads over traditional media (e.g. newspaper, radio, etc.) is the ability to precisely reach the desired audience. CTV gives advertisers the ability to target specific audience segments at scale and in fine granularities, something that has not been possible on linear TV. The addressable market of CTV advertising should far exceed that of linear TV advertising because each impression is worth more when advertisers are assured that their ads reach their intended audience.

Exhibit 12: US Traditional Pay TV vs Non-Pay TV Viewers, 2017 - 2027

Consumers continue cut the cord and move to CTV and streaming services, Non-Pay TV viewers have officially surpassed Traditional Pay TV viewers in 2023, according to Insider Intelligence



Source: Insider Intelligence

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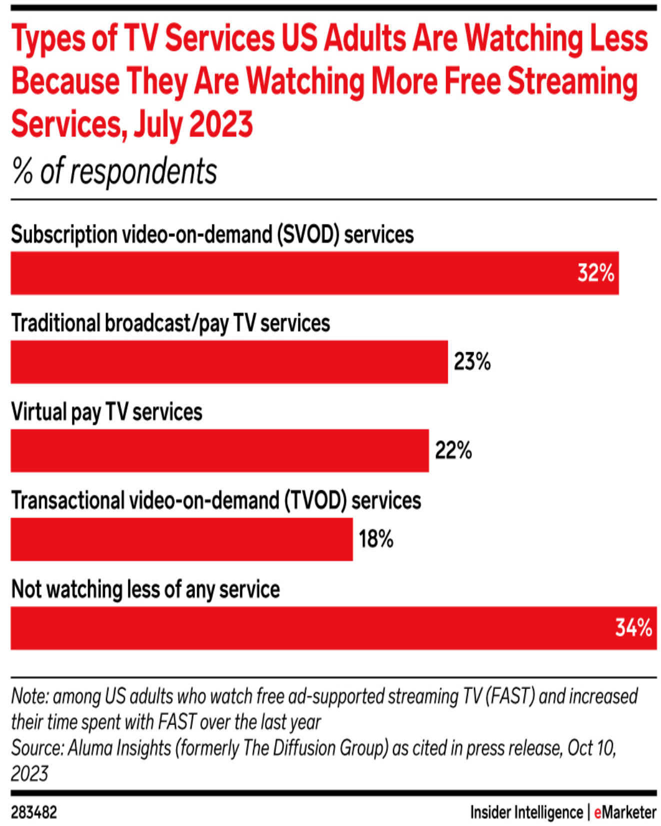
Exhibit 13: Viewers Shift from SVOD/AVOD to FAST, October 2023

With streaming services, consumers increasingly prefer cheaper ad supported options and are spending less time on subscription services



Source: Insider Intelligence

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Defensible market position in CTV protected by moats

Magnite is the largest independent SSP in CTV advertising. Its two major competitors include FreeWheel, a Comcast subsidiary, and Google. FreeWheel is the incumbent market leader due to its established relationships with traditional media companies inherited from its days as their legacy online video ad server; it has a dominant market share among programmers, broadcasters, and cable networks. Magnite's specialized technology and focus strategy on programmatic advertising have allowed it to establish market leadership among CTV-native publishers (e.g. FAST channels and OEMs), who transact 70% of their ads programmatically. Google, while a significant player in international markets, has a limited presence in the U.S. outside of YouTube.

Exhibit 14: SSP Share of CTV Ad Spend (Open Programmatic Auctions Only) by Device, North America, 3Q23

We view Magnite's dominant market share in CTV open auctions as a testament to its tech edge

	Roku	Samsung	FireTV	Apple TV
Magnite	40%	39%	50%	19%
FreeWheel	16%	10%	14%	31%
Xandr	7%	9%	4%	14%
PubMatic	5%	8%	4%	4%
Nexxen	4%	5%	5%	5%
Others	28%	29%	23%	27%

Source: Pixalate

Note: Spending share estimated by Pixalate based on billions of ad transactions primarily on open programmatic auctions. Open programmatic auctions are NOT the primary form of transaction in CTV advertising currently

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Exhibit 15: CTV SSP Competitive Landscape

MGNI offers unique value propositions as the only truly independent SSP anc is positioned to gain share with its CTV native tech stack

	FreeWheel	Magnite	Google
Est. Market Share	50%	25%	15%
Ad Server Capability	Retrofitted tech, focus on basic ad serving	Programmatic CTV first tech, focus on decisioning layer	Retrofitted tech, focus on basic ad serving
Owns 1P Properties	Yes	No	Yes
Owns DSP	Yes	No	Yes
Dominant Publisher Vertical	Traditional media, linear TV	CTV native, FAST, OEMs	1P properties, international

Source: Company Reports, BofA Global Research

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Following the integration of Telaria and SpotX into a unified CTV SSP platform, Magnite Streaming, Magnite has seen an increase in its market share. We estimate Magnite's current market share at approximately 25%, with a larger presence with FAST channels and OEMs (25-30% share). Ad analytics firm Pixalate estimates Magnite's market share in open programmatic auctions at around 40%, highlighting the strength of its programmatic technology, although it's important to note that open auctions only represent a small percentage of CTV ad transactions.

We view Magnite's competitive position in the CTV market as highly defensible, protected by deep moats:

- **Specialized tech & focus strategy a differentiation vs peers:** Magnite's specially designed technology is widely viewed as the best in class for handling programmatic CTV ads. Its ad server, SpringServe, boasts feature superiority over FreeWheel's and Google Ad Manager's repurposed legacy online video technology. CTV ads require more complex technology than traditional display or online video ads, and replicating such a specialized tech stack is a costly undertaking that larger competitors may not view as worthwhile given the small addressable market.

Why do CTV ads require specialized technology?

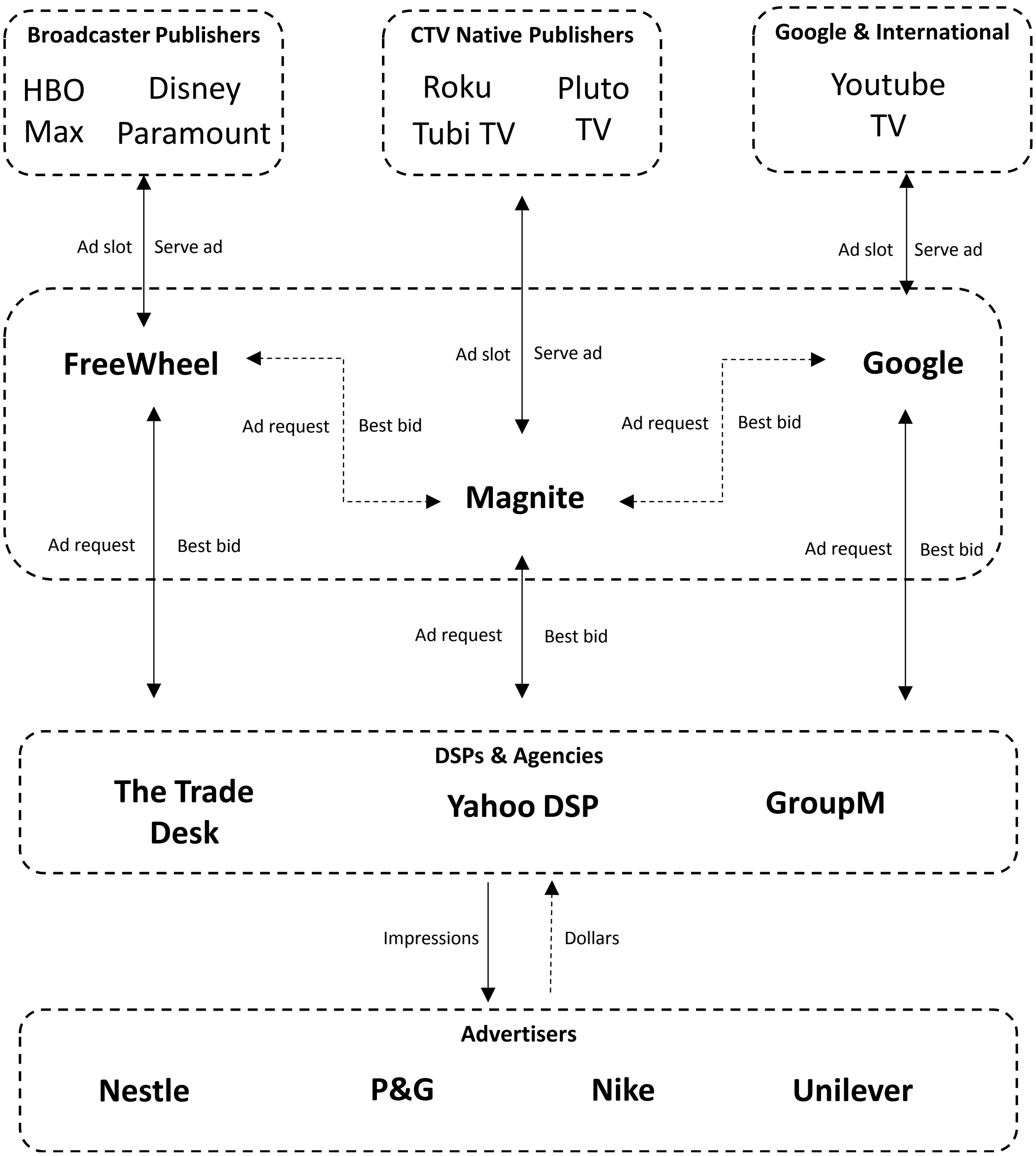
Unlike display ads on web/mobile, CTV ads are projected on a big screen where viewer experience is of utmost importance. A CTV ad server needs to handle complex requirements such as competitive separation, ad podding, price-per-second optimization, and ad breaks that traditional display ad servers do not support.

- **High switching cost due to deep integration:** SpringServe's CTV-focused design features advanced functions like forecasting and yield optimization that add significant value to publishers' ad monetization process and are deeply integrated into their workflow, making it costly to replace.

- **High barriers to entry for new entrants:** Most programmatic ads on CTV are transacted in reserved auctions, which are invite-only auctions open to select advertisers. This format will likely remain predominant among premium streaming publishers (e.g. Netflix, Disney+, Paramount+ etc.) who prioritize viewer experience and ad quality. This limits the opportunity for new entrants as publishers are less motivated to widen the funnel in the same manner as in the open web.
- **Unique value proposition as a supply-side pureplay:** As an independent SSP, Magnite offers publishers a Trade Desk-like value proposition: it acts solely in the interest of publishers, with no incentive to favor its own ad inventory or DSP. In contrast, both FreeWheel and Google owns first party media that could compete directly with publisher content.

Exhibit 16: CTV Ad Transaction Flow and Market Landscape

Magnite's sophisticated programmatic features make it a central component in programmatic ad transactions even without the ad server relationship



Source: Company Reports, BofA Global Research

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Tech lead & secular tailwinds to drive share gains

We believe Magnite's technology advantage positions it well for further share gains in the CTV SSP market, aided by several secular tailwinds in the industry:

- **Riding the OEM & FAST growth tailwind:** Advertising spend with device OEMs such as Roku, Samsung, and Vizio is primed for a significant uptick, underpinned by the increasing utility of Automatic Content Recognition ("ACR") data in audience targeting. ACR data provides comprehensive insights into consumers' viewing behavior across different streaming apps, is captured on the screen, and is only available through device OEMs. Also, with the average CTV viewer subscribing to 7 different services, efficient content discovery is more crucial than ever, and the OEM home screen is best suited to fill this need. Furthermore, ad spend on FAST services is projected to more than double by 2028, per estimates from Omdia. Magnite is the leading SSP for both OEMs and FAST channels, and is best positioned to benefit disproportionately from their growth tailwinds.

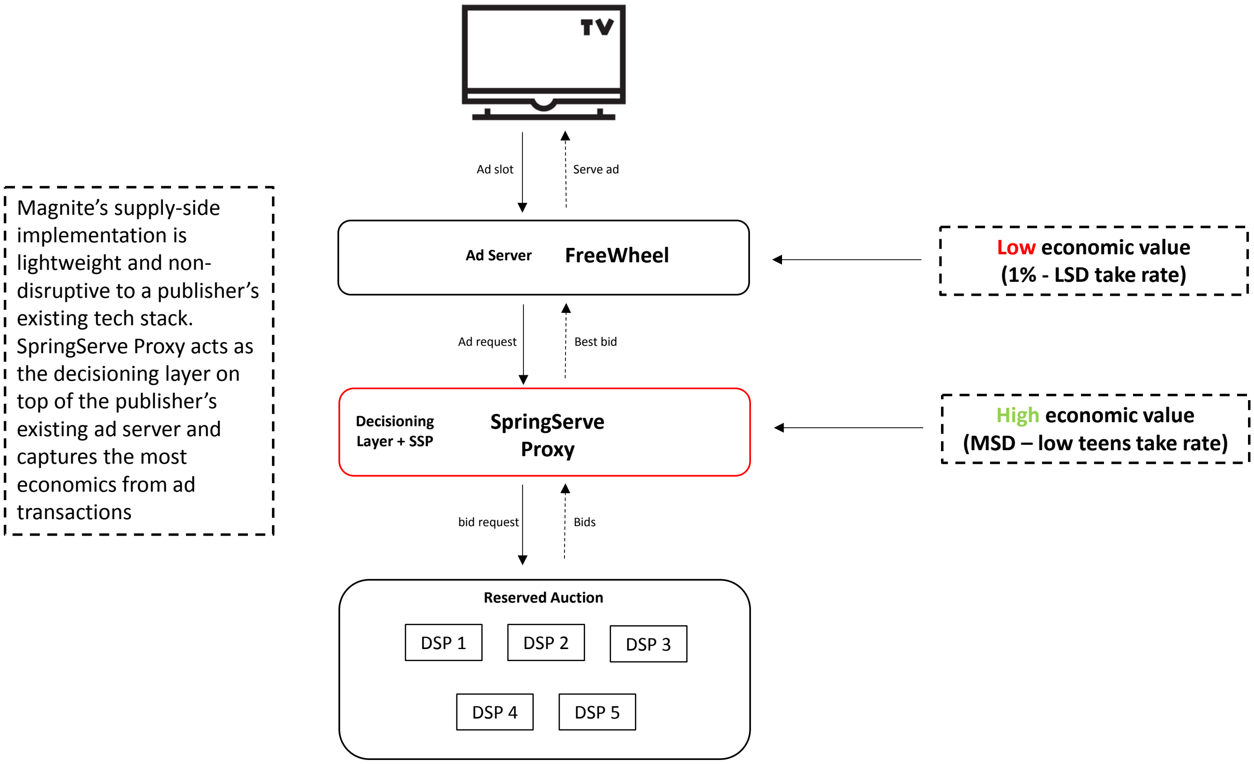
What is ACR data and why is it valuable for audience targeting?
Automatic Content Recognition ("ACR") data involves snippets of metadata (e.g. image/acoustic clips) from the screen, captured directly by a Smart TV's operating system and can instantly identify the content a consumer is listening to or watching. It is inherently privacy-compliant, and is the most wholistic viewer data on CTV that can only be accessed by the device OEM or Operating System maker.

- **Magnite to benefit from the transition to programmatic ads:** Traditional media companies who sell most of their ad inventory through direct sales are undergoing a gradual yet definitive shift towards programmatic ads, as buyers increasingly look for more automation and more granular audience targeting. Disney's aspiration to conduct 50% of its ad transactions programmatically by 2024 exemplifies this industry trend. While most of these publishers uses FreeWheel's basic ad server, there is potential for Magnite to play a bigger role (and share the economics), through its non-disruptive, lightweight implementation.

- **Non-disruptive approach to market and lightweight implementation:** Magnite employs a dual-pronged go-to-market strategy, catering to varied customer segments. For CTV-native publishers, such as FAST channels and OEMs, Magnite offers an integrated solution combining the ad server with the decisioning layer, providing a comprehensive package for their programmatic advertising needs. For broadcaster publishers with an existing ad server in place (eg FreeWheel), it offers a proxy only implementation (SpringServe Proxy) that allows publishers to leverage SpringServe's automation & decisioning capabilities while retaining their existing ad server for basic ad serving functionalities. In both cases, the implementation is lightweight and can be completed in a week, compared to a 6-month FreeWheel installation. Such approach allows it to participate in the more lucrative economics of ad transactions without disrupting publishers' entrenched ad server relationships.

Exhibit 17: Illustration of MGNI's Proxy Only Implementation

Magnite's proxy only implementation does not require a rip-and-replace of a publisher's existing tech stack, and allows it to extract the most economics without having to disrupt the sticky existing ad server relationships



Source: Company Reports, BofA Global Research

BofA GLOBAL RESEARCH

DV+ to retain market share in a competitive landscape

In open Internet advertising (Desktop & Mobile), Magnite plays in a consolidated but competitive market landscape. Since the rise of open auctions, which has diminished differentiations among third-party SSPs, the supply side has consolidated to just six major players, with Google dominating the market. Despite opportunities arising from the departure of smaller platforms, the competition remains intense, especially with Walled Gardens like Google and Amazon consistently encroaching on the market. While Magnite is widely considered as one of the best independent SSPs, we see limited opportunity for it to grow significantly in this challenging environment. Nevertheless we expect it to retain, if not grow, its market share:

- **Less-is-more mindset benefits incumbents as industry embraces SPO:** The industry is increasingly focus on Supply Path Optimizing ("SPO"), with buyers reducing their SSP relationships for better efficiency and return on ad spend. This has led to the rise of DSP specific private marketplaces, where DSP engage with a single SSP for ad inventory of assured quality. Magnite's premium marketplace for GroupM is one such example. We think this benefits incumbents by limiting competition and channeling market share towards the top SSPs.

- **Diversifying into software like revenue stream through value added services:** Magnite is actively diversifying its revenue model by introducing value-added software solutions that integrate deeply into publisher workflows. These products generate stable software like revenue, and enable Magnite to participate in the economics of transactions that occur outside its own SSP. For instance, Demand Manager, a tool that allows ad sellers to manage all header bidding inventory across different platforms from a single interface, receives a fee regardless of where the transaction is executed. Such diversified revenue streams not only bolster Magnite's market position but also mitigate disintermediation risks arising from DSPs going direct to publishers.

- **Leveraging CTV strength as an omni-channel platform:** Magnite has significant presence across all of Desktop, Mobile, and CTV, and is one of the largest omni-channel SSPs. As buyers increasingly seek to consolidate their SSP relationships, Magnite's omni-channel platform provides a single point of contact across all their campaigns, offering a unique value proposition. Magnite's emerging leadership in CTV could also fortify its competitive position in Desktop and Mobile, offering a cohesive solution to its demand partners.

Investment risks and mitigants

Risk of disintermediation feels exaggerated

Bears who extrapolate experiences from the open Internet are concerned that independent SSPs such as Magnite, could be disintermediated, when publishers, DSPs, and Big Tech assume a more prominent role in facilitating CTV ad transactions. We think there are several important distinctions between the CTV ad ecosystem and the open Internet ad ecosystem, and see a strong case for independent SSPs to remain relevant:

- **Independent SSPs play integral role in audience matching:** The absence of universal device identifiers or third-party cookies on CTV means user targeting will rely on disparate datasets and IDs that are scattered across multiple parties (publishers, advertisers, third-party vendors). SSPs serve as a central hub for unifying these data sets, and constructing enriched audience segments for precise targeting. Given publishers' reluctance to share first party data directly with DSPs and advertisers, SSPs are essential for facilitating audience matching while safeguarding publisher data.

- **Fragmented content landscape means no real Walled Gardens on CTV:** Developing a full-fledge SSP business is not a strategic priority for Big Tech, given that their entry into the business on the open Internet is primarily a byproduct of their monopoly on content supply (e.g. Google on Search, Meta on Social). We think this is unlikely to happen in CTV advertising due to content fragmentation (40 other publishers competing with Big Tech). Neither the Big Tech nor any single publisher is likely to wield enough market power to compel advertisers to use their in-house ad platforms. The same audience could be reached through many different mediums, so limiting buyers' path to access could risk losing demand to other publishers.

- **Big Tech SSPs unlikely to dominate due to inherent conflicts of interests:** Most Big Tech companies vying for a share in advertising also compete with publishers in supplying content, creating inherent conflicts of interest. This dynamic makes it unlikely for Big Tech-operated SSPs to gain significant traction among CTV publishers, due to fear of preferential treatment to their own advertising properties. Additionally, content fragmentation in CTV also limits Big Tech's ability to replicate their monopolistic reach that they enjoy in the open web/mobile spheres.

Ad spend shift to premium inventory a growth headwind

Over the past two years, the CTV market has seen an influx of premium advertising inventory with many broadcasting companies (e.g. Disney+, Paramount+) and premium streaming services (e.g. Netflix) rolling out ad-supported subscriptions. These companies typically have sizable direct sales forces and prefer to sell their inventory directly to advertisers. As the demand is sourced directly by publishers, these transactions carry lower take rate for SSPs (low to mid single digits) compared to demand sourced programmatically (HSD/low teens). This is exacerbated in a restricted ad budget environment when advertisers shift spend towards their most familiar channels (i.e. premium streaming), causing a downtick in overall take rate. Further, with Amazon Prime Video rolling out ads to its ~150mn US members, it creates a pocket of exclusive inventory that is inaccessible by Magnite. We think the rise of premium ad-supported streaming could represent a near-term growth headwind, but see several mitigants that should limit the long-term impact:

- **Supply of premium CTV content is ultimately constricted:** Like in traditional media, the supply of premium CTV content is limited. In a normalized ad budget environment, the increase in inventory should attract incremental dollars rather than cannibalizing existing spend.

- **Growth of premium ad-supported subscriptions could flatten in 2025, ad spend to spill over to other services:** By 2024, growth of the premium ad inventory should substantially slow, because 1) all ad tiers of Plus services would have been in the market for at least two years, and 2) one-time impact from Prime Video's ad rollout would have already hit. Market research firm Insider Intelligence expects growth in premium AVOD viewers to flatten in 2025, growing low single digits thereafter. As such, we see potential for incremental ad spend to spill over to other services (e.g. FAST channels), resulting in a favorable mix shift for Magnite and lifting the average take rate.

Exhibit 18: Illustration of Ad Spend Mix Shift and Impact on Overall Take Rate

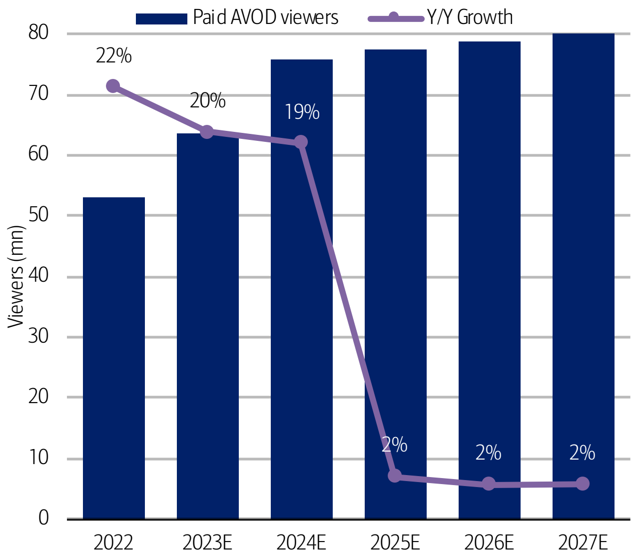
MGNI charges different take rate on ad spend flowing through its platform depending on how the demand is sourced. The shift of ad spend towards broadcasters and premium streaming has led to a significant take rate decline and represents a near-term revenue headwind

Revenue Source	Take Rate (BofA Est.)	Who Sourced Demand	Execution	Typical Publisher Profile	FY22 Mix of Ad Spend (BofA Est.)	3Q23 Mix of Ad Spend (BofA Est.)
Programmatic Direct	5-6%	Publisher	Programmatic or Direct	Premium streaming	61%	81%
Programmatic	11%	MGNI	Programmatic	OEMs, FAST	35%	16%
Managed Service	38%	MGNI	Programmatic	Mid-market	3%	3%
Wgt. Avg. Take Rate					**8.8%**	**6.8%**

Source: Company Reports, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 19: US Paid AVOD Viewers Forecast, 2022 - 2027E
The number of paid AVOD (e.g. Plus services) viewers in the US are forecasted to flatten starting in 2025, as most premium streaming services would have rolled out ad supported tiers by then



Source: Insider Intelligence, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 20: Ad-supported Tier Launch Time of Top Premium Streaming Services
All of the top streaming services would have launched ad-supported tiers by 2024, meaning growth in premium ad inventory could decelerate

Service	Launch Year
Netflix	2022
Amazon Prime Video	2024
Disney+	2022
MAX	2021
Paramount+	2021

Source: Insider Intelligence, BofA Global Research

BofA GLOBAL RESEARCH

Third-party cookie deprecation may lead to signal loss

Google plans to fully deprecate third-party cookies by 2024, starting 1% of cookies in January, and this is expected to have widespread impact on digital advertising particularly in the open Internet. Third party cookies have long been the holy grail for DSPs to perform user specific targeting in open programmatic auctions, and with their demise, segment-based targeting solutions will likely become more prevalent. We think the deprecation of third-party cookies could allow SSPs to play a more important role in user targeting, benefiting from several trends:

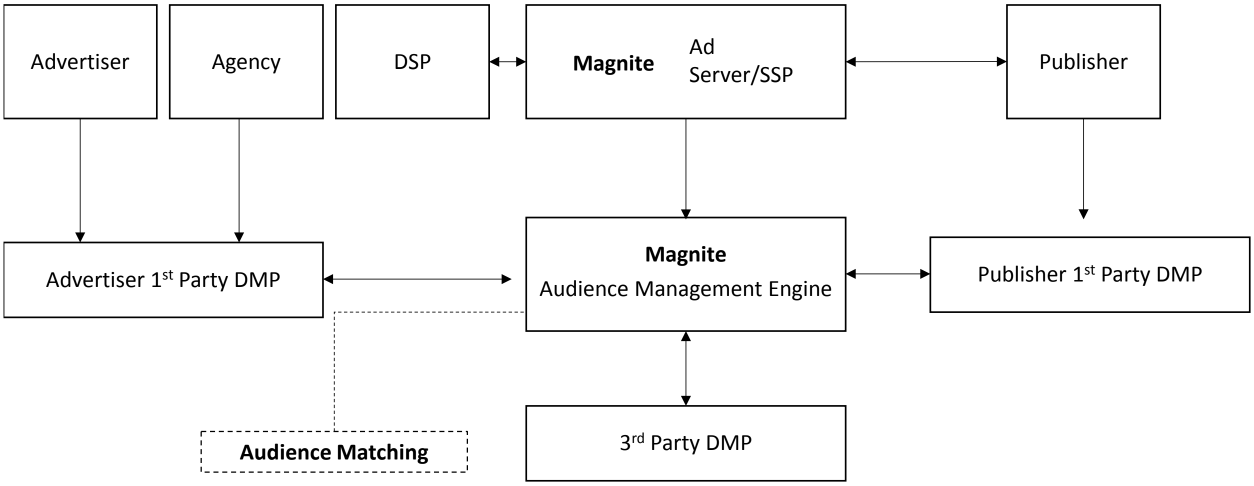
- **SSPs needed for audience creation and data management:** Without a universal user identifier, DSPs need to increasingly rely on audience segmentation and contextual information for group level targeting (vs targeting individuals). SSPs are needed to unify a variety of disjoint datasets from publishers, third-party vendors, device OEMs, to construct audience profiles (e.g. dog lovers, foodies, etc.). Products like Magnite Access serves this function and allow advertisers and DSPs to better navigate the post-cookie open web advertising.

- **Access to audience data = control over marketplace:** The demise of openly available user data could lead to a decline of open programmatic auctions, and a rise of private marketplaces. Top SSPs could once again distinguish themselves by hosting private marketplaces with access to proprietary audience groups, and offer differentiated values to buyers.

While third-party cookie deprecation could lead to transitory headwinds in the overall digital ad ecosystem, we expect limited impact to Magnite specifically because 1) third-party cookies are not available on CTV, and 2) Magnite's overall exposure to third-party cookies is only in the high-teens percentage per management.

Exhibit 21: Illustration of CTV Audience Matching & Management

MGNI's Audience Management Engine joins 1st party data & 3rd party data to create audience segments that can be used for ad targeting, without exposing publisher 1P data to advertisers



Source: Company Reports, BofA Global Research

BofA GLOBAL RESEARCH

Financial Estimates vs Street

Exhibit 22: BofA vs Street Forecasts, FY22 to FY26E

We forecast +16% EBITDA CAGR through FY26E, supported by +17% CAGR in CTV revenue and 500bps in EBITDA margin improvement over the next 3 years

	2022	1Q23	2Q23	3Q23	4Q23E	2023E	1Q24E	2Q24E	3Q24E	4Q24E	2024E	2025E	2026E
Contribution ex-TAC													
B of A (Initiation)	515	116	135	133	160	544	120	145	147	178	589	660	729
STREET					161	545	120	145	146	179	589	658	727
Delta vs. STREET					-0.4%	-0.1%	-0.4%	0.3%	0.2%	-0.4%	-0.1%	0.4%	0.3%
GUIDE					160	544	-	-	-	-	587	-	-
Contribution ex-TAC Y/Y Growth %													
B of A (Initiation)	23.6%	8.4%	9.3%	4.3%	2.2%	5.7%	3.0%	7.7%	10.0%	11.3%	8.3%	12.1%	10.4%
STREET					2.6%	5.8%	3.4%	7.3%	9.8%	11.2%	8.2%	11.6%	10.4%
Delta vs. STREET					-0.5%	-0.1%	-0.4%	0.3%	0.2%	0.1%	0.1%	0.5%	0.0%
GUIDE					2.2%	5.7%					8.0%		
CTV Contribution ex-TAC													
B of A (Initiation)	215	46	56	52	62	217	47	61	61	73	242	292	350
STREET					62	217	46	60	60	73	240	276	316
Delta vs. STREET					-0.2%	-0.1%	0.6%	0.3%	2.1%	0.5%	0.9%	5.7%	10.9%
CTV Contribution ex-TAC Y/Y Growth %													
B of A (Initiation)	49.8%	9.7%	7.6%	-5.9%	-4.1%	1.0%	0.7%	8.1%	16.9%	18.2%	11.5%	20.7%	19.9%
STREET					-3.9%	1.1%	0.1%	7.9%	14.5%	17.3%	10.5%	15.1%	14.3%
Delta vs. STREET					-0.2%	-0.1%	0.6%	0.3%	2.3%	0.9%	1.0%	5.5%	5.6%
DV+ Contribution ex-TAC													
B of A (Initiation)	300	70	79	81	98	327	73	84	85	105	347	368	379
STREET					99	327	73	84	86	106	349	382	411
Delta vs. STREET					-0.6%	-0.2%	-1.0%	0.3%	-1.1%	-1.0%	-0.7%	-3.5%	-7.8%
DV+ Contribution ex-TAC Y/Y Growth%													
B of A (Initiation)	9.8%	7.5%	10.5%	12.2%	6.5%	9.0%	4.5%	7.3%	5.6%	6.9%	6.1%	6.2%	2.9%
STREET					7.2%	9.2%	5.5%	6.9%	6.8%	7.3%	6.7%	9.2%	7.6%
Delta vs. STREET					-0.6%	-0.2%	-1.1%	0.4%	-1.2%	-0.5%	-0.6%	-3.1%	-4.7%
Non-GAAP Adj. EBITDA													
B of A (Initiation)	179	23	37	40	65	166	18	41	49	78	186	226	259
STREET					66	167	18	42	48	77	185	221	249
Delta vs. STREET					-0.7%	-0.3%	0.9%	-2.9%	1.9%	1.6%	0.6%	2.3%	3.8%
GUIDE													
Non-GAAP Adj. EBITDA Margin %													
B of A (Initiation)	34.7%	20.1%	27.7%	30.3%	40.8%	30.6%	15.3%	28.0%	33.6%	43.9%	31.6%	34.3%	35.5%
STREET					39.1%	29.2%	14.4%	27.7%	31.5%	41.5%	30.1%	32.3%	32.4%
Delta vs. STREET					1.7%	1.4%	0.9%	0.3%	2.1%	2.5%	1.5%	1.9%	3.1%
GUIDE													
Operating Cash Flow													
B of A (Initiation)	135	14	28	32	54	128	9	29	37	66	141	175	201
STREET					56	140	11	33	41	65	150	180	204
Delta vs. STREET					-3.2%	-8.5%	-20.1%	-12.6%	-8.4%	0.9%	-6.1%	-2.9%	-1.7%
Free Cash Flow													
B of A (Initiation)	106	6	20	24	48	98	4	25	33	62	125	175	211
STREET					48	108	3	25	33	57	119	154	181
Delta vs. STREET					-0.7%	-9.6%	15.4%	-1.0%	0.8%	8.6%	4.6%	13.8%	16.2%
GUIDE					-	100	-	-	-	-	-	-	-

Source: Company Reports, BofA Global Research

BofA GLOBAL RESEARCH

Fair valuation for a differentiated player

Our PO of $11 is valued on 10.5x FY24E EBITDA, below the valuation of Alphabet (12x) and Meta (11x), which we view as key valuation benchmarks of the digital ad ecosystem, and at the high end of small AdTech peers. Our valuation screens inexpensive relative to the growth profile (15% EBITDA CAGR), justified by higher perceived uncertainty around terminal value as compared to the Walled Gardens.

The main valuation overhang, in our view, stems from investor concern over the commoditization of independent SSPs, which could alleviate over time if Magnite emerges as a category leader in CTV advertising. However, altering the investor perception is challenging, and requires proof that Magnite could be a viable contender to the Walled Gardens. Particularly for small AdTech players (<$2bn market cap), the bar for getting investor attention is even higher, due to their opaque economic model and hard-to-understand technologies. We note that 7 of the 8 publicly listed small AdTech stocks trade at sub-10x EBITDA.

In the meantime, investors will likely favor Walled Garden stocks with similar valuations but much better revenue visibility, particularly as advertisers continue to over-allocate to their most proven channels (e.g. premium CTV), creating near-term revenue headwinds for Magnite.

We see potential for a re-rate if Magnite could demonstrate consistent share gains against 1) FreeWheel within the broadcaster / premium CTV publisher segment, and 2) Alphabet/Meta in open web and mobile advertising.

Exhibit 23: BofA vs. Consensus, Valuations & Price Objective

Our Price Objective of $11/share represents a 17% upside from current valuation, and is driven by 10x FY24E EV/EBITDA

Magnite, Inc. -- Valuation Worksheet

($ in millions, except per share amounts)

	BofA Target Valuation		BofA Market Valuation (1/9/24)		Market Consensus Valuation (1/9/24)	
(Mn)	**FY24E**	**FY25E**	**FY24E**	**FY25E**	**FY24E**	**FY25E**
Upside/Downside	17.3%					
Price Objective	$11.00			-		
Share Price			$9.38		$9.38	
Diluted Shares Outst.	150.9	150.9	150.9	150.9	150.9	150.9
Market Value	$1,660	$1,660	$1,415	$1,415	$1,415	$1,415
Net Cash	($295)	($295)	($295)	($295)	($295)	($295)
Enterprise Value	$1,955	$1,955	$1,710	$1,710	$1,710	$1,710
EV/EBITDA	10.5x	8.6x	9.2x	7.6x	9.2x	7.7x
EBITDA (BofA/STREET)	$186	$226	$186	$226	$185	$221
FCF Yield	7.5%	10.6%	8.8%	12.4%	8.4%	10.9%
FCF (BofA/STREET)	$125	$175	$125	$175	$119	$154
EV/Sales	3.3x	3.0x	2.9x	2.6x	2.9x	2.6x
Sales (BofA/STREET)	$589	$660	$589	$660	$589	$658

Source: BofA Global Research, Bloomberg, FactSet, Visible Alpha

BofA GLOBAL RESEARCH

Exhibit 24: Comparable Company Analysis - Global AdTech & Self Attributing Networks

Our comparator set includes AdTech companies and Self Attributing Networks

Company	Ticker	Price	EV/Sales (Consensus) 2022A	EV/Sales (Consensus) 2023E	EV/Sales (Consensus) 2024E	EV/Sales (Consensus) 2025E	Sales CAGR CY23-CY25	EV/EBITDA Consensus 2022A	EV/EBITDA Consensus 2023E	EV/EBITDA Consensus 2024E	EV/EBITDA Consensus 2025E	EBITDA CAGR CY23-CY25	EBITDA Margin 2022A	EBITDA Margin 2023E	EBITDA Margin 2024E	EBITDA Margin 2025E
Advertising Technology																
Roku	ROKU US	$89.29	3.6x	3.3x	3.0x	2.6x	12%	NA	NA	104.6x	42.0x	NA	(3%)	(1%)	3%	6%
Trade Desk	TTD US	$67.64	21.9x	18.0x	14.9x	12.4x	21%	51.9x	45.5x	38.0x	30.9x	21%	42%	40%	39%	40%
Unity Software, Inc.	U US	$37.78	12.3x	8.1x	7.2x	6.2x	14%	NA	45.6x	27.4x	20.4x	49%	(5%)	18%	26%	30%
DoubleVerify	DV US	$34.25	13.1x	10.4x	8.4x	6.9x	23%	41.9x	32.8x	27.0x	21.6x	23%	31%	32%	31%	32%
Live Ramp	RAMP US	$34.49	3.8x	3.3x	3.1x	2.9x	7%	41.8x	30.5x	19.3x	14.1x	47%	9%	11%	16%	20%
Integral Ad Sciences	IAS US	$14.17	6.2x	5.4x	4.6x	4.0x	15%	20.0x	16.0x	13.6x	11.5x	18%	31%	34%	34%	35%
Zeta Global	ZETA US	$8.13	3.1x	2.5x	2.1x	1.8x	17%	19.9x	14.5x	11.5x	9.1x	26%	16%	17%	19%	20%
AppLovin Corp.	APP US	$38.11	6.1x	5.3x	4.5x	4.0x	15%	16.2x	11.8x	9.4x	8.3x	19%	38%	45%	48%	49%
Magnite	MGNI US	$8.90	2.8x	2.8x	2.6x	2.4x	9%	9.0x	9.7x	8.7x	7.3x	15%	31%	29%	30%	32%
Viant	DSP US	$6.82	1.3x	1.2x	1.1x	0.9x	13%	NA	9.7x	8.6x	6.0x	27%	(3%)	12%	12%	15%
Pubmatic	PUBM US	$14.86	2.7x	2.6x	2.4x	2.1x	10%	7.0x	9.3x	8.1x	6.5x	20%	38%	28%	29%	33%
Digital Turbine, Inc.	APPS US	$6.28	1.5x	1.7x	1.6x	1.3x	13%	6.1x	9.2x	7.8x	5.8x	26%	25%	19%	20%	23%
Taboola	TBLA US	$4.31	1.1x	1.0x	0.8x	0.6x	28%	9.4x	18.5x	7.3x	5.4x	84%	11%	5%	11%	11%
Criteo	CRTO US	$24.16	1.3x	1.2x	1.2x	1.1x	6%	4.6x	4.4x	4.2x	3.7x	10%	29%	27%	28%	30%
Adtheorant	ADTH US	$1.85	0.4x	0.4x	0.4x	0.4x	11%	3.3x	3.8x	3.3x	2.8x	18%	13%	11%	12%	13%
Median			3.1x	2.8x	2.6x	2.4x	13%	12.8x	13.1x	9.4x	8.3x	22%	25%	19%	26%	30%
Average			5.4x	4.5x	3.9x	3.3x	14%	19.3x	18.7x	19.9x	13.0x	29%	20%	22%	24%	26%
Index			6.6x	5.7x	4.9x	4.3x	15%	34.6x	25.8x	19.5x	15.6x	28%	19%	22%	25%	27%
Self-Attributing Networks																
Snap	SNAP US	$16.55	6.3x	6.3x	5.5x	4.8x	14%	77.0x	278.6x	102.8x	42.3x	157%	8%	2%	5%	11%
Pinterest	PINS US	$35.92	8.5x	7.8x	6.7x	5.7x	17%	54.2x	35.5x	26.8x	20.5x	31%	16%	22%	25%	28%
Alphabet	GOOGL US	$135.73	5.9x	5.4x	4.9x	4.4x	11%	15.1x	13.6x	11.8x	10.5x	14%	39%	40%	41%	42%
Meta Platforms	META US	$351.95	7.8x	6.8x	6.0x	5.4x	12%	16.8x	12.3x	10.8x	9.7x	13%	46%	55%	56%	56%
Yelp	YELP US	$44.97	2.7x	2.5x	2.2x	2.1x	9%	12.1x	10.3x	9.3x	8.4x	11%	23%	24%	24%	25%
Median			6.3x	6.3x	5.5x	4.8x	12%	16.8x	13.6x	11.8x	10.5x	14%	23%	24%	25%	28%
Average			6.3x	5.8x	5.1x	4.5x	13%	35.1x	70.0x	32.3x	18.3x	45%	26%	29%	30%	32%
Index			6.4x	5.9x	5.2x	4.7x	11%	15.9x	13.3x	11.6x	10.3x	14%	40%	44%	45%	46%
OTT/CTV																
Fubo	FUBO US	$2.93	1.0x	0.8x	0.6x	0.6x	18%	NA	NA	NA	94.3x	NA	(32%)	(16%)	(9%)	1%
Roku	ROKU US	$89.29	3.6x	3.3x	3.0x	2.6x	12%	NA	NA	104.6x	42.0x	NA	(3%)	(1%)	3%	6%
Netflix	NFLX US	$474.06	6.9x	6.5x	5.7x	5.1x	13%	33.4x	29.5x	23.0x	19.0x	25%	21%	22%	25%	27%
Vizio	VZIO US	$7.46	0.7x	0.7x	0.7x	0.6x	11%	23.5x	18.9x	12.7x	7.1x	63%	3%	4%	5%	8%
Median			2.3x	2.0x	1.8x	1.6x	13%	28.4x	24.2x	23.0x	30.5x	44%	0%	1%	4%	7%
Average			3.1x	2.8x	2.5x	2.2x	14%	28.4x	24.2x	46.8x	40.6x	44%	(3%)	2%	6%	11%
Index			6.2x	5.8x	5.1x	4.5x	13%	15.9x	13.3x	11.6x	10.3x	29%	16%	18%	21%	23%

Source: Visible Alpha, Factset, Bloomberg

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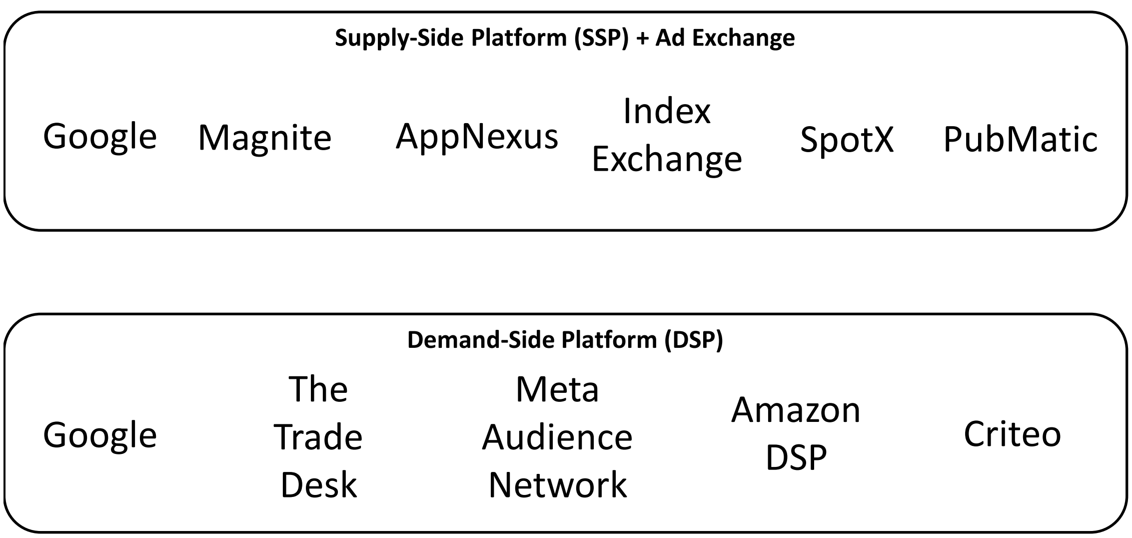
Business Overview

Magnite, Inc., operating previously as The Rubicon Project, is a technology company that automates the buying and selling of digital advertising inventory. Since its inception, Magnite has expanded significantly through strategic mergers and acquisitions, including the Telaria Merger (2020), SpotX Acquisition (2021), and the purchase of SpringServe (2021), positioning itself as a top omni-channel sell-side advertising platform and a leader in programmatic CTV ad technology. The company offers a comprehensive platform for digital ad sellers to monetize across channels – include CTV, desktop web, and mobile web/in-app. For buyers, which include ad agencies and demand side platforms (DSPs), Magnite's platform facilitates ad purchases through a transparent, independent marketplace that supports intelligent decision-making and automated transaction execution at scale. Magnite's platform processes trillions of ad requests monthly, offering buyers a global, scaled, independent alternative to Walled Gardens such as Meta, Google, or Amazon, which sell both owned and third-party ad inventories.

Competitive landscape

Magnite helps facilitate ad transactions across a variety of different channels, including CTV and the open Internet (Desktop and Mobile). The SSP market for the open Internet is a competitive space, with both Walled Gardens and specialized platforms playing in it. Before open auctions rose to prominence in digital advertising, many SSPs had owned silos in the market by offering exclusive access to inventories and certain demand sources (e.g. DSPs and agencies). As open programmatic auctions became increasingly prevalent, many SSPs has lost their differentiations, and the industry has since consolidated to 6 leading SSPs that collectively own the vast majority of the market. Google owns the majority of the market, with 5 other SSPs (including Magnite) competing for the remaining share.

Exhibit 25: Major Players in Open Internet Digital AdTech
The open Internet SSP market has consolidated to 6 major players, with Google the market leader



Source: Source: Company Reports

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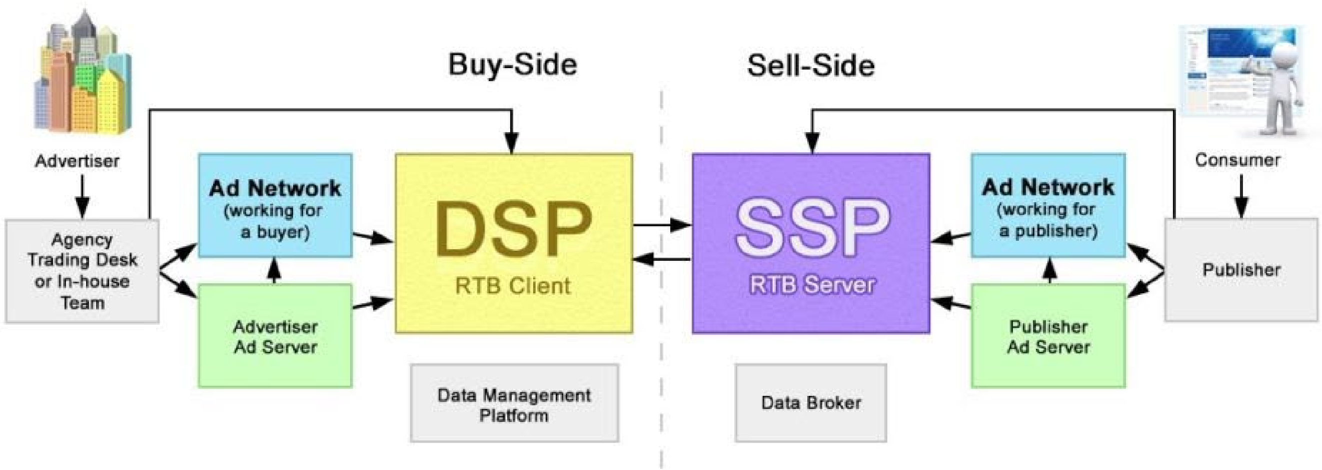
In CTV advertising, the market is much more consolidated on the supply side, with FreeWheel, Magnite, and Google the only key players. FreeWheel owns roughly 50% of the market, followed by Magnite with around 25% market share.

The role of Supply-Side Platforms

The main role of an SSP is to optimize yield for publishers by connecting their inventory to multiple ad exchanges and DSPs, allowing for a broad competition for their ad spaces. This process ensures that publishers maximize revenue from their inventory by selling ad space to the highest bidder in real-time transactions. Top SSPs like Magnite often owns their own ad exchange, essentially operating both open and private marketplaces for transacting ads.

Exhibit 26: The Open Web Ad Transaction Flow (Real-Time Bidding)
SSPs connect publishers to ad buyers (DSPs, agencies, ad networks), and help publishers optimize yield on their inventory



Source: Publift

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Revenue model

Magnite generates revenue from the use of its platform for the purchase and sale of digital advertising inventory. Generally, it charges a percentage of the ad spend that runs through its platform, although for certain clients or transaction types it may receive a fixed CPM for each impression sold. More than 80% of Magnite's revenue is recognized on a net basis, with the exception of Managed Services, where the revenue is reported gross. Magnite also generates fee based revenue from its Demand Manager product, which has a SaaS like revenue model.

Following the SpotX Acquisition, the percentage of MGNI's revenue reported on a gross basis increased significantly compared to pre-acquisition periods, due to the inclusion of SpotX's CTV Managed Services business. As a result, any mix shift into net revenue businesses would result in a headwind to GAAP revenue, making Contribution ex-TAC a better topline metric for like-for-like comparisons.

Management team

Michael Barrett, Chief Executive Officer

Michael Barrett is the company's President and Chief Executive Officer, the role he also held at ad exchange pioneer Rubicon Project before its 2020 merger with CTV leader Telaria. The combined company became Magnite in June of that year and further strengthened its CTV capabilities by acquiring SpotX in 2021. Before joining Rubicon Project, Mr. Barrett was President and Chief Executive Officer at Millennial Media, a leading independent mobile ad technology company. In October 2015, AOL/Verizon acquired Millennial Media. Previously, he served as President and Founder of Ichabod Farm Ventures LLC, a private investment firm he established after working as Executive Vice President and Chief Revenue Officer of Yahoo. Earlier, Mr. Barrett worked at Google, where he led integration efforts following the acquisition of Admeld Inc., where he also served as Chief Executive Officer. He has served as Executive Vice President and Chief Revenue Officer at Fox Interactive Media, Executive Vice President of Sales and Partnerships at AOL Media Networks, and in senior sales positions at GeoCities and Disney Online. Mr. Barrett was an economics major at The College of the Holy Cross, and currently serves as a Trustee of the College.

David Day, Chief Financial Officer

David Day is the company's Chief Financial Officer and oversees the planning, reporting, accounting, tax, treasury, financial systems and investor relations functions for Magnite. Before merging with Telaria to form Magnite, Mr. Day served as Rubicon Project's Chief Financial Officer, and previously as Chief Accounting Officer. Prior to joining Rubicon Project, Mr. Day held various financial executive roles in high-growth technology-based advertising companies, including Chief Accounting Officer at ReachLocal, which focused on helping local businesses solve online marketing needs. Mr. Day was also Vice President of Finance at Spot Runner, a company that helped simplify the buying and selling of television media. Another major role for Mr. Day was as Senior Vice President of Finance and Corporate Controller of Overture Services, the originator of the paid search advertising model. Subsequent to Overture's acquisition by Yahoo, Mr. Day served as Senior Vice President of Finance for Yahoo Search Marketing. He was also co-founder of SignJammer, a start-up in the out-of-home advertising market. Mr. Day spent his early career in public accounting with Arthur Andersen and PricewaterhouseCoopers—including a three-year stint in PwC's Frankfurt, Germany office. He has a B.S. from Brigham Young University.

Price objective basis & risk

Magnite, Inc. (MGNI)
Our $11 PO is based on 11x FY24E EBITDA, below the valuation of Alphabet and Meta, which we view as important valuation benchmarks of the digital advertising ecosystem, but are at the high end of small AdTech peers. We think a higher valuation multiple than peer average is justified by MGNI's defensible market position and exposure to a high growth end market (CTV advertising).

Upside risks to our PO include 1) evidence of consistent share gains against incumbents (e.g. Alphabet, FreeWheel) in both CTV and open Internet SSP markets, 2) faster than expected recovery in macroeconomic conditions and advertising budgets, and 3) faster than expected transition to programmatic CTV advertising. Downside risks to our PO include 1) Walled Gardens' increasing dominance in open Internet advertising that leads to MGNI's share loss, 2) Big Tech (e.g. Alphabet, Amazon) and OEMs building their in-house CTV SSP solutions, 3) DSPs going directly to CTV publishers pressuring supply-side take rates, and 4) further shift of CTV ad spend into premium content to a greater extent than expected.

Analyst Certification

I, Omar Dessouky, 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

US - Internet Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	Magnite, Inc.	MGNI	MGNI US	Omar Dessouky, CFA
	Playtika	PLTK	PLTK US	Omar Dessouky, CFA
	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
	Redfin Corp	RDFN	RDFN US	Curtis Nagle, CFA
	Shutterstock	SSTK	SSTK US	Curtis Nagle, CFA

iQmethod 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

iQmethod SM 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 validations. 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.

Disclosures

Important Disclosures

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.

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Other Important Disclosures

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