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US Internet

Amazon Bull/Bear Debate

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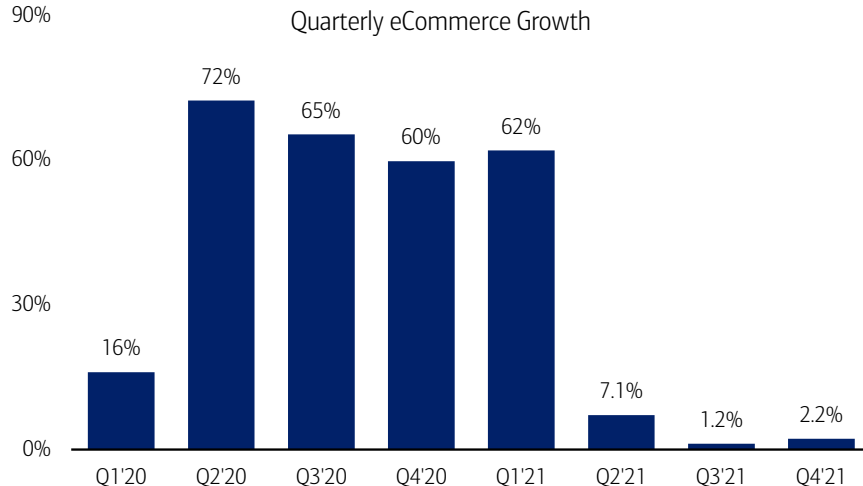
Sluggish 4Q for eCommerce (card not present*) - Decelerated on a 2-year basis



*BAC internal data on ecommerce is measured using Card not present, which is largely online but could include purchases made over the phone

Online spending unchanged Y/Y in December

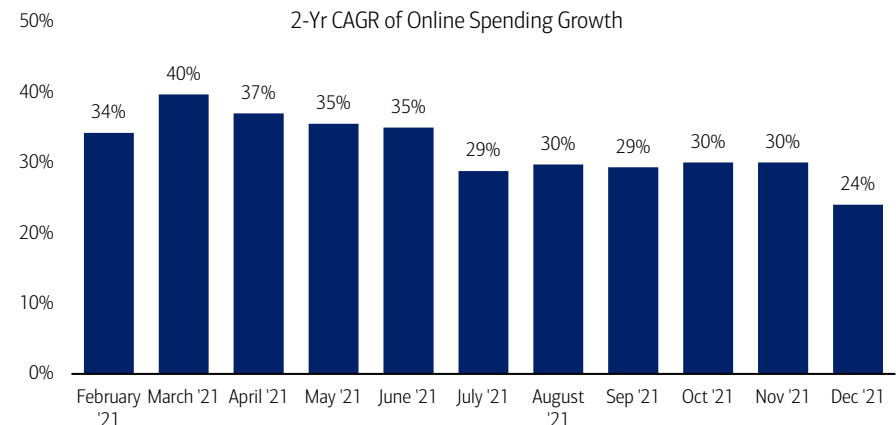
- Per BAC aggregated credit and debit card data, Y/Y Online Spending growth was 2% in 4Q'21, accelerating 1pt from 3Q'21 (at +1%).
- Y/Y Online Spending in December was flat, down from +3% in November.



Source: BAC Internal Data

2-Yr CAGR decelerates in 4Q

- Growth on a 2-Yr Basis decelerated to 24% in December, after five straight months at about 30%.
- For the quarter, the 2-Yr CAGR was 28%, down from 29% in 3Q and 36% in 2Q.



Source: BAC Internal Data

- For Amazon, mgmt. guided 4Q revenues at 4%-12% Y/Y growth, a 3-11pt deceleration from 15% in 3Q. The BAC card data suggests Online Spending growth in 4Q accelerated 1 point relative to 3Q. Risk to results is that data suggests a more front-loaded 4Q with October the best month of the quarter, plus Amazon faces a difficult Prime Day and advertising comp.



BAC aggregated credit and debit card eCommerce data

- Online Spending growth in 4Q was 2.2%, with Online Spending in December unchanged Y/Y.
- Street should look forward to accelerating growth for the sector in 2H'22, an improved set up vs deceleration in 2021.

Y/Y Growth (Card not Present*)	Department Stores	Restaurant Food Delivery	Autoparts & Services	Home Furnishing	Clothing	eCommerce Overall	Health & Personal Care	Sporting Goods	Grocery	Electronics
Quarterly Y/Y:										
Q4'20	62%	109%	29%	59%	39%	60%	50%	79%	140%	76%
Q1'21	142%	120%	41%	69%	62%	62%	51%	75%	114%	51%
Q2'21	80%	28%	16%	11%	10%	7.1%	4%	-2%	-4%	-19%
Q3'21	70%	13%	3%	4%	9%	1.2%	4%	-12%	-9%	-19%
Q4'21	29%	12%	11%	3%	14%	2.2%	7%	-11%	-19%	-19%
Monthly Y/Y:										
Aug '21	63%	10%	1%	3%	12%	-0.9%	1%	-10%	-7%	-22%
Sep '21	56%	16%	7%	4%	14%	6.9%	7%	-9%	-6%	-11%
Oct '21	51%	13%	10%	5%	13%	4.1%	6%	-8%	-15%	-11%
Nov '21	27%	13%	12%	5%	18%	2.9%	10%	-10%	-18%	-22%
Dec '21	17%	10%	12%	0%	10%	0.0%	5%	-14%	-22%	-21%
Weekly Y/Y (Week ending):										
11/13/2021	43%	14%	12%	6%	16%	4.0%	8%	-9%	-19%	-26%
11/20/2021	34%	13%	13%	8%	19%	2.0%	15%	-12%	-22%	-24%
11/27/2021	14%	15%	10%	1%	16%	1.8%	18%	-8%	-17%	-24%
12/4/2021	14%	10%	11%	1%	9%	-2.0%	9%	-15%	-22%	-26%
12/11/2021	9%	10%	10%	0%	4%	-6.0%	-4%	-21%	-24%	-30%
12/18/2021	15%	11%	11%	-1%	12%	0.0%	8%	-17%	-23%	-25%
12/25/2021	28%	17%	19%	5%	23%	10.2%	18%	6%	-17%	-4%
1/1/2022	17%	2%	4%	-7%	12%	-2.0%	-1%	-17%	-24%	-15%
2-Yr CAGRs										
2-Yr CAGR (Monthly)										
Sep '21	60%	55%	15%	29%	26%	29%	27%	31%	45%	20%
Oct '21	62%	53%	18%	29%	27%	30%	25%	35%	41%	26%
Nov '21	41%	53%	20%	30%	29%	30%	29%	29%	39%	19%
Dec '21	37%	53%	19%	24%	21%	24%	25%	18%	41%	16%
2-Yr CAGR (Weekly)										
11/27/2021	41%	52%	18%	35%	36%	33%	40%	35%	38%	19%
12/4/2021	18%	53%	17%	18%	14%	16%	22%	7%	35%	2%
12/11/2021	32%	49%	18%	23%	19%	21%	21%	16%	37%	14%
12/18/2021	39%	50%	18%	24%	20%	21%	24%	15%	37%	13%
12/25/2021	55%	61%	24%	38%	30%	35%	36%	44%	50%	29%
1/1/2022	53%	53%	15%	25%	31%	27%	26%	26%	40%	21%

*BAC internal data on ecommerce is measured using Card not present, which is largely online but could include purchases made over the phone.

Source: BAC Internal Data

BAC eCommerce Index vs. Amazon North America Revenue



Q/Q Comparison: BAC eCommerce up 19% Q/Q in 4Q

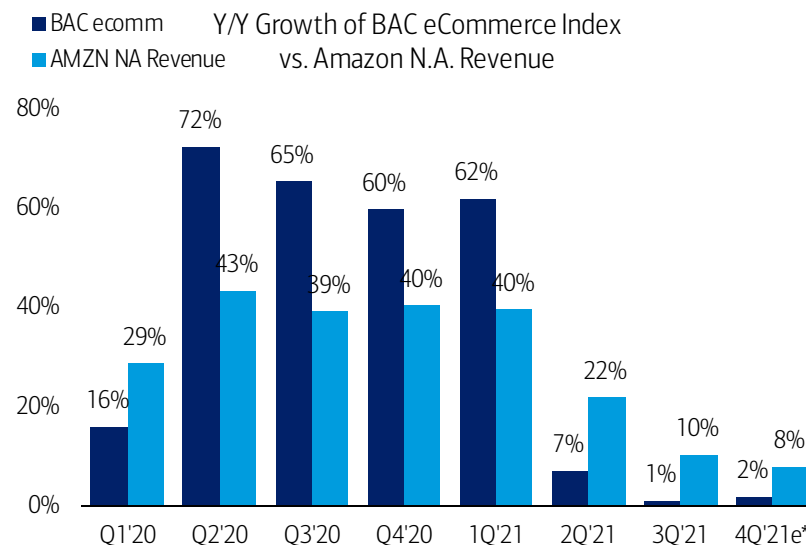
- On a Q/Q basis, BAC aggregated credit and debit card data Online Spending increased 19% Q/Q for 4Q vs. 3Q
- We estimate 24% Q/Q growth for Amazon's North America Revenue in 4Q
- Amazon outperformed industry growth in 3Q, declining 3% Q/Q vs. Industry down 7% Q/Q

Y/Y Comparison

- Per BAC aggregated credit and debit card data, Online Spending Growth is tracking at 2% Y/Y in 4Q.
- We project 8% Y/Y growth for Amazon's North America Revenue in 4Q, a 2pt deceleration (vs. industry accelerating one pt).
- Amazon has outgrown the industry since 2Q'21

Q/Q	BAC ecomm	AMZN NA Revenue	Comments	Acceleration/Deceleration	
				BAC ecomm	AMZN NA Revenue
Q2'19	4%	8%			
Q3'19	3%	10%	Prime Day Benefit	-1	2
Q4'19	22%	26%		19	16
Q1'20	-11%	-14%		-33	-40
Q2'20	56%	20%		67	34
Q3'20	-2%	7%		-58	-13
Q4'20	18%	27%	Prime Day Benefit	20	20
1Q'21	-10%	-15%		-28	-42
2Q'21	2%	5%	Prime Day Benefit	12	20
3Q'21	-7%	-3%		-9	-8
4Q'21e*	19%	24%		26	27

Source: BAC Internal Data, company reports



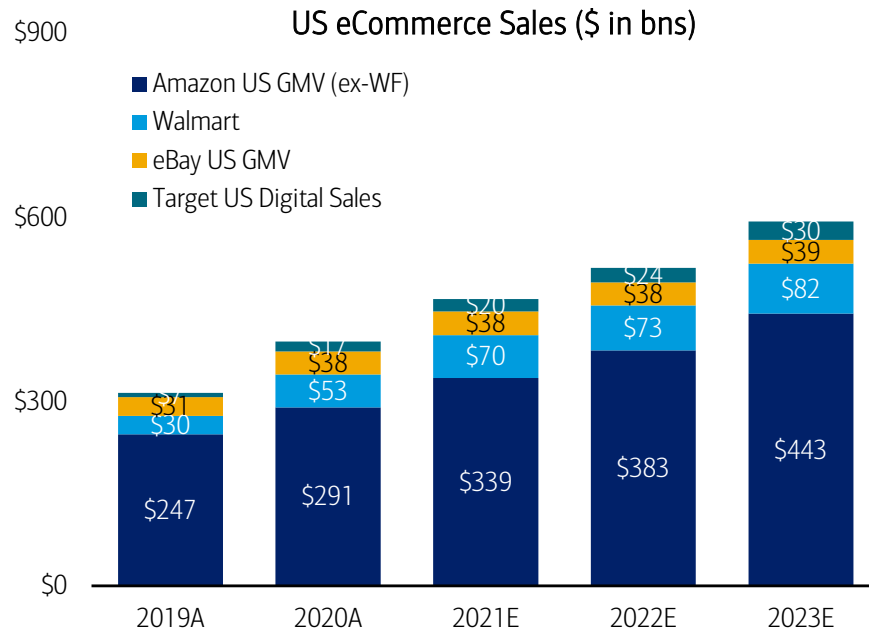
Source: BAC Internal Data, company reports

- Summary:** Still soft industry data points for 4Q, comps ease significantly in 2Q. With lapping Prime Day in 4Q this year, Amazon's Y/Y growth is projected to decelerate 2pts (while industry accelerated 1pt).

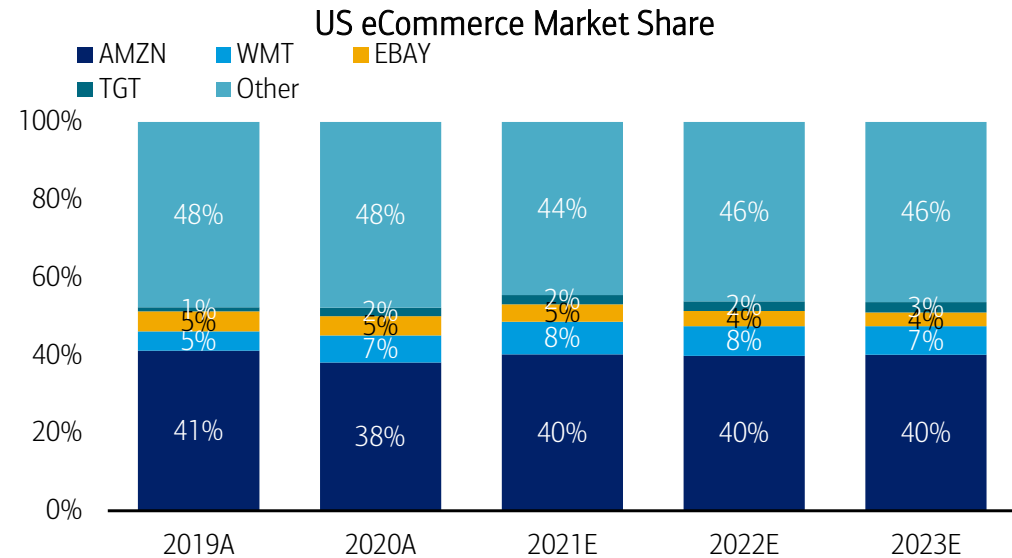


US eCommerce market share trends - Amazon gained share in 2021

- We project \$961bn in US eCommerce spending in 2022, up 14% Y/Y (accelerating from 10% Y/Y growth in 2021).
- We project Amazon's US GMV ex-Whole Foods will grow 13% in 2022, reaching \$382 billion.
- Amazon's \$382bn in estimated US GMV would represent 40% market share of the total US eCommerce market.
- Walmart gaining share, we estimate at \$73bn in US eCommerce GMV in 2022, with market share up to 8% (up from 5% pre-COVID).



Source: BofA Global Research Estimates, Company Reports



Source: BofA Global Research Estimates, Company Reports

Complete Market Share model on pg. 20

Big Local Delivery Market TAM with new Amazon competition



- We estimate a \$3 trillion TAM for Local Delivery, of which \$910bn is Grocery/Convenience/Alcohol, and \$1.1 trillion in non-food applicable local retail.
- Competition growing as DoorDash, Uber Delivery, and Instacart are investing heavily in rapid delivery. Street projects DoorDash to reach \$60bn in bookings and Uber Eats to reach \$77bn 2023, and 15% could be non-restaurant.

Delivery TAM	2019A	2020A	2021E	2022E	2023E	2024E	2025E	2026E
Restaurant	\$717	\$599	\$770	\$819	\$863	\$902	\$943	\$986
Grocery, Convenience, Alcohol	\$768	\$845	\$830	\$876	\$911	\$946	\$975	\$1,002
Non-Food Applicable Retail	\$1,092	\$1,003	\$1,102	\$1,149	\$1,187	\$1,223	\$1,259	\$1,297
Delivery TAM	\$2,577	\$2,448	\$2,702	\$2,843	\$2,961	\$3,071	\$3,177	\$3,286

Online Bookings	2019A	2020A	2021E	2022E	2023E	2024E	2025E	2026E
Restaurant	\$72	\$120	\$131	\$156	\$190	\$217	\$245	\$256
Grocery, Convenience, Alcohol	\$35	\$76	\$66	\$88	\$109	\$132	\$156	\$160
Non-Food Applicable Retail	\$11	\$30	\$22	\$46	\$71	\$98	\$126	\$156
Delivery Bookings (includes 1P)	\$117	\$226	\$219	\$289	\$370	\$447	\$527	\$572
3P Delivery Industry	\$13	\$30	\$47	\$58	\$71	\$84	\$98	\$113

% Penetration of TAM	2019A	2020A	2021E	2022E	2023E	2024E	2025E	2026E
Restaurant	10%	20%	17%	19%	22%	24%	26%	26%
Grocery, Convenience, Alcohol	5%	9%	8%	10%	12%	14%	16%	16%
Non-Food Applicable Retail	1%	3%	2%	4%	6%	8%	10%	12%
Delivery Market	5%	9%	8%	10%	13%	15%	17%	17%
3P Delivery Industry	0.5%	1.2%	1.7%	2.0%	2.4%	2.7%	3.1%	3.4%

Source: BofA Global Research Estimates, Company Reports

- Amazon is investing in same-day delivery, potentially as a competitive response to faster delivery speeds from DoorDash & others.
- For 2022, we project Amazon at \$24bn in Local Delivery GMV in Grocery/Convenience/Alcohol (trailing Instacart at \$26bn)

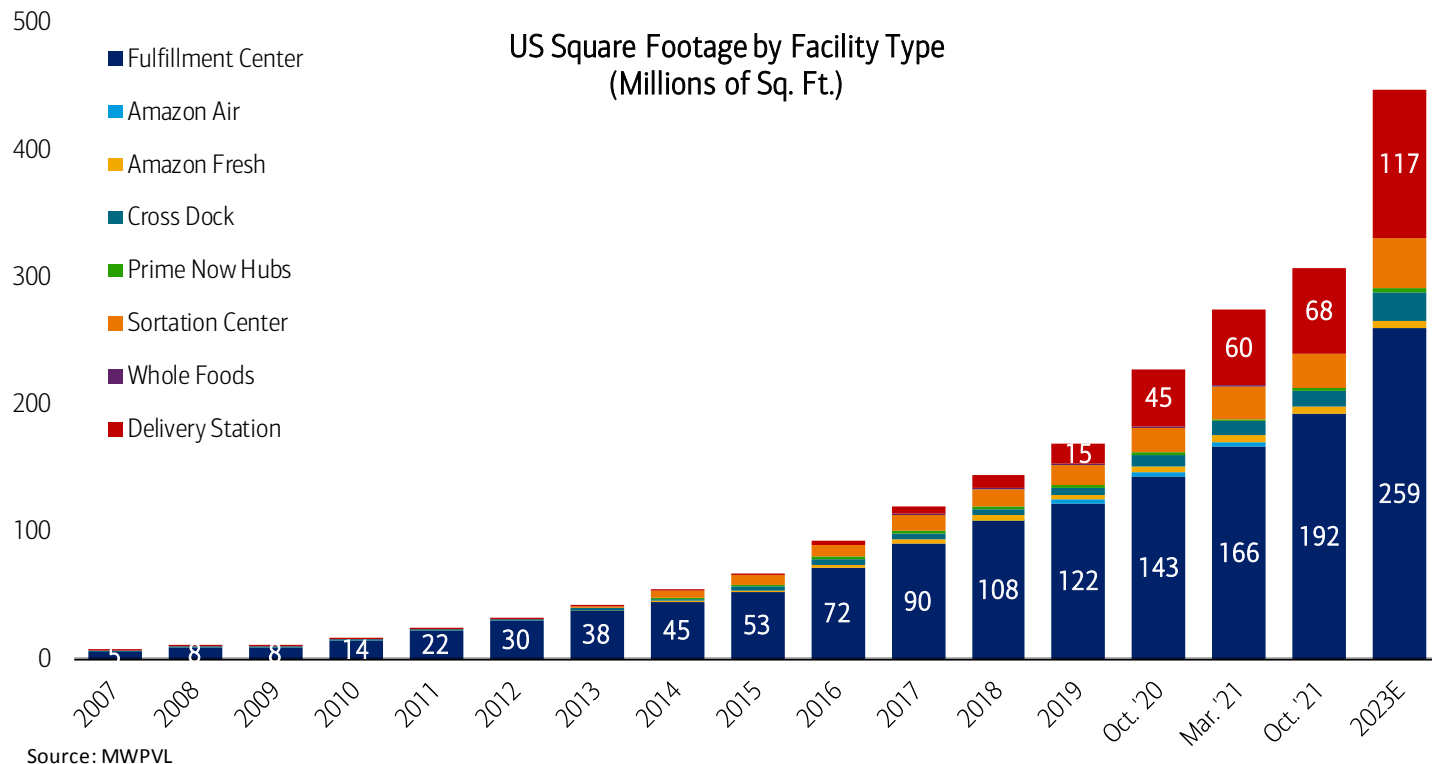
Online Market Share	2019A	2020A	2021E	2022E	2023E	2024E	2025E	2026E
Walmart	11	25	22	28	34	40	47	48
Instacart	10	23	20	26	32	37	42	43
Amazon	9	21	18	24	30	36	42	43
DoorDash	0.2	1.3	3	5	7	9	13	16
Uber Eats	0.0	0.0	0	0	0	0	0	0
Other	3	6	4	5	7	11	12	9
Grocery, Convenience, Alcohol Online	\$35	\$76	\$66	\$88	\$109	\$132	\$156	\$160
Walmart	33%	33%	33%	32%	31%	30%	30%	30%
Instacart	30%	30%	30%	30%	29%	28%	27%	27%
Amazon	27%	27%	27%	27%	27%	27%	27%	27%
DoorDash	1%	2%	4%	5%	6%	7%	8%	10%
Uber Eats	0%	0%	0%	0%	0%	0%	0%	0%
Other	9%	8%	6%	6%	7%	8%	8%	6%

Source: BofA Global Research

Amazon in Massive Logistics Build



- Based on our calls with fulfillment consultant MWPVL, Amazon is in a heavy fulfillment investment cycle with a massive increase in expected logistics footprint from 2020 to 2022 (close to a 100% increase in square feet in two years).
- The number of Amazon Delivery Stations in the US has grown from 72 in 2017 to 473 in October '21, and MWPVL projects Amazon will continue to expand rapidly to 722 delivery stations by YE 2022.



- We expect Amazon to see retail sales benefits from added fulfillment investment in 1-Day capabilities, opening up new high-velocity categories of Online retail, such as Grocery, Convenience, and Alcohol (we estimate an incremental \$1 trillion TAM).

Enterprise Spending Boom is a tailwind for Cloud growth

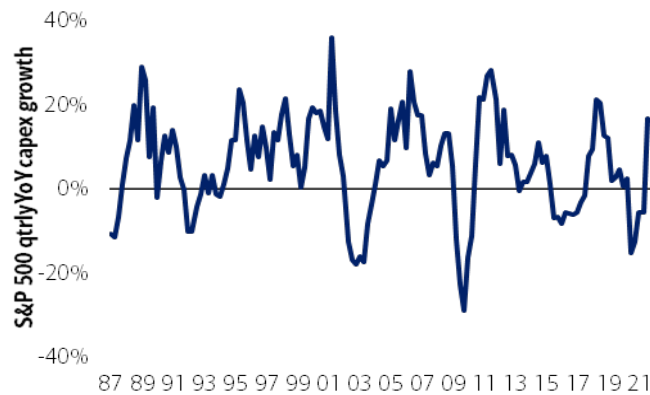


- Following the “Family Capex Cycle” during COVID, enterprises may be positioned to take the lead for accelerating capex spend in 2022.
- Enterprises are expected to grow spend in 2022, with both higher operating expenses (hiring) and capex investments.

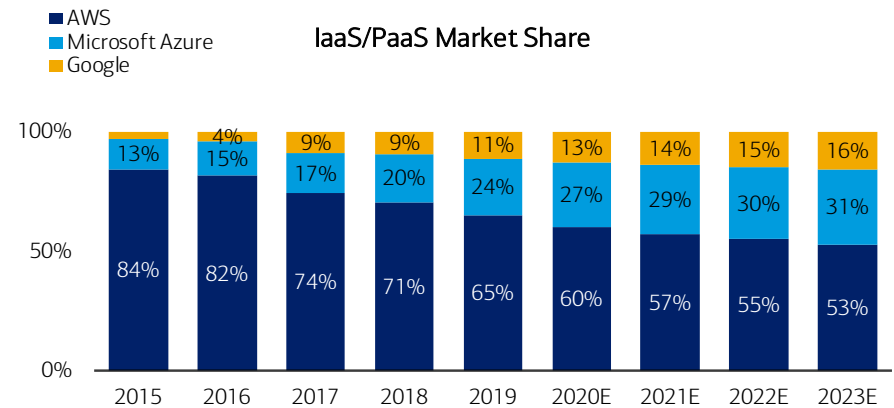
- We expect strong demand for cloud infrastructure and Cloud IaaS and PaaS service providers.
- AWS is still by far the share leader in the IaaS/PaaS market, at an estimated 57% in 2021, and we expect modestly lower share on an annual basis from here.

Exhibit 1: Capex has started accelerated

S&P 500 quarterly YoY capex growth (1987-3Q21)



Source: BofA US Equity & Quant Strategy, FactSet



- AWS Backlog came in at \$66.3bn in 3Q, increasing \$5.6bn Q/Q and growing 48% Y/Y.
- We project \$18bn in revenue growth and 30% AWS margins in 2022 & 2023, with \$30bn in profit in 2023.

AWS Financials	2016	2017	2018	2019	2020A	1Q21A	2Q21A	3Q21A	4Q21E	2021	1Q22E	2Q22E	3Q22E	4Q22E	2022	2023
Revenue	12,219	17,458	25,656	35,026	45,370	13,503	14,809	16,110	17,457	61,879	18,094	19,104	20,299	21,821	79,317	98,353
y/y growth	55%	43%	47%	37%	30%	32%	37%	39%	37%	36%	34%	29%	26%	25%	28%	24%
Operating Income	3,109	4,331	7,296	9,201	13,531	4,163	4,193	4,883	5,150	18,389	5,428	5,779	6,090	6,546	23,843	29,860
margin %	25%	25%	28%	26%	30%	31%	28%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Backlog	4,990	10,000	19,300	29,800	50,000	52,900	60,700	66,300								
y/y growth	60%	100%	93%	54%	68%	55%	48%	48%								
\$ addition	\$1,872	\$5,010	\$9,300	\$10,500	\$20,200	\$2,900	\$7,800	\$5,600								

Source: BofA Global Research estimates, Company Reports



IaaS/PaaS Industry Revenue and Market Share Model

- We estimate that cloud spending for the Infrastructure as a Service & Platform as a Service layers of the cloud will grow from \$75bn in 2020 to \$188bn in 2023 or a 35% CAGR.
- AWS is expected to add the most revenue dollars over the period, potentially \$450bn in cap using a 10x multiple.
- Expect growth to decelerate in 2022 as 2021 likely had some catch up spend.

<u>IaaS/PaaS Revenue</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020E</u>	<u>2021E</u>	<u>2022E</u>	<u>2023E</u>
AWS	7,880	12,219	17,458	25,656	35,026	45,370	61,879	79,317	98,353
Microsoft Azure	1,205	2,179	3,895	7,295	12,711	20,103	31,107	43,012	57,814
Google Cloud (excludes G Suite)	258	562	2,141	3,389	5,979	9,758	14,936	21,453	29,327
Industry Revenue	\$9,343	\$14,960	\$23,494	\$36,340	\$53,716	\$75,231	\$107,921	\$143,782	\$185,494

Y/Y Growth Rates

AWS	70%	55%	43%	47%	37%	30%	36%	28%	24%
Microsoft Azure	106%	81%	79%	87%	74%	58%	55%	38%	34%
Google	124%	118%	281%	58%	76%	63%	53%	44%	37%
Industry Growth	75%	60%	57%	55%	48%	40%	43%	33%	29%

<u>Market Share Within Big 3</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020E</u>	<u>2021E</u>	<u>2022E</u>	<u>2023E</u>
AWS	84%	82%	74%	71%	65%	60%	57%	55%	53%
Microsoft Azure	13%	15%	17%	20%	24%	27%	29%	30%	31%
Google	3%	4%	9%	9%	11%	13%	14%	15%	16%

Y/Y Incremental Dollar Growth

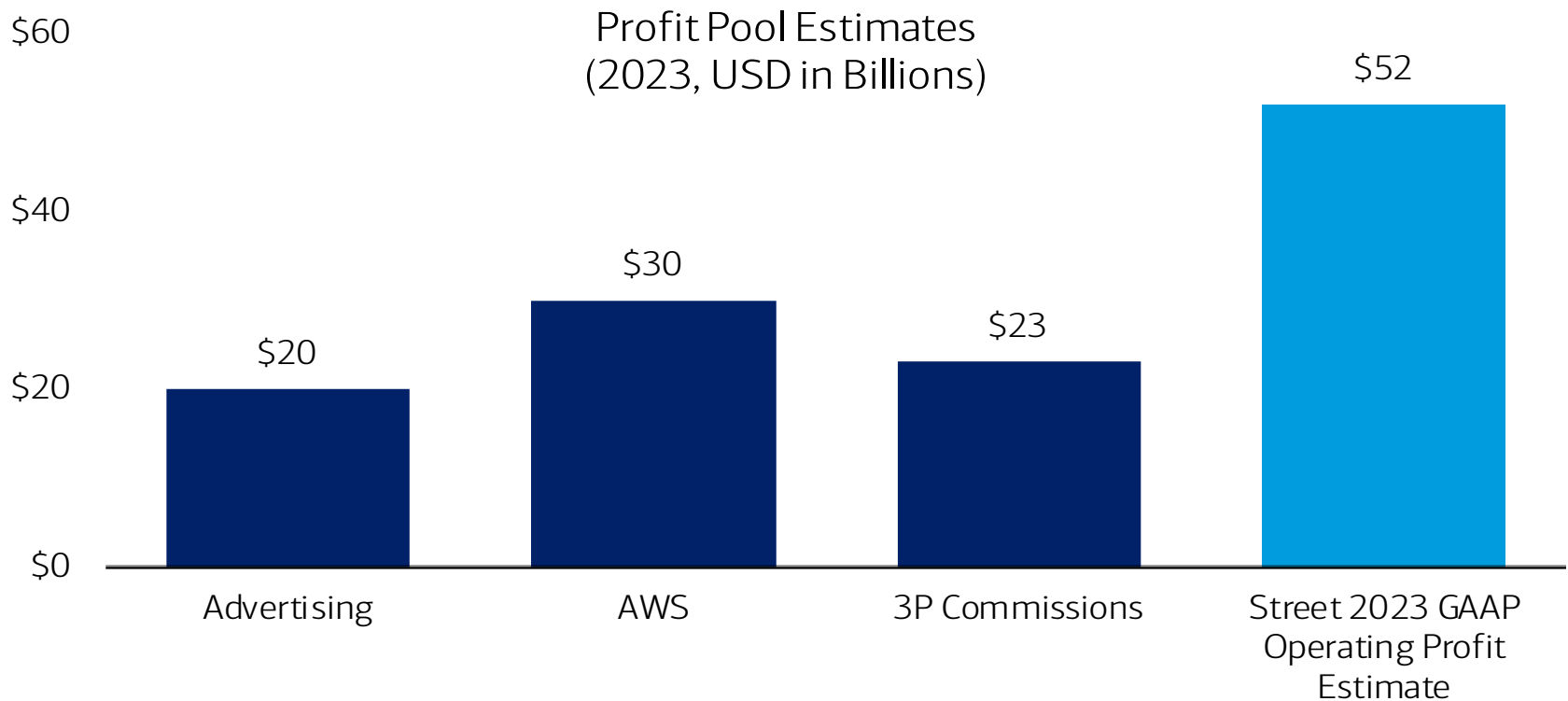
AWS	3,236	4,339	5,239	8,198	9,370	10,344	16,509	17,438	19,036
Microsoft Azure	620	974	1,716	3,399	5,416	7,392	11,003	11,905	14,802
Google Cloud	143	304	1,579	1,248	2,590	3,779	5,178	6,517	7,874
Total	\$3,999	\$5,617	\$8,534	\$12,845	\$17,376	\$21,515	\$32,690	\$35,860	\$41,712

Source: BofA Global Research estimates, Company Reports



Profit Pools can drive optimism on 2023-2025 margin uptick

- In 2023, we estimate Amazon could generate about \$20bn operating profit from Advertising/other (assuming 40% margins), \$30bn in operating profit from AWS (30% margins), and has the potential to generate \$23bn in profit from 3P commissions (using eBay's 30% margins and assuming 0% contribution from FBA fees).
- In total, we see a profit potential from AWS, advertising and 3P commissions at \$73bn in 2023 (which compares to street estimates at \$52bn for Amazon as a whole), suggesting significant opportunity for margin inflection when the 1-Day fulfillment investment cycle slows.

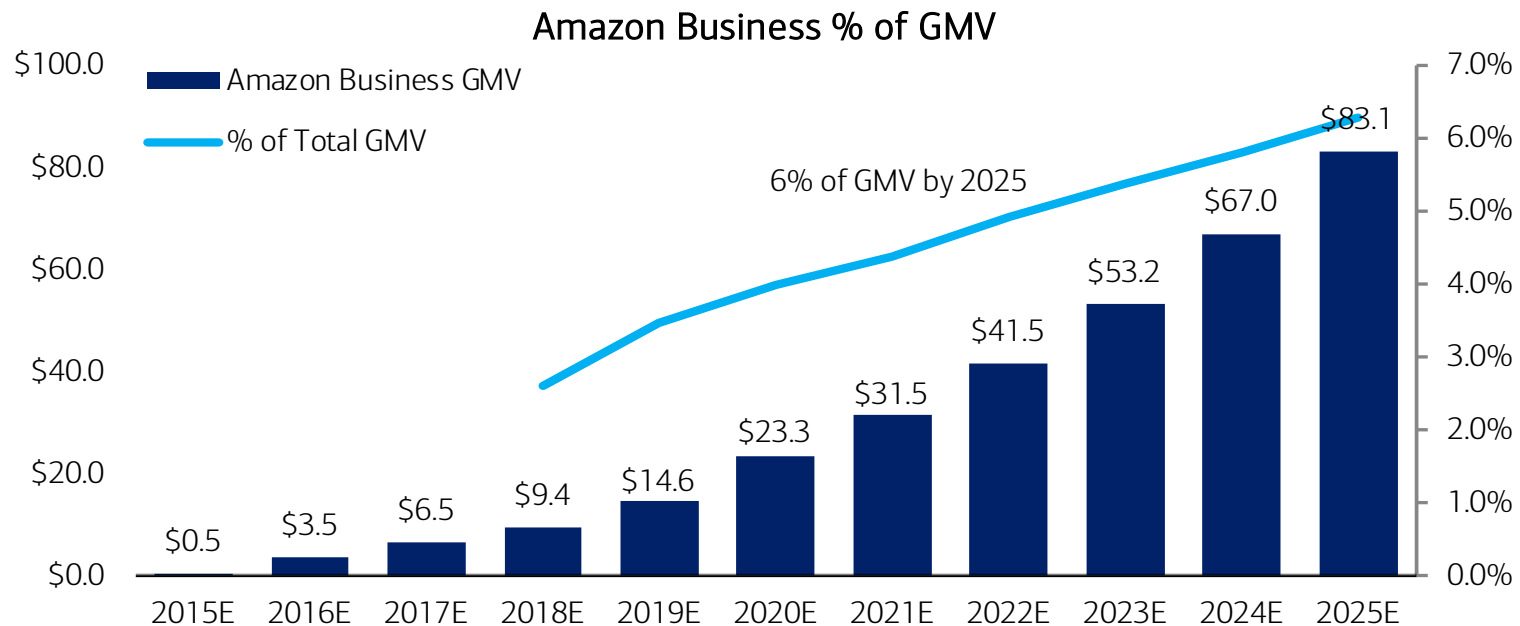


Source: BofA Global Research estimates



Underappreciated B2B opportunity

- Amazon Business is an early global initiative that materially increases Amazon's addressable market.
- Amazon Business reached a \$25bn annualized run-rate GMV in March '21, up from a \$10bn in Sept. '18 (implies 44% CAGR), with 3P sellers generating over 50% of Amazon Business GMV
- We estimate \$31bn in Amazon Business GMV for 2021, and for 2025, we estimate \$83b, still just 1.5% penetration of an estimated \$5.7tn Global B2B TAM, ex-China.

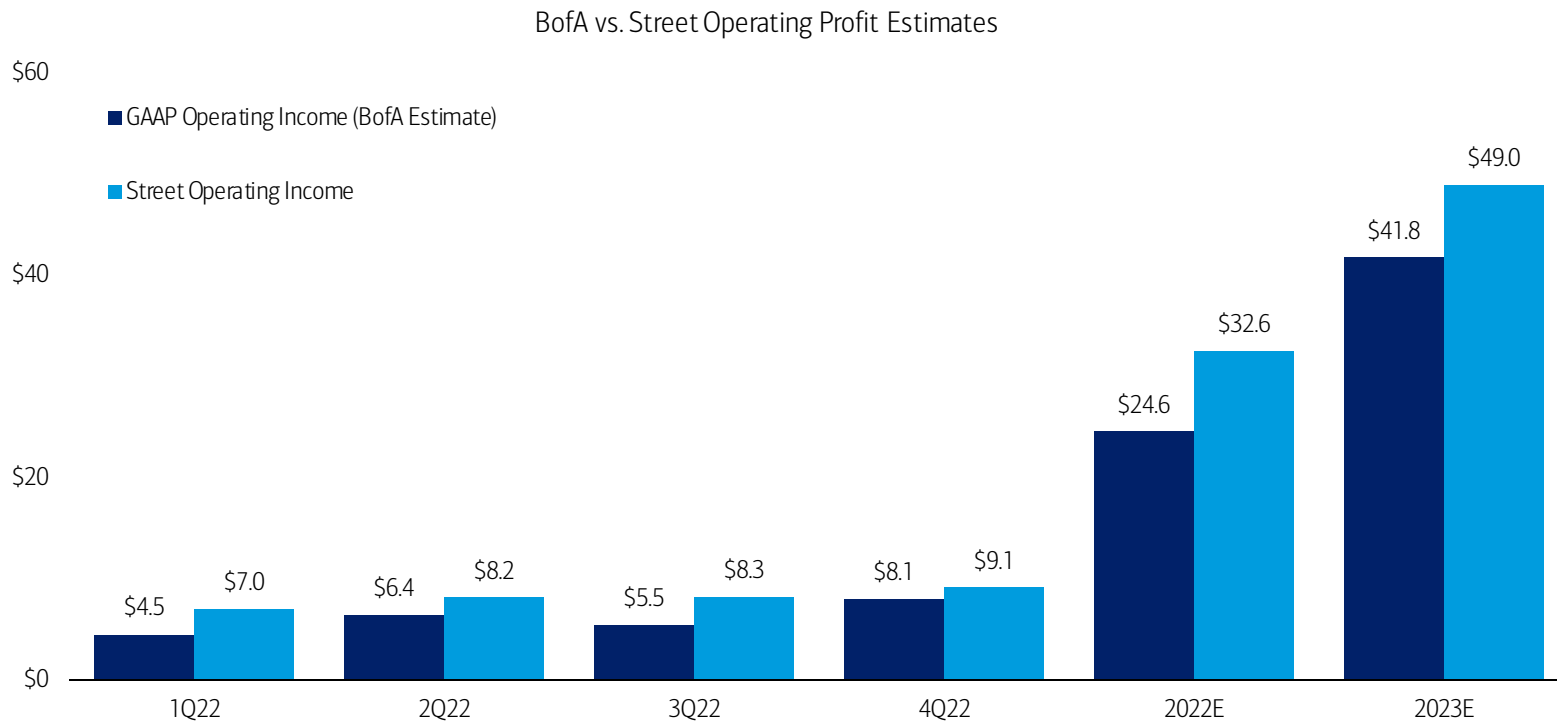


Source: BofA Global Research estimates, Company Reports



Risk: Expect margin pressure from fulfillment build

- Expect logistics build in 2022 to continue to pressure margins
- Supply chain and labor cost pressures likely to continue, 1Q could see added pressure due to COVID uptick
- We are below Street for 1Q GAAP Operating Profit and below Street for all quarters of 2022

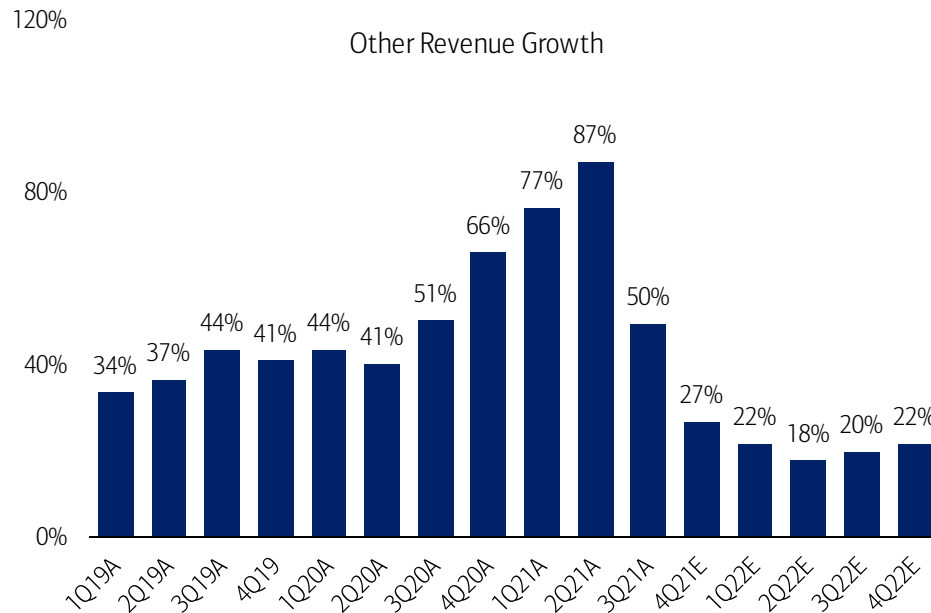


Source: BofA Global Research Estimates, Bloomberg

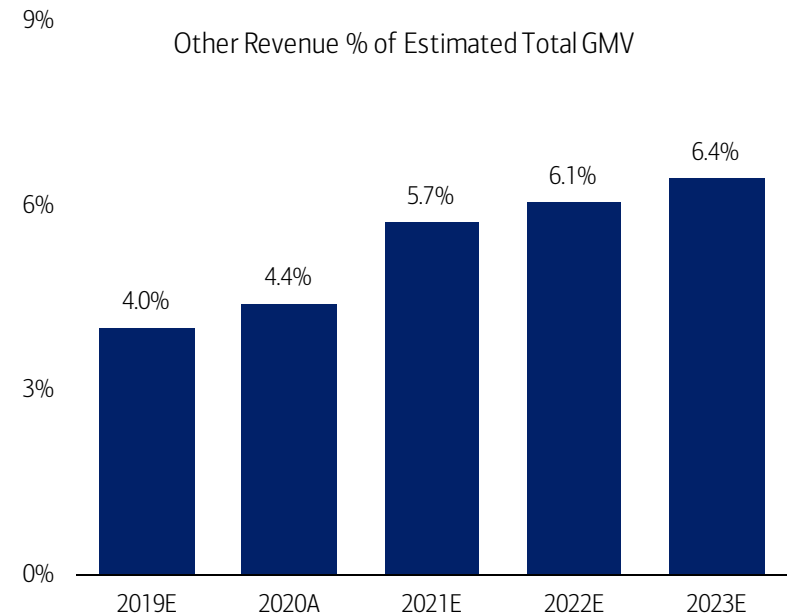


Risk: Advertising revenue growth likely to slow

- Kenshoo call suggested ad spend slowed in 4Q, with tough Prime Day comp in October
- Ad spend growing as % percent of GMV (Note: 1/3 of Other revenue could be non-core Amazon ad spend)



Source: BofA Global Research estimates, Company Reports



Source: BofA Global Research estimates, Company Reports



Risk: Regulatory pressure growing

Regulation remains a risk in the US and EU, potentially leading to 3P policy changes, fines or higher taxes. Potential risk areas:

- Continued battles with unions in Alabama and New York City, and the National Labor Relations Board. New vote in Alabama is possible in 2022.
- US anti-trust investigations potentially reviewing consumer data use, 3P agreements, use of 3P data to inform 1P policy, and cloud business policies. Seller complaints on commission, FBA and advertising fees. Could limit ability to show retail profits.
- EU investigations on marketplace policies. Antitrust complaints on using seller data for 1P sales with formal statement of objections in November 2020 (fine could come in 2022). Also, recent fine in Italy of nearly \$1.3 billion by regulators who accused of giving advantages to merchants that choose FBA over those that use their own delivery network.
- FTC reviewing Amazon's proposed acquisition of MGM.

SOTP Valuation and Price Objective



- Our PO is based on our SOP analysis that values the 1P retail business at 1.0x 2023E revenue (including subscription/Prime membership fees), 3P retail business at 3.7x 2023E Revenue, AWS at 11.0x 2023 Sales, and the advertising business at 6.5x 2023 Sales, roughly in line with comps. Comps have come in recently.
- Our PO of \$4,450 for Amazon implies 3.5x 2023E Price/Sales, a multiple at the high end of Amazon's historical range of 1.0-3.5x. Stock currently valued at 2.6x 2023 sales.
- Pushback is that Amazon should have both regulatory and conglomerate discount to peers.

Metric	2023E	Comps (EV / Revenue)
AWS Revenue	\$98,353	
<i>P/S Multiple</i>	<i>11.0x</i>	<i>SaaS Comps</i> <i>10.1x</i>
AWS Valuation	\$1,081,883	
AWS per share	\$2,079	
1P Retail Revenue (Includes Subscription)	\$347,845	
<i>Price / 1P Retail Revenue Multiple</i>	<i>1.0x</i>	<i>Retail Comps</i> <i>1.2x</i>
First-Party Retail Valuation	\$344,366	
1P Retail per share value	\$662	
Third-Party Revenue	\$153,827	
<i>P/ 3P Revenue Multiple</i>	<i>3.7x</i>	<i>Third-Party Marketplace</i> <i>3.9x</i>
Retail Valuation	\$569,159	
3P Retail per share value	\$1,093	
Advertising Revenue	49,343	
<i>P/S Multiple</i>	<i>6.5x</i>	<i>Online Ads</i> <i>5.6x</i>
Advertising Valuation	\$320,729	
Amazon Advertising per share	\$616	
Implied EV	\$2,316,137	
Total Amazon Value	\$4,450	

Amazon Segment Comps



Online Media	1/10/2022	Revenue Growth		Gross Margin		EBITDA Margin		TEV/Revenue			EV/EBITDA		
	Price	2022	2023	2022	2023	2022	2023	2021	2022	2023	2021	2022	2023
Facebook	\$325.29	19%	18%	79%	79%	29%	25%	7.3x	6.1x	5.2x	13x	12.5x	10.1x
Google	\$2,755.55	17%	16%	68%	67%	23%	20%	8.2x	7.0x	6.0x	16x	13.9x	11.9x
Pinterest	\$32.66	26%	28%	80%	81%	-2%	-1%	7.5x	5.9x	4.6x	NM	19.1x	13.5x
Snap	\$41.03	39%	45%	60%	65%	-13%	-9%	16.2x	11.7x	8.1x	NM	72.0x	31.9x
Twitter	\$39.65	21%	22%	65%	66%	12%	10%	5.8x	4.8x	4.0x	30x	22.0x	16.3x
Average		24%	26%	71%	71%	10%	9%	9.0x	7.1x	5.6x	20x	27.9x	16.7x

SaaS	Price	Revenue Growth		Gross Margin		EBITDA Margin		TEV/Revenue			EV/EBITDA		
		2022	2023	2022	2023	2022	2023	2021	2022	2023	2021	2022	2023
Adobe	\$519.77	14%	15%	89%	90%	37%	32%	15.6x	13.7x	11.9x	30x	27.2x	23.4x
Intuit	\$560.00	32%	15%	83%	84%	24%	21%	16.8x	12.7x	11.1x	NM	NM	NM
Microsoft	\$311.12	18%	14%	69%	69%	43%	37%	13.7x	11.6x	10.2x	28x	23.0x	NM
RingCentral	\$169.10	25%	26%	78%	78%	-1%	-1%	10.5x	8.4x	6.7x	NM	NM	NM
Salesforce	\$226.56	25%	20%	79%	79%	17%	14%	10.8x	8.6x	7.2x	35x	27.0x	21.5x
Service Now	\$556.87	25%	24%	82%	82%	8%	7%	18.7x	14.9x	12.0x	56x	45.4x	35.3x
Splunk	\$116.64	18%	18%	76%	75%	-24%	-20%	9.3x	7.9x	6.7x	NM	NM	NM
Veeva	\$235.74	27%	18%	75%	75%	23%	19%	23.4x	18.4x	15.5x	58x	NM	NM
WorkDay	\$247.83	19%	19%	78%	79%	5%	4%	14.1x	11.8x	9.9x	NM	43.1x	43.5x
Average		23%	19%	79%	79%	15%	13%	14.8x	12.0x	10.1x	42x	33.1x	30.9x

Third-Party Marketplaces	Price	Revenue Growth		Gross Margin		EBITDA Margin		TEV/Revenue			EV/EBITDA		
		2022	2023	2022	2023	2022	2023	2021	2022	2023	2021	2022	2023
Alibaba	\$127.97	23%	17%	37%	38%	17%	14%	2.5x	2.1x	1.8x	11x	12.0x	9.5x
Allegro	\$38.63	22%	38%	NA	NA	24%	18%	8.1x	6.7x	4.8x	20x	18.7x	15.2x
eBay	\$64.47	5%	5%	74%	74%	32%	31%	4.2x	4.0x	3.8x	NA	NA	NA
Etsy	\$179.36	20%	20%	73%	73%	18%	15%	10.6x	8.8x	7.3x	34x	29.2x	22.7x
Farfetch	\$28.28	27%	25%	46%	46%	-14%	-11%	4.4x	3.5x	2.8x	NA	NA	NA
Mercado Libre	\$1,027.36	33%	33%	41%	41%	3%	2%	7.6x	5.7x	4.3x	NA	NA	NA
PinDuoDuo	\$56.57	34%	30%	64%	66%	-6%	-5%	3.7x	2.8x	2.1x	NA	36.4x	12.2x
Average		23%	24%	56%	56%	10%	9%	5.9x	4.8x	3.9x	22x	24.1x	14.9x

Retail	Price	Revenue Growth		Gross Margin		EBITDA Margin		TEV/Revenue			EV/EBITDA		
		2022	2023	2022	2023	2022	2023	2021	2022	2023	2021	2022	2023
Advanced Auto Parts	\$233.00	2%	3%	46%	46%	14%	13%	1.6x	1.6x	1.5x	12x	10.7x	9.7x
Autozone	\$2,008.92	8%	5%	52%	52%	24%	23%	3.4x	3.1x	3.0x	14x	13.1x	12.5x
Bed Bath & Beyond	\$12.84	-15%	-1%	35%	35%	7%	7%	0.4x	0.5x	0.5x	6x	6.0x	4.6x
Best Buy	\$102.23	9%	-1%	22%	22%	8%	8%	0.5x	0.5x	0.5x	6x	5.5x	5.8x
Macys	\$25.46	43%	0%	38%	38%	-13%	-13%	0.8x	0.6x	0.6x	NA	3.1x	3.2x
Target	\$227.14	16%	3%	28%	28%	9%	9%	1.3x	1.1x	1.1x	13x	10.2x	10.2x
TJ Max	\$72.28	50%	7%	29%	29%	7%	6%	2.8x	1.9x	1.8x	52x	14.0x	12.8x
Walmart	\$144.79	3%	3%	24%	24%	6%	6%	0.8x	0.8x	0.8x	13x	11.7x	11.3x
Average		14%	2%	34%	35%	8%	7%	1.5x	1.3x	1.2x	17x	9.3x	8.8x

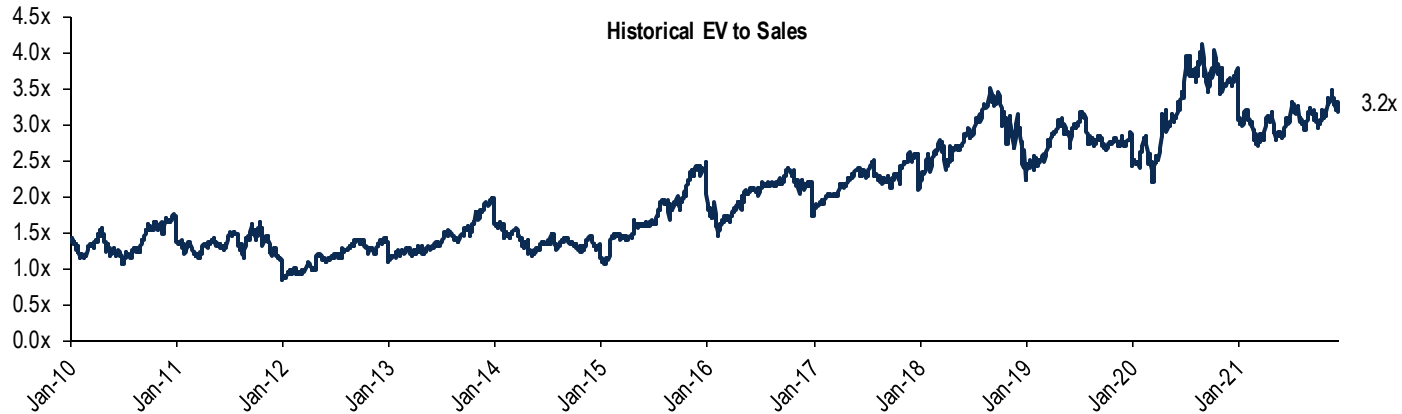
Amazon	\$3,200.02	18%	17%	42%	44%	10%	8%	3.6x	3.0x	2.6x	25x	20.3x	16.1x
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Source: Bloomberg

Historical Valuation

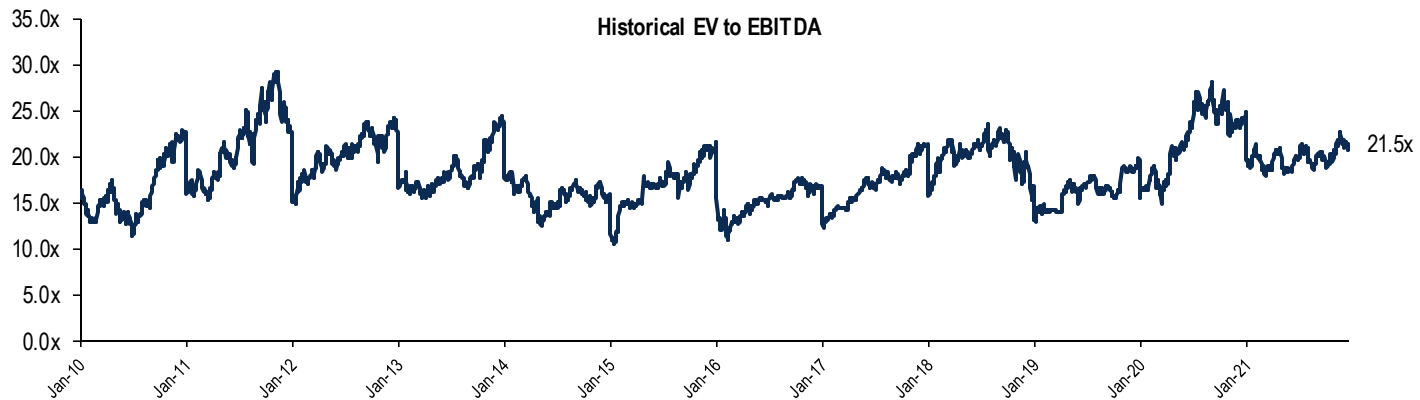


- Amazon is trading at 3.2x 2022 revenue, a multiple at the high end of Amazon's historical range of 1.0 - 3.5x. Valued at 2.6x 2023.



Source: Bloomberg

- Amazon is trading at 21.5x 2022 EBITDA, a multiple towards the middle of the historical range of 11x – 30x. Valued at 16x 2023 EBITDA.



Source: Bloomberg



Amazon Bull Points

Better set up for eCommerce sector in 2022

- Likely accelerating growth for the sector in 2H'22, much improved set up vs deceleration in 2021.
- eCommerce penetration as a percent of spend bottomed at below 17% in July. We think eCommerce is well positioned to accelerate beginning in Q2'22.

Retail revenue benefit from major infrastructure build in 2021-2022

- Potentially doubling of fulfilment square footage in 2 years, adding more square feet than Walmart.
- Increasing delivery stations by up to 10x to over 700, adding large grocery, delivery and convenience TAM to opportunity.
- Amazon now delivers over 50% of its own packages globally, reducing dependence on UPS and FedEx and potentially improving delivery speeds.

AWS had a strong 2021, beneficiary of corporate capex cycle

- AWS has leading market share in an attractive industry with only 5-15% of IT spending in the cloud.
- Enterprises may be positioned to take the lead for accelerating capex spend in 2022, and we expect strong demand for cloud infrastructure and IaaS/PaaS service providers.

Growing profit pools from AWS, Advertising, 3P with potential for large possible profit inflection

- By 2023, we estimate Amazon will generate \$20bn profit from Advertising, \$30bn from AWS and potentially \$23bn from 3P commissions, expect optimism on future profits with investment cycle ends.

SOTP valuation at market multiples suggests 30% upside.

- Our PO is largely based on our SOP analysis that applies market multiples, and represents 35%+ upside to the current share price. Stock trading at 16x 2023 EBITDA.

Amazon Bear Points



Investment, supply chain and labor shortage issues driving higher costs and lower margins

- Amazon is seeing incremental costs related to labor supply shortages, increased wage costs, global supply chain issues, and increased freight and shipping costs. Little relief in 1Q due to COVID challenges.
- Expect significant fulfillment investment to continue into 2022, pressuring margins.

Local delivery competitive concerns

- Local retail is emerging as an Online competitor, with gig-company partnerships enabling same-day delivery (Walmart, grocery, Best Buy, etc).
- Gig-competitors (Instacart, DoorDash, Uber) have millions of contractors, potentially with a speed advantage.

AWS growth likely to decelerate in 2022

- With AWS revenue growth accelerating from 30% in 2020 to 36% in 2021, growth likely to decelerate in 2022 as projects delayed from 2020 dissipate.
- We project 28% Y/Y growth for AWS revenue in 2022, roughly 10 points deceleration vs 2021.

Regulatory Risk

- Anti-trust regulation will also remain a risk in the US and EU, EU could issue a large fine in 2022.
- Anti-trust regulators have emphasized Amazon's 3P marketplace policies, regulatory efforts could impact sentiment on potential profit generation.

High margin ad sales likely to slow

- Amazon's ad business faces difficult comps and ad sales have grown to over 5% of GMV.

Still a risk of reopening impact post-COVID

- As COVID cases have remained stubbornly high, with new variants creating new restrictions and mask mandates in some areas, Amazon could see sales impact from Summer reopening



Appendix #1: US eCommerce market share model

US eCommerce GMV (\$ in millions)	2019A	2020A	1Q21A	2Q21E	3Q21E	4Q21E	2021E	1Q22E	2Q22E	3Q22E	4Q22E	2022E	2023E
Amazon US GMV (ex-WF)	\$247,055	\$290,574	\$78,505	\$81,197	\$76,454	\$102,579	\$338,735	\$82,819	\$90,642	\$89,977	\$119,995	\$383,433	\$443,357
Y/Y Growth	19%	18%	51%	21%	6%	3%	17%	5%	12%	18%	17%	13%	16%
Acceleration/Deceleration	1pts	-1pts	27pts	-30pts	-15pts	-3pts	-1pts	2pts	6pts	6pts	-1pts	-3pts	2pts
Q/Q Growth			-21%	3%	-6%	34%		-19%	9%	-1%	33%		
US eCommerce Market Share	41%	38%	40%	38%	39%	43%	40%	41%	38%	38%	43%	40%	40%
Walmart US eCommerce GMV	\$29,580	\$53,472	\$12,736	\$13,579	\$14,017	\$23,489	\$69,931	\$14,297	\$15,412	\$15,998	\$27,533	\$73,240	\$81,551
Y/Y Growth	43%	81%	37%	12%	14%	19%	31%	12%	14%	14%	17%	5%	11%
Acceleration/Deceleration	12pts	38pts	-34pts	-25pts	2pts	5pts	-50pts	-7pts	1pts	1pts	3pts	-26pts	7pts
Q/Q Growth			-36%	7%	3%	68%		-39%	8%	4%	72%		
US eCommerce Market Share	5%	7%	6%	6%	7%	10%	8%	7%	6%	7%	10%	8%	7%
eBay US GMV	\$30,742	\$37,534	\$10,393	\$9,964	\$8,968	\$8,950	\$38,275	\$8,938	\$9,466	\$9,596	\$9,666	\$37,666	\$38,796
Y/Y Growth	-7%	22%	36%	-5%	-8%	-7%	2%	-14%	-5%	7%	8%	-2%	1%
Acceleration/Deceleration	-11pts	29pts	11pts	-41pts	-3pts	1pts	-20pts	-7pts	9pts	12pts	1pts	-4pts	3pts
Q/Q Growth			8%	-4%	-10%	0%		0%	6%	1%	1%		
US eCommerce Market Share	5%	5%	5%	5%	5%	4%	5%	4%	4%	4%	3%	4%	4%
Target US Digital Sales	\$6,757	\$16,548	\$4,472	\$4,303	\$4,531	\$6,747	\$20,053	\$6,717	\$4,729	\$4,984	\$7,422	\$23,852	\$29,721
Y/Y Growth	28%	145%	50%	10%	29%	10%	21%	50%	10%	10%	10%	19%	25%
Acceleration/Deceleration	-5pts	117pts	-68pts	-40pts	19pts	-19pts	-124pts	40pts	-40pts	0pts	0pts	-2pts	6pts
Q/Q Growth			-27%	-4%	5%	49%		0%	-30%	5%	49%		
US eCommerce Market Share	1%	2%	2%	2%	2%	3%	2%	3%	2%	2%	3%	2%	3%
Aggregate eCommerce GMV (sum above)	\$314,134	\$398,129	\$106,106	\$109,043	\$103,969	\$141,766	\$466,994	\$112,771	\$120,250	\$120,554	\$164,616	\$518,191	\$593,425
y/y Growth	17%	27%	47%	16%	6%	5%	17%	6%	10%	16%	16%	11%	15%
Share of Total US eCommerce	52%	52%	54%	52%	53%	60%	56%	56%	50%	51%	59%	54%	54%
Total US eCommerce Spending	\$599,836	\$762,675	\$196,808	\$211,704	\$195,537	\$237,311	\$841,360	\$202,671	\$239,780	\$238,287	\$280,945	\$961,683	\$1,106,024
y/y Growth	15%	27%	39%	9%	2%	1%	10%	3%	13%	22%	18%	14%	15%
Acceleration/Deceleration	1pts	13pts	12pts	-30pts	-7pts	-1pts	-17pts	2pts	10pts	9pts	-3pts	4pts	1pts

Source: BofA Global Research estimates, Company Reports

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Methodology explained

Readers should be aware that although the BAC datasets utilized in our analysis represent a significant number of data points, they nevertheless present a degree of selection bias, including but not limited to income levels and geographies. In addition, the data is limited to debit and credit cards and does not include other payment methods such as cash or checks.

Data regarding merchants who receive payments are identified and classified by the Merchant Categorization Code (MCC) defined by financial services companies. The data are mapped using proprietary methods from the MCCs to the North American Industry Classification System (NAICS), which is also used by the Census Bureau, in order to classify spending data by subsector. Spending data may also be classified by other proprietary methods not using MCCs.

BAC data used in this report include spending from active US households only. Spending from corporate cards are excluded.

Unless otherwise note, the monthly subsector data are adjusted to control for seasonality and other factors.



Price Objective Basis and Risk

Amazon.com (AMZN, \$3229.72, B-1-9)

Our PO of \$4,450 is based on our SOP analysis that values the 1P retail business at 1.1x 2023E revenue (including subscription/Prime membership fees), 3P retail business at 3.7x 2023E Revenue, AWS at 11.0x 2023 Sales, and the advertising business at 6.5x 2023 Sales, roughly in line with comps given Amazon's higher growth offset by some conglomerate discount. Our PO of \$4,450 for Amazon implies 3.5x 2023E Price/Sales, a multiple at the high end of Amazon's historical range of 1.0-3.5x. 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 retailers, rich P/E multiple, margin or growth pressure from the digitization of media, hardware strategy, AWS investments and/or price cuts, Prime Instant Video content costs, and decelerating growth. 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.

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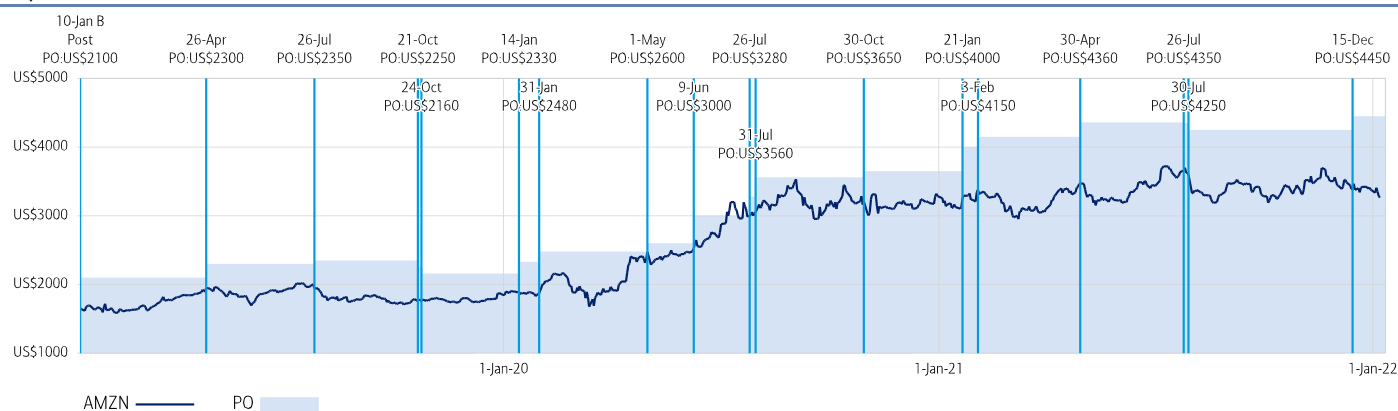


BoFA Securities is currently acting as Financial Advisor to Amazon.com Inc in connection with its proposed acquisition of Metro-Goldwyn-Mayer Inc from MGM Holdings Inc, which was announced on May 26, 2021.

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Amazon.com (AMZN) Price Chart



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

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

Important Disclosures



Equity Investment Rating Distribution: Technology Group (as of 31 Dec 2021)

Coverage Universe	Count	Percent	Inv. Banking Relationships Error! Reference source not found.	Count	Percent
Buy	242	64.53%	Buy	153	63.22%
Hold	77	20.53%	Hold	47	61.04%
Sell	56	14.93%	Sell	31	55.36%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2021)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1982	58.85%	Buy	1249	63.02%
Hold	696	20.67%	Hold	429	61.64%
Sell	690	20.49%	Sell	346	50.14%

^{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.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R1}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

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