

# Amazon.com Inc. (AMZN)

## Framing The Upside Path to 2025 Operating Income

Buy

AMZN	12m Price Target: <b>\$250.00</b>	Price: <b>\$194.49</b>	Upside: <b>28.5%</b>
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In this report, we preview AMZN's upcoming Q2'24 operating results and increase our above-Street 2025 GAAP Operating Income estimate (now +8% above) as we continue to see upside to margins. There are three main investor debates heading into earnings that are likely to be drivers of incremental share price performance: 1) the overall health of the consumer – AMZN's eCommerce business appears to have remained strong in Q2 (ex some weakness in the UK/Germany) based on a host of industry checks and data points intra quarter; 2) the ability of AMZN to continue to produce Operating Income margin upside – a topic we delve into greater detail in the note and still see the potential for outperformance in 2025 (& beyond) driven by higher retail margins & a stronger contribution of advertising – we also maintain a positive long-term view on Intl margins and expect AWS profitability to remain robust; & 3) the trajectory of AWS revenue growth, where we continue to expect reacceleration through 2024 as prior headwinds around optimization and workload migration turn into tailwinds and AI workloads are a rising tailwind. We increase our AMZN 12-month PT from \$225 to \$250 and reiterate our Buy rating. While AMZN's shares have outperformed the S&P and Nasdaq over the past 12 months, performance has entirely been driven by higher profit estimates (during a period of outsized positive earnings revisions) as multiple compression was a headwind to equity returns. Looking ahead, our 12m price target implies that AMZN will trade at 30x our updated \$8.29 2026 GAAP EPS estimate (+12% above Street of \$7.42) which would represent a PEG of just over 1.0x on our 2026 EPS growth of nearly 30% YoY.

In terms of our margin analysis in this report, we see upside to AMZN's Street profitability estimates, our modeled \$83bn of 2025 GAAP EBIT is +8% above FactSet consensus of \$77bn. We see

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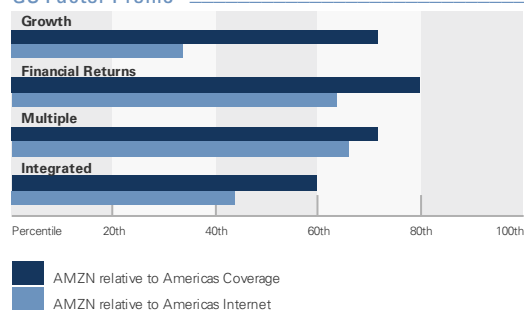
### Key Data

Market cap: \$2.1tr  
Enterprise value: \$2.0tr  
3m ADTV: \$7.8bn  
United States  
Americas Internet  
M&A Rank: 3  
Americas Conviction List

### GS Forecast

	12/23	12/24E	12/25E	12/26E
<b>Revenue (\$ mn) New</b>	<b>574,785.0</b>	<b>633,887.8</b>	<b>697,925.2</b>	<b>767,268.2</b>
Revenue (\$ mn) Old	574,785.0	633,887.8	695,291.7	758,530.9
EBITDA (\$ mn)	85,515.0	114,478.6	139,269.8	160,649.9
EBIT (\$ mn)	36,852.0	64,483.0	82,764.2	103,238.9
<b>EPS (\$) New</b>	<b>2.89</b>	<b>4.74</b>	<b>6.54</b>	<b>8.29</b>
EPS (\$) Old	2.89	4.55	6.32	7.67
P/E (X)	42.0	41.0	29.7	23.5
Dividend yield (%)	–	–	–	–
Net debt/EBITDA (X)	(0.2)	(0.6)	(1.0)	(1.5)
	<b>3/24</b>	<b>6/24E</b>	<b>9/24E</b>	<b>12/24E</b>
EPS (\$)	0.98	0.98	1.30	1.48

### GS Factor Profile



Source: Company data, Goldman Sachs Research estimates.  
See disclosures for details.

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Buy

CL

## Amazon.com Inc. (AMZN)

Rating since Sep 12, 2021

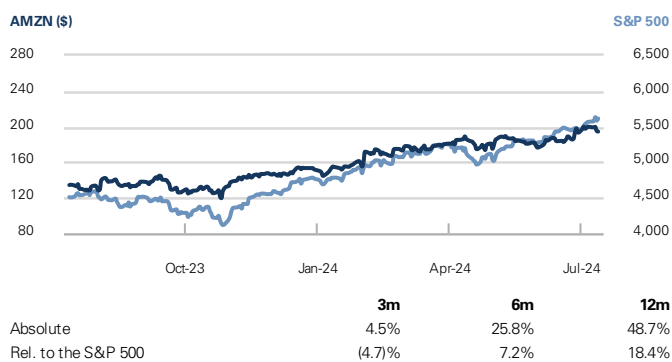
## Ratios &amp; Valuation

	12/23	12/24E	12/25E	12/26E
P/E (X)	42.0	41.0	29.7	23.5
EV/EBITDA (X)	14.5	17.2	13.8	11.6
EV/sales (X)	2.2	3.1	2.8	2.4
FCF yield (%)	2.9	2.9	3.9	4.6
EV/DACF (X)	14.0	16.3	13.2	11.4
CROCI (%)	26.7	29.9	30.5	29.4
ROE (%)	17.5	21.3	21.8	20.9
Net debt/EBITDA (X)	(0.2)	(0.6)	(1.0)	(1.5)
Net debt/equity (%)	(7.5)	(23.8)	(37.9)	(47.1)
Interest cover (X)	11.6	25.1	32.7	41.4
Inventory days	40.6	38.7	38.6	38.4
Receivable days	30.0	32.4	34.0	35.6
Days payable outstanding	98.6	98.2	95.4	91.4

## Growth &amp; Margins (%)

	12/23	12/24E	12/25E	12/26E
Total revenue growth	11.8	10.3	10.1	9.9
EBITDA growth	49.4	28.0	20.3	14.7
EPS growth	1,162.5	64.1	38.0	26.7
DPS growth	NM	NM	NM	NM
Gross margin	47.0	49.1	50.9	52.3
EBIT margin	6.4	10.2	11.9	13.5

## Price Performance



Source: FactSet. Price as of 12 Jul 2024 close.

## Income Statement (\$ mn)

	12/23	12/24E	12/25E	12/26E
Total revenue	574,785.0	633,887.8	697,925.2	767,268.2
Cost of goods sold	(304,739.0)	(322,614.0)	(342,628.7)	(365,913.0)
SG&A	(146,805.0)	(156,140.9)	(164,659.3)	(174,945.2)
R&D	(85,622.0)	(90,421.9)	(107,873.0)	(123,171.1)
Other operating inc./exp.)	(767.0)	(228.0)	—	—
<b>EBITDA</b>	<b>109,538.0</b>	<b>140,235.9</b>	<b>168,691.4</b>	<b>193,433.2</b>
Depreciation & amortization	(48,663.0)	(49,995.6)	(56,505.6)	(57,411.0)
<b>EBIT</b>	<b>36,852.0</b>	<b>64,483.0</b>	<b>82,764.2</b>	<b>103,238.9</b>
Net interest inc./exp.)	(233.0)	2,021.4	5,613.3	10,368.0
Income/(loss) from associates	—	—	—	—
<b>Pre-tax profit</b>	<b>37,557.0</b>	<b>63,201.4</b>	<b>88,377.5</b>	<b>113,606.9</b>
Provision for taxes	(7,120.0)	(12,009.4)	(16,793.3)	(21,587.3)
Minority interest	(12.0)	(172.3)	(146.5)	(143.1)
Preferred dividends	—	—	—	—
<b>Net inc. (pre-exceptionals)</b>	<b>30,425.0</b>	<b>51,019.7</b>	<b>71,437.7</b>	<b>91,876.4</b>
<b>Net inc. (post-exceptionals)</b>	<b>30,425.0</b>	<b>51,019.7</b>	<b>71,437.7</b>	<b>91,876.4</b>
<b>EPS (basic, pre-exception)</b> (\$)	<b>2.95</b>	<b>4.87</b>	<b>6.71</b>	<b>8.50</b>
<b>EPS (diluted, pre-exception)</b> (\$)	<b>2.88</b>	<b>4.75</b>	<b>6.54</b>	<b>8.29</b>
<b>EPS (ex-ESO exp., dil.)</b> (\$)	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
DPS (\$)	—	—	—	—
Div. payout ratio (%)	0.0	0.0	0.0	0.0
Wtd avg shares out. (basic) (mn)	10,314.7	10,474.4	10,641.4	10,804.5
Wtd avg shares out. (diluted) (mn)	10,568.7	10,751.4	10,918.4	11,081.5

## Balance Sheet (\$ mn)

	12/23	12/24E	12/25E	12/26E
Cash & cash equivalents	73,387.0	121,933.2	197,602.8	289,005.7
Accounts receivable	52,253.0	60,338.4	69,669.3	80,125.6
Inventory	33,318.0	35,154.7	37,281.1	39,747.5
Other current assets	13,393.0	13,858.8	16,387.1	19,376.6
<b>Total current assets</b>	<b>172,351.0</b>	<b>231,285.0</b>	<b>320,940.3</b>	<b>428,255.4</b>
Net PP&E	204,177.0	223,497.6	243,034.3	270,878.4
Net intangibles	22,789.0	22,770.0	22,770.0	22,770.0
Total investments	0.0	0.0	0.0	0.0
Other long-term assets	128,537.0	134,260.0	134,260.0	134,260.0
<b>Total assets</b>	<b>527,854.0</b>	<b>611,812.6</b>	<b>721,004.6</b>	<b>856,163.8</b>
Accounts payable	84,981.0	88,580.5	90,486.6	92,792.3
Short-term debt	—	—	—	—
Current lease liabilities	—	—	—	—
Other current liabilities	79,936.0	84,955.1	90,722.4	97,279.2
<b>Total current liabilities</b>	<b>164,917.0</b>	<b>173,535.6</b>	<b>181,209.0</b>	<b>190,071.5</b>
Long-term debt	58,314.0	55,870.8	54,107.5	52,344.3
Non-current lease liabilities	77,297.0	78,333.2	80,755.7	84,155.9
Other long-term liabilities	25,451.0	26,657.0	26,657.0	26,657.0
<b>Total long-term liabilities</b>	<b>161,062.0</b>	<b>160,861.0</b>	<b>161,520.3</b>	<b>163,157.2</b>
<b>Total liabilities</b>	<b>325,979.0</b>	<b>334,396.6</b>	<b>342,729.3</b>	<b>353,228.7</b>
Preferred shares	—	—	—	—
<b>Total common equity</b>	<b>201,875.0</b>	<b>277,416.0</b>	<b>378,275.3</b>	<b>502,935.1</b>
Minority interest	—	—	—	—
<b>Total liabilities &amp; equity</b>	<b>527,854.0</b>	<b>611,812.6</b>	<b>721,004.6</b>	<b>856,163.8</b>
BVPS (\$)	19.10	25.80	34.65	45.38

## Cash Flow (\$ mn)

	12/23	12/24E	12/25E	12/26E
Net income	30,425.0	51,019.7	71,437.7	91,876.4
D&A add-back	48,663.0	49,995.6	56,505.6	57,411.0
Minority interest add-back	—	—	—	—
Net (inc)/dec working capital	(8,739.0)	(5,890.4)	(3,784.0)	(4,060.1)
Others	14,597.0	26,923.3	29,421.6	32,783.3
<b>Cash flow from operations</b>	<b>84,946.0</b>	<b>122,048.2</b>	<b>153,580.9</b>	<b>178,010.6</b>
Capital expenditures	(48,133.0)	(63,583.7)	(73,101.2)	(81,524.5)
Acquisitions	(5,839.0)	(3,354.0)	—	—
Divestitures	—	—	—	—
Others	4,139.0	(2,209.8)	(2,528.3)	(2,989.5)
<b>Cash flow from investing</b>	<b>(49,833.0)</b>	<b>(69,147.5)</b>	<b>(75,629.5)</b>	<b>(84,514.1)</b>
Dividends paid	—	—	—	—
Share issuance/(repurchase)	—	—	—	—
Inc/(dec) in debt	(11,224.0)	(2,159.2)	(1,763.2)	(1,763.2)
Others	(4,390.0)	(2,195.3)	(518.6)	(330.4)
<b>Cash flow from financing</b>	<b>(15,614.0)</b>	<b>(4,354.5)</b>	<b>(2,281.8)</b>	<b>(2,093.7)</b>
<b>Total cash flow</b>	<b>19,499.0</b>	<b>48,546.2</b>	<b>75,669.5</b>	<b>91,402.9</b>
Free cash flow	36,813.0	58,464.5	80,479.7	96,486.1
Free cash flow per share (basic) (\$)	3.57	5.58	7.56	8.93

Source: Company data, Goldman Sachs Research estimates.

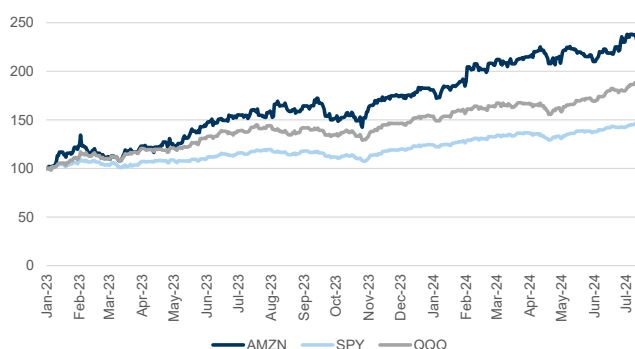
room for retail margins to continue to expand driven by i) operating leverage on fixed retail assets as we model paid units growth of +9% YoY in 2024/2025 and expect retail capital intensity to remain muted (following 2020-2022 peak investment cycle); ii) continued progress on lowering cost to serve per unit across the worldwide stores business (e.g., residual benefits from regionalization, improvements to inbound fulfillment architecture); iii) a more moderate rate of inflation of important input costs relative to 2021/2022 peaks (we recognize the recent rise in ocean freight costs which we see as a manageable headwind of \$500-700mm in Q2 in Exhibit 22); & iv) the high-margin contribution of growing revenue streams included in our definition of retail (e.g., Prime subscription fees) and the flow through of higher average seller fees. We also expect the growing scale of AMZN's Advertising efforts to be an additional tailwind to reported consolidated Operating Income margins. Lastly, we also view our modeling of 2025 AWS margins (below Street) as conservative and already reflecting a meaningful reacceleration in expenses (GSe AWS OpEx: +25% YoY in 2025; hiring, investments, and D&A from higher CapEx) with room for upside surprises to margins if AWS revenue outpaces our forecast.

## The Path to \$80bn+ of 2025 GAAP EBIT

**We see upside to AMZN Street profitability estimates and our modeled \$83bn of 2025 GAAP EBIT is +8% above FactSet consensus of \$77bn.** AMZN's stock price is up +132% since the start of 2023, outperforming the S&P (+46%) and the NASDAQ (+85%). The stock has been driven by higher profits as NTM GAAP EBIT Street estimates have tripled since January 2023, reflecting a combination of profit growth and upward estimate revisions (2025 EBIT revised +35% higher). AMZN's NTM EV/GAAP EBIT multiple compressed from 49x to 33x over the period.

**Exhibit 1: AMZN has Outperformed the S&P and NASDAQ in the Past 18 Months...**

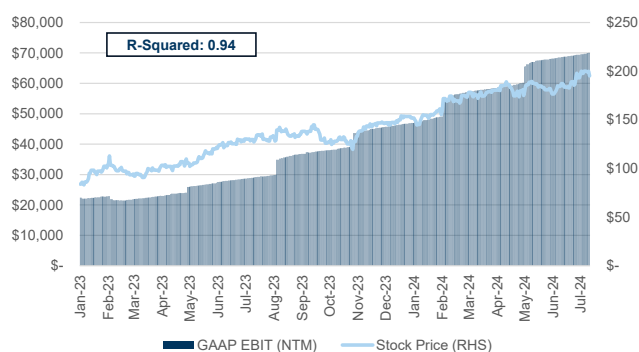
Indexed to Jan 2023 (100)



Source: FactSet, Goldman Sachs Global Investment Research

**Exhibit 2: ...Mainly Driven by a Meaningful Ramp in NTM GAAP EBIT**

\$mm, \$/sh

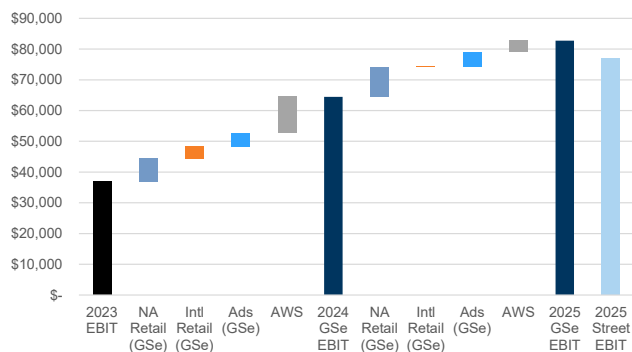


Source: FactSet, Company data, Goldman Sachs Global Investment Research

**We remain constructive on AMZN as we see the potential for continued upside to GAAP EBIT Street estimates driven by retail margin expansion.** We also view our modeling of 2025 AWS margins (below Street) as conservative and already reflecting a meaningful reacceleration in expenses (GSe AWS OpEx: +25% YoY in 2025; hiring, investments, and D&A from higher CapEx) with room for upside surprises to margins if AWS revenue growth outpaces our forecast (GSe: +20% YoY in 2025) or if the pace of reinvestment is slower.

**Exhibit 3: Expect North America Retail to be the Largest Driver of 2025 GAAP EBIT Growth...**

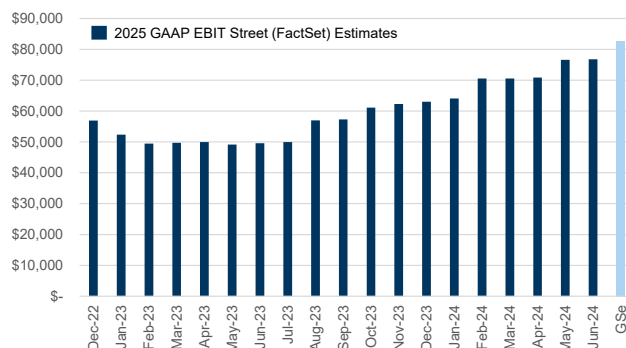
\$mm



Source: FactSet, Company data, Goldman Sachs Global Investment Research

**Exhibit 4: ...and Drive More Positive Revisions to 2025 GAAP EBIT...**

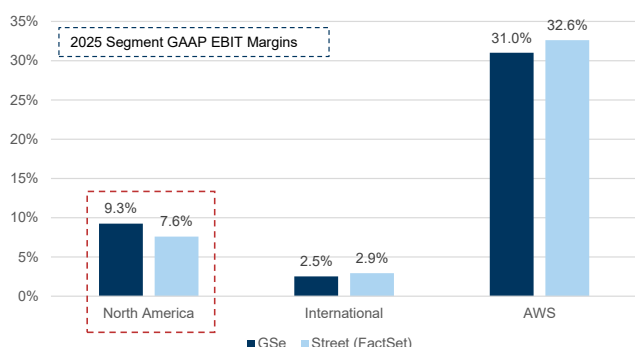
\$mm



Source: FactSet, Company data, Goldman Sachs Global Investment Research

**Exhibit 5: ...With Higher North America Margins More Than Offsetting Our Conservative Modeling of International/AWS...**

%

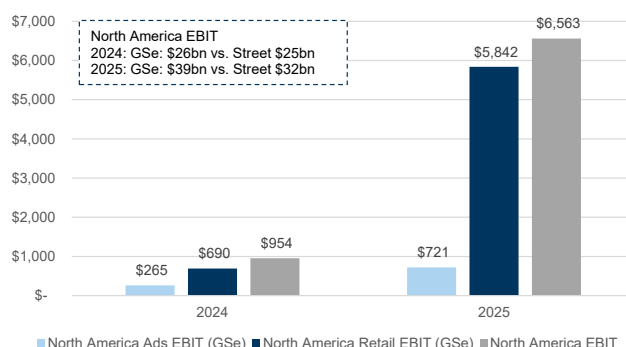


Note that FactSet segment-level estimates do not reconcile with consolidated estimates.

Source: FactSet, Company data, Goldman Sachs Global Investment Research

**Exhibit 6: ...in Turn Mainly Supported by Higher Profitability Expectations for North America Retail**

\$mm



Assumes (1) a 40% GAAP EBIT margin applied to advertising services revenue and (2) that North America accounts for 3/4 of total advertising services revenue. Those same assumptions are also applied to FactSet North America total segment EBIT.

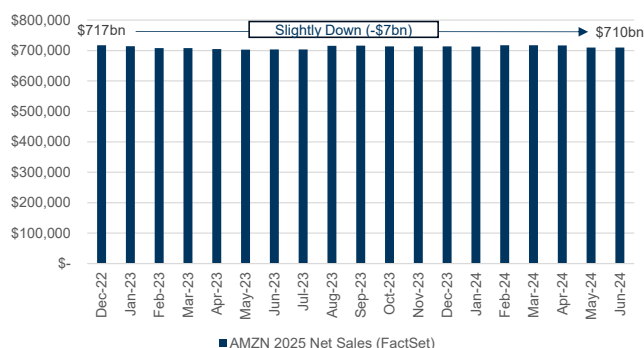
Source: FactSet, Company data, Goldman Sachs Global Investment Research

**Street 2025 GAAP EBIT Estimates Were Revised up by +35% in the Past 18 Months**

**We expect that AMZN will produce \$83bn of GAAP EBIT in 2025, above Street at \$77bn.** Street estimates were revised +35% higher in the past 18 months (+\$20bn) entirely driven by higher margin expectations, as sales estimates were revised down slightly over the same period.

**Exhibit 7: 2025 Sales Street Estimates Were Revised Down Since the Beginning of 2023...**

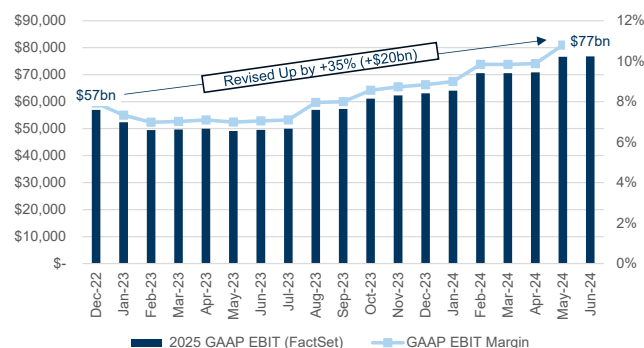
\$mm, %



Source: FactSet, Company data, Goldman Sachs Global Investment Research

**Exhibit 8: ...But GAAP EBIT was Revised up +35% Over the Same Period, all From Higher Margin Expectations**

\$mm, %

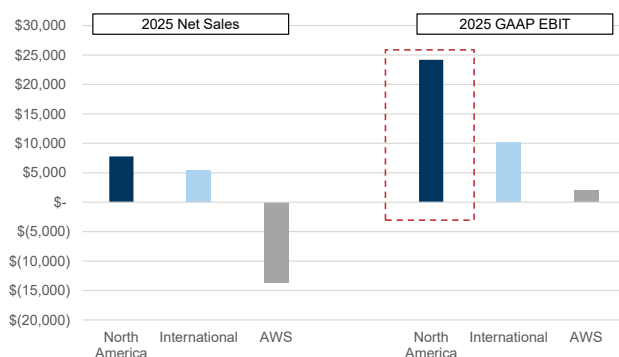


Source: FactSet, Company data, Goldman Sachs Global Investment Research

**AMZN's North America segment has been the largest driver of consolidated GAAP EBIT revisions in the past 18 months**, in turn primarily driven by a faster ramp in retail profitability. We expect North America to continue to drive earnings revisions and model segment GAAP EBIT margins of 9.3% in 2025, up +260bps YoY and +170bps higher vs. Street of 7.6%, mainly driven by higher underlying retail profitability and (to a lesser extent) faster growth of high-margin advertising services revenue.

**Exhibit 9: 2025 Consolidated GAAP EBIT Revisions Were Mainly Driven by North America...**

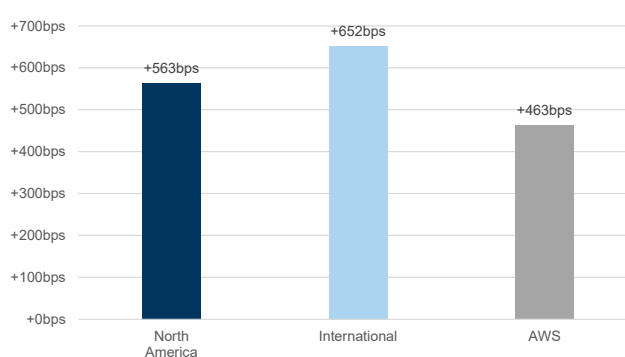
\$mm (January 2023 - June 2024)



Source: FactSet, Company data, Goldman Sachs Global Investment Research

**Exhibit 10: ...and Margins Were Revised Higher Across all Segments**

bps (January 2023 - June 2024)



Note that FactSet segment-level estimates do not reconcile with consolidated estimates. AMZN consolidated EBIT margins were revised up closer to +300bps over the period.

Source: FactSet, Company data, Goldman Sachs Global Investment Research

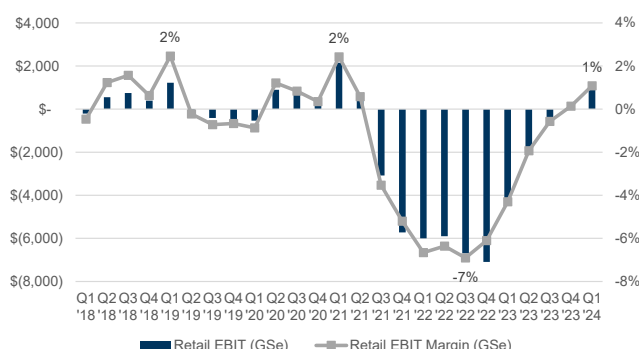
**Definition of retail profitability (GSe):** We define retail profitability as North America and International GAAP EBIT minus advertising GAAP EBIT (GSe; we apply a 40% margin to advertising services revenue). This can also be expressed as consolidated EBIT minus AWS and Advertising EBIT (GSe). This definition of retail margins excludes the contribution of large, fast-growing, and highly profitable businesses (AWS/Ads) but likely still understates the actual profitability of AMZN's eCommerce operations as it captures losses/investments from businesses not directly tied to online retail (e.g., Alexa, Kuiper, Prime Video).

## We Continue to See Upside to 2025 EBIT Estimates

### Where can Retail Margins go From Here?

We estimate that total company retail EBIT margins reached 1% in Q1'24, up nearly +500bps YoY, +100bps QoQ (Q4'23 roughly breakeven) and meaningfully higher vs. a trough of nearly (7)% in Q3'22. We allocate 3/4 of total advertising revenue to North America and estimate that North America retail margins were positive in Q1 and approached 2% (up nearly +5pp YoY, but down slightly QoQ) implying that International retail is still loss-making at (1)% despite significant margin expansion (+7pp YoY, +4pp QoQ).

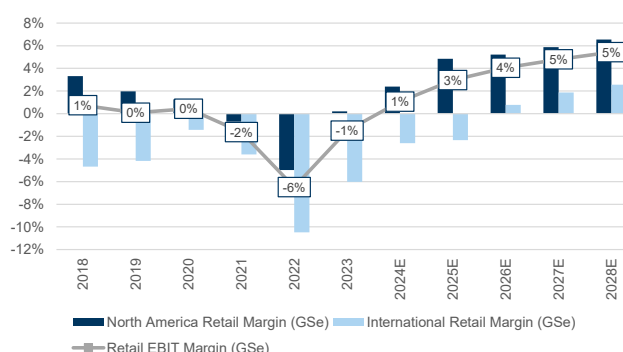
**Exhibit 11: Retail Margins are Expanding After a Challenging 2022/2023...**



Source: Company data, Goldman Sachs Global Investment Research

**Exhibit 12: ...And we Expect That Retail Margins Will Exceed 2018 Levels in 2025**

%



Retail Profitability defined as North America + International segment profits minus our estimate of Advertising EBIT where we apply a 40% EBIT margin to advertising services revenue

Source: Company data, Goldman Sachs Global Investment Research

**We see room for retail margins to continue to expand driven by** i) operating leverage on fixed retail assets as we model paid units growth of +9% YoY in 2024/2025 and expect retail capital intensity to remain muted (following 2020-2022 peak investment cycle); ii) continued progress on lowering cost to serve per unit across the worldwide stores business (e.g., residual benefits from regionalization, improvements to inbound fulfillment architecture); iii) a more moderate rate of inflation of important input costs relative to 2021/2022 peaks (we recognize the recent rise in ocean freight costs which we see as a manageable headwind in [Exhibit 22](#)); iv) the high-margin contribution of growing revenue streams included in our definition of retail (e.g., Prime subscription fees) and the flowthrough of higher average seller fees ([link](#)).

**Exhibit 13: Expect Lower CapEx Intensity Outside of AWS with Retail CapEx Growing More in Line With Paid Units**

\$mm

Amazon Capital Intensity Analysis	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E
<b>Type (Tech vs. Other)</b>										
<b>Capital Investments</b>	\$ 12,440	\$ 19,694	\$ 21,937	\$ 25,606	\$ 44,150	\$ 59,818	\$ 58,620	\$ 48,443	\$ 63,757	\$ 73,289
YoY growth	34%	58%	11%	17%	72%	35%	-2%	-17%	32%	15%
<b>Tech Infrastructure Capital Investments</b>				\$ 11,523	\$ 17,660	\$ 23,927	\$ 32,241	\$ 31,488	\$ 45,108	\$ 52,768
YoY growth					53%	35%	35%	-2%	43%	17%
% Attributed to Tech Infrastructure				45%	40%	40%	55%	65%	71%	72%
<b>Other (Non-Tech) Capital Investments</b>				\$ 14,083	\$ 26,490	\$ 35,891	\$ 26,379	\$ 16,955	\$ 18,649	\$ 20,521
YoY growth					88%	35%	-27%	-36%	10%	10%
% Capital Investments				55%	60%	60%	45%	35%	29%	28%
<b>Segment (AWS vs. Other)</b>										
<b>AWS Revenues</b>	\$ 12,219	\$ 17,458	\$ 25,656	\$ 35,026	\$ 45,370	\$ 62,202	\$ 80,096	\$ 90,757	\$ 107,647	\$ 129,177
YoY growth		43%	47%	37%	30%	37%	29%	13%	19%	20%
<b>AWS Capital Investments</b>	\$ 4,755	\$ 6,077	\$ 8,561	\$ 11,139	\$ 12,588	\$ 18,234	\$ 26,744	\$ 24,894	\$ 37,776	\$ 44,706
YoY growth	5%	28%	41%	30%	13%	45%	47%	-7%	52%	18%
% Capital Investments	38%	31%	39%	44%	29%	30%	46%	51%	59%	61%
<b>AWS Capital Intensity</b>	39%	35%	33%	32%	28%	29%	33%	27%	35%	35%
<b>AWS YoY Sq. Footage Growth</b>	21%	26%	38%	16%	10%	45%	28%	14%		
<b>Non-AWS Revenue</b>	\$ 123,768	\$ 160,408	\$ 207,231	\$ 245,496	\$ 340,694	\$ 407,620	\$ 433,887	\$ 484,028	\$ 526,241	\$ 568,749
YoY growth	25%	30%	29%	18%	39%	20%	6%	12%	9%	8%
<b>Non-AWS Capital Investments</b>	\$ 7,685	\$ 13,617	\$ 13,376	\$ 14,467	\$ 31,562	\$ 41,584	\$ 31,876	\$ 23,549	\$ 25,981	\$ 28,583
YoY growth	61%	77%	-2%	8%	118%	32%	-23%	-26%	10%	10%
<b>Non-AWS Capital Intensity</b>	6%	8%	6%	6%	9%	10%	7%	5%	5%	5%
<b>Amazon (ex-AWS) YoY Sq. Footage Gr</b>	34%	45%	9%	16%	47%	29%	8%	9%		
<b>Paid Unit Growth</b>	27%	25%	17%	18%	46%	18%	5%	10%	9%	9%

Source: Company data, Goldman Sachs Global Investment Research

**Our estimates imply that total retail GAAP EBIT margin will reach 1.1% in 2024 (up from (1.5)% in 2023) and expand to 3.0% in 2025**, with retail profitability coming entirely from North America (at a 4.8% margin) and International retail operating at a loss (at a (2.3)% margin).

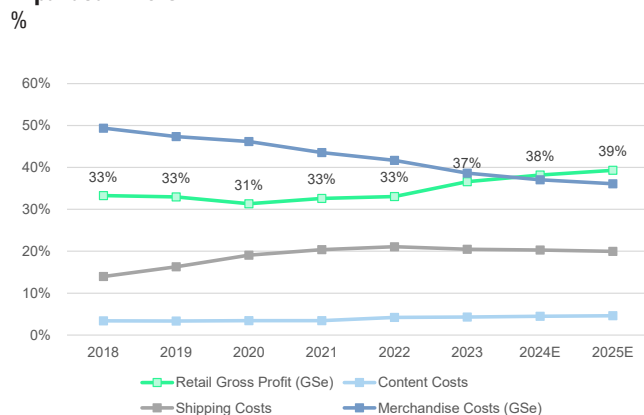
**On a total segment level (including advertising) we expect that North America and International will both produce positive EBIT in 2024/2025**, with North America at 6.6%/9.3% and International at 1.7%/2.5%. Applying a 40% GAAP EBIT margin to our 2024/2025 advertising services revenue estimates of \$58bn/\$70bn implies that ads will contribute \$23bn/\$28bn to AMZN's consolidated GAAP EBIT.

### Diving Into the Retail P&L: Gross Margin Main Lever of EBIT Margin Expansion so far

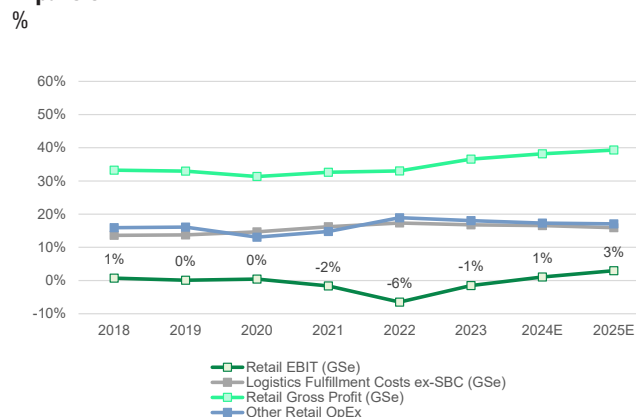
**We believe that gross margin expansion was the largest driver of retail EBIT margin expansion in 2023.**

We calculate retail gross margins by deducting our estimated AWS/Ads gross profit, where we apply an 80% gross margin to both revenue streams. On this basis, retail gross margins expanded from 33% in 2022 (same vs. 2018) to 37% in 2023. This +4pp expansion in retail gross margins in 2023 represents the vast majority of the +5pp expansion in retail EBIT margins. We see further upside to retail gross margins driven by leverage on merchandise and shipping costs and model 39% in 2025.



**Exhibit 14: We Believe That AMZN's Retail Gross Margins Expanded in 2023...**

Source: Company data, Goldman Sachs Global Investment Research

**Exhibit 15: ... And Were the Largest Driver of Retail EBIT Margin Expansion**

Source: Company data, Goldman Sachs Global Investment Research

**We believe that merchandise costs have been the largest driver of retail gross margin expansion in recent years.** We define merchandise costs as retail COGS (ex AWS/Ads) minus reported content costs and shipping costs and estimate that merchandise cost intensity (% retail sales) declined from 49% in 2018 to 39% in 2023.

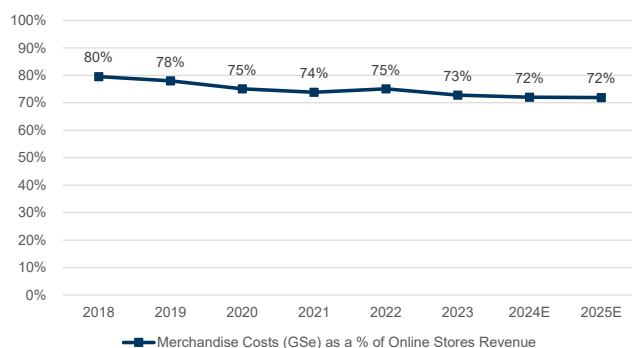
**But despite this tailwind, our calculations imply that retail gross margins were largely flat between 2018 and 2022** mainly due to deleverage on shipping costs through the pandemic (from 14% of retail sales in 2018 to 21% in 2022) as AMZN invested in expanding its delivery network to offer shorter delivery speeds, and modest deleverage on video and music content expenses (from 3% to 4%) through 2022.

**We believe that a return to leveraging shipping costs in 2023 was key in driving the positive inflection in retail gross margins,** coupled with continued leverage on merchandise costs. Shipping cost intensity came down in 2023 for the first time since 2018, (-1pp YoY to 20% of retail revenue, still above 14% in 2018) and stopped being a headwind to margin expansion. This is consistent with mgmt's commentary that cost to serve declined globally in 2023 for the first time since 2018.

### What Drove Leverage on Merchandise Costs?

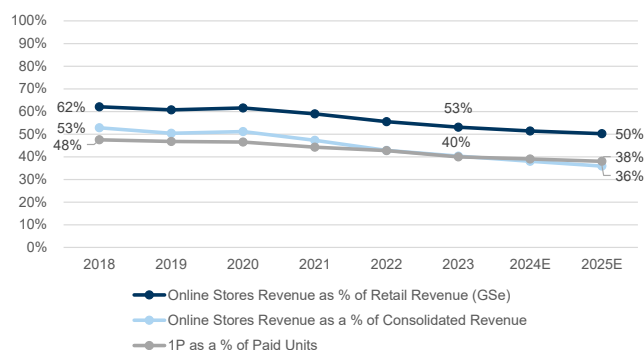
**We believe that merchandise cost leverage is partly being driven by the mix shift of AMZN's eCommerce business away from 1P/Online Stores.** Our estimated merchandise cost represented 73% of online stores revenue in 2023, down from 80% in 2018. That said, leverage was also driven by mix effects, as AMZN's retail business is shifting more towards 3P units which do not carry merchandise costs (1P units declined from ~48% of the mix in 2018 to ~40% in 2023) and as other high-gross margin revenue streams gained in the mix in recent years (e.g., Subscription Services).

**Exhibit 16: We Estimate That Merchandise Margins Have Improved as a % of Online Stores Revenue...**  
% of Online Stores Revenue (GSe)



Source: Company data, Goldman Sachs Global Investment Research

**Exhibit 17: ...but Diversification Away From 1P eCommerce is Also a Tailwind**  
%



Source: Company data, Goldman Sachs Global Investment Research

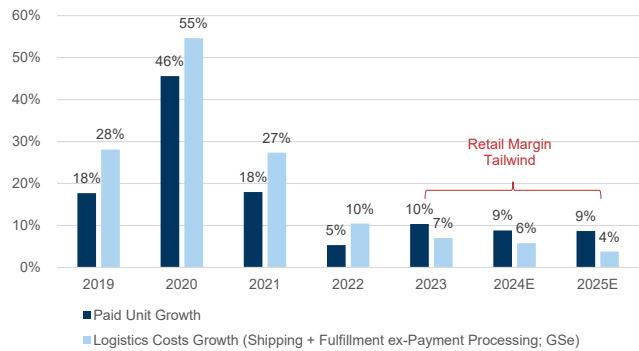
### What About Logistics Efficiencies and Cost to Serve?

**Contrary to what some might have expected, the above implies that the bulk of retail margin improvement in recent years was not driven by logistics costs, which remain above pre-COVID levels. We see this as supportive of further retail margin expansion as AMZN continues to lower cost to serve per unit.** AMZN outlined how cost to serve per unit declined globally in 2023 for the first time since 2018 ([link](#)) driven by regionalization efforts and other sources of efficiency, and see room for further declines ahead. We produce our own definition of “cost to serve” derived from the company’s public financials which we refer to as logistics costs and define as: shipping costs (in COGS) + fulfillment costs ex-SBC (in OpEx) also excluding payment processing costs (which we estimate run at ~2% of GMV).

**Using our estimate of total paid units we model logistics costs per unit declining by (3)%/(4)% YoY in 2024/2025**, largely consistent with the estimated (3)% decline seen in 2023. We see this as a tailwind to retail margins, especially as we model paid unit growth of +9% YoY in 2024/2025.

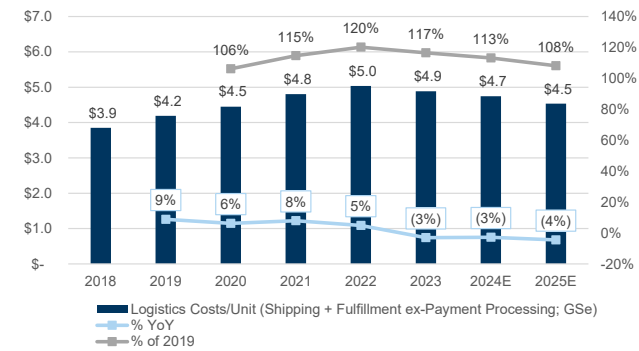
**Note that we do not model logistics costs per unit fully reverting below pre-COVID levels medium-term** as some key input costs have since seen persistent inflation (e.g., wage increases). Our estimated logistics costs per unit remains +8% above 2019 in 2025.

**Exhibit 18: We Expect Paid Unit Growth to Continue to Outpace Logistics Costs...**  
% YoY



Source: Company data, Goldman Sachs Global Investment Research

**Exhibit 19: ...but With Logistics Costs/Unit Remaining Above pre-COVID Levels**

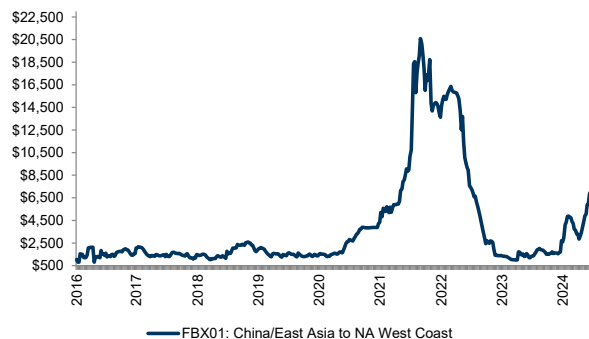


Source: Company data, Goldman Sachs Global Investment Research

# Framing the Impact of Higher Ocean Freight Rates on Q2 EBIT

**Ocean freight rates have increased at a rapid pace in 2024 to date** driven by 1) Red Sea supply disruption and 2) a possible demand pull-forward (see [here](#) for detailed thoughts from our Americas Transportation team). **Investors worry that this increase in input costs could create a margin headwind for AMZN in Q2'24 and beyond.**

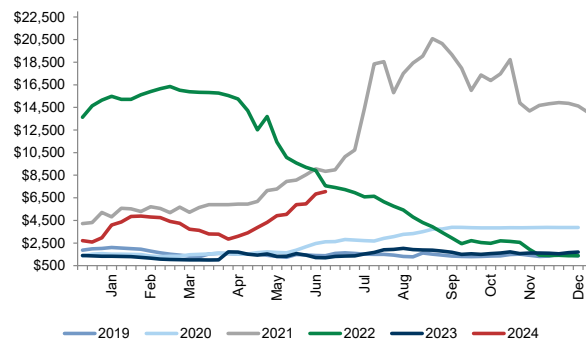
**Exhibit 20: Ocean Container Shipping Rates Have Increased After Dipping in Mid-February**  
China/East Asia to US West Coast \$/FEU



Rate is \$ per FEU (Forty-Foot Equivalent Unit)

Source: Freightos, Goldman Sachs Global Investment Research

**Exhibit 21: The YTD Trajectory of Rates is Tracking Close to 2021 China/East Asia to US West Coast \$/FEU**



Rate is \$ per FEU (Forty-Foot Equivalent Unit)

Source: FBX, Goldman Sachs Global Investment Research

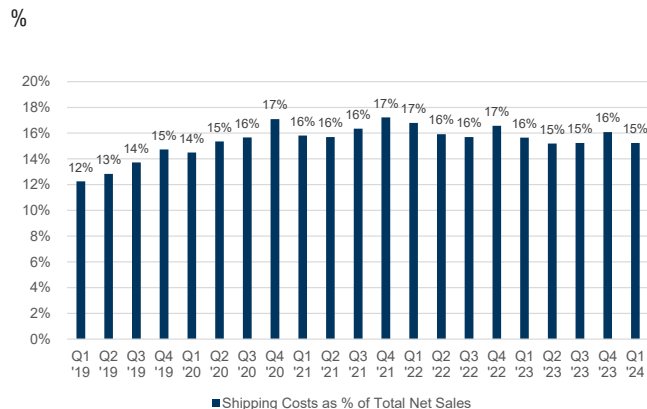
**We produce a sensitivity analysis and expect a 4-5% headwind to Q2'24 GAAP EBIT (\$500-700mm) from higher shipping rates**, which implies a +2-3% increase in reported shipping costs.

**Exhibit 22: A +2-3% Increase in Shipping Costs Would Reduce Q2'24 GAAP EBIT by (4)-(5)%, all else equal \$mm, %**

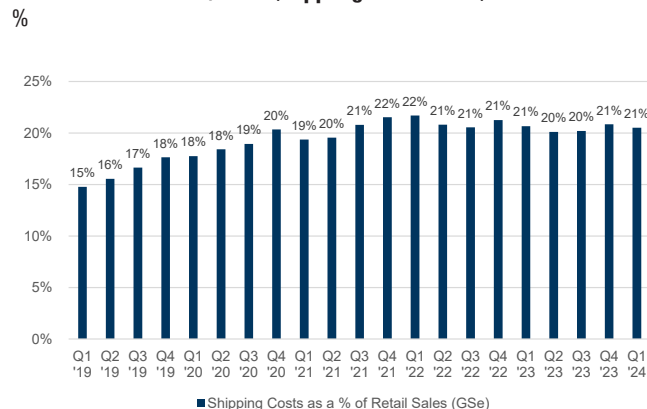
AMZN Shipping Costs - Scenario Analysis														
EBIT Impact of an Increase in Q2'24 Shipping Costs (\$mm)														
Cost Increase	\$	-	\$	500	\$	600	\$	700	\$	800	\$	900	\$	1,000
GAAP EBIT	\$	13,659	\$	13,159	\$	13,059	\$	12,959	\$	12,859	\$	12,759	\$	12,659
EBIT Impact of an Increase in Q2'24 Shipping Costs														
% Impact		0%	(4%)	(4%)	(5%)	(6%)	(7%)	(7%)						
Margin Impact (bps)		0bps	-34bps	-41bps	-47bps	-54bps	-61bps	-68bps						
Implied Q2'24 Shipping Costs														
Cost Increase	\$	-	\$	500	\$	600	\$	700	\$	800	\$	900	\$	1,000
Shipping Costs	\$	(21,733)	\$	(22,233)	\$	(22,333)	\$	(22,433)	\$	(22,533)	\$	(22,633)	\$	(22,733)
Implied Increase in Q2'24 Shipping Costs (%)														
% Increase		0%	2%	3%	3%	4%	4%	5%						

Source: Company data, Goldman Sachs Global Investment Research

**This implies a 30-50bps headwind to consolidated EBIT margins**, roughly half the -100bps of deleverage seen in 2H21 over 1H21 when shipping cost intensity peaked for AMZN. This implies a 50-70bps headwind to Q2 retail margins (ex-AWS/Ads; GSe) which compares to 175bps in 2H21 vs. 1H21.

**Exhibit 23: Shipping Costs Peaked at 17% of Consolidated Net Sales in Q4'21**

Source: Company data, Goldman Sachs Global Investment Research

**Exhibit 24: We Estimate That Shipping Costs Peaked at 22% of Retail Sales in Q4'21/Q1'22 (+2pp higher vs. 1H21)**

Source: Company data, Goldman Sachs Global Investment Research

### Framing the Margin Impact From Prior Commentary

**We focus on AMZN's reported shipping costs** (15% consolidated net sales and 30% of COGS) and refer to prior company commentary to help frame the analysis.

**We look back at commentary from 2021, which was the peak of global supply chains disruption coming out of COVID (and where ocean freight rates peaked).**

We note that the YTD trajectory of ocean freight rates this year (through end of June) is similar to that of 2021, but that as the end of June, rates remain nearly (60)% below their 2H21 peak, which was when AMZN started calling out supply chain disruption as a discrete headwind to EBIT.

- In Q3'21, AMZN identified over \$1bn of added costs tied to lost productivity and disruption in its operations (o/w supply chain a subset) and guided to \$2bn of added costs in Q4'21 tied to operational disruption, mostly through higher transportation costs (part of a broader guided cost headwind of \$4bn, which the company ended up slightly exceeding when it did report Q4 earnings).
- Assuming that 75% of that \$3bn in incremental 2H21 costs was tied to supply chain disruption implies \$2.25bn of incremental supply chain costs (a portion of which was related to ocean freight). Applying that headwind to reported shipping costs implies a +5% increase in total 2H21 shipping costs.
- Adjusting for the fact that ocean freight rates and the \$ increase in rates both remain well below 2H21 levels as of Q2'24, we derive a Q2'24 EBIT headwind closer to **\$500-700mm** (+2-3% increase in shipping costs).

**We also highlight a few key nuances** to help investors contextualize this cost headwind within AMZN's broader reporting:

- **AMZN likely hedges a portion of its exposure to shipping rates** and is unlikely to bear the full cost impact implied by the rise in underlying rates. Our methodology accounts for this (as we start from prior reported net cost impacts).
- **We expect there to be offsets as AMZN continues to derive efficiencies in other**

**parts of its logistics network** (e.g., regionalization, scale, specific areas of efficiency) which can help mitigate the margin impact.

- **Finally, we also note that this compares to AMZN upsiding the top-end of its quarterly EBIT guide by an average of \$2bn+ over the last 5 quarters (since the start of 2023).**

# Decomposing 2024/2025 AWS Margins: Framing D&A Puts and Takes and Investment Ramp

## Exhibit 25: Model 2024/2025 AWS GAAP EBIT Margin of 34%/31%; Expect 2025 Margin Compression From Lapping D&A Benefit, Ramp in Hiring and Step-Up in D&A

\$mm

AWS D&A Analysis	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E
<b>Revenue</b>	\$ 12,219	\$ 17,458	\$ 25,656	\$ 35,026	\$ 45,370	\$ 62,202	\$ 80,096	\$ 90,757	\$ 107,647	\$ 129,177
YoY growth	55%	43%	47%	37%	30%	37%	29%	13%	19%	20%
<b>Capital Investments</b>	\$ 4,755	\$ 6,077	\$ 8,561	\$ 11,139	\$ 12,588	\$ 18,234	\$ 26,744	\$ 24,894	\$ 37,776	\$ 44,708
AWS Capital Intensity	39%	35%	33%	32%	28%	29%	33%	27%	35%	35%
<b>GAAP EBIT</b>	\$ 3,109	\$ 4,331	\$ 7,296	\$ 9,201	\$ 13,531	\$ 18,532	\$ 22,841	\$ 24,631	\$ 36,392	\$ 40,045
YoY growth	106%	39%	68%	26%	47%	37%	23%	8%	48%	10%
Margin %	25%	25%	28%	26%	30%	30%	29%	27%	34%	31%
<b>GAAP OpEx</b>	\$ 9,110	\$ 13,127	\$ 18,360	\$ 25,825	\$ 31,839	\$ 43,670	\$ 57,255	\$ 66,126	\$ 71,255	\$ 89,132
YoY growth	43%	44%	40%	41%	23%	37%	31%	15%	8%	25%
% Revenue	75%	75%	72%	74%	70%	70%	71%	73%	66%	69%
<b>OpEx (ex-D&amp;A)</b>	\$ 5,649	\$ 8,603	\$ 12,265	\$ 17,667	\$ 24,236	\$ 33,017	\$ 47,379	\$ 53,595	\$ 59,167	\$ 69,460
YoY growth	49%	52%	43%	44%	37%	36%	43%	13%	10%	17%
% AWS OpEx	62%	66%	67%	68%	76%	76%	83%	81%	83%	78%
% of AWS Revenue	46%	49%	48%	50%	53%	53%	59%	59%	55%	54%
<b>D&amp;A</b>	\$ 3,461	\$ 4,524	\$ 6,095	\$ 8,158	\$ 7,603	\$ 10,653	\$ 9,876	\$ 12,531	\$ 12,088	\$ 19,672
YoY growth	34%	31%	35%	34%	-7%	40%	-7%	27%	-4%	63%
% AWS OpEx	38%	34%	33%	32%	24%	24%	17%	19%	17%	22%
% of AWS Revenue	28%	26%	24%	23%	17%	17%	12%	14%	11%	15%
% of AWS Capital Investments	73%	74%	71%	73%	60%	58%	37%	50%	32%	44%
Change in Useful Life -> Lower D&A Intensity										

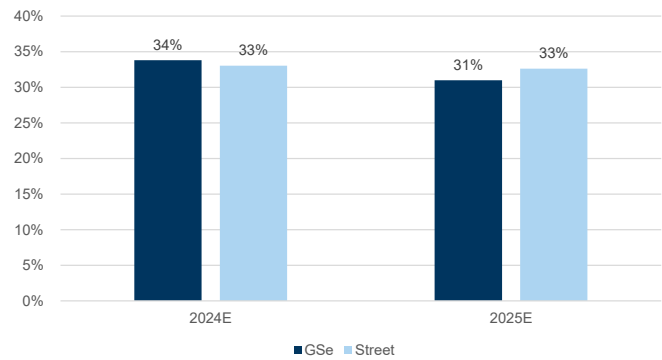
Source: Company data, Goldman Sachs Global Investment Research

**AWS reported a record 37.6% GAAP EBIT margin in Q1'24** supported by strong operating leverage as revenue reaccelerated to +17% YoY & benefits from the extension of the useful life of servers.

**We believe that those were peak margins for AWS** and expect margins to compress due to pressure from a higher D&A intensity over time (from the guided step-up in technology infrastructure capital investments) and a faster pace of hiring/OpEx investments (to execute against the AI opportunity). We also model a diminishing of D&A benefit in Q2-Q4 from the extension of server useful lives that benefited Q1 margins (\$900mm total company benefit in Q1, assume majority AWS) in line with AMZN's disclosure of this being a \$3.1bn tailwind to 2024 EBIT.

**The several puts and takes impacting AWS EBIT margins leave us above Street in 2024 (GSe 34% vs. Street 33%) and below Street in 2025 (31% vs. 33%).** We believe that our above-consensus 2024 margin estimates might come from Street not fully reflecting the D&A benefit from longer server useful lives. Our more conservative 2025 modeling embeds a sharp step-up in D&A (on higher tech CapEx) and a reacceleration in hiring.

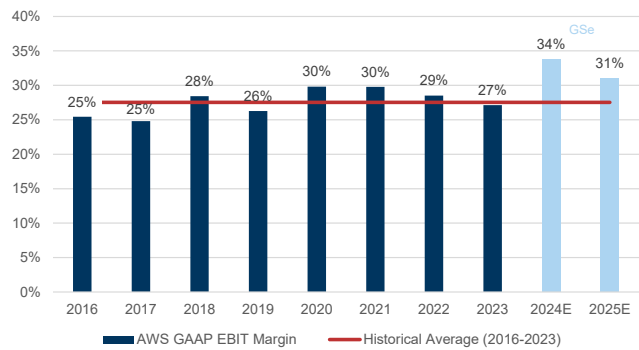
**Exhibit 26: We are Above Street on 2024 AWS EBIT Margin and Below in 2025**  
AWS EBIT Margin (%)



Source: FactSet, Company data, Goldman Sachs Global Investment Research

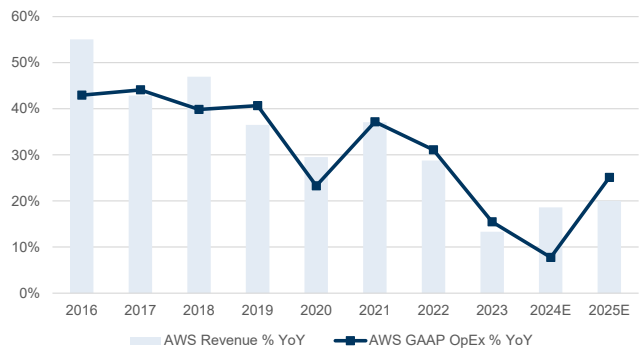
**On net, we gain comfort in underwriting normalized AWS EBIT margins of 30%+ (higher vs. LT hist. avg. of high-20s%)** due to a combination of scale, revenue reacceleration, and prior cost reduction measures.

**Exhibit 27: We Believe That Forward AWS EBIT Margins Have Rebased Above Historical Averages...**  
%



Source: Company data, Goldman Sachs Global Investment Research

**Exhibit 28: ...But Still Expect AWS Margins to Compress in 2025 (Despite Revenue Reaccelerating) as D&A and Hiring Drive Higher OpEx**



Source: Company data, Goldman Sachs Global Investment Research

**We acknowledge the range of outcomes in forward AWS margins given all those variables and see a reasonable range of outcomes of 30-33% for 2025** by sensitizing D&A intensity and other OpEx growth.



**Exhibit 29: Scenario Analysis: See Range of 30-33% for 2025 AWS EBIT Margins (GSe: 31%)**

%

		AWS D&A Intensity - % of AWS CapEx								
		40%	41%	42%	43%	44%	45%	46%	47%	48%
AWS OpEx (ex-D&A) - YoY Growth	13%	34%	34%	34%	33%	33%	33%	32%	32%	32%
	14%	34%	34%	33%	33%	33%	32%	32%	32%	31%
	15%	33%	33%	33%	32%	32%	32%	31%	31%	31%
	16%	33%	33%	32%	32%	32%	31%	31%	31%	30%
	17%	33%	32%	32%	32%	31%	31%	30%	30%	30%
	18%	32%	32%	31%	31%	31%	30%	30%	30%	29%
	19%	32%	31%	31%	31%	30%	30%	30%	29%	29%
	20%	31%	31%	31%	30%	30%	29%	29%	29%	28%
	21%	31%	30%	30%	30%	29%	29%	29%	28%	28%

Source: Company data, Goldman Sachs Global Investment Research

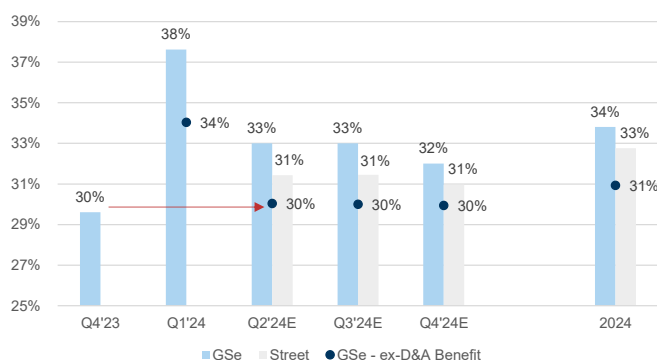
**2024: Above-Street AWS Margins Adequately Conservative Given D&A Benefit From Server Useful Life Extension**

**Our 2024 AWS GAAP EBIT margin of 34% is above Street of 33%.** Our modeling implies that AWS would return to a 30% margin in Q2-Q4 excluding any D&A benefit (fully attributing the expected \$900mm/\$3.1bn of Q1/2024 D&A benefit to AWS), which is where the business operated in Q4 and effectively represents -400bps of margin compression from Q1 ex-D&A benefit margin of 34%.

**We view 2024 Street margins as conservative** given the implied return to a high-20s underlying EBIT margin from Q2 excluding D&A benefits. This implies even more sequential margin compression (500bps+ QoQ) despite faster revenue growth (Q2'24 +18% YoY) than in Q1 (+17%) and in Q4'23 (+13% YoY) where AWS reported a 30% margin.

**Exhibit 30: We are Above Street on 2024 AWS Margins Despite Modeling a Step-Down in Underlying Profitability From Q1'24**

%



Note: Allocates full D&A benefit from longer server useful life to AWS (\$900mm/\$3.1bn in Q1'24/2024)

Source: FactSet, Company data, Goldman Sachs Global Investment Research

**2025: Model AWS Margins Below Street Reflecting D&A Inflection and Hiring Ramp**

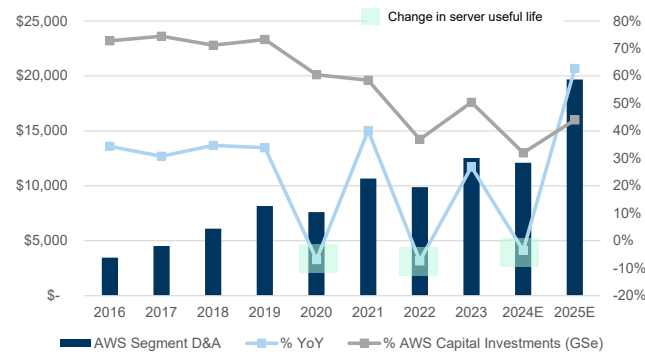
**Our 2025 AWS GAAP EBIT margins of 31% are below Street of 33%.** We view our modeling as conservative but do explicitly account for a meaningful step-up in segment

D&A from higher technology infrastructure CapEx and also allow room for a sizeable increase in non-D&A OpEx as we expect AWS to accelerate hiring/investments to capitalize on the Generative AI opportunity and support revenue reacceleration.

**As a sanity check, we produce an illustrative analysis showing that our Non-D&A AWS OpEx modeling in 2024-2025 implies a return to a similar hiring cadence than in 2017-2022.**

We leverage press reports ([link](#)) that point to AWS employees growing from 26k in 2017 to 115k in 2022 (+18k/yr), implying that Non-D&A OpEx/employee increased from \$330k in 2017 to \$400k in 2022 (likely overstates the average compensation). Maintaining a similar rate of inflation in per employee cost would imply that AWS hires at a similar pace of +17k employees per year in 2024 and 2025. We note that 2023-2024 expense growth was likely muted due to the rounds of headcount reduction that took place in 2023 ([link](#) / [link](#)) and the cuts reported in April 2024 ([link](#)).

**Exhibit 31: Model AWS Segment D&A Declining in 2024 Before Increasing Sharply in 2025**  
\$mm, %



Source: Company data, Goldman Sachs Global Investment Research

**Exhibit 32: Our 2025 AWS EBIT Margin Estimates Conservatively Embed a Strong Ramp in Headcount (ex-D&A OpEx)**

AWS OpEx ex-D&A Analysis			
Historical	2017	2022	CAGR
Employees (#)	26,000	115,000	35%
Incr.		89,000	
Per Year		17,800	
OpEx ex-D&A (\$mm)	\$ 8,603	\$ 47,379	41%
Incr.		\$ 38,776	
Per Year		\$ 7,755	
Cost/Employee (\$k)	\$ 331	\$ 412	4%
Forecast	2023	2025E	CAGR
OpEx ex-D&A (\$mm)	\$ 53,595	\$ 69,460	14%
Incr.		\$ 15,865	
Per Year		\$ 7,933	
Cost/Employee (\$k)	\$ 430	\$ 470	4%
Implied Incr Employees (#)		33,762	
Per Year		16,881	

Source: Press Reports, Company data, Goldman Sachs Global Investment Research

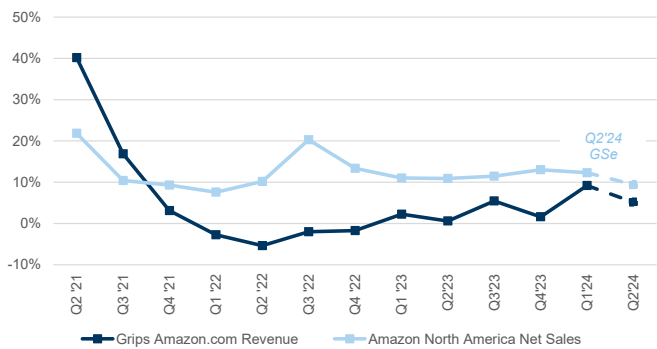
# eCommerce: Analyzing Transaction Data and Consumer Preferences

## Transaction Data: AMZN & ETSY in line, EBAY Intl. Better, W Worse

We leverage monthly transaction data from Grips Intelligence to assess directional Q2'24 revenue trends for our coverage. Grips does not measure mobile app sales or revenue from subscriptions; we exclude CHWY from the analysis as autoship represents >70% of Net Sales.

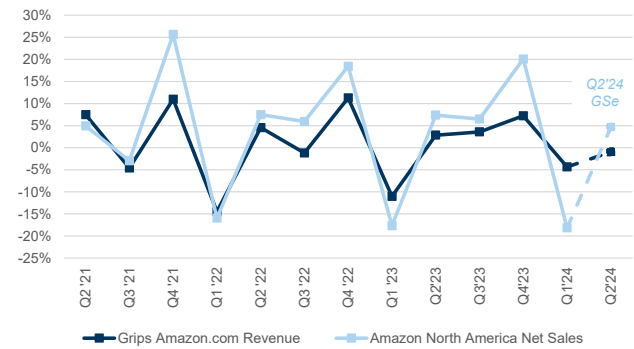
The data points to revenue trends being in line for AMZN across North America and International (with International slower), in line to slightly better for ETSY, better for EBAY international (.uk and .de websites) and worse for W.

**Exhibit 33: Amazon (AMZN): YoY Growth - Grips Amazon.com Revenue vs. North America Net Sales**  
% YoY



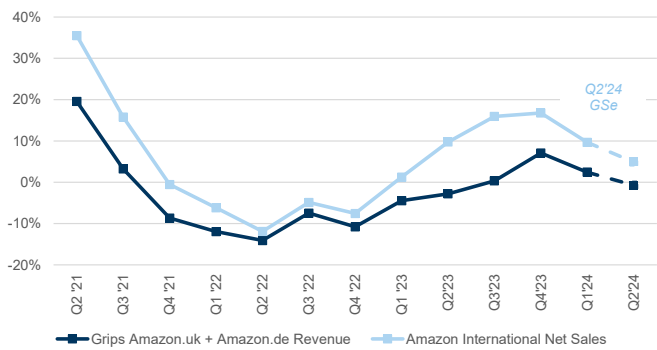
Source: Grips Intelligence, Company data, Goldman Sachs Global Investment Research

**Exhibit 34: Amazon (AMZN): QoQ Growth - Grips Amazon.com Revenue vs. North America Net Sales**  
% QoQ



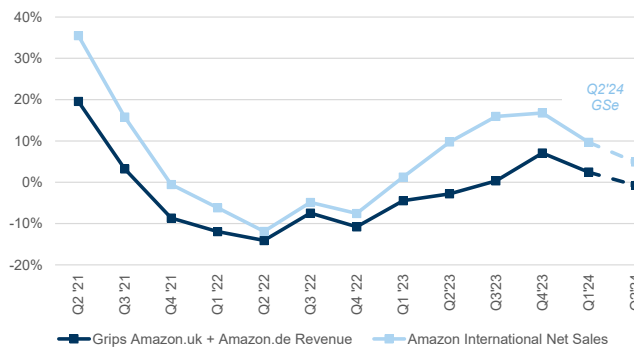
Source: Grips Intelligence, Goldman Sachs Global Investment Research

**Exhibit 35: Amazon (AMZN): YoY Growth - Grips Amazon.uk+.de Revenue vs. International Net Sales**  
% YoY



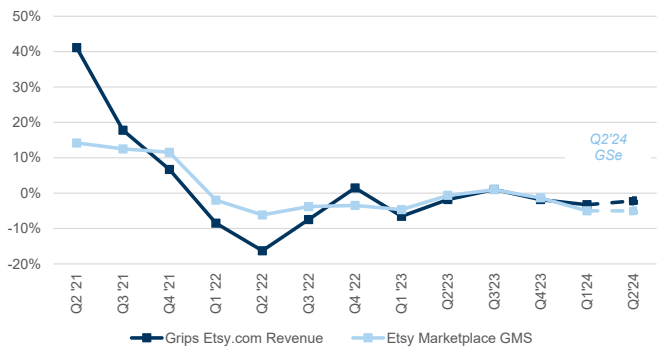
Source: Grips Intelligence, Company data, Goldman Sachs Global Investment Research

**Exhibit 36: Amazon (AMZN): QoQ Growth - Grips Amazon.uk+.de Revenue vs. International Net Sales**  
% QoQ



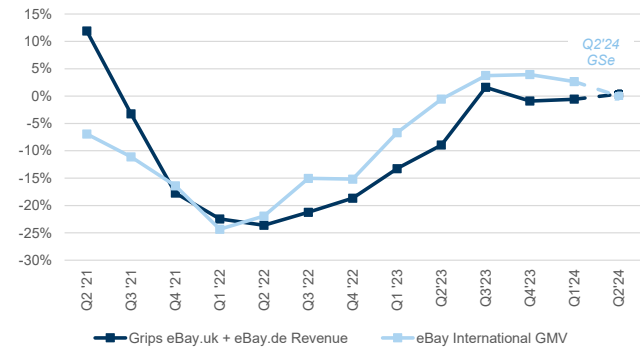
Source: Grips Intelligence, Company data, Goldman Sachs Global Investment Research

**Exhibit 37: Etsy (ETSY): YoY Growth - Grips Etsy.com Revenue vs. Etsy Marketplace GMS**  
% YoY



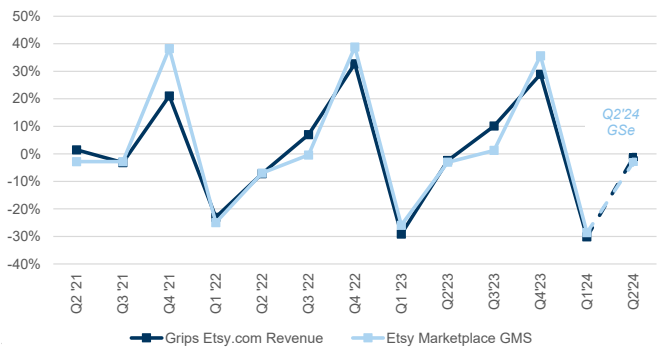
Source: Grips Intelligence, Goldman Sachs Global Investment Research

**Exhibit 38: eBay (EBAY): YoY Growth - Grips eBay.uk and eBay.de Revenue vs. eBay International GMV**  
% YoY



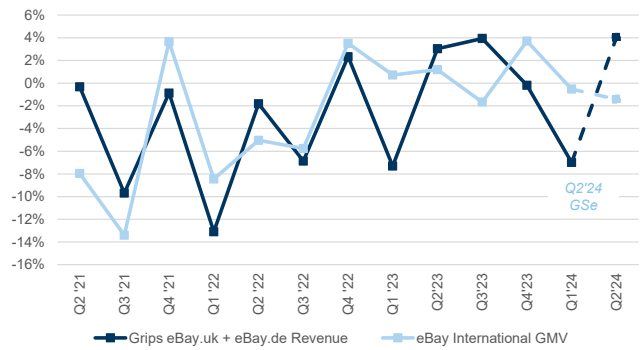
Source: Grips Intelligence, Goldman Sachs Global Investment Research

**Exhibit 39: Etsy (ETSY): QoQ Growth - Grips Etsy.com Revenue vs. Etsy Marketplace GMS**  
% QoQ



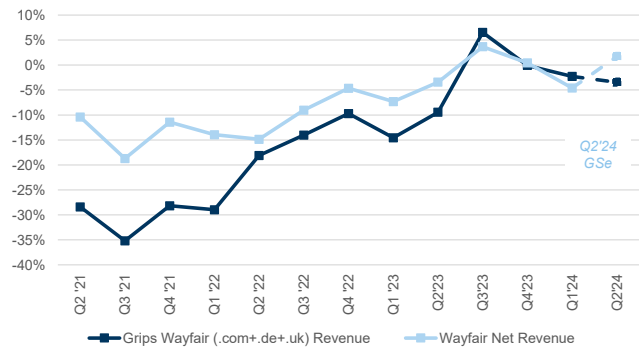
Source: Grips Intelligence, Goldman Sachs Global Investment Research

**Exhibit 40: eBay (EBAY): QoQ Growth - Grips eBay.uk and eBay.de Revenue vs. eBay International GMV**  
% QoQ



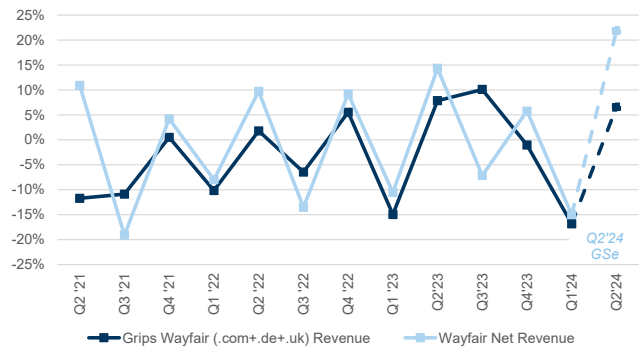
Source: Grips Intelligence, Goldman Sachs Global Investment Research

**Exhibit 41: Wayfair (W): YoY Growth - Grips Wayfair.com Revenue vs. Wayfair Net Revenue**  
% YoY



Source: Grips Intelligence, Goldman Sachs Global Investment Research

**Exhibit 42: Wayfair (W): QoQ Growth - Grips Wayfair.com Revenue vs. Wayfair Net Revenue**  
% QoQ



Source: Grips Intelligence, Goldman Sachs Global Investment Research

## What Matters in eCommerce? Analyzing Consumer Preferences

We supplement our industry work with data from HundredX, a mission-based data and insights company that takes an innovative approach to monitoring consumer perceptions and gathering consumer feedback to understand trends across 80+ industries and 3,000+ brands. HundredX analyzes collective opinions of everyday customers and evaluates how their priorities influence purchasing decisions and attitudes toward businesses and brands.

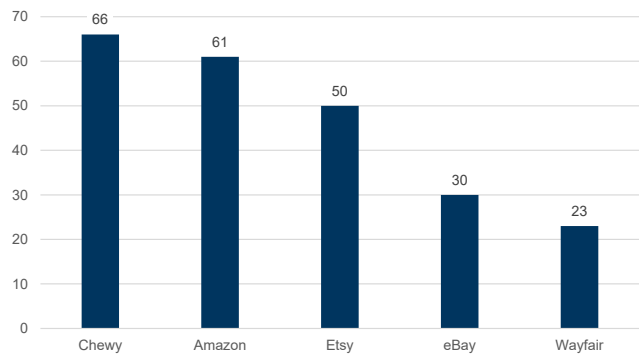
### Key takeaways

- CHWY (66) and AMZN (61) continue to have the highest Net Promoter Scores (NPS) in our eCommerce coverage, followed by ETSY (50), EBAY (30) and W (23).
- NPS improved for every platform except W in Q2 relative to Q1.
- AMZN has leading Net Purchasing Intent (NPI) with trends more mixed for the rest of the sector and continues to screen well with consumers across the key pillars of price, selection, delivery speeds, and ease of use.

### NPS and NPI Data

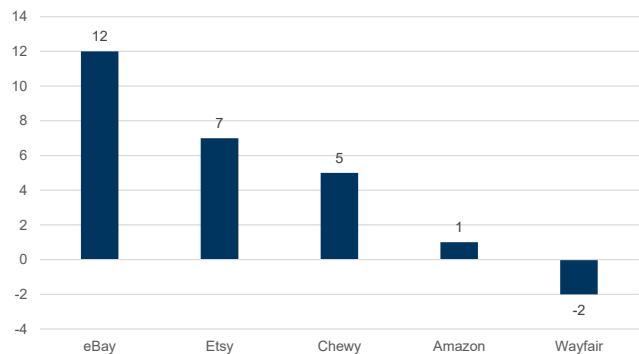
**Exhibit 43: CHWY and AMZN Have the Highest NPS Across our eCommerce Coverage**

June 2024 T3M NPS Scores of Selected Companies



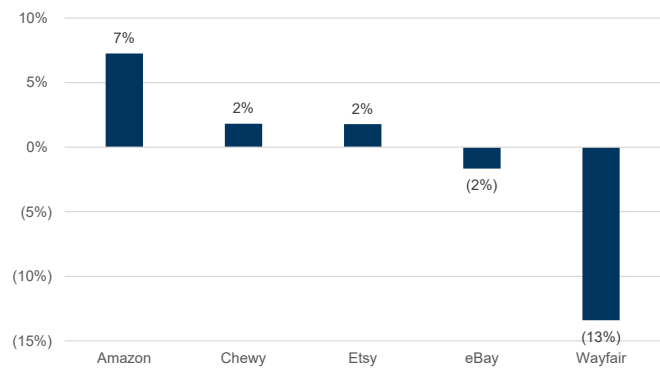
Source: HundredX, Data compiled by Goldman Sachs Global Investment Research

**Exhibit 44: NPS Scores Generally Improved in Q2'24**  
NPS Change From March to June 2024



Source: HundredX, Data compiled by Goldman Sachs Global Investment Research

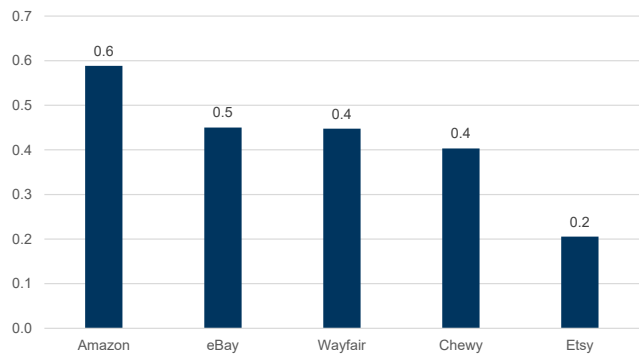
**Exhibit 45: AMZN Leads in Net Purchase Intent**  
June 2024 Net Purchase Intent T3M Change



Source: HundredX, Data compiled by Goldman Sachs Global Investment Research

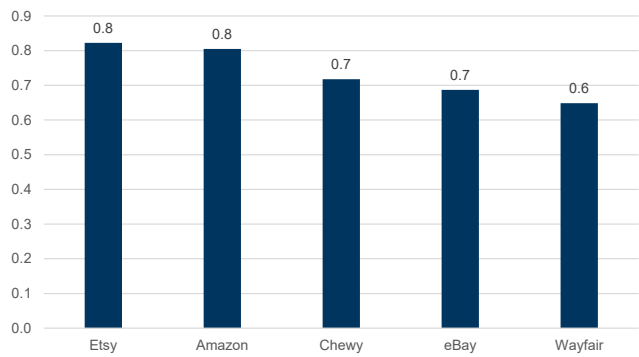
Key Drivers of Consumer Preferences

**Exhibit 46: Price: AMZN Ranked Highest, ETSY Lowest**  
Net Positive Percent



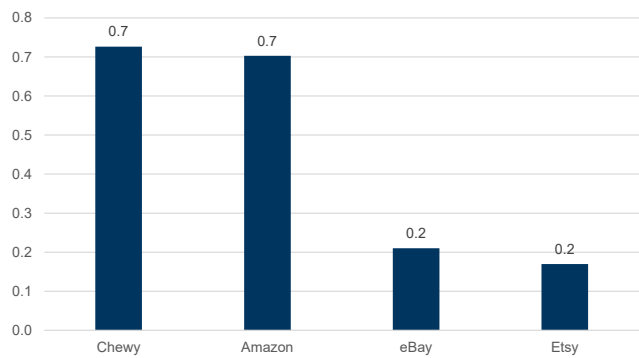
Source: HundredX, Data compiled by Goldman Sachs Global Investment Research

**Exhibit 47: Selection: ETSY/AMZN Ranked Highest, W Lowest**  
Net Positive Percent



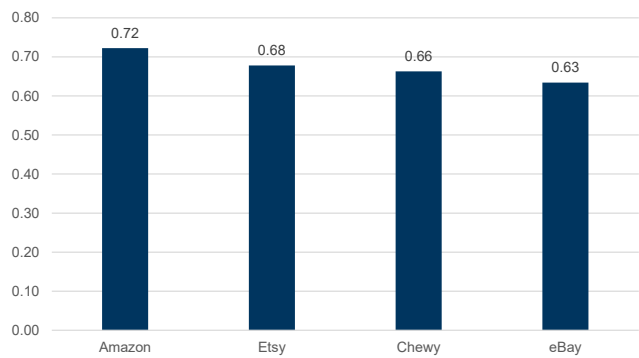
Source: HundredX, Data compiled by Goldman Sachs Global Investment Research

**Exhibit 48: Delivery Speeds: CHWY/AMZN Ranked Highest, ETSY Lowest**  
Net Positive Percent



Source: HundredX, Data compiled by Goldman Sachs Global Investment Research

**Exhibit 49: Ease of Use: All Platforms Score Well, AMZN Highest**  
Net Positive Percent



Source: HundredX, Data compiled by Goldman Sachs Global Investment Research

## Definitions

- **Net Promoter Score (NPS)** - Widely used measurement that asks respondents, "Would you recommend to a friend?" on a scale of 0-10. The responses allow individual customers to be sorted into promoters, passives, and detractors as well as the computation of a company level NPS through aggregation of respondents. Promoters: respondents to the NPS question who choose 9 or 10. Passives: respondents to the NPS question who choose 7 or 8. Detractors: respondents to the NPS question who choose 0-6. NPS standardized measure for 'Overall Recommendations' is on a scale of -100 to 100.
- **Net Purchase Intent (NPI)** - Metric indicates consumer(s)'s future spend, purchase or usage intent for an industry or a company/brand. In some cases, can be known as "Future Customer Loyalty." A positive number indicates industry or company/brand growth, a negative number indicates industry or company/brand decline. If a company/brand has higher (i.e, more positive) PI vs industry, this can indicate market share gain (and vice versa). Calculation represents percent of respondents who expect to use more minus percent of respondents who expect to use less over the next 12 months.

## Valuation & Key Risks

### Amazon (AMZN) - Maintain Buy Rating and Raise PT to \$250 (from \$225)

We lower our Q2'24 gross profit to reflect the impact of higher ocean freight costs in the quarter (per [Exhibit 22](#)). On net, we increase our EBIT margins in 2024+ to reflect a faster overall ramp of retail margins (as presented in [Exhibit 12](#) and accompanying analysis). We slightly increase our 2025+ Online Stores revenue estimates to reflect the segment growing at a +4% 23-28 CAGR.

#### Exhibit 50: AMZN Estimate Changes: Q2'24, 2024, 2025 and 2026

\$mm except per share data

	Q2 2024			2024			2025			2026		
	Old	New	% Change	Old	New	% Change	Old	New	% Change	Old	New	% Change
Total Revenue	\$ 147,581	\$ 147,581	0%	\$ 633,888	\$ 633,888	0%	\$ 695,292	\$ 697,925	0%	\$ 758,531	\$ 767,268	1%
Online Stores	\$ 54,555	\$ 54,555	0%	\$ 240,869	\$ 240,869	0%	\$ 247,871	\$ 250,504	1%	\$ 252,664	\$ 260,524	3%
Physical Stores	\$ 5,225	\$ 5,225	0%	\$ 20,942	\$ 20,942	0%	\$ 21,361	\$ 21,361	0%	\$ 21,788	\$ 21,788	0%
Retail Third-Party Seller Services	\$ 36,212	\$ 36,212	0%	\$ 158,057	\$ 158,057	0%	\$ 175,443	\$ 175,443	0%	\$ 192,988	\$ 193,865	0%
Advertising Services	\$ 13,354	\$ 13,354	0%	\$ 57,769	\$ 57,769	0%	\$ 69,764	\$ 69,764	0%	\$ 82,863	\$ 82,863	0%
Retail Subscription Services	\$ 10,686	\$ 10,686	0%	\$ 43,200	\$ 43,200	0%	\$ 46,003	\$ 46,003	0%	\$ 48,550	\$ 48,550	0%
AWS	\$ 26,125	\$ 26,125	0%	\$ 107,647	\$ 107,647	0%	\$ 129,177	\$ 129,177	0%	\$ 153,720	\$ 153,720	0%
North America Sales	\$ 90,309	\$ 90,309	0%	\$ 387,447	\$ 387,447	0%	\$ 421,650	\$ 421,650	0%	\$ 454,726	\$ 454,726	0%
International Sales	\$ 31,147	\$ 31,147	0%	\$ 138,794	\$ 138,794	0%	\$ 144,465	\$ 147,098	2%	\$ 150,085	\$ 158,822	6%
GAAP Gross Profit	\$ 74,715	\$ 74,346	0%	\$ 306,498	\$ 311,274	2%	\$ 338,769	\$ 355,296	5%	\$ 369,643	\$ 401,355	9%
GAAP Operating Income	\$ 13,659	\$ 13,272	-3%	\$ 62,443	\$ 64,483	3%	\$ 79,870	\$ 82,764	4%	\$ 95,097	\$ 103,239	9%
Operating Margin	9.3%	9.0%	-26bps	9.9%	10.2%	32bps	11.5%	11.9%	37bps	12.5%	13.5%	92bps
GAAP EPS	\$ 0.98	\$ 0.98	1%	\$ 4.55	\$ 4.74	4%	\$ 6.32	\$ 6.54	4%	\$ 7.67	\$ 8.29	8%
FCF	\$ 10,289	\$ 11,865	15%	\$ 57,918	\$ 58,464	1%	\$ 79,276	\$ 80,480	2%	\$ 94,245	\$ 96,486	2%

Source: Company data, Goldman Sachs Global Investment Research

#### Exhibit 51: AMZN - GS Estimates vs. Consensus (FactSet)

\$mm, except per share data

	Q2 2024			2024			2025		
	GS Est	Cons Est	% GS vs. Cons	GS Est	Cons Est	% GS vs. Cons	GS Est	Cons Est	% GS vs. Cons
Total Revenue	\$ 147,581	\$ 148,627	-1%	\$ 633,888	\$ 638,823	-1%	\$ 697,925	\$ 710,039	-2%
Online Stores	\$ 54,555	\$ 55,777	-2%	\$ 240,869	\$ 244,826	-2%	\$ 250,504	\$ 259,044	-3%
Physical Stores	\$ 5,225	\$ 5,250	0%	\$ 20,942	\$ 21,020	0%	\$ 21,361	\$ 21,870	-2%
Third-Party Seller Services	\$ 36,212	\$ 36,594	-1%	\$ 158,057	\$ 159,113	-1%	\$ 175,443	\$ 179,971	-3%
Advertising Services	\$ 13,354	\$ 13,004	3%	\$ 57,769	\$ 56,896	2%	\$ 69,764	\$ 67,384	4%
Subscription Services	\$ 10,686	\$ 10,900	-2%	\$ 43,200	\$ 44,311	-3%	\$ 46,003	\$ 48,583	-5%
AWS	\$ 26,125	\$ 25,968	1%	\$ 107,647	\$ 106,843	1%	\$ 129,177	\$ 126,232	2%
North America Sales	\$ 90,309	\$ 90,026	0%	\$ 387,447	\$ 387,309	0%	\$ 421,650	\$ 426,779	-1%
International Sales	\$ 31,147	\$ 33,195	-6%	\$ 138,794	\$ 145,652	-5%	\$ 147,098	\$ 159,164	-8%
GAAP Gross Profit	\$ 74,346	\$ 73,527	1%	\$ 311,274	\$ 308,603	1%	\$ 355,296	\$ 347,760	2%
GAAP Operating Income	\$ 13,272	\$ 13,530	-2%	\$ 64,483	\$ 62,464	3%	\$ 82,764	\$ 76,863	8%
Operating Margin	9.0%	9.1%	-11bps	10.2%	9.8%	39bps	11.9%	10.8%	103bps
GAAP EPS	\$ 0.98	\$ 1.03	-4%	\$ 4.74	\$ 4.59	3%	\$ 6.54	\$ 5.86	12%
FCF	\$ 11,865	\$ 14,141	-16%	\$ 58,464	\$ 62,357	-6%	\$ 80,480	\$ 75,319	7%

Source: FactSet, Company data, Goldman Sachs Global Investment Research

**Valuation:** Our 12m PT of \$250 (from \$225) is based on: (1) An equal blend of EV/GAAP EBITDA applied to our NTM+1 estimates and a modified DCF using an EV/(FCF-SBC) multiple applied to our NTM+4 estimates discounted back 3 years; (2) SOTP of EV/Sales applied to our NTM+1 estimates for 1P, 3P, Retail Subscription, AWS and Other segments; (3) SOTP of EV/EBIT applied to North America and AWS segments, and EV/Sales applied to the International segment, all based on NTM+1 estimates. Specifically:



**Exhibit 52: Amazon PT Analysis**

Blended Valuation	Valuation
Standard Multiples Approach (Consolidated EV/EBITDA, EV/FCF-SBC)	\$ 250
SOTP Valuation (Method 1)	\$ 215
SOTP Valuation (Method 2)	\$ 280
Price Target Based on Average of 3 Valuation Approaches	\$ 250

Source: Goldman Sachs Global Investment Research

**Method 1**

- 21.0x EV/GAAP EBITDA (unchanged) or 1.1x EV/EBITDA-to-growth applied to our NTM+1 estimates.
- 32.0x EV/FCF-SBC multiple (unchanged) applied to our NTM+4 estimates discounted back 3 years at 12%. The discount rate represents CAPM using the blended average of companies within our coverage universe consisting of: (1) 3% risk free rate (based on the normalized 10-year rate); (2) average beta of ~1.3; (3) equity risk premium of 7%.

**Exhibit 53: Amazon Valuation Method 1**

\$mm, except per share data

Scenario Analysis	Downside	Base	Upside
<b>Valuation</b>	\$ 150	\$ 250	\$ 370
% upside/downside	-25%	25%	85%
<b>Sales (NTM)</b>	\$ 596,653	\$ 648,536	\$ 700,418
Downside/Upside Adjustment	-8%	-	8%
<b>Sales (NTM+1)</b>	\$ 642,409	\$ 713,788	\$ 785,167
Downside/Upside Adjustment	-10%	-	10%
EV / NTM+1 Sales (implied)	2.7x	4.3x	5.6x
Sales CAGR	4.3%	9.9%	15.3%
EV / Sales to Growth	0.64x	0.43x	0.36x
<b>GAAP EBITDA (NTM)</b>	\$ 105,438	\$ 121,092	\$ 137,783
GAAP EBITDA Margin %	17.7%	18.7%	19.7%
<b>GAAP EBITDA (NTM+1)</b>	\$ 117,250	\$ 144,554	\$ 174,712
GAAP EBITDA Margin %	18.3%	20.3%	22.3%
EV / NTM+1 GAAP EBITDA	15.0x	21.0x	25.0x
GAAP EBITDA CAGR	10%	22%	34%
EV / GAAP EBITDA-to-Growth	1.48x	0.94x	0.73x
Enterprise Value	\$ 1,758,752	\$ 3,035,628	\$ 4,367,810
<b>FCF-SBC (NTM+4)</b>	\$ 77,942	\$ 96,724	\$ 115,506
FCF-SBC as % Sales	8.3%	10.3%	12.3%
EV / NTM+4 (FCF-SBC)	25.0x	32.0x	40.0x
FCF-SBC CAGR	11.9%	20.2%	27.6%
Discount Rate	15%	12%	10%
Discount Period (Years)	3	3	3
Enterprise Value (NTM+3)	\$ 1,948,545	\$ 3,095,169	\$ 4,620,251
Discounted Enterprise Value (NTM)	\$ 1,281,200	\$ 2,203,080	\$ 3,471,263
<b>Weighting</b>			
EV derived from GAAP EBITDA	50%	50%	50%
EV derived from FCF-SBC	50%	50%	50%
Enterprise Value	\$ 1,519,976	\$ 2,619,354	\$ 3,919,537
<b>Capital Structure Adjustments</b>			
Adjusted Net Debt - NTM	\$ (91,341)	\$ (91,341)	\$ (91,341)
Shares Outstanding - NTM	10,854	10,854	10,854

Source: Goldman Sachs Global Investment Research, FactSet

**Method 2**

- 0.8x EV/Sales applied to 1P Revenue (from 0.6x), 3.0x to 3P Revenue, 2.0x to Retail Subscription Revenue, 7.0x to AWS Revenue and 6.0x to Other Revenue, all based on NTM+1 estimates. We slightly increase our 1P Revenue multiple to keep it unchanged on a growth-adjusted basis.

**Exhibit 54: Amazon Valuation Method 2**

\$mm, except per share data

<b>SOTP Method 1</b>	<b>LTM</b>	<b>NTM</b>	<b>NTM+1</b>
1P Revenue	\$ 235,446	\$ 243,056	\$ 252,778
EV / NTM+1 Sales			0.8x
Sales CAGR			3.6%
EV / Sales to Growth			0.22x
Enterprise Value			\$ 202,223
3P Revenue	\$ 144,829	\$ 161,863	\$ 179,475
EV / NTM+1 Sales			3.0x
Sales CAGR			11.3%
EV / Sales to Growth			0.27x
Enterprise Value			\$ 538,426
Retail Subscription Revenue	\$ 41,274	\$ 44,275	\$ 47,068
EV / NTM+1 Sales			2.0x
Sales CAGR			6.8%
EV / Sales to Growth			0.29x
Enterprise Value			\$ 94,136
AWS Revenue	\$ 94,440	\$ 112,655	\$ 134,885
EV / NTM+1 Sales			7.0x
Sales CAGR			20%
EV / Sales to Growth			0.36x
Enterprise Value			\$ 944,196
Other Revenue (Advertising + Other)	\$ 54,414	\$ 65,641	\$ 78,114
EV / NTM+1 Sales			6.0x
Sales CAGR			19.8%
EV / Sales to Growth			0.30x
Enterprise Value			\$ 468,683
Total Enterprise Value			\$ 2,247,664
Net Debt (Cash)			\$ (91,341)
Market Cap (\$m)			\$ 2,339,005
Diluted Shares			10,854
Valuation			\$ 215

Source: Goldman Sachs Global Investment Research

**Method 3**

- 25.0x EV/GAAP EBIT (was 20.0x) applied to the North America segment, 3.0x EV/Sales applied to the International segment and 35.0x EV/GAAP EBIT applied to the AWS segment. We increase our North America multiple to account for our higher EBIT estimates and maintain our growth-adjusted multiple.

**Exhibit 55: Amazon Valuation Method 3**

\$mm, except per share data

<b>SOTP Method 2</b>	<b>LTM</b>	<b>NTM</b>	<b>NTM+1</b>
North America Operating Income	\$ 18,962	\$ 29,639	\$ 40,979
EV / NTM+1 GAAP OI			25.0x
Operating Income CAGR			47.0%
EV / GAAP OI to Growth			0.53x
Enterprise Value			\$ 1,024,468
International Revenue	\$ 134,012	\$ 138,673	\$ 147,350
EV / NTM+1 Sales			3.0x
Sales CAGR			4.9%
EV / Sales to Growth			0.62x
Enterprise Value			\$ 442,049
AWS Operating Income	\$ 28,929	\$ 36,285	\$ 42,029
EV / NTM+1 GAAP OI			35.0x
Operating Income CAGR			20.5%
EV / GAAP OI to Growth			1.70x
Enterprise Value			\$ 1,471,011
Total Enterprise Value			\$ 2,937,528
Net Debt (Cash)			\$ (91,341)
Market Cap (\$m)			\$ 3,028,869
Diluted Shares			10,854
Valuation			\$ 280

Source: Goldman Sachs Global Investment Research

**Key Risks:** (-) Any impact to eCommerce or Cloud growth from competition; lack of success in scaling high margin businesses including Advertising, Cloud, third-party

selling and the subscription business; investments across any array of initiatives creating a headwind to gross or operating margin; any product or platform changes necessary to comply with changes to the global regulatory environment; exposure to the volatility caused by the global macroeconomic environment and investor risk appetite for growth stocks.

# Beats & Misses vs. Guide and Street

Exhibit 56: AMZN - Revenue vs. Guide and Street

Amazon.com		Revenue												Stock Reaction		
AMZN		Quarterly Results						Forward Guide						On Print T+1	Intra-Q	
Quarter	Reported	Low-End	% vs. Guide	High-End	Cons.	% vs. Cons	Guide (1Qtr Fwd)			Cons.	Low-End	% vs. Cons	High-End			
Q1'19	\$ 59,700	7%	3%	(1%)	\$ 59,696	0%	\$ 59,500	\$ 61,500	\$ 63,500	\$ 62,389	(5%)	(1%)	2%	3%	1%	
Q2'19	\$ 63,404	7%	3%	(0%)	\$ 62,515	1%	\$ 66,000	\$ 68,000	\$ 70,000	\$ 67,282	(2%)	1%	4%	-2%	-8%	
Q3'19	\$ 69,981	6%	3%	(0%)	\$ 68,833	2%	\$ 80,000	\$ 83,250	\$ 86,500	\$ 87,394	(8%)	(5%)	(1%)	-1%	6%	
Q4'19	\$ 87,437	9%	5%	1%	\$ 86,029	2%	\$ 69,000	\$ 71,000	\$ 73,000	\$ 71,634	(4%)	(1%)	2%	7%	23%	
Q1'20	\$ 75,452	9%	6%	3%	\$ 73,741	2%	\$ 75,000	\$ 78,000	\$ 81,000	\$ 78,016	(4%)	(0%)	4%	-8%	34%	
Q2'20	\$ 88,912	19%	14%	10%	\$ 81,449	9%	\$ 87,000	\$ 90,000	\$ 93,000	\$ 86,443	1%	4%	8%	4%	1%	
Q3'20	\$ 96,145	11%	7%	3%	\$ 92,778	4%	\$ 112,000	\$ 116,500	\$ 121,000	\$ 112,657	(1%)	3%	7%	-5%	11%	
Q4'20	\$ 125,555	12%	8%	4%	\$ 119,701	5%	\$ 100,000	\$ 103,000	\$ 106,000	\$ 95,780	4%	8%	11%	-2%	5%	
Q1'21	\$ 108,518	9%	5%	2%	\$ 104,510	4%	\$ 110,000	\$ 113,000	\$ 116,000	\$ 108,487	1%	4%	7%	0%	4%	
Q2'21	\$ 113,080	3%	0%	(3%)	\$ 115,421	(2%)	\$ 106,000	\$ 109,000	\$ 112,000	\$ 119,314	(11%)	(9%)	(6%)	-8%	4%	
Q3'21	\$ 110,812	5%	2%	(1%)	\$ 111,551	(1%)	\$ 130,000	\$ 135,000	\$ 140,000	\$ 142,173	(9%)	(5%)	(2%)	-2%	-18%	
Q4'21	\$ 137,412	6%	2%	(2%)	\$ 137,684	(0%)	\$ 112,000	\$ 114,500	\$ 117,000	\$ 121,003	(7%)	(5%)	(3%)	14%	-8%	
Q1'22	\$ 116,444	4%	2%	(0%)	\$ 116,450	(0%)	\$ 116,000	\$ 118,500	\$ 121,000	\$ 125,332	(7%)	(5%)	(3%)	-14%	-2%	
Q2'22	\$ 121,234	5%	2%	0%	\$ 118,999	2%	\$ 125,000	\$ 127,500	\$ 130,000	\$ 126,487	(1%)	1%	3%	10%	-18%	
Q3'22	\$ 127,101	2%	(0%)	(2%)	\$ 127,308	(0%)	\$ 140,000	\$ 144,000	\$ 148,000	\$ 155,058	(10%)	(7%)	(5%)	-7%	9%	
Q4'22	\$ 149,204	7%	4%	1%	\$ 145,713	2%	\$ 121,000	\$ 123,500	\$ 126,000	\$ 125,088	(3%)	(1%)	1%	-8%	6%	
Q1'23	\$ 127,358	5%	3%	1%	\$ 124,603	2%	\$ 127,000	\$ 130,000	\$ 133,000	\$ 129,865	(2%)	0%	2%	-4%	22%	
Q2'23	\$ 134,383	6%	3%	1%	\$ 131,494	2%	\$ 138,000	\$ 140,500	\$ 143,000	\$ 138,363	(0%)	2%	3%	8%	-14%	
Q3'23	\$ 143,083	4%	2%	0%	\$ 141,503	1%	\$ 160,000	\$ 163,500	\$ 167,000	\$ 167,138	(4%)	(2%)	(0%)	7%	25%	
Q4'23	\$ 169,961	6%	4%	2%	\$ 165,964	2%	\$ 138,000	\$ 140,750	\$ 143,500	\$ 142,013	(3%)	(1%)	1%	8%	2%	
Q1'24	\$ 143,313	4%	2%	(0%)	\$ 142,654	0%	\$ 144,000	\$ 146,500	\$ 149,000	\$ 150,195	(4%)	(2%)	(1%)	2%		
Beats and Misses																
Average Beat/Miss		7%	4%	1%		2%					(4%)	(2%)	1%			
% Beat		100%	96%	50%		72%					12%	36%	56%			
% Miss		0%	4%	50%		28%					88%	64%	44%			
Average Beat/Miss by Quarter																
Q1		6%	4%	1%		2%					(3%)	(1%)	2%			
Q2		7%	4%	1%		2%					(3%)	(1%)	2%			
Q3		5%	2%	(0%)		1%					(7%)	(4%)	(0%)			
Q4		8%	4%	1%		2%					(3%)	(1%)	2%			

Source: FactSet, Company data, compiled by Goldman Sachs Global Investment Research

Exhibit 57: AMZN - GAAP EBIT vs. Guide and Street

Amazon.com		GAAP EBIT													Stock Reaction	
AMZN		Quarterly Results						Forward Guide							On Print T+1	Intra-Q
Quarter	Reported	Low-End	% vs. Guide	Mid-Point	High-End	Cons.	% vs. Cons	Guide (1Qtr Fwd)			Cons.	Low-End	% vs. Cons	Mid-Point		
Q1'19	\$ 4,420	92%	58%	34%	\$ 3,118	42%	\$ 2,600	\$ 3,100	\$ 3,600	\$ 4,189	(38%)	(26%)	(14%)	3%	1%	
Q2'19	\$ 3,084	19%	(1%)	(14%)	\$ 3,696	(17%)	\$ 2,100	\$ 2,600	\$ 3,100	\$ 4,394	(52%)	(41%)	(29%)	-2%	-8%	
Q3'19	\$ 3,157	50%	21%	2%	\$ 2,966	6%	\$ 1,200	\$ 2,050	\$ 2,900	\$ 4,194	(71%)	(51%)	(31%)	-1%	6%	
Q4'19	\$ 3,879	223%	89%	34%	\$ 2,702	44%	\$ 3,000	\$ 3,600	\$ 4,200	\$ 4,044	(26%)	(11%)	4%	7%	23%	
Q1'20	\$ 3,989	33%	11%	(5%)	\$ 4,052	(2%)	(1,500)	\$ -	\$ 1,500	\$ 3,752	(140%)	(100%)	(60%)	-8%	34%	
Q2'20	\$ 5,843	n/a	n/a	290%	\$ 1,207	384%	\$ 2,000	\$ 3,500	\$ 5,000	\$ 3,095	(35%)	13%	62%	4%	1%	
Q3'20	\$ 6,194	210%	77%	24%	\$ 4,757	30%	\$ 1,000	\$ 2,750	\$ 4,500	\$ 5,814	(83%)	(53%)	(23%)	-5%	11%	
Q4'20	\$ 6,873	587%	150%	53%	\$ 4,437	55%	\$ 3,000	\$ 4,750	\$ 6,500	\$ 5,900	(49%)	(19%)	10%	-2%	5%	
Q1'21	\$ 8,865	196%	87%	36%	\$ 6,037	47%	\$ 4,500	\$ 6,250	\$ 8,000	\$ 7,086	(36%)	(12%)	13%	0%	4%	
Q2'21	\$ 7,702	71%	23%	(4%)	\$ 7,826	(2%)	\$ 2,500	\$ 4,250	\$ 6,000	\$ 8,241	(70%)	(48%)	(27%)	-8%	4%	
Q3'21	\$ 4,852	94%	14%	(19%)	\$ 5,515	(12%)	\$ -	\$ 1,500	\$ 3,000	\$ 7,748	(100%)	(81%)	(61%)	-2%	-18%	
Q4'21	\$ 3,460	n/a	131%	15%	\$ 2,297	51%	\$ 3,000	\$ 4,500	\$ 6,000	\$ 6,432	(53%)	(30%)	(7%)	14%	-8%	
Q1'22	\$ 3,669	22%	(18%)	(39%)	\$ 5,317	(31%)	(1,000)	\$ 1,000	\$ 3,000	\$ 6,781	(115%)	(85%)	(56%)	-14%	-2%	
Q2'22	\$ 3,317	n/a	232%	11%	\$ 1,804	84%	\$ -	\$ 1,750	\$ 3,500	\$ 4,258	(100%)	(59%)	(18%)	10%	-18%	
Q3'22	\$ 2,525	n/a	44%	(28%)	\$ 2,958	(15%)	\$ -	\$ 2,000	\$ 4,000	\$ 5,053	(100%)	(60%)	(21%)	-7%	9%	
Q4'22	\$ 2,737	n/a	37%	(32%)	\$ 2,607	5%	\$ -	\$ 2,000	\$ 4,000	\$ 4,039	(100%)	(50%)	(1%)	-8%	6%	
Q1'23	\$ 4,774	n/a	139%	19%	\$ 3,079	55%	\$ 2,000	\$ 3,750	\$ 5,500	\$ 4,432	(55%)	(15%)	24%	-4%	22%	
Q2'23	\$ 7,681	284%	105%	40%	\$ 4,776	61%	\$ 5,500	\$ 7,000	\$ 8,500	\$ 5,493	0%	27%	55%	8%	-14%	
Q3'23	\$ 11,188	103%	60%	32%	\$ 7,687	46%	\$ 7,000	\$ 9,000	\$ 11,000	\$ 8,532	(18%)	5%	29%	7%	25%	
Q4'23	\$ 13,209	89%	47%	20%	\$ 10,419	27%	\$ 8,000	\$ 10,000	\$ 12,000	\$ 8,971	(11%)	11%	34%	8%	2%	
Q1'24	\$ 15,307	91%	53%	28%	\$ 11,188	37%	\$ 10,000	\$ 12,000	\$ 14,000	\$ 12,561	(20%)	(4%)	11%	2%		
Beats and Misses																
Average Beat/Miss		143%	69%	26%		43%					(56%)	(28%)	(1%)			
% Beat		75%	88%	71%		76%					8%	24%	48%			
% Miss		25%	13%	29%		24%					92%	76%	52%			
Average Beat/Miss by Quarter																
Q1		87%	55%	12%		34%					(58%)	(30%)	(2%)			
Q2		136%	92%	63%		97%					(41%)	(9%)	22%			
Q3		125%	52%	11%		22%					(70%)	(44%)	(19%)			
Q4		245%	81%	16%		30%					(44%)	(18%)	8%			

Source: FactSet, Company data, compiled by Goldman Sachs Global Investment Research

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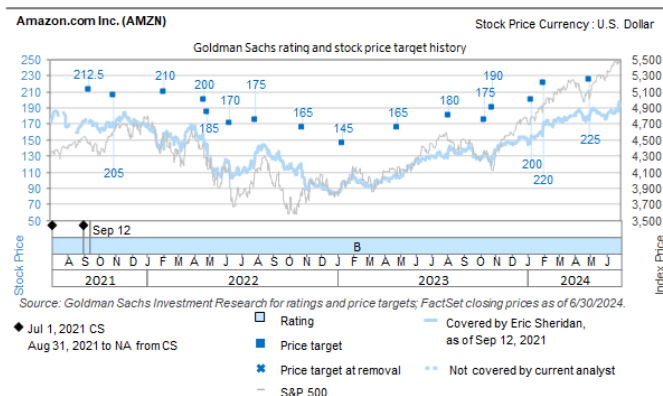
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