J.P.Morgan

Hardware & Networking

Cloud Capex: AI Investments by MSFT and GOOG Tracking Ahead of Expectations; Reit. Top AI Picks ANET & COHR

Cloud capex from both Microsoft and Alphabet tracked ahead of expectations in the Mar-Q, with the two US Cloud Service Providers (CSPs) reporting aggregate capex +20% above consensus estimates heading into the print. Additionally, both CSPs followed Meta's lead and also provided a more favorable outlook relative to capex trends, led unsurprisingly by AI infrastructure investments - supporting Meta's acclamation of a multi-year AI investment cycle (see report here) and our view that concerns around a potential near-term air pocket in the AI infrastructure build-out, which has driven "AI stocks" to trade-off almost -10% since the beginning of March, is overblown (see report here) – *Reiterate our preference for AI-levered names in our coverage universe, including Arista, Coherent, Dell, Super Micro, and Lumentum.*

- Microsoft (*Covered by Mark Murphy*): Capex results and guide again track ahead of expectations, underscoring strong year-over-year growth. F3Q24 (Mar-end) capex rose +22% q/q and +79% y/y as it tracked to \$14.0 bn (including leases), which was higher than expectations (vs. consensus of \$11.3 bn) and compares to guidance commentary for a material sequential increase, as management noted capex was driven by cloud demand and scaling out AI infrastructure. Looking forward, capex for F4Q24 (Jun-end) was guided to "increase materially on a sequential basis", driven by cloud and AI infrastructure investments. Importantly, even if we assume sequential growth of 10%+ for F4Q24, it would imply capex of \$15 bn+ or growth of 40%+ y/y, which is ahead of expectations heading into the print (vs. consensus of \$11.7 bn).
- Alphabet (*Covered by Doug Anmuth*): 1Q24 and implied full-year capex tracks ahead of expectations, implying strong double-digit growth. 1Q24 capex increased +9% q/q and +91% y/y as it tracked to \$12.0 bn, which was above expectations (vs. consensus of \$10.3 bn), with management noting investments were driven "overwhelmingly" by investment in technical infrastructure with the largest components being servers followed by data centers. Looking forward, Alphabet expects quarterly capex throughout the year to be roughly at or above 1Q24 levels, implying a record full-year capex of at least \$48 bn or growth in the 50%+ range *noting less than 10% will be accounted for by office facilities*. By comparison, consensus was forecasting capex of \$42 bn in 2024.
- Meta (*Covered by Doug Anmuth*): Raises full-year capex outlook again, implying a strong step up in growth for the remainder of the year. 1Q24 capex declined -15% q/q and -5% y/y as it tracked to \$6.7 bn (vs. consensus of \$8.3 bn), led by investments in servers, data centers, and network infrastructure. Looking forward, Meta raised its full-year capex outlook for 2024 for the second quarter in a row to a range of \$35-40 bn (vs. prior guide of \$30-37 bn), implying growth of +34% y/y, led by accelerating infrastructure

See page 3 for analyst certification and important disclosures.

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investments to support the company's AI road map. Based on 1Q24 results, the updated capex guidance implies capex of \$30.8 bn for the remaining three quarters of the year or growth of +48% y/y. Additionally, Meta reiterated it expectations for capex to increase next year as it invests aggressively to support AI research and product development efforts.

Y/Y % Change

100%

80% 60%

40%

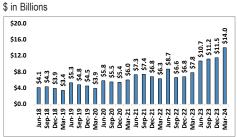
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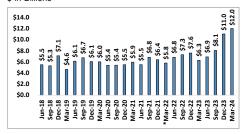
-20%

Please find the latest data center capex forecast for the Top 4 US CSPs here.

Figure 1: Quarterly Microsoft Capex



\$ in Billions



Source: Company reports

Figure 5: Quarterly Meta Capex



Sep Jun

Jun-Dec-Jun-Jun-Mar-

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Source: Company reports

Sep-

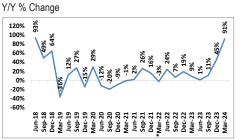
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Jun-18 Sep-18

Figure 4: Quarterly Alphabet Capex

Figure 2: Quarterly Microsoft Capex



70% 69% 79%



Figure 6: Quarterly Meta Capex



Source: Company reports

\$ in Billions





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Companies Discussed in This Report (all prices in this report as of market close on 25 April 2024, unless otherwise indicated) Arista(ANET/\$264.76/OW), Coherent Corp(COHR/\$52.88/OW), Dell Technologies(DELL/\$124.91/OW), Lumentum(LITE/\$42.01/OW), Super Micro(SMCI/\$787.40/OW)

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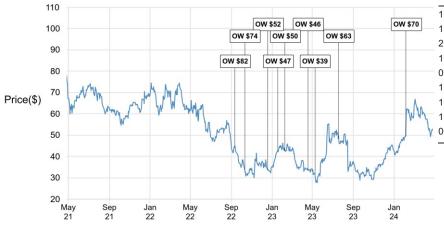
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	ET, ANET US) Price Ch	art			Date	Rating	Price (\$)	Price Target (\$)
450	OW \$114 49.996	OW \$150	OW \$195 OW \$220	OW \$315	05-May-21	OW	76.38	94
400					20-Jul-21	WO	90.53	109
	OW \$109 OW \$147.5 W \$160	OW \$175	OW \$215 OW \$	297	18-Oct-21	OW	97.44	114
350	OW \$94 OW \$125 W \$150	OW \$160	OW \$200 OW \$230		02-Nov-21	OW	102.14	125
300				0.	10-Nov-21	OW	132.84	147.5
				a Arm	13-Dec-21	OW	130.69	149.996
Price(\$) 250				WA A	20-Jan-22	OW	125.31	150
			~~~~		14-Feb-22	OW	120.92	160
200			m a young		14-Jul-22	OW	98.30	150
150			my month		01-Aug-22	OW	116.63	160
100	homenny	mam	and he		12-Oct-22	OW	107.05	175
100	mmmm	mond all u			19-Apr-23	OW	162.69	195
	And a second sec				27-Jun-23	OW	150.82	200
50 N	lay Sep Jan M	ay Sep Jan	May Sep Jan		19-Jul-23	OW	173.51	215
	21 21 22 2	2 22 23	23 23 24		31-Jul-23	OW	151.09	220
Source: Bloombo	ra Einanco I, P, and I P, Morgan; pri	co data adjusted for stock	splite and dividends		30-Oct-23	OW	176.19	230
	Source: Bloomberg Finance L.P. and J.P. Morgan; price data adjusted for stock splits and dividends. Initiated coverage May 13, 2016. All share prices are as of market close on the previous business day.				08-Jan-24	OW	230.92	297
					11-Apr-24	OW	288.22	315

#### Coherent Corp (COHR, COHR US) Price Chart



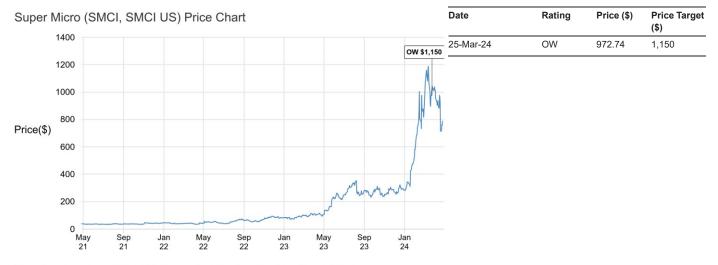
13-Dec-21	WO	130.69	149.996
20-Jan-22	OW	125.31	150
14-Feb-22	OW	120.92	160
14-Jul-22	OW	98.30	150
01-Aug-22	OW	116.63	160
12-Oct-22	OW	107.05	175
19-Apr-23	OW	162.69	195
27-Jun-23	OW	150.82	200
19-Jul-23	OW	173.51	215
31-Jul-23	OW	151.09	220
30-Oct-23	OW	176.19	230
08-Jan-24	OW	230.92	297
11-Apr-24	OW	288.22	315
11-Api-24	000	200.22	010
Date	Rating	Price (\$)	Price Target
	-		
	-		Price Target
Date	Rating	Price (\$)	Price Target (\$)
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Date 12-Sep-22 12-Oct-22	Rating OW OW	<b>Price (\$)</b> 44.23 33.78	Price Target       (\$)       82       74
Date 12-Sep-22 12-Oct-22 20-Dec-22	Rating OW OW OW	<b>Price (\$)</b> 44.23 33.78 33.63	Price Target (\$) 82 74 52
Date 12-Sep-22 12-Oct-22 20-Dec-22 19-Jan-23	Rating OW OW OW OW	<b>Price (\$)</b> 44.23 33.78 33.63 42.57	Price Target (\$) 82 74 52 47
Date 12-Sep-22 12-Oct-22 20-Dec-22 19-Jan-23 09-Feb-23	Rating OW OW OW OW OW	<b>Price (\$)</b> 44.23 33.78 33.63 42.57 42.70	Price Target (\$) 82 74 52 47 50
Date 12-Sep-22 12-Oct-22 20-Dec-22 19-Jan-23 09-Feb-23 19-Apr-23	Rating OW OW OW OW OW OW	Price (\$)       44.23       33.78       33.63       42.57       42.70       33.50	Price Target (\$) 82 74 52 47 50 46

Source: Bloomberg Finance L.P. and J.P. Morgan; price data adjusted for stock splits and dividends. Initiated coverage Jul 29, 2019. All share prices are as of market close on the previous business day.

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	-	DELL, DEL	LUS) Pric	e Char	t			Date	Rating	Price (\$)	Price Targ (\$)
20	00				OW \$50			29-Sep-21	OW	53.26	120
17	5	OW \$75	000 \$5	5 OW \$52	OW \$50	N \$61	N \$77 OW \$125	22-Nov-21	OW	55.02	72
		OW \$72	OW \$60 OV	V \$56	OW \$49 N \$	47	N \$76 OW \$100	24-Nov-21	OW	54.67	75
15	50		OW \$68 OW		\$50 OW \$47			18-Apr-22	OW	46.94	68
	Ľ	W \$120	000 \$68	\$60 OW	\$50 OVV \$47	N \$68	OW \$90	25-May-22	OW	40.88	60
12	25						-	14-Jul-22	OW	43.14	55
rice(\$)							1/1	18-Aug-22	OW	47.83	60
10	00							26-Aug-22	OW	47.90	56
							m	11-Oct-22	OW	34.48	52
7	5					1 An	a dra	21-Nov-22	OW	42.04	50
		mon				a m	~~	19-Jan-23	OW	40.02	49
5	io monte	AM	whay Man	4 1		mon		16-Feb-23	OW	42.80	50
				mar.	Cran Pro			03-Mar-23	OW	40.17	47
2	25 May S	ep Jan	May	Sep	Jan M	lay Sep	Jan	17-Apr-23	Ν	43.28	47
	21 2		22	22		23 23	24	19-Jul-23	Ν	53.83	61
								31-Aug-23	Ν	55.69	68
			an; price data ad es are as of mark					28-Nov-23	Ν	74.46	76
	-9,	P				,,		30-Nov-23	N	75.06	77
								08-Jan-24	OW	75.84	90
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								22-Feb-24	OW	81 39	100
								22-Feb-24 01-Mar-24	OW OW	81.39 94.66	100 125
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umentur 16		ITE US) P	rice Chart					01-Mar-24 Date	OW Rating	94.66 <b>Price (\$)</b>	125 Price Tarç (\$)
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Source: Bloomberg Finance L.P. and J.P. Morgan; price data adjusted for stock splits and dividends.

Initiated coverage Mar 25, 2024. All share prices are as of market close on the previous business day.

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