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US Internet & Software

AI and margin expansion still key themes

OUTPERFORM (Maintain)

US internet and software companies delivered mixed performances in 1Q24 in terms of revenue growth: advertising and cloud services revenue growth saw a reacceleration trend, while SaaS services revenue growth edged down slightly. However, the optimization in labour cost, increase in economies of scale and operating efficiency improvement continue to drive YoY margin expansion, which looks likely to sustain in 2Q24, in our view, but will face higher comps in 2H24. AI-related monetization and profitability expansion remain the key investment themes for US internet and software stocks, while the sectors' stock performance reacts positively to interest rate cuts , albeit the expectation might have been partly reflected in price. Our stock picks are Microsoft (MSFT US; BUY; well positioned to ride on the tide of rapid development of Gen AI and related monetization), Amazon (AMZN US; BUY; solid margin expansion could exceed market expectation), and ServiceNow (NOW US; BUY; steady current remaining performance obligations (cRPO) growth and profitability expansion likely to sustain).

- **US SaaS: navigating measured buying environment.** US SaaS sector experienced deceleration amid a measured buying environment. Salesforce and ServiceNow cRPO growth decelerated to +10/+21% YoY in 1Q24 (4Q23: +12/+24% YoY; 3Q23: +14/27% YoY). Enterprises' interest in Gen AI is yet to translate into a meaningful revenue contribution or offset customers' cautious buying behaviour. It still takes time for SaaS providers to navigate the measured buying environment and to reaccelerate revenue growth, in our view. Overall, we like ServiceNow given its resilient cRPO performance, strong financial profile and ramp-up of GenAI offerings.
- **Cloud rev growth reaccelerated with completion of cloud spending optimization & ramp-up of AI cloud.** As enterprises have largely completed cloud spending optimization, and with the ramp-up in revenue contribution from AI services cloud, cloud revenue growth of hyperscalers (MSFT, GOOG, AMZN), on a combined basis, reaccelerated to 24% YoY in 1Q24 (1Q23: 21%; 4Q23: 21%). With an increased scale effect, optimization of labour cost, as well as changes in the estimated useful life of servers, all the hyperscalers are seeing an expansion in cloud services OPM, which we think is likely to sustain in 2024E. Also, all have noted that AI related demand still exceeds supply at current stage, and guided to continue increasing capital investment to fulfil the demand.
- **US advertising: expect revenue growth to normalize in 2H24**. US ad platforms are recovering from the low base in 1H24. Total advertising revenue of major ad platforms grew by 18% YoY to US$99.2bn in 1Q24 (3Q23/4Q23: +14/15%). Both Meta and Alphabet noted the strong ad demand from the retail vertical as the major growth contributor, with particular strength from China's online retailers, who have been increasing their ad budget since China's reopening in 1Q23. However, we expect ad revenue growth to decelerate in 2H24E, as the platforms will lap the period of increasingly strong demand from China's advertisers and it still takes time for benefits from GenAI to materialize.
- **Monetization of Gen AI still in early stage but is ramping up steadily.** Monetization of Gen AI mainly centres on three aspects: 1) providing infrastructure-related services on AI cloud; 2) leveraging Gen AI capabilities to empower existing product portfolios and achieve a price hike for current subscription packages; and 3) transformation of formats of interaction between human and machine, and explore new ad formats. Although monetization of GenAI is still in an early stage, it is ramping up steadily, and will likely fuel future revenue and earnings growth, in our view.

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Investment thesis and key stock catalysts

Microsoft (MSFT, BUY, TP: US$471.9): Microsoft is well positioned to ride on the tide of rapid development of Gen AI and related monetization, given its cohesive product portfolio, exclusive partnership with OpenAI, large consumer base and business customer base, as well as strong R&D capabilities. We remain constructive on Microsoft's long-term growth potential, and believe that Microsoft is poised for further market share gains for all its key product portfolios with the empowerment of generative AI. Our target price of US$471.9 is based on DCF and translates into 33.3x FY25E PE. **Key revenue growth drivers:** 1) reacceleration of productivity and business processes revenue growth in FY25E aided by the ramp-up in monetization of Copilot; and 2) steady cloud services revenue growth. **Key catalysts:** 1) better-than-expected 2Q24 results; and 2) steady ramp-up in monetization of Gen AI-related products and services.

Amazon (AMZM, BUY, TP: US$211.0): Amazon is on a structural margin expansion track, which we believe will continue in 2024E, aided by: 1) an increase in revenue generation from relatively high-margin ads and AWS businesses; 2) margin improvement of AWS thanks to cost optimization and increased economies of scale; 3) margin expansion for North America (NA) business, driven by regionalization initiatives. Amazon's margin expansion remains on track despite the incremental capex investment, as the investment scale is under control and this will support long-term cloud revenue growth. Our target price of US$211.0 is based on 18.8x 2024E EV/EBITDA. **Key revenue growth drivers:** 1) third-party seller services (25% of 2024E revenue, 15% YoY growth in 2024E, by our estimate); 2) AWS (17% of 2024E revenue, 17% YoY growth in 2024E); and 3) advertising services (9% of 2024E revenue, 24% YoY growth). **Key catalyst:** better-than-expected margin expansion in 2Q24 results.

Alphabet (GOOG US, BUY, TP: US$185.5): We remain upbeat on Alphabet's FY24-26 earnings growth outlook, underpinned by its resilient core search business, AI monetization opportunities, and efforts to moderate the pace of expense growth. The company also raised its shareholder return in 1Q24, announcing a quarterly dividend of US$0.20 per share and a new US$70bn share repurchase program (c.4% of market cap). AI continues to enhance Google search experience and creates new monetization opportunities for its cloud business. Our target price of US$185.5 is based on 27x FY24E PE. **Key revenue growth drivers:** 1) Google Services revenue (87% of 2024E revenue, 10% YoY growth, by our estimate); 2) Google Cloud revenue (12% of 2024E revenue, 27% YoY growth); 3) Other bets (1% of 2024E revenue; 50% YoY growth). **Key catalysts:** 1) GenAI enhancing search experience and creating new monetization opportunities; and 2) better-than-expected margin expansion.

Meta (META US, BUY, TP: US$542.0): We expect Meta total revenue growth to normalize in 2H24E, as the base effect wane and diminishing positive impact of strong demand from China's advertisers. Management expects to start a multi-year investment cycle to build full-scale AI capabilities and enhance monetization. As a result, the company has raised FY24 capex/total expenses guidance, which we expect to slow down the margin expansion pace of Meta in FY24/25E. That said, we expect the investment to help Meta establish leadership in GenAI and capture the long-term opportunities. Our TP of US$542.0 is based on 27x FY24 PE. **Key revenue growth drivers:** 1) advertising revenue (98% of 2024E revenue, 17% YoY growth, by our estimate); and 2) Reality Labs and others revenue (2% of 2024E revenue, 19% YoY growth). **Key catalysts:** 1) better-than-expected monetization of new ad formats such as Reels and Business Messaging; 2) ad monetization improvement supported by AI; and 3) enhanced shareholder return.

ServiceNow (NOW US, BUY, TP: US$895.0): We like ServiceNow given its resilient cRPO performance, strong financial profile and ramp-up of GenAI offerings. ServiceNow continues to see strong momentum of its GenAI products. AI-powered Pro Plus offerings' net new annual contract value (NNACV) to date has exceeded that of ServiceNow's any new product launched for the comparable period. The company's GenAI products were bundled in seven of the top 10 deals in 1Q24. The company also utilizes GenAI to enhance its own operating efficiency (e.g., text-to-code GenAI tools), which we expect to further support its margin expansion in the long term. Our target price of US$895.0 is based on

50x FY24 EV/EBITDA. **Key revenue growth drivers:** 1) technology workflows (52% of 1Q24 NNACV); 2) customer & employee workflows (30% of 1Q24 NNACV); and 3) Creator workflows & others (18% of 1Q24 NNACV). **Key catalyst:** 1) faster-than-expected adoption of Pro Plus subscription offerings.

Salesforce (CRM US, BUY, TP: US$335.0): Salesforce cRPO growth remains under pressure, primarily due to clients' more measured buying behaviour and the changes of go-to-market strategy in 1Q24. On AI front, Salesforce continues to see strong demand for its data cloud solution, but it is yet to offset the impact of constrained client budget, in our view. Salesforce remains committed to productivity gains and margin expansion, maintaining FY25 non-GAAP operating margin guidance at 32.5% (+2ppt YoY). We continue to expect it to release operating leverage. Our target price of US$335.0 is based on 20x FY25 EV/EBITDA. **Key revenue growth drivers:** 1) sales cloud (22% of FY25E revenue; 8% YoY growth, by our estimate); 2) service cloud (23% of FY25E revenue; 8% YoY growth); 3) platform & other (19% of FY25E revenue; 7% YoY growth); 4) marketing & commerce (14% of FY25E revenue; 7% YoY growth); and 5) Integration and Analysis (16% of FY25E revenue; 19% YoY growth). **Key catalysts:** 1) faster-than-expected adoption of Einstein 1 subscription packages; and 2) recovery of overall IT demand.

US internet & software: 1Q24 review

US internet and software companies delivered mixed performances in 1Q24 in terms of revenue growth: advertising and cloud services revenue growth saw a reacceleration trend, while SaaS services revenue growth edged down slightly. However, the optimization in labour cost, increase in economies of scale and operating efficiency improvement have continued to drive YoY margin expansion, which is likely to sustain in 2Q24, in our view, but will face higher comps in 2H24. AI-related monetization and profitability expansion remain the key investment themes for US internet and software stocks, while the sectors' stock performance reacts positively to interest rate cuts, albeit the expectation might have been partly reflected in price. Our stock picks are Microsoft (MSFT US; BUY; well positioned to ride on the tide of rapid development of GenAI and related monetization), Amazon (AMZN US; BUY; solid margin expansion could exceed market expectation), and ServiceNow (NOW US; BUY; steady cRPO growth and profitability expansion likely to sustain).

Figure 1: Global internet & software: comps

Company	Ticker	Price	Mkt Cap	PE (x)		PS (x)		PEG	Rev CAGR	EPS CAGR	FCF Margin
		(Local)	(US$mn)	2024E	2025E	2024E	2025E	2024E	23-25E	23-25E	2024E
US											
Microsoft	MSFT US	449.8	3,342,903	38.1	33.8	13.7	11.9	2.0	15%	18%	28%
Alphabet	GOOGL US	179.6	2,219,868	23.4	20.6	7.5	6.8	1.1	13%	20%	26%
Amazon	AMZN US	189.1	1,967,685	34.9	28.8	3.1	2.8	1.1	12%	31%	10%
Meta	META US	494.8	1,255,026	23.5	20.7	7.9	7.0	0.9	16%	27%	28%
Tesla	TSLA US	183.0	583,655	NA	NA	5.9	5.0	NA	10%	4%	2%
Netflix	NFLX US	686.1	295,650	37.0	30.8	7.6	6.8	1.0	14%	35%	17%
Adobe	ADBE US	533.4	238,981	29.6	26.2	11.1	10.0	2.0	11%	13%	37%
Salesforce	CRM US	245.1	237,463	29.9	24.7	6.8	6.3	0.7	11%	42%	27%
Intuit	INTU US	632.2	176,716	37.6	33.0	10.9	9.7	2.1	13%	16%	32%
ServiceNow	NOW US	749.3	153,613	NA	46.3	14.1	11.7	NA	21%	25%	31%
Uber	UBER US	70.2	146,705	NA	29.7	3.4	2.9	NA	16%	79%	13%
Shopify	SHOP US	65.0	83,786	NA	NA	9.8	8.1	NA	21%	34%	15%
Workday	WDAY US	219.1	58,059	38.1	32.2	8.0	6.9	1.0	16%	39%	26%
Snowflake	SNOW US	127.8	42,787	NA	NA	15.3	12.3	NA	30%	66%	28%
Average				**32.5**	**29.7**	**8.9**	**7.7**				
China											
Tencent	700 HK	381.4	459,774	17.2	15.3	5.0	4.6	0.9	9%	19%	27%
Pinduoduo	PDD US	143.9	199,789	12.3	9.5	3.5	2.6	0.2	52%	62%	40%
Alibaba	BABA US	73.7	178,148	8.7	7.9	1.3	1.2	2.1	8%	4%	15%
Meituan	3690 HK	116.2	92,693	19.2	14.1	2.0	1.8	0.4	17%	47%	6%
Average				**14.4**	**11.7**	**2.9**	**2.5**				
Korea											
Kakao	035720 KS	43,150.0	13,969	46.3	34.3	2.2	2.0	1.5	9%	31%	12%
Naver	035420 KS	167,600.0	19,808	17.7	16.6	2.6	2.3	1.9	10%	9%	15%
Netmarble	251270 KS	53,700.0	3,359	51.3	29.2	1.6	1.6	1.1	2%	46%	6%
NCSoft Corp	036570 KS	195,300.0	3,120	25.2	16.0	2.6	2.1	0.7	17%	35%	7%
Average				**35.1**	**24.0**	**2.2**	**2.0**				
Japan											
Nintendo	7974 JP	8,482.0	69,906	31.4	26.9	7.6	6.1	2.0	17%	16%	21%
Nexon	3659 JP	2,892.0	15,426	22.1	19.7	5.4	4.9	2.6	8%	8%	24%
Konami	9766 JP	10,970.0	9,990	24.0	21.7	4.0	3.8	2.6	6%	9%	17%
Capcom	9697 JP	2,915.0	9,860	31.1	28.4	9.2	8.7	3.6	6%	9%	24%
Average				**27.2**	**24.2**	**6.6**	**5.9**				

Source: Bloomberg, CMBIGM
Note: data as of 21 Jun 2024

US SaaS: navigating measured buying environment

US SaaS sector has experienced deceleration amid a measured buying environment. Salesforce and ServiceNow cRPO growth decelerated to +10/+21% YoY in 1Q24 (4Q23: +12/+24% YoY; 3Q23: +14/27% YoY). Enterprises' interest in Generative AI is yet to translate into meaningful revenue contribution or offset customers' cautious buying behaviour. It still takes time for SaaS providers to navigate the measured buying environment and to reaccelerate revenue growth, in our view. Thus, we expect revenue growth of SaaS platforms to remain under pressure in 2H24E. Overall, we like ServiceNow given its relatively resilient cRPO performance and strong financial profile which adheres to the Rule of 50. ServiceNow's ramp-up of GenAI subscription remains on track (highest NNACV versus any new product launched for the comparable period), which we think shall lift the TAM for the company in the long term (30% realized pricing uplift).

Figure 2: US SaaS: quarterly revenue trend

	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24
Revenue (US$mn)													
Salesforce	5,963	6,340	6,863	7,326	7,411	7,720	7,837	8,384	8,247	8,603	8,720	9,287	9,133
ServiceNow	1,360	1,409	1,512	1,615	1,722	1,752	1,831	1,940	2,096	2,150	2,288	2,437	2,603
Adobe	3,905	3,835	3,935	4,110	4,262	4,386	4,433	4,525	4,655	4,816	4,890	5,048	5,182
Intuit	4,173	2,561	2,007	2,673	5,632	2,414	2,597	3,041	6,018	2,712	2,978	3,386	6,737
Total	**15,401**	**14,145**	**14,317**	**15,724**	**19,027**	**16,272**	**16,698**	**17,890**	**21,016**	**18,281**	**18,876**	**20,158**	**23,655**
Revenue YoY													
Salesforce	23%	23%	27%	26%	24%	22%	14%	14%	11%	11%	11%	11%	11%
ServiceNow	30%	32%	31%	29%	27%	24%	21%	20%	22%	23%	25%	26%	24%
Adobe	26%	23%	22%	20%	9%	14%	13%	10%	9%	10%	10%	12%	11%
Intuit	39%	41%	52%	70%	35%	-6%	29%	14%	7%	12%	15%	11%	12%
Total	**28%**	**27%**	**29%**	**30%**	**24%**	**15%**	**17%**	**14%**	**10%**	**12%**	**13%**	**13%**	**13%**

Source: Company data, CMBIGM

Figure 3: US SaaS: cRPO/billings trend

	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24
cRPO (US$mn)													
Salesforce	17,800	18,700	18,800	22,000	21,500	21,500	20,900	24,600	24,100	24,100	23,900	27,600	26,400
ServiceNow	4,420	4,750	4,960	5,680	5,690	5,750	5,870	6,940	7,010	7,200	7,430	8,600	8,450
Adobe (billings)	4,431	3,833	4,037	4,603	4,798	3,848	4,500	4,996	4,718	4,720	4,992	5,515	5,342
Intuit (billings)	4,071	2,588	1,929	2,889	5,557	2,475	2,492	3,190	5,995	2,804	2,824	3,506	6,693
cRPO YoY													
Salesforce	23%	23%	23%	22%	21%	15%	11%	12%	12%	12%	14%	12%	10%
ServiceNow	34%	36%	31%	29%	29%	21%	18%	22%	23%	25%	27%	24%	21%
Adobe	38%	29%	26%	23%	8%	0%	11%	9%	-2%	23%	11%	10%	13%
Intuit	36%	43%	55%	64%	37%	-4%	29%	10%	8%	13%	13%	10%	12%

Source: Company data, CMBIGM

ServiceNow: ServiceNow 1Q24 total revenue increased by 24% YoY to US$2.60bn. cRPO was up 21% YoY on a constant currency basis in 1Q24, which is a 100bps beat versus guidance, thanks to the better-than-expected deal acquisition in 1Q24. For 2Q24E, management guided subscription revenue/cRPO to grow by 22/20.5% YoY on a constant currency basis. Subscription revenue grew by 25% YoY to US$2.52bn in 1Q24, with strength in TMT/education/transportation industries. Non-GAAP operating margin expanded by 4.4ppt YoY and 1.4ppt QoQ to 30.4% in 1Q24, driven by the operating leverage. The company also utilizes GenAI to enhance its own operating efficiency (e.g., text-to-code GenAI tools), which we expect to further support its margin expansion in the long term. We expect non-GAAP OPM to increase by 1.2ppt YoY to 28.9% in FY24E. We are upbeat on ServiceNow's strong financial profile which adheres to the Rule of 50 (FCF margin + total revenue growth > 70% in 1Q24), which justifies its trading at a premium versus peers.

Figure 4: ServiceNow: quarterly financials

(US$ mn)	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24
Subscription Revenue	1,631	1,658	1,742	1,860	2,024	2,075	2,216	2,365	2,523
YoY %	26.1%	24.7%	22.1%	22.1%	24.1%	25.2%	27.2%	27.2%	24.7%
Professional Services and Other	91	94	89	80	72	75	72	72	80
YoY %	35.8%	19.0%	4.7%	-13.0%	-20.9%	-20.2%	-19.1%	-10.0%	11.1%
Total revenue	**1,722**	**1,752**	**1,831**	**1,940**	**2,096**	**2,150**	**2,288**	**2,437**	**2,603**
YoY %	26.6%	24.3%	21.1%	20.1%	21.7%	22.7%	25.0%	25.6%	24.2%
Gross profit	**1,353**	**1,363**	**1,431**	**1,525**	**1,658**	**1,679**	**1,792**	**1,921**	**2,083**
GPM	78.6%	77.8%	78.2%	78.6%	79.1%	78.1%	78.3%	78.8%	80.0%
Non-GAAP OP	**437**	**399**	**480**	**544**	**552**	**544**	**676**	**717**	**791**
Non-GAAP OPM	25.4%	22.8%	26.2%	28.0%	26.3%	25.3%	29.5%	29.4%	30.4%
Non-GAAP NP	**352**	**329**	**398**	**464**	**483**	**486**	**603**	**643**	**707**
YoY %	15.0%	14.6%	26.8%	56.8%	37.2%	47.7%	51.5%	38.6%	46.4%
Non-GAAP NPM	20.4%	18.8%	21.7%	23.9%	23.0%	22.6%	26.4%	26.4%	27.2%

Source: Company data, CMBIGM

Salesforce: 1QFY25 revenue grew by 11% YoY to US$9.13bn. However, the market is concerned that its cRPO growth rate decelerated to 10% YoY in 1QFY25 (4QFY24: +12% YoY) and was below the company guidance (+11% YoY), primarily due to clients' more measured buying behaviour and Salesforce's changes of go-to-market strategy. In view of the macro headwind, management adjusted down FY25 subscription & support revenue growth guidance to slightly below 10% (previous: +10% YoY). Nonetheless, management remains committed to productivity gains and margin expansion, maintaining FY25 non-GAAP operating margin guidance at 32.5% (+2ppt YoY).

Figure 5: Salesforce: quarterly financials

(US$ mn)	1QFY23	2QFY23	3QFY23	4QFY23	1QFY24	2QFY24	3QFY24	4QFY24	1QFY25
Sales	1,632	1,695	1,717	1,787	1,810	1,895	1,906	1,969	1,998
YoY %	17.6%	14.8%	11.6%	12.7%	10.9%	11.8%	11.0%	10.2%	10.4%
Services	1,761	1,828	1,856	1,924	1,964	2,049	2,074	2,158	2,182
YoY %	16.9%	14.3%	11.9%	12.5%	11.5%	12.1%	11.7%	12.2%	11.1%
Platform & Other	1,419	1,478	1,513	1,557	1,567	1,638	1,686	1,720	1,718
YoY %	55.4%	52.5%	18.5%	15.3%	10.4%	10.8%	11.4%	10.5%	9.6%
Marketing & Commerce	1,089	1,121	1,129	1,177	1,170	1,238	1,230	1,274	1,282
YoY %	21.7%	17.4%	12.2%	12.5%	7.4%	10.4%	8.9%	8.2%	9.6%
Integration and Analytics	955	1,021	1,018	1,344	1,131	1,186	1,245	1,627	1,405
YoY %	14.5%	11.8%	13.1%	18.3%	18.4%	16.2%	22.3%	21.1%	24.2%
Total revenue	**7,411**	**7,720**	**7,837**	**8,384**	**8,247**	**8,603**	**8,720**	**9,287**	**9,133**
YoY %	24.3%	21.8%	14.2%	14.4%	11.3%	11.4%	11.3%	10.8%	10.7%
Non-GAAP OP	**1,308**	**1,536**	**1,777**	**2,447**	**2,274**	**2,721**	**2,717**	**2,920**	**2,928**
YoY %	8.5%	19.0%	30.9%	123.3%	73.9%	77.1%	52.9%	19.3%	28.8%
Non-GAAP OPM	17.6%	19.9%	22.7%	29.2%	27.6%	31.6%	31.2%	31.4%	32.1%
Non-GAAP NP	**982**	**1,190**	**1,398**	**1,656**	**1,674**	**2,094**	**2,068**	**2,251**	**2,407**
YoY %	-13.9%	-15.1%	9.8%	96.4%	70.5%	76.0%	47.9%	35.9%	43.8%
Non-GAAP NPM	13.3%	15.4%	17.8%	19.8%	20.3%	24.3%	23.7%	24.2%	26.4%

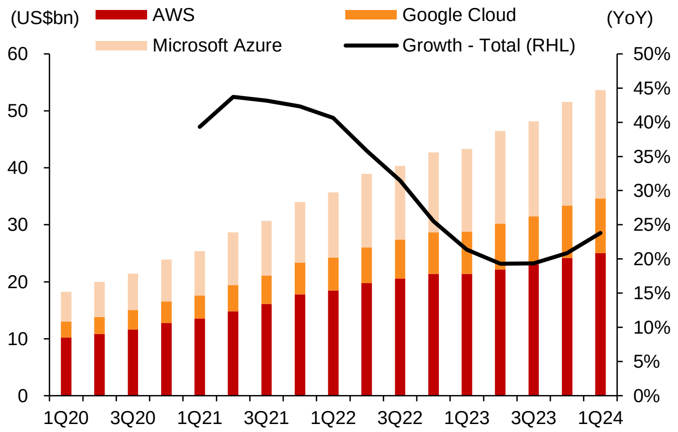
Source: Company data, CMBIGM

Cloud: rev growth reaccelerated on completion of cloud spending optimization & ramp-up of AI cloud

As enterprises have largely completed cloud spending optimization, and with the ongoing ramp-up in revenue contribution from AI services cloud, cloud revenue growth of hyperscaler companies (MSFT, GOOG, AMZN), on a combined basis, reaccelerated to 24% YoY in 1Q24 (1Q23: 21%; 4Q23: 21%). With an increased scale effect, optimization of labour cost, as well as changes in the estimated useful life of servers, all the hyperscalers are seeing an OPM expansion for cloud services, which looks likely to sustain in 2024E, although the pace may slow down in 2H24 given a high base (as most of the cost optimization initiatives started in 2H23). Almost all of the companies have noted that AI-related demand still exceeds supply at the current stage, and guided to continue increasing capital investment to fulfil the demand, which we think underpins a steady cloud revenue growth outlook in 2H24.

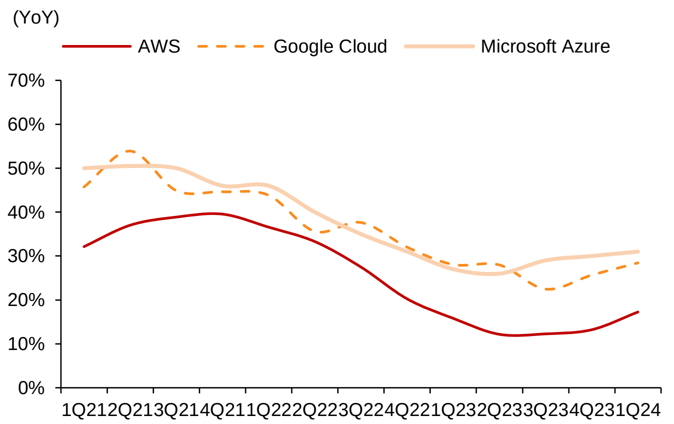
In 1Q24, AWS inked revenue of US$25.0bn, up 17.2% YoY (1Q23: 16%; 4Q23: 13%). Management believes that enterprises have largely completed their cost optimization initiatives and turned their attention to new initiatives. Also, management highlighted that it has seen considerable momentum on the AI front, where AWS has accumulated a multibillion-dollar revenue run-rate already, which we believe could support steady AWS revenue growth over 2Q-4Q24.

Figure 6: Cloud rev and growth of hyperscalers



Source: Company data, CMBIGM

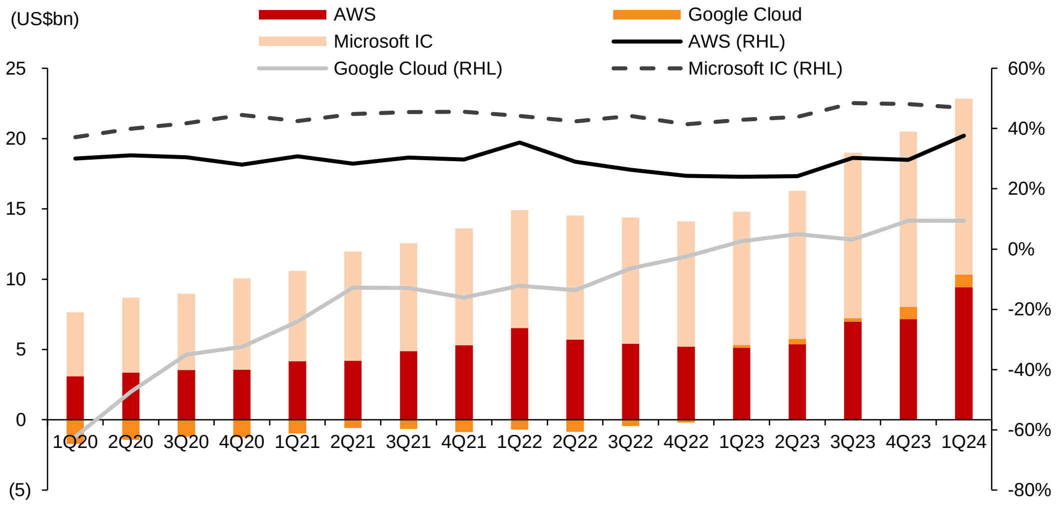
Figure 7: YoY cloud revenue growth



Source: Company data, CMBIGM

For Microsoft, in 1Q24, Microsoft's Intelligent Cloud (IC) segment recorded quarterly revenue growth of 21% YoY to US$26.7bn, within which Azure and other cloud services revenue grew 31% YoY, and AI-related cloud services contributed 7ppt of the growth (1QFY24: 3ppt; 2QFY24: 6ppt). Management highlighted that AI-related demand still exceeds the company's supply at the current stage, and will continue to increase capital investment to fulfil the demand. Apart from AI-related revenue, management also highlighted an acceleration trend in the number of large Azure deals: the number of 100mn dollar-plus Azure deals increased by over 80% YoY, while the number of 10mn dollar-plus deals more than doubled in 1Q24, which in our view could support steady Azure revenue growth in 2H24.

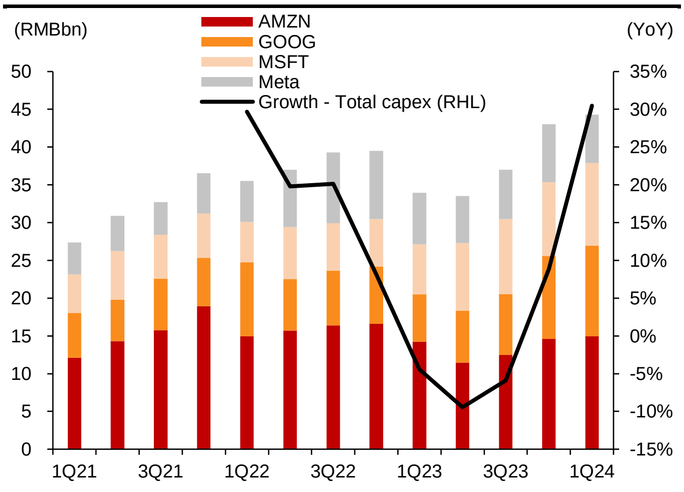
Figure 8: Hyperscaler companies: OP and OPM of cloud business



Source: Company data, CMBIGM
Note: We use OP and OPM of Microsoft IC segment rather than of Azure for comparison as MSFT does not break down the stand-alone financial performance of Azure.

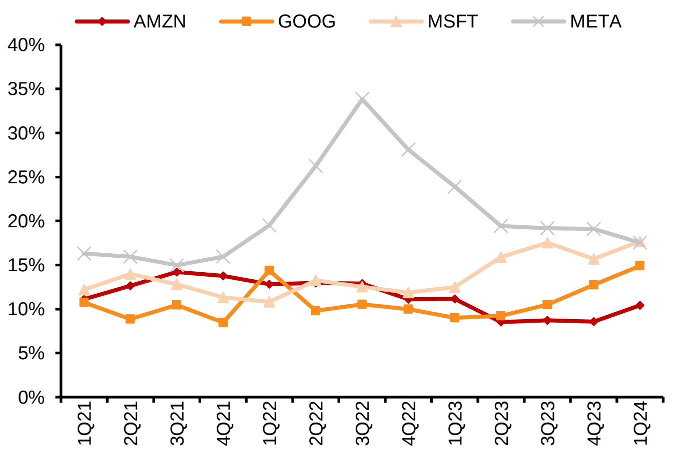
Operating profit for AWS segment was US$9.4bn in 1Q24, translating into a 37.6% OPM (1Q23: 24.0%; 4Q23: 29.6%), mainly driven by the change in estimated useful life of servers, and labour cost optimization initiatives. Management expects OPM of AWS to fluctuate caused in part by the level of investments, while it remains focused on driving efficiency gains. For Microsoft IC, operating profit was up 32.0% YoY to US$12.5bn, translating into a 46.9% OPM, up 4.0ppt YoY. Driven by the labour cost optimization, increased scale effect, as well as an increase in revenue contribution from relatively higher-margin A- related cloud services, all the hyperscaler cloud services providers are on track to achieve further margin expansion on a YoY basis in 2024, in our view, although all of the companies have guided to increase their investment in infrastructure to fulfil incremental business demand.

Figure 9: Hyperscaler companies: capex and growth



Source: Company data, CMBIGM

Figure 10: Hyperscaler companies: capex as % of rev



Source: Company data, CMBIGM

Regarding capex trend of hyperscaler companies and leading TMT companies, Microsoft, Amazon, Apple, Meta, and Google's (MAAMG) capex totalled US$46.3bn in 1Q24, up 26% YoY (1Q23: -3% YoY; 4Q23: +5% YoY), which we attribute to the additional investment in cloud infrastructure initiatives to support long-term development of cloud business, aided by the rising demand for AI cloud as well as the completion of cloud spending optimization. Bloomberg consensus estimates point to combined YoY growth of 34/9% for MAAMG capex in 2024E/2025E.

Figure 11: Annual and quarterly capex of MAAMG stocks

(US$bn)	2022	2023	2024E	2025E	2026E	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24
Microsoft	23.9	28.1	44.5	52.2	56.5	5.3	6.9	6.3	6.3	6.6	8.9	9.9	9.7	11.0
YoY	*16%*	*18%*	*58%*	*17%*	*8%*	*5%*	*6%*	*8%*	*7%*	*24%*	*30%*	*58%*	*55%*	*66%*
Amazon	63.6	52.7	63.4	68.2	67.5	15.0	15.7	16.4	16.6	14.2	11.5	12.5	14.6	14.9
YoY	*4%*	*-17%*	*20%*	*8%*	*-1%*	*24%*	*10%*	*4%*	*-12%*	*-5%*	*-27%*	*-24%*	*-12%*	*5%*
Google	31.5	32.3	47.6	49.3	50.5	9.8	6.8	7.3	7.6	6.3	6.9	8.1	11.0	12.0
YoY	*28%*	*2%*	*48%*	*3%*	*3%*	*65%*	*24%*	*7%*	*19%*	*-36%*	*1%*	*11%*	*45%*	*91%*
Meta	31.4	27.3	37.5	41.5	44.0	5.4	7.6	9.4	9.0	6.8	6.2	6.5	7.7	6.4
YoY	*68%*	*-13%*	*38%*	*11%*	*6%*	*27%*	*63%*	*116%*	*68%*	*26%*	*-18%*	*-30%*	*-15%*	*-6%*
Apple	10.7	11.0	9.7	10.6	10.0	2.5	2.1	3.3	3.8	2.9	2.1	2.2	2.4	2.0
YoY	*-3%*	*2%*	*-12%*	*10%*	*-6%*	*11%*	*0%*	*2%*	*35%*	*16%*	*0%*	*-34%*	*-37%*	*-32%*
MAAMG Total	**161.2**	**151.3**	**202.7**	**221.7**	**228.6**	**38.0**	**39.1**	**42.6**	**43.3**	**36.9**	**35.6**	**39.2**	**45.4**	**46.3**
YoY	*18%*	*-6%*	*34%*	*9%*	*3%*	*28%*	*19%*	*19%*	*10%*	*-3%*	*-9%*	*-8%*	*5%*	*26%*

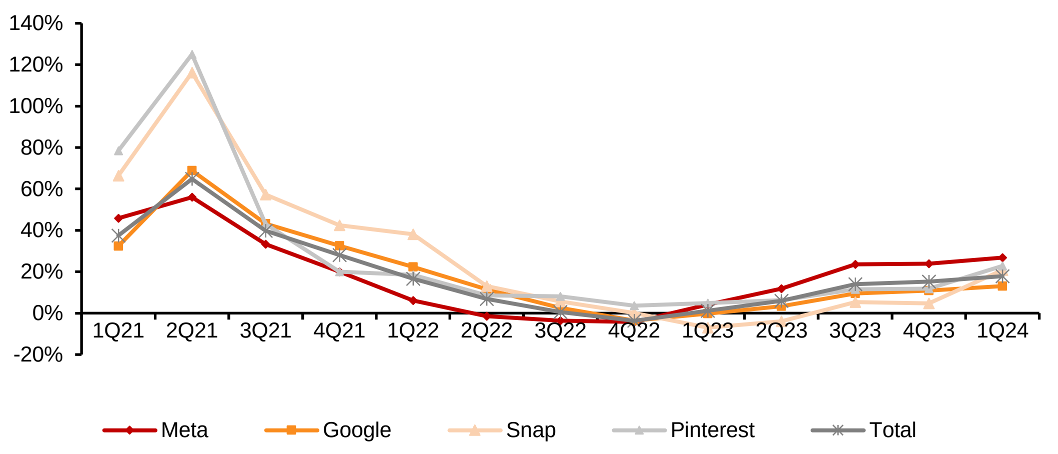
Source: Bloomberg, CMBIGM

Note: 1) For annual data, Microsoft's FY22-26E data used for comparison as its FY ends at 30 Jun; 2) data as at 24 Jun 2024.

US advertising: expect revenue growth to normalize in 2H24

Advertising demand is recovering from a low base in 1H24. Total advertising revenue of major advertising platforms grew by 18% YoY to US$99.2bn in 1Q24 (3Q23/4Q23: +14/15%). Both Meta and Alphabet noted the strong ad demand from the retail vertical as the major growth contributor, with particular strength from China's online retailers, who have been increasing their ad budget since China's reopening in 1Q23. Besides, AI is driving user engagement and conversion, which also leads to higher ad inventory and advertising demand. Looking ahead, we expect ad revenue growth to decelerate in 2H24E, as the platforms will lap the period of increasingly strong demand from China's advertisers and it still takes time for benefits from GenAI to materialize. Margin expansion shall continue in 2H24E albeit at a slower pace due to the increasing AI investment.

Figure 12: US advertising: quarterly revenue YoY



Source: Company data, CMBIGM

Figure 13: US advertising: quarterly revenue trend

	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24
Advertising revenue (US$mn)													
Meta	25,439	28,580	28,276	32,639	26,998	28,152	27,237	31,254	28,101	31,498	33,643	38,706	35,635
Google	44,684	50,444	53,130	61,239	54,661	56,288	54,482	59,042	54,548	58,143	59,647	65,517	61,659
Snap	770	982	1,067	1,298	1,063	1,111	1,128	1,300	989	1,068	1,189	1,361	1,195
Pinterest	485	613	633	847	575	666	685	877	603	708	763	981	740
Total	**71,378**	**80,619**	**83,106**	**96,023**	**83,297**	**86,217**	**83,532**	**92,473**	**84,240**	**91,417**	**95,242**	**106,566**	**99,229**
Advertising revenue YoY													
Meta	46%	56%	33%	20%	6%	-1%	-4%	-4%	4%	12%	24%	24%	27%
Google	32%	69%	43%	33%	22%	12%	3%	-4%	0%	3%	9%	11%	13%
Snap	66%	116%	57%	42%	38%	13%	6%	0%	-7%	-4%	5%	5%	21%
Pinterest	78%	125%	43%	20%	18%	9%	8%	4%	5%	6%	11%	12%	23%
Total	**37%**	**65%**	**40%**	**28%**	**17%**	**7%**	**1%**	**-4%**	**1%**	**6%**	**14%**	**15%**	**18%**

Source: Company data, CMBIGM

Meta: total revenue grew by 27% YoY to US$36.5bn in 1Q24. Family of Apps ad revenue grew by 27% YoY to US$35.6bn in 1Q24, mainly driven by strong demand from online commerce, gaming, and entertainment verticals. Total number of ad impressions grew by 20% YoY in 1Q24, as AI model drove better user engagement and Reels further grew its ad inventory. For 2Q24, management guides total revenue to increase by 14-22% YoY to US$36.5-39.0bn, with growth rate normalizing as the base effect wanes. Nonetheless, we expect Meta will continue to experience margin expansion on efficiency gains in 2024E. We forecast net income to grow 32% YoY to US$51.5bn in 2024E (2024E NPM: +3.6ppt YoY).

Figure 14: Meta: quarterly financials

(US$ mn)	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24
Advertising	26,998	28,152	27,237	31,254	28,101	31,498	33,643	38,706	35,635
YoY %	6.1%	-1.5%	-3.7%	-4.2%	4.1%	11.9%	23.5%	23.8%	26.8%
Others	910	670	477	911	544	501	503	1,405	820
YoY %	24.3%	34.8%	-35.0%	-11.7%	-40.2%	-25.2%	5.5%	54.2%	50.7%
Total revenue	**27,908**	**28,822**	**27,714**	**32,165**	**28,645**	**31,999**	**34,146**	**40,111**	**36,455**
YoY %	24.3%	24.3%	21.1%	20.1%	21.7%	22.7%	25.0%	25.6%	0.0%
Gross profit	**21,903**	**23,630**	**21,998**	**23,829**	**22,537**	**26,054**	**27,936**	**32,416**	**29,815**
GPM	78.5%	82.0%	79.4%	74.1%	78.7%	81.4%	81.8%	80.8%	81.8%
Operating income	**8,524**	**8,358**	**5,664**	**6,399**	**7,227**	**9,392**	**13,748**	**16,384**	**13,818**
YoY %	-25.1%	-32.4%	-45.7%	-49.2%	-15.2%	12.4%	142.7%	156.0%	91.2%
OPM	30.5%	29.0%	20.4%	19.9%	25.2%	29.4%	40.3%	40.8%	37.9%
Net income	**7,465**	**6,687**	**4,395**	**4,652**	**5,709**	**7,788**	**11,583**	**14,017**	**12,369**
YoY %	-21.4%	-35.7%	-52.2%	-54.8%	-23.5%	16.5%	163.5%	201.3%	116.7%
NPM	26.7%	23.2%	15.9%	14.5%	19.9%	24.3%	33.9%	34.9%	33.9%

Source: Company data, CMBIGM

Alphabet: 1Q24 total revenue grew by 15% YoY to US$80.5bn. Search & other revenue grew by 14% YoY to US$46.2bn in 1Q24, mainly driven by solid growth in the retail vertical. YouTube ad revenue reported strong growth of 21% YoY to US$8.1bn in 1Q24, fuelled by solid demand for both direct respond and brand ads. Non-GAAP operating margin after adjustment of severance-related expenses was up by 4ppt YoY to 33% in 1Q24, primarily attributable to the organizational optimization to enhance velocity and efficiency. Despite the increase in capex and related depreciation, management remains focused on moderating the pace of expenses growth and expects YoY OPM expansion in FY24. We forecast net income to grow by 16% YoY to US$85.3bn in 2024E (2024E NPM: +0.8ppt YoY).

Figure 15: Alphabet: quarterly financials

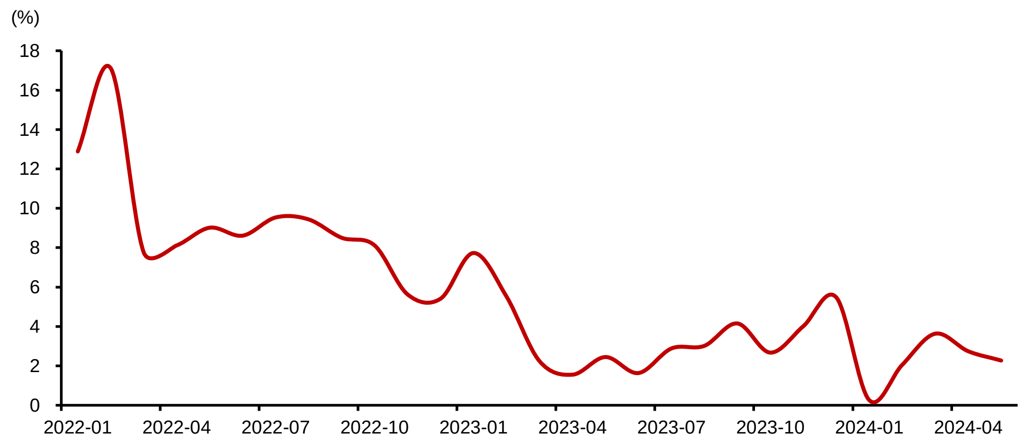
(US$ mn)	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24
Total revenue	**68,011**	**69,685**	**69,092**	**76,048**	**69,787**	**74,604**	**76,693**	**86,310**	**80,539**
YoY	23.0%	12.6%	6.1%	1.0%	2.6%	7.1%	11.0%	13.5%	15.4%
Google services	61,472	62,841	61,377	67,838	61,961	66,285	67,986	76,311	70,398
YoY	20.1%	10.1%	2.5%	-2.3%	0.8%	5.5%	10.8%	12.5%	13.6%
Google cloud	5,821	6,276	6,868	7,315	7,454	8,031	8,411	9,192	9,574
YoY	43.8%	35.6%	37.6%	32.0%	28.1%	28.0%	22.5%	25.7%	28.4%
Other bets	440	193	209	226	288	285	297	657	495
YoY	122.2%	0.5%	14.8%	24.9%	-34.5%	47.7%	42.1%	190.7%	71.9%
Operating income	**20,094**	**19,453**	**17,135**	**18,160**	**17,415**	**21,838**	**21,343**	**23,697**	**25,472**
YoY	22.2%	0.5%	-18.5%	-17.0%	-13.3%	12.3%	24.6%	30.5%	46.3%
Net income	**16,436**	**16,002**	**13,910**	**13,624**	**15,051**	**18,368**	**19,689**	**20,687**	**23,662**
YoY	-8.3%	-13.6%	-26.5%	-34.0%	-8.4%	14.8%	41.5%	51.8%	57.2%
Operating margin	29.5%	27.9%	24.8%	23.9%	25.0%	29.3%	27.8%	27.5%	31.6%
Net income margin	24.2%	23.0%	20.1%	17.9%	21.6%	24.6%	25.7%	24.0%	29.4%

Source: Company data, CMBIGM

E-commerce: US retail sales growth to normalize, while international expansion and margin expansion on track

Overall US retail sales are seeing a softening trend, with retail and food services sales up 2.3% YoY in May 2024, declining from 5.5% YoY in Dec 2023 and 2.7% YoY in Apr 2024, while total US retail sales were up 0.1% MoM in May 2024, lower than Bloomberg consensus estimates at 0.3%. Although there is a softening trend in US retail market, e-commerce penetration still has room to increase further driven by better user experience in the online channel, in our view. For the international market, the overall market is still in the early stage of e-commerce penetration, in our view. For Amazon, margin expansion remains on track, aided by: 1) increasing revenue generation from relatively high-margin ads and AWS; 2) margin improvement of AWS thanks to cost optimization and increased economies of scale; and 3) margin expansion for North America (NA) business, driven by regionalization initiatives.

Figure 16: YoY growth of US retail and food services sales



Source: The US Census Bureau, CMBIGM

Per eMarketer data, online penetration of US retail sales reached 14.6/14.7% in 2020/2021, and it expects the penetration to rise to 17.8% in 2025E. Within the US e-commerce market, Amazon took a 37.7% share in 2022, per eMarketer, and it expects Amazon's market share to recover to 37.8% in 2024E. Also, there is still abundant room for further e-commerce penetration in the international market, in our view, evidenced by the 18.9% penetration in the global market, as compared to c. 50% e-commerce penetration in China market (or 26.7% based on NBS data if including auto sales and petroleum-related products in total retail sales). Driven by the enhancement of logistic and fulfilment infrastructure and digital payment infrastructure, online penetration of retail sales has the potential to rise further, in our view. eMarketer forecasts online penetration of retail sales worldwide to rise to 20.3%/21.2% in 2024/2025E, from 19.5% in 2023E.

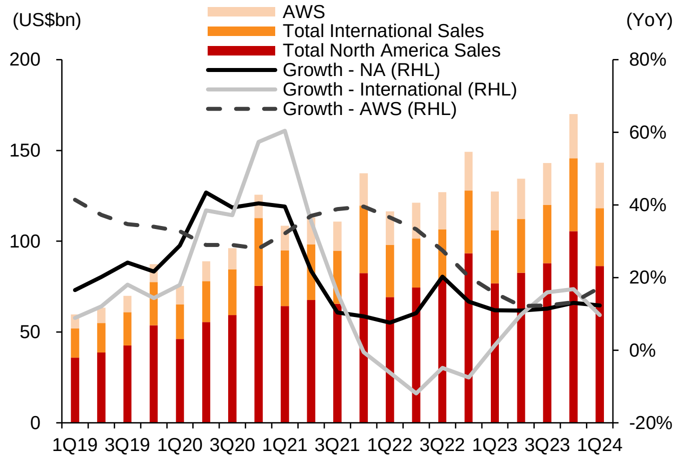
Figure 17: Worldwide e-commerce penetration

Region	2020	2021	2022	2023E	2024E	2025E
Asia-Pacific	**27.3%**	**28.6%**	**29.5%**	**30.0%**	**31.1%**	**32.1%**
Australia	7.9%	9.5%	9.1%	9.2%	9.5%	9.8%
China	42.4%	43.2%	45.7%	45.9%	47.3%	48.6%
Hong Kong, China	6.3%	8.1%	9.9%	9.3%	9.5%	9.8%
India	5.8%	7.0%	7.4%	7.9%	8.4%	9.0%
Japan	11.4%	12.2%	12.9%	13.9%	14.7%	15.7%
New Zealand	9.0%	9.2%	9.4%	9.5%	9.9%	10.3%
South Korea	26.4%	27.6%	26.3%	26.4%	26.7%	27.1%
Other Asia-Pacific	1.3%	1.3%	1.4%	1.5%	1.5%	1.6%
Southeast Asia	**6.7%**	**9.6%**	**10.3%**	**10.9%**	**11.5%**	**12.0%**
Indonesia	13.6%	22.6%	26.3%	28.8%	30.4%	31.3%
Malaysia	4.6%	5.6%	5.3%	5.7%	6.4%	7.0%
Philippines	2.1%	2.2%	2.2%	2.4%	2.7%	3.0%
Singapore	11.4%	13.0%	12.7%	12.6%	12.8%	13.1%
Thailand	3.9%	4.4%	4.9%	5.0%	5.4%	5.7%
Vietnam	2.2%	2.9%	2.9%	3.0%	3.1%	3.2%
Central & Eastern Europe	**8.6%**	**10.3%**	**11.4%**	**11.8%**	**12.7%**	**13.6%**
Russia	8.0%	10.0%	11.2%	11.9%	13.1%	14.1%
Other Central & Eastern Europe	9.0%	10.5%	11.6%	11.7%	12.4%	13.3%
Latin America	**7.9%**	**9.5%**	**9.5%**	**10.1%**	**10.7%**	**11.4%**
Argentina	10.5%	11.1%	11.1%	11.2%	11.9%	12.4%
Brazil	8.4%	10.7%	10.0%	10.6%	11.1%	11.8%
Chile	9.5%	10.9%	8.7%	8.0%	8.3%	8.9%
Colombia	7.6%	6.7%	7.7%	8.4%	8.9%	9.5%
Mexico	8.9%	10.3%	11.9%	13.2%	14.2%	15.2%
Peru	4.5%	5.7%	5.9%	6.2%	6.7%	7.2%
Other Latin America	4.8%	6.3%	6.2%	6.7%	7.2%	7.6%
Middle East & Africa	**3.6%**	**3.7%**	**4.0%**	**4.4%**	**4.7%**	**4.9%**
North America	**14.3%**	**14.5%**	**14.4%**	**15.2%**	**16.2%**	**17.3%**
Canada	11.0%	12.2%	11.4%	11.5%	12.0%	12.4%
US	14.7%	14.7%	14.7%	15.6%	16.6%	17.8%
Western Europe	**13.4%**	**14.3%**	**12.7%**	**12.6%**	**12.9%**	**13.2%**
Other Western Europe	11.1%	11.9%	10.9%	11.0%	11.1%	11.3%
EU-5	**14.4%**	**15.3%**	**13.5%**	**13.3%**	**13.6%**	**14.0%**
France	10.6%	11.2%	10.2%	10.3%	10.5%	10.7%
Germany	9.6%	10.7%	9.0%	9.1%	9.6%	10.2%
Italy	5.7%	6.1%	5.9%	6.1%	6.2%	6.4%
Spain	11.5%	11.9%	10.7%	10.8%	11.0%	11.2%
UK	33.1%	34.4%	30.1%	29.6%	29.8%	30.0%
Worldwide	**18.2%**	**18.9%**	**18.9%**	**19.5%**	**20.3%**	**21.2%**

Source: eMarketer, CMBIGM

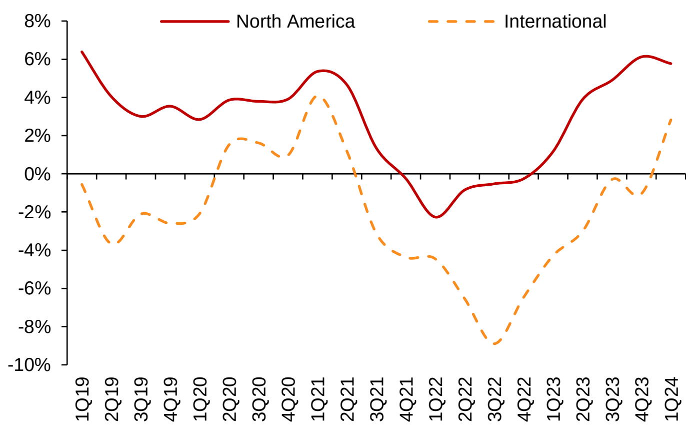
For 1Q24, Amazon's North America (NA) business recorded revenue of US$86.3bn, up 12.3% YoY, and operating margin was 5.8%, up 4.6ppt YoY, aided by the improvement in cost to serve, including continued benefits from Amazon's efforts to regionalize operation, savings from more consolidated customer shipment, and improving operating leverage. For international segment, revenue was US$31.9bn, up 9.7% YoY, and operating margin was 2.8%, improved from -4.3% in 1Q23, thanks to improvement of cost efficiency through network design enhancement and improved volume leverage. Management believes that there is still room for further margin expansion for both NA and international business driven by optimization of cost to serve and increase in revenue contribution from relatively high-margin advertising business.

Figure 18: Amazon: quarterly revenue by segment and growth



Source: Company data, CMBIGM

Figure 19: Amazon: OPM of NA and international business



Source: Company data, CMBIGM

In 1Q24, Amazon's advertising services revenue grew 24% YoY (1Q23: 22%; 4Q23: 27%) to US$11.8bn, aided by strong performance in sponsored ads, as well as incremental revenue contribution generated from Amazon Prime ads. As a percentage of revenue, advertising services contributed to 8.3% of the total in 1Q24, up from 7.5% in 1Q23.

Figure 20: Amazon: quarterly financial results

(US$bn)	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24
Online Stores	**51.1**	**50.9**	**53.5**	**64.5**	**51.1**	**53.0**	**57.3**	**70.5**	**54.7**
YoY Growth	*-3.3%*	*-4.3%*	*7.1%*	*-2.3%*	*-0.1%*	*4.2%*	*7.1%*	*9.3%*	*7.0%*
Third-Party Seller Services	**25.3**	**27.4**	**28.7**	**36.3**	**29.8**	**32.3**	**34.3**	**43.6**	**34.6**
YoY Growth	*6.9%*	*9.1%*	*18.2%*	*19.9%*	*17.7%*	*18.1%*	*19.8%*	*19.9%*	*16.0%*
AWS	**18.4**	**19.7**	**20.5**	**21.4**	**21.4**	**22.1**	**23.1**	**24.2**	**25.0**
YoY Growth	*36.6%*	*33.3%*	*27.5%*	*20.2%*	*15.8%*	*12.2%*	*12.3%*	*13.2%*	*17.2%*
Subscription Services	**8.4**	**8.7**	**8.9**	**9.2**	**9.7**	**9.9**	**10.2**	**10.5**	**10.7**
YoY Growth	*10.9%*	*10.1%*	*9.3%*	*13.1%*	*14.8%*	*13.5%*	*14.2%*	*14.1%*	*11.0%*
Advertising Services	**7.9**	**8.8**	**9.5**	**11.6**	**9.5**	**10.7**	**12.1**	**14.7**	**11.8**
YoY Growth	*23.4%*	*17.5%*	*25.4%*	*18.9%*	*20.7%*	*22.0%*	*26.3%*	*26.8%*	*24.3%*
Physical Stores	**4.6**	**4.7**	**4.7**	**5.0**	**4.9**	**5.0**	**5.0**	**5.2**	**5.2**
YoY Growth	*17.1%*	*12.5%*	*10.0%*	*5.7%*	*6.6%*	*6.4%*	*5.6%*	*3.9%*	*6.3%*
Other (New)	**0.7**	**1.1**	**1.3**	**1.3**	**1.0**	**1.3**	**1.2**	**1.4**	**1.3**
YoY Growth	*26.1%*	*131.1%*	*163.7%*	*76.5%*	*55.4%*	*25.6%*	*-2.9%*	*8.6%*	*22.9%*
Total revenue	**116.4**	**121.2**	**127.1**	**149.2**	**127.4**	**134.4**	**143.1**	**170.0**	**143.3**
YoY Growth	***7.3%***	***7.2%***	***14.7%***	***8.6%***	***9.4%***	***10.8%***	***12.6%***	***13.9%***	***12.5%***
Gross profit	49.9	54.8	56.8	63.6	59.6	65.0	68.1	77.4	70.7
Operating profit	3.7	3.3	2.5	2.7	4.8	7.7	11.2	13.2	15.3
Net profit	**-3.8**	**-2.0**	**2.9**	**0.3**	**3.2**	**6.8**	**9.9**	**10.6**	**10.4**

Revenue breakdown by segment									
North America	**69.2**	**74.4**	**78.8**	**93.4**	**76.9**	**82.5**	**87.9**	**105.5**	**86.3**
YoY Growth	*7.6%*	*10.2%*	*20.3%*	*13.4%*	*11.0%*	*10.9%*	*11.5%*	*13.0%*	*12.3%*
% of total revenue	59.5%	61.4%	62.0%	62.6%	60.4%	61.4%	61.4%	62.1%	60.2%
International revenue	**28.8**	**27.1**	**27.7**	**34.5**	**29.1**	**29.7**	**32.1**	**40.2**	**31.9**
YoY Growth	*-6.2%*	*-11.9%*	*-4.9%*	*-7.5%*	*1.3%*	*9.7%*	*15.9%*	*16.8%*	*9.7%*
% of total revenue	24.7%	22.3%	21.8%	23.1%	22.9%	22.1%	22.5%	23.7%	22.3%
AWS	**18.4**	**19.7**	**20.5**	**21.4**	**21.4**	**22.1**	**23.1**	**24.2**	**25.0**
YoY Growth	*36.6%*	*33.3%*	*27.5%*	*20.2%*	*15.8%*	*12.2%*	*12.3%*	*13.2%*	*17.2%*
% of total revenue	15.8%	16.3%	16.2%	14.3%	16.8%	16.5%	16.1%	14.2%	17.5%
OP breakdown by segment									
North America	**(1.6)**	**(0.6)**	**(0.4)**	**(0.2)**	**0.9**	**3.2**	**4.3**	**6.5**	**5.0**
OPM	-2.3%	-0.8%	-0.5%	-0.3%	1.2%	3.9%	4.9%	6.1%	5.8%
International	**(1.3)**	**(1.8)**	**(2.5)**	**(2.2)**	**(1.2)**	**(0.9)**	**(0.1)**	**(0.4)**	**0.9**
OPM	-4.5%	-6.5%	-8.9%	-6.5%	-4.3%	-3.0%	-0.3%	-1.0%	2.8%
AWS	**6.5**	**5.7**	**5.4**	**5.2**	**5.1**	**5.4**	**7.0**	**7.2**	**9.4**
OPM	35.3%	29.0%	26.3%	24.3%	24.0%	24.2%	30.3%	29.6%	37.6%
YoY Growth	*56.6%*	*36.3%*	*10.6%*	*-1.7%*	*-21.4%*	*-6.1%*	*29.1%*	*37.7%*	*83.9%*
Margins (%)									
GPM	**42.9%**	**45.2%**	**44.7%**	**42.6%**	**46.8%**	**48.4%**	**47.6%**	**45.5%**	**49.3%**
OPM	**3.2%**	**2.7%**	**2.0%**	**1.8%**	**3.7%**	**5.7%**	**7.8%**	**7.8%**	**10.7%**
NPM	**-3.3%**	**-1.7%**	**2.3%**	**0.2%**	**2.5%**	**5.0%**	**6.9%**	**6.3%**	**7.3%**

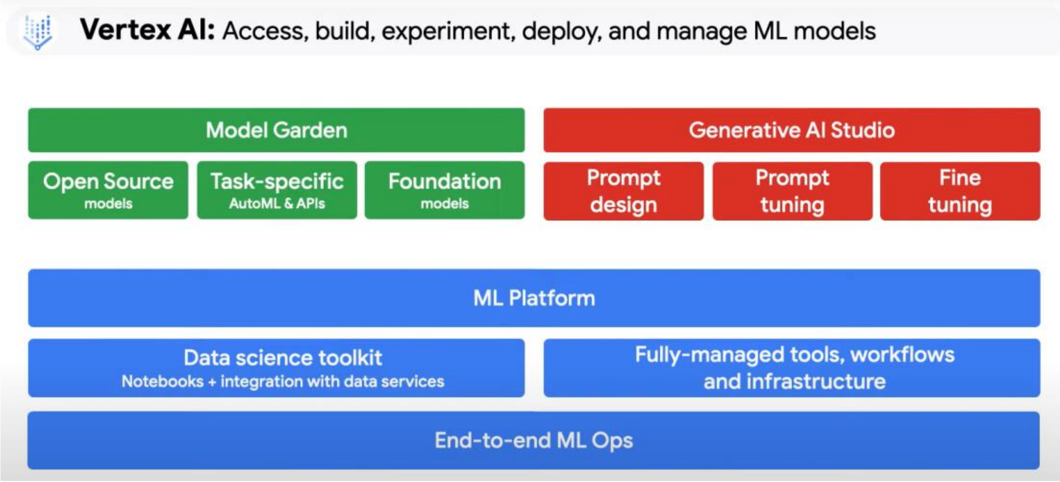
Source: Company data, CMBIGM

Monetization of GenAI still in early stage but is ramping up steadily

Monetization of Gen AI mainly centres on three aspects: 1) providing infrastructure-related services on AI cloud; 2) leveraging GenAI capabilities to empower existing product portfolios and achieve a price hike on current subscription packages; and 3) transformation of formats of interaction between human and machine, and exploring new advertising formats. Although the ramp-up in monetization of GenAI is still in the early stage, but is ramping up steadily and will likely fuel future revenue and earnings growth.

Google: AI continues to enhance Google search experience and create new monetization opportunities. On the Search experience front, the company is brining AI Overviews service to the main search results page, which has led to an increase in search usage and improvement in user satisfaction. Generative AI also improves the performance of ad properties (e.g. advertisers using PMax Asset Generation are 63% more likely to publish a campaign with good/excellent ad strength, according to management). Moreover, generative AI has driven the growth of Google Cloud. According to management, over 60% of funded GenAI start-ups and c.90% of GenAI unicorns grow on Google Cloud infrastructure, which offers an industry-leading portfolio of GPUs and over 130 models. In 1Q24, over 1mn developers adopted Google Cloud's generative AI tools, including AI Studio and Vertex AI.

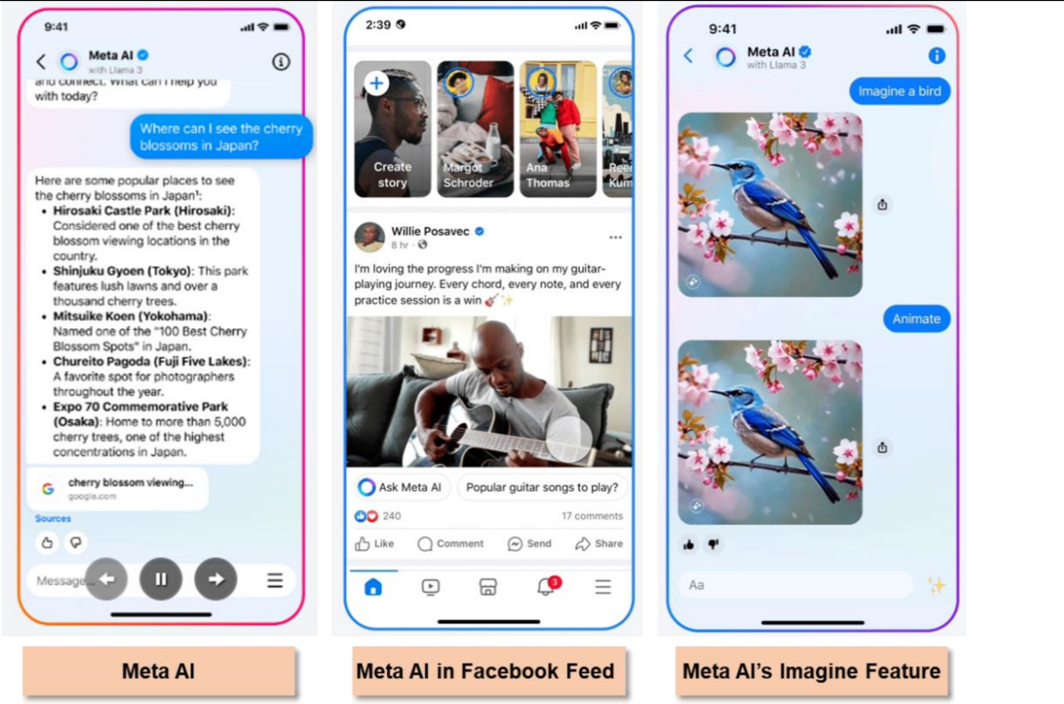
Figure 21: Google Cloud: Vertex AI



Source: Company data, CMBIGM

Meta: AI has driven Meta's user engagement and monetization efficiency. 1) On the engagement front, according to management, 30% of Facebook feeds were delivered by the AI recommendation system in 1Q24, which was up 2 times compared to a few years earlier and drove better user engagement; 2) on the monetization front, via leveraging AI capability, Advantage+ Audience targeting saw on average 28% decrease in cost per objective vs. regular targeting; and revenue flowing through Advantage+ Shopping and Advantage+ Apps Campaigns more than doubled since FY23. Supported by Llama 3, Meta AI is currently one of the most intelligent AI assistants offered to consumers for free, which enhances user experience and engagement.

Figure 22: Meta AI: use cases



Source: Company data, CMBIGM

Microsoft: Regarding AI-related cloud initiatives development, Microsoft highlighted in 1Q24 earnings conference call that for Azure: 1) more than 65% of the Fortune 500 companies use Azure OpenAI Service; 2) Azure Arc has 33,000 customers, up over twofold year-over-year; and 3) over half of Azure AI customers also use Microsoft's data and analytics tools. In addition, for its Copilot related monetization: 1) Microsoft has 1.8mn paid subscribers for GitHub Copilot, with growth accelerating to over 35% QoQ, and it continues to see increased adoption from businesses in every industry; 2) Microsoft Fabric, the next-generation analytics platform, has over 11,000 paid customers, including leaders in every industry; 3) 30,000 customers across every industry have used Copilot Studio to customize Copilot for Microsoft 365 or build their own, up 175% QoQ; 4) Power Apps has over 25 million monthly active users, up over 40% YoY; and 5) nearly 60% of the Fortune 500 now use Copilot, and Microsoft is seeing accelerated adoption across industries and geographies.

Figure 23: Microsoft: overview of Microsoft Copilots products

Source: Company data, ArashAghajani.com, CMBIGM

Microsoft's productivity and business process (PBP) revenue was US$19.6bn in 1Q24, up 12% YoY and representing 32% of total revenue, in line with consensus expectation. Within the segment, Office 365 commercial revenue increased by 15% YoY, driven by healthy renewal execution, ARPU growth from continued E5 momentum, and early progress of Copilot for Microsoft 365. Paid Office 365 commercial seats grew 8% YoY with installed base expansion across all customer segments. Microsoft's overall operating profit was US$27.6bn in 1Q24, up 23% YoY, translating into a 44.6% OPM (up 2.3ppt YoY), aided by 0.6ppt improvement in gross margin and efficient cost control. Total headcount at the end of March 2024 was 1% lower YoY. Management guided for US$63.5bn-64.5bn total revenue for 2Q24 (4QFY24), and at least 2ppt YoY OPM expansion driven by the continuous operating efficiency improvement for FY24 (Jun year-end).

Figure 24: Microsoft: quarterly financial results

(US$bn)	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24
1. Productivity and Business Processes revenue	**15.8**	**16.6**	**16.5**	**17.0**	**17.5**	**18.3**	**18.6**	**19.2**	**19.6**
Growth (yoy%)	*16.5%*	*13.0%*	*9.5%*	*6.7%*	*10.9%*	*10.2%*	*12.9%*	*13.2%*	*11.7%*
As % of total revenue (%)	32.0%	32.0%	32.8%	32.2%	33.1%	32.6%	32.9%	31.0%	31.6%
2. Intelligent Cloud revenue	**19.0**	**20.8**	**20.3**	**21.5**	**22.1**	**24.0**	**24.3**	**25.9**	**26.7**
Growth (yoy%)	*25.6%*	*19.7%*	*20.2%*	*17.8%*	*16.3%*	*15.3%*	*19.4%*	*20.3%*	*21.0%*
As % of total revenue (%)	38.5%	40.1%	40.6%	40.8%	41.8%	42.7%	42.9%	41.7%	43.2%
3. More Personal Computing revenue	**14.6**	**14.5**	**13.3**	**14.2**	**13.3**	**13.9**	**13.7**	**16.9**	**15.6**
Growth (yoy%)	*11.9%*	*2.7%*	*-0.3%*	*-18.8%*	*-9.1%*	*-3.8%*	*2.5%*	*18.6%*	*17.5%*
As % of total revenue (%)	29.5%	27.9%	26.6%	27.0%	25.1%	24.7%	24.2%	27.2%	25.2%
Total revenue	**49.4**	**51.9**	**50.1**	**52.7**	**52.9**	**56.2**	**56.5**	**62.0**	**61.9**
Growth (yoy%)	*18.4%*	*12.4%*	*10.6%*	*2.0%*	*7.1%*	*8.3%*	*12.8%*	*17.6%*	*17.0%*
Gross profit	**33.7**	**35.4**	**34.7**	**35.3**	**36.7**	**39.4**	**40.2**	**42.4**	**43.4**
Growth (yoy%)	*17.7%*	*10.2%*	*9.5%*	*1.4%*	*8.8%*	*11.2%*	*16.0%*	*20.2%*	*18.0%*
Operating income	**20.4**	**20.5**	**21.5**	**20.4**	**22.4**	**24.3**	**26.9**	**27.0**	**27.6**
Growth (yoy%)		*22.5%*	*23.3%*	*32.0%*	*19.3%*	*6.2%*	*25.3%*	*15.9%*	*14.5%*
- PBP	7.2	7.2	8.3	8.2	8.6	9.1	10.0	10.3	10.1
- IC	8.4	8.8	9.0	8.9	9.5	10.5	11.8	12.5	12.5
- MPC	4.8	4.5	4.2	3.3	4.2	4.7	5.2	4.3	4.9
Net income	**16.7**	**16.7**	**17.6**	**16.4**	**18.3**	**20.1**	**22.3**	**21.9**	**21.9**
Growth (yoy%)	*8.2%*	*1.7%*	*-14.4%*	*-12.5%*	*9.4%*	*20.0%*	*27.0%*	*33.2%*	*19.9%*
GPM	68.4%	68.3%	69.2%	66.8%	69.5%	70.1%	71.2%	68.4%	70.1%
OPM	41.3%	39.6%	42.9%	38.7%	42.3%	43.2%	47.6%	43.6%	44.6%
- PBP	45.5%	43.6%	50.5%	48.1%	49.3%	49.5%	53.6%	53.4%	51.8%
- IC	44.2%	42.3%	44.2%	41.4%	42.9%	43.9%	48.4%	48.1%	46.9%
- MPC	32.8%	31.0%	31.6%	23.3%	32.0%	33.6%	37.9%	25.4%	31.6%
NPM	33.9%	32.3%	35.0%	31.1%	34.6%	35.7%	39.4%	35.3%	35.5%

Source: Company data, CMBIGM

Amazon: Amazon's AWS provides tools and services to help customers build GenAI applications, including: 1) Amazon Bedrock; 2) Amazon SageMaker; 3) NVIDIA GPU-powered Amazon EC2 Instances; 4) AWS Trainium; 5) Amazon Inferentia; and 6) Amazon EC2 UltraClusters. Also, AWS provides customers with generative AI-powered applications, such as Amazon Q (generative AI assistant that can be tailored to business, data, code, and operation), PartyRock (a fun and intuitive sharable GenAI app-building playground), and AWS HealthScribe (a service that could automatically generate clinical notes from patient-clinician conversations). Management highlighted that it has seen considerable momentum on the AI front, where AWS has accumulated a multibillion-dollar revenue run rate already.

ServiceNow: ServiceNow continues to see strong momentum of its GenAI products. AI-powered Pro Plus offerings' NNACV to date has exceeded that of ServiceNow's any new product launched for the comparable period. The Pro Plus solution realized over 30% pricing uplift versus the Pro solution. In the long term, management expects over US$1bn incremental subscription revenue if the current Pro subscription seats of Service Desk Products are upgraded to Pro Plus; and over US$2.5bn incremental subscription revenue if the current Standard subscription seats are upgraded to Pro Plus. The company also leverages GenAI to enhance its own operating efficiency and support margin expansion. ServiceNow has implemented over 20 internal use cases for Now Assist, which is delivering US$10mn annual productivity gains and efficiency savings, according to the company.

Figure 25: ServiceNow: realized price uplift to Pro Plus

Source: Company data, CMBIGM

Figure 26: ServiceNow: GenAI revenue opportunity

Source: Company data, CMBIGM

Salesforce: Supported by the tailwind of generative AI, Salesforce continues to see strong demand for its data cloud solutions. In 1QFY25, data cloud was already included in 25% of Salesforce's million-dollar-plus deals. Eight trillion records were ingested and two quadrillion records were processed in data cloud in 1QFY25, which were up 42% YoY and 217% YoY respectively. With its strong data cloud and multi-cloud integration capability, Salesforce is well-positioned to benefit from generative AI development, in our view.

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