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IT Hardware | North America

Monthly Data Tracker: Previewing HDD Earnings + App Store and PC Updates

We expect STX/WDC to beat March Q results and guide June Q EPS 5-10% above Street, in-line with buyside expects. Separately, App Store growth at 6% Y/Y MTD is stable w/ March, but 90bps below our +7% Jun qtr forecast. Lastly, better than expected 1H PC builds still imply 10%+ Y/Y declines in '26.

alphawise 

Key Takeaways

- We expect STX and WDC to print at the high end of March Q guidance, and guide to June Q EPS 5-10% above Consensus, though in-line with buyside expectations...
- ...With both stocks up 100%+ YTD, we see HDD earnings as more of a proof point of continued strength than material upside catalyst.
- April App Store net revenue is growing 6% Y/Y MTD, stable with growth in March, but tracking ~90bps behind MSe.
- Better than expected 1H notebook builds imply 9% upside to 1H26 PC shipments; expected 2H demand deterioration still implies 10%+ Y/Y declines in 2026.
- Extended Mac lead times are driven by strong demand for Mac Neo/mini/Studio, which is incrementally positive to Apple revs but unlikely to move the needle.

C1Q26 HDD Earnings Preview – Focus will be on June quarter gross margin guide; expectations already high so not viewing earnings as a material catalyst (for more details on our latest HDD market outlook, please see: [Hard Disk Drives: HDD Demand \(and Pricing\) Still Strengthening; Moving STX to Top Pick \(6 Apr 2026\)](#)). We expect both STX and WDC to report (1) March quarter results at the high-end of guidance, and (2) June quarter revenue/EPS guidance modestly higher than sell-side expectations, but largely aligned with buyside expectations. Overall, this doesn't make earnings a material catalyst for either stock – STX/WDC are both up 100%+ year-to-date, so the market is well-aware of the strength in HDDs right now. Instead, we view earnings as a confirmatory data point, with our / investor focus primarily on (1) June quarter gross margin guidance, (2) mgmt commentary on visibility/cycle duration and pricing, and (3) HAMR qualifications/ramp.

Specifically for the March quarter, we expect STX and WDC revenue to be driven by MSD-HSD% Q/Q nearline EB growth and blended \$/TB growth of LSD-MSD% Q/Q. We also expect gross margin expansion of 200-250bps Q/Q, underpinned by LSD % Q/Q like-for-like pricing increases, continued mix shift toward higher-capacity drives (i.e. cost-down benefits), and seasonally lower contribution from non-nearline

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HDD's that are margin dilutive. For STX, this implies March quarter revenue of \$2.95-3.00B (towards the high end of guidance), gross margin of ~44.5% (30bps above the implied guidance midpoint), and opex of ~\$290M (in line with guidance), resulting in EPS of \$3.50-\$3.60 (vs. MSe of \$3.42). For WDC, we expect revenue of \$3.25-3.30B (towards the high end of guidance), gross margin of ~48.0% (high end of guidance), and opex of ~\$385M, driving EPS of \$2.45-\$2.50 (vs. MSe of \$2.39).

Looking ahead, we expect positive industry dynamics – continued mix shift toward higher-capacity drives, expanding gross margins, sustained \$/TB growth, and stable opex – to extend into the June quarter. For STX, we expect June quarter revenue guidance of at least \$3.15B at the midpoint, operating margins of mid-to-high 30% (implying 46.5%-47.0% gross margin), and opex of ~\$290M. This implies June quarter EPS of \$4.10+ (vs. MSe of \$4.08 and Consensus of \$3.93). For WDC, we expect June quarter revenue guidance of \$3.50B+, gross margins of 49-50%, and opex of ~\$390M, translating to EPS of \$2.95+ (vs. MSe of \$2.87 and Consensus of \$2.69).

April App Store net revenue is growing 6% Y/Y MTD, stable vs. March off a 240bps tougher Y/Y compare, but tracking below our June quarter forecast.

Based on the latest disclosures from Sensor Tower, we estimate App Store net revenue is growing 6.1% Y/Y month-to-date through April 19th, stable vs. March off a 240bps tougher Y/Y compare ([Exhibit 25](#)), but tracking 90bps behind our +7.0% Y/Y March quarter App Store forecast.

Digging into the details, growth in the top 3 App Store markets in aggregate is accelerating in March, entirely driven by China – China is growing 11% Y/Y, a 430bps acceleration from March ([Exhibit 28](#)), while the US App Store is declining 3% Y/Y, a 80bps deceleration M/M off a 190bps tougher Y/Y compare ([Exhibit 29](#)), and Japan is tracking -1% Y/Y (vs. -4% Y/Y in March; [Exhibit 30](#)) off a 640bps tougher Y/Y compare. That said, Rest of World App Store growth is +16% Y/Y this month-to-date, a 240bps deceleration vs. 19% growth in March ([Exhibit 31](#)) off a 240bps tougher Y/Y compare. **Notably for the US App Store**, net revenue per download is growing 0.5% Y/Y MTD, a 70bps acceleration from -0.2% Y/Y in March, outperforming the ROW, where revenue per download is *decelerating* 70bps vs. March, implying healthier monetization trends in the US vs. ROW.

The latest 2Q Notebook ODM build forecast puts upward pressure on our 1H26 PC forecast, but we still believe PC unit declines likely reach 10%+ Y/Y this year.

Notebook ODM builds in the month of March came in 33% above our Greater China team's expectations, a function of stronger than expected quarter-end pull-in momentum amidst rising prices and component shortages, consistent our [latest VAR checks](#) and [IDC's better than feared C1Q26 PC shipment disclosures](#) ([Exhibit 53](#)). Looking forward, our [Greater China Tech Hardware team](#) now forecasts C2Q26 notebook ODM builds of 30.1M units, or 9% Y/Y declines - below normal March quarter seasonality - but 7% (or 2M units) ahead of their prior expectations. We estimate this implies 47M (-4% Y/Y, +4% Q/Q) notebook shipments in the June quarter, largely in-line with normal 2Q seasonality and 8%, or 3.4M units, above our current 43.6M unit forecast, reflecting continued pull-in ahead of higher prices and potential supply risk ([Exhibit 54](#)). Combined, this translates into 127M PC shipments in 1H26, down 2% Y/Y, but 9% (or ~10M units) above our current forecast

(Exhibit 55).

Beyond the June quarter, there remains an elevated level of demand uncertainty and visibility into the PC market, with growing concerns that 1H pull-forward, tough Y/Y comps in 2H, potential supply shortages, and higher prices are all likely to weigh on demand in 2H. If we look back to the last PC market downcycle (2022-2023), the peak in the market was defined by the final quarter of Y/Y unit growth immediately followed by 3 consecutive quarters of sub-seasonal PC shipment growth (C2Q22-C4Q22). Given the trajectory of notebook ODM builds, we expect 2Q26 to mark the first quarter of Y/Y PC shipments declines since 3Q24, suggesting the PC market could be peaking, and we currently assume sub-seasonal unit growth starting in C3Q26 and persisting into C1Q27. **All told, with the better than expected 1H26 of PC shipments, full year CY26 PC unit shipments are now likely trending closer to 10-11% Y/Y declines vs. our 16% Y/Y decline forecast.**

Data we're watching closely over the coming weeks:

- **Mac shipment lead times have extended to as long as two months (Exhibit 58).** As of April 16, our tracker shows that Mac mini and Mac Studio lead times are reaching up to two months – the longest observed since the post-COVID normalization period. We believe this is driven primarily by (1) constrained supply of high-end memory configurations and (2) strong demand for memory-intensive Macs, particularly Mac mini and Mac Studio, likely driven by applications like OpenClaw. Separately, MacBook Neo lead times are tracking at 18.5 days, ~3 days longer than those of the M3 MacBook Air (2024) 7 weeks post-launch, reflecting robust demand for Apple's entry-level Mac offering. While Mac strength is incrementally positive for Apple's top-line growth momentum, we do not expect it to have a meaningful impact on near-term earnings power given its lower gross margins (MacBook Neo) and smaller scale (Mac mini and Mac Studio only made up 5% of Mac shipments in CY25).

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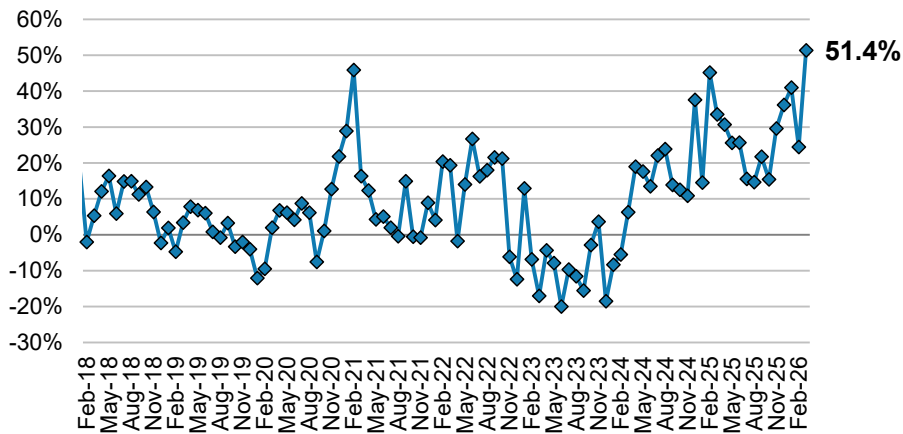
Apple Supply Chain

Taiwan Suppliers Monthly Sales Tracker

- Publicly traded Taiwanese companies are required to report monthly sales. This tracker aggregates and analyzes the results from over 50 Taiwan-based Apple supply chain partners across the semiconductor, assembly, optoelectronics and electrical component end markets.

Exhibit 1: UPDATED: Sales at Apple's Taiwanese supply chain partners grew 51% Y/Y in March

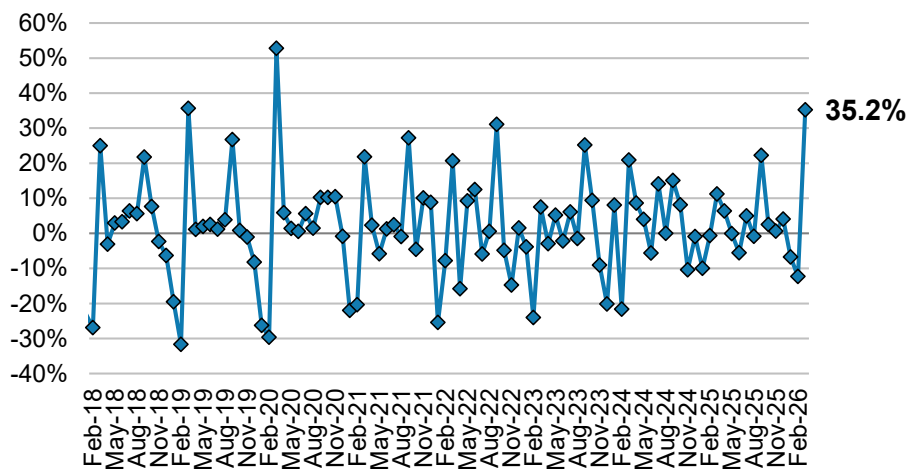
Y/Y Change in Taiwan Suppliers Monthly Sales



Source: AlphaWise, Morgan Stanley Research, Company data

Exhibit 2: UPDATED: On a seasonal basis, revenue at Apple's Taiwan-based iPhone suppliers increased ~35% M/M in March

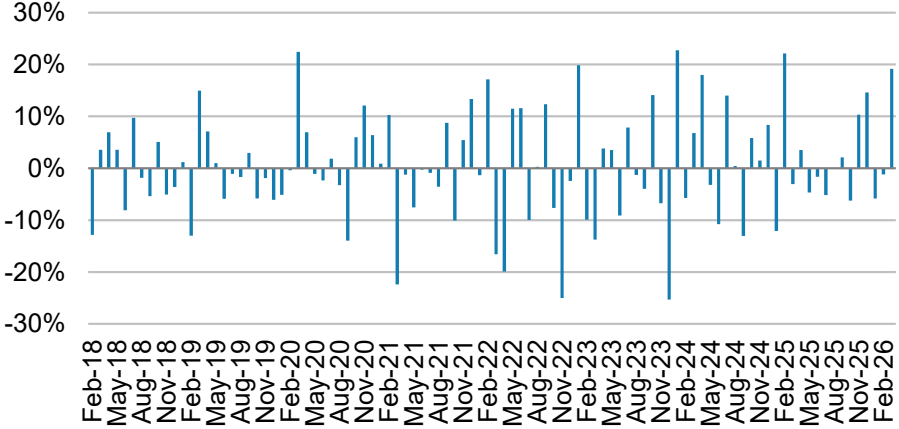
M/M Change in Taiwan Suppliers Monthly Sales



Source: AlphaWise, Morgan Stanley Research, Company data

Exhibit 3: UPDATED: ...which is above the trailing 2-year historical seasonality for the month of March

Diff Btw M/M Change in Taiwan Monthly Sales & Trailing 2 Year Seasonality



Source: AlphaWise, Morgan Stanley Research, Company data

iPhone and iPad Builds

- Every month, our colleagues on the Greater China Hardware equity research team (led by Sharon Shih) publish their latest iPhone and iPad builds estimates (see their latest Monthly Databook [here](#)), which represents the total number of iPhones and/or iPads that are being manufactured by the supply chain each quarter.

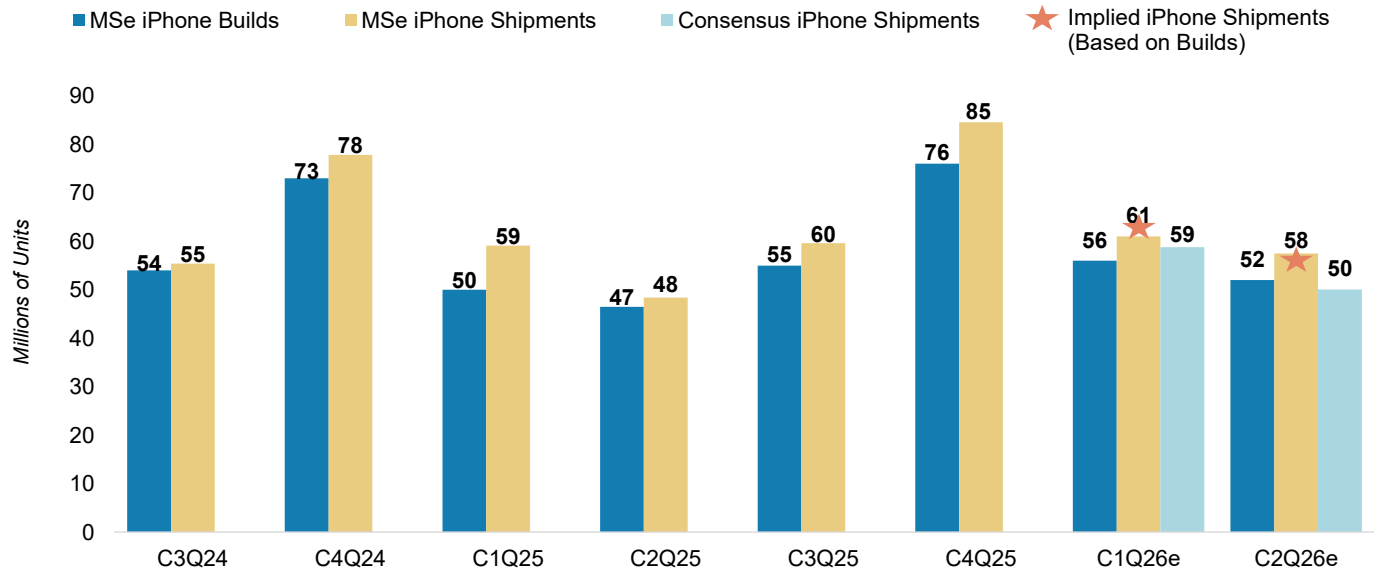
Exhibit 4: UPDATED: Our Greater China Tech Hardware equity research colleagues kept their Mar Q builds unchanged at 56M (+12% Y/Y or -26% Q/Q) and Jun Q builds at 52M (+12% Y/Y or -7% Q/Q), better than seasonality of -17% Q/Q

	1Q23	2Q23	3Q23	4Q23	2023	1Q24	2Q24	3Q24	4Q24	2024	1Q25	2Q25	3Q25	4Q25	2025	1Q26e	2Q26e
iPhone Builds																	
iPhone SE3 / SE 5G / 16e	1.0	2.5	5.0	3.0	11.5	1.0	2.0	5.0	3.0	11.0	4.0	9.0	4.0	1.0	18.0	2.0	10.0
iPhone X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPhone XR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 12 mini (5.4")	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 12 (6.1")	0.5	0.5	-	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 12 Pro (6.1")	0.5	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 12 Pro Max (6.7")	0.5	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 13 mini (5.4")	1.0	0.5	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 13 (6.1")	1.0	0.5	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 13 Pro (6.1")	1.0	2.0	-	-	4.0	0.5	0.5	-	-	1.0	-	-	-	-	-	-	-
iPhone 13 Pro Max (6.7")	2.0	2.0	1.0	-	5.0	0.5	0.5	-	-	1.0	-	-	-	-	-	-	-
iPhone 14 (6.1")	7.0	4.0	5.0	2.0	18.0	1.0	0.5	-	-	1.5	-	-	-	-	-	-	-
iPhone 14 Plus (6.7")	5.0	3.0	1.0	1.0	10.0	1.0	0.5	-	-	1.5	-	-	-	-	-	-	-
iPhone 14 Pro (6.1")	15.0	12.0	7.0	3.0	37.0	2.0	2.0	1.0	1.0	6.0	1.0	1.0	1.0	-	3.0	-	-
iPhone 14 Pro Max (6.7")	19.5	14.0	9.0	4.0	46.5	2.0	2.0	1.0	1.0	6.0	1.0	1.0	1.0	-	3.0	-	-
iPhone 15 (6.1")	-	-	6.0	12.0	18.0	6.0	5.0	4.0	1.0	16.0	1.0	0.5	0.5	0.5	2.5	-	-
iPhone 15 Plus (6.7")	-	-	5.0	10.0	15.0	4.0	3.0	1.0	1.0	9.0	1.0	0.5	0.5	0.5	2.5	-	-
iPhone 15 Pro (6.1")	-	-	8.0	16.0	24.0	12.0	10.0	8.5	2.0	32.5	2.0	2.0	2.0	1.0	7.0	1.0	1.0
iPhone 15 Pro Max (6.7")	-	-	2.0	24.0	26.0	18.0	13.0	10.5	3.0	44.5	3.0	3.0	2.0	1.0	9.0	1.0	1.0
iPhone 16 (6.1")	-	-	-	-	-	-	-	6.0	12.0	18.0	5.0	4.0	4.0	1.0	14.0	2.0	2.0
iPhone 16 Plus (6.7")	-	-	-	-	-	-	-	5.0	6.0	11.0	4.0	3.0	1.0	-	8.0	-	-
iPhone 16 Pro (6.3")	-	-	-	-	-	-	-	8.0	17.0	25.0	11.5	9.5	4.0	2.0	27.0	2.0	2.0
iPhone 16 Pro Max (6.9")	-	-	-	-	-	-	-	4.0	26.0	30.0	16.5	13.0	10.0	4.0	43.5	5.0	3.0
iPhone 17 (6.1")	-	-	-	-	-	-	-	-	-	-	-	-	6.0	16.0	22.0	10.0	8.0
iPhone 17 Air (6.7")	-	-	-	-	-	-	-	-	-	-	-	-	4.0	4.0	8.0	-	-
iPhone 17 Pro (6.3")	-	-	-	-	-	-	-	-	-	-	-	-	8.0	22.0	30.0	18.0	13.0
iPhone 17 Pro Max (6.9")	-	-	-	-	-	-	-	-	-	-	-	-	7.0	23.0	30.0	15.0	12.0
iPhone 18 (6.1")	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 18 Pro (6.3")	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 18 Pro Max (6.9")	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Foldable iPhone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Builds	54.0	41.0	50.0	75.0	220.0	48.0	39.0	54.0	73.0	214.0	50.0	46.5	55.0	76.0	227.5	56.0	52.0
Y/Y Growth	0%	-9%	0%	-3%	-3%	-11%	-5%	8%	-3%	-3%	4%	19%	2%	4%	6%	12%	12%
Q/Q Growth	-30%	-24%	22%	50%	-	-36%	-19%	38%	35%	-	-32%	-7%	18%	38%	-	-26%	-7%

Source: Company data, Morgan Stanley Research estimates

Exhibit 5: UPDATED: Our Mar Q shipment estimate of 61.1M is ahead of Consensus estimate of 58.8M but ~1M below builds-implied iPhone shipments of 62.0M, while our Jun Q shipment estimate of 57.5M is 7.5M ahead of Consensus estimate and in line with builds-implied iPhone shipments

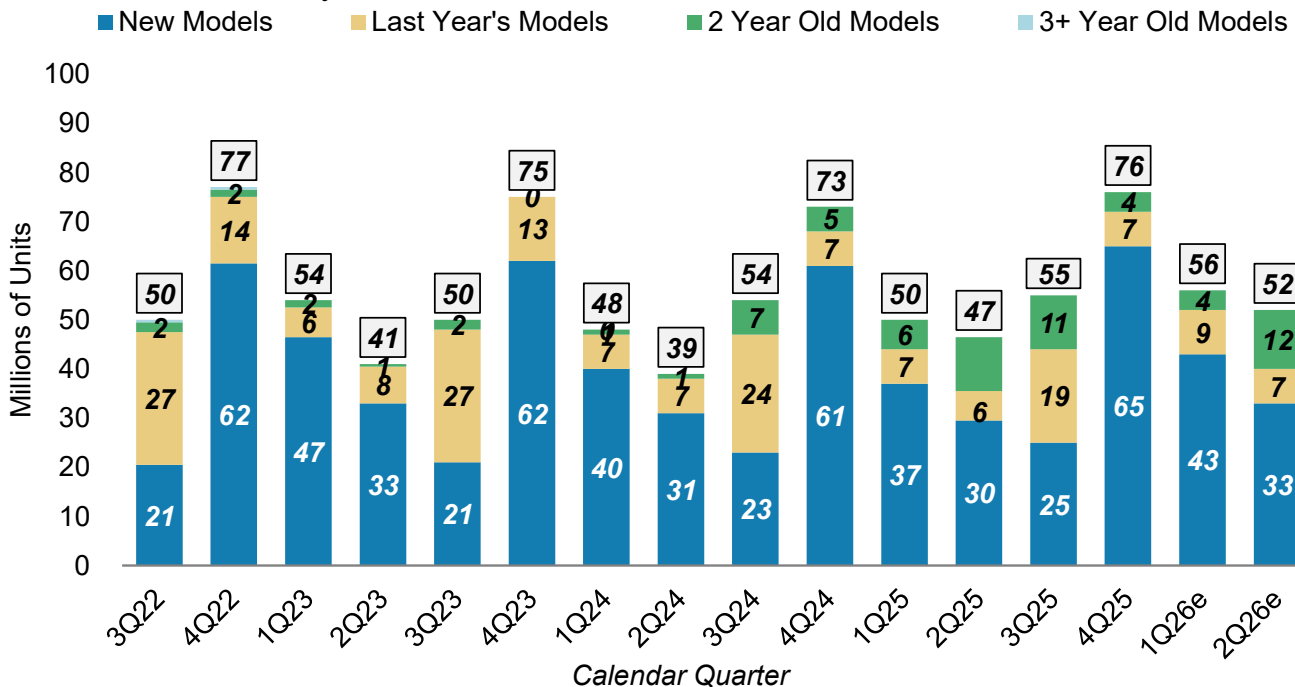
MSe iPhone Builds vs. MSe iPhone Shipments (with Consensus)



Source: Company data, Morgan Stanley Research estimates

Exhibit 6: For C2Q, the team's 52.0M builds include 33.0M iPhone 17 models (63% of mix)

MSe iPhone Builds By Model Generation



Source: Company data, Morgan Stanley Research estimates

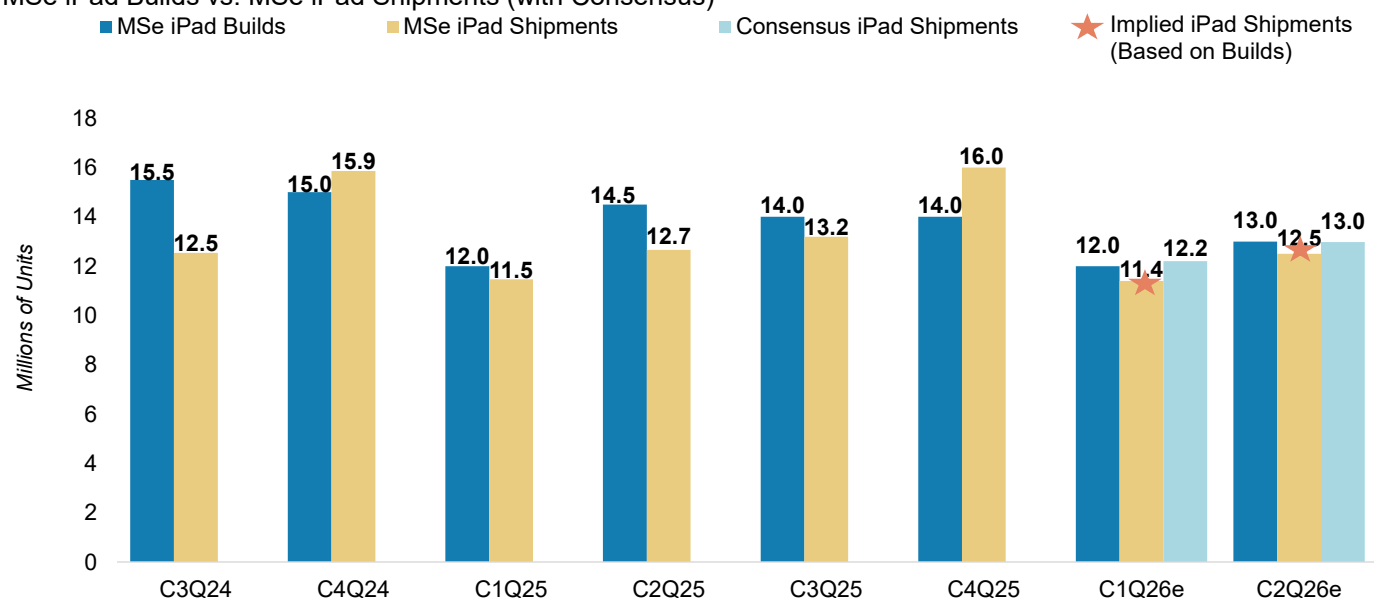
Exhibit 7: UPDATED: Our Greater China Tech Hardware equity research colleagues kept their Mar Q build forecast unchanged at 12.0M (flat Y/Y or -14% Q/Q), better than T3Y seasonality of -28% Q/Q, and raised their Jun Q iPad builds by 1.5M to 13.0M (-10% Y/Y or +8% Q/Q), slightly ahead of +7% Q/Q seasonality

Millions Units	1Q23	2Q23	3Q23	4Q23	2023	1Q24	2Q24	3Q24	4Q24	2024	1Q25	2Q25	3Q25	4Q25	2025	1Q26e	2Q26e
iPad Builds																	
iPad Mini 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPad Mini 5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPad Mini 6	0.5	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-
iPad Mini 7	1.0	2.5	3.0	2.0	8.5	1.0	1.0	3.0	4.5	9.5	2.5	2.0	1.5	1.0	7.0	0.5	0.5
The iPad (9.7")	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The iPad (10.2")	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The iPad (10.9")	4.0	4.5	4.5	6.0	19.0	3.5	2.5	5.5	5.5	17.0	5.5	6.0	6.0	6.0	23.5	5.5	5.0
iPad Air (10.5"/10.9"/11")	3.0	2.0	3.0	4.0	12.0	2.0	2.0	3.0	2.5	9.5	2.0	3.0	3.0	3.5	11.5	3.0	3.0
iPad Air (12.9"/13.0")	-	-	-	-	-	1.0	2.0	2.0	1.5	6.5	1.0	1.5	1.5	1.5	5.5	2.0	2.0
iPad Pro 12.9"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPad Pro 10.5"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPad Pro 12.9" w/ Face ID (2018)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPad Pro 11" w/ Face ID (2018)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPad Pro 12.9" w/ Face ID (2020)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPad Pro 11" w/ Face ID (2020)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPad Pro 12.9" w/ Face ID (2021)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPad Pro 11" w/ Face ID (2021)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPad Pro 12.9" w/ Face ID (2022)	1.0	1.0	1.0	1.5	4.5	1.0	-	-	-	1.0	-	-	-	-	-	-	-
iPad Pro 11" w/ Face ID (2022)	1.0	1.5	1.5	1.5	5.5	1.0	-	-	-	1.0	-	-	-	-	-	-	-
iPad Pro 11" OLED (2024)	-	-	-	-	-	1.0	1.5	1.0	0.5	4.0	0.5	1.0	1.0	1.0	3.5	0.5	0.5
iPad Pro 12.9" OLED (2024)	-	-	-	-	-	1.0	1.5	1.0	0.5	4.0	0.5	1.0	1.0	1.0	3.5	0.5	0.5
Total Builds	10.5	11.5	13.0	15.0	50.0	11.5	10.5	15.5	15.0	52.5	12.0	14.5	14.0	14.0	54.5	12.0	11.5
Y/Y Growth	-13%	-12%	-28%	-17%	-18%	10%	-9%	19%	0%	5%	4%	38%	-10%	-7%	4%	0%	-21%
Q/Q Growth	-42%	10%	13%	15%		-23%	-9%	48%	-3%		-20%	21%	-3%	0%		-14%	-4%

Source: Company data, Morgan Stanley Research estimates

Exhibit 8: UPDATED: Our 11.4M iPad shipment forecast for the Mar Q is ~1M below consensus of 12.2M and in-line with builds-implied shipments of 11.4M, while our Jun Q shipments estimate of 12.5M is 0.5M below consensus estimate but largely in-line with builds-implied shipments of 12.8M

MSe iPad Builds vs. MSe iPad Shipments (with Consensus)



Source: Company data, Morgan Stanley Research estimates

Smartphone Demand

Apple Retail Store Status Tracker (Updated Weekly; Available Daily)

- l Apple currently operates 525 retail stores across 26 different nations, with 271 of those stores located in the US and 254 located in international markets. We track store status (open/closed) on a daily basis using publicly available information from the Apple retail store webpage.

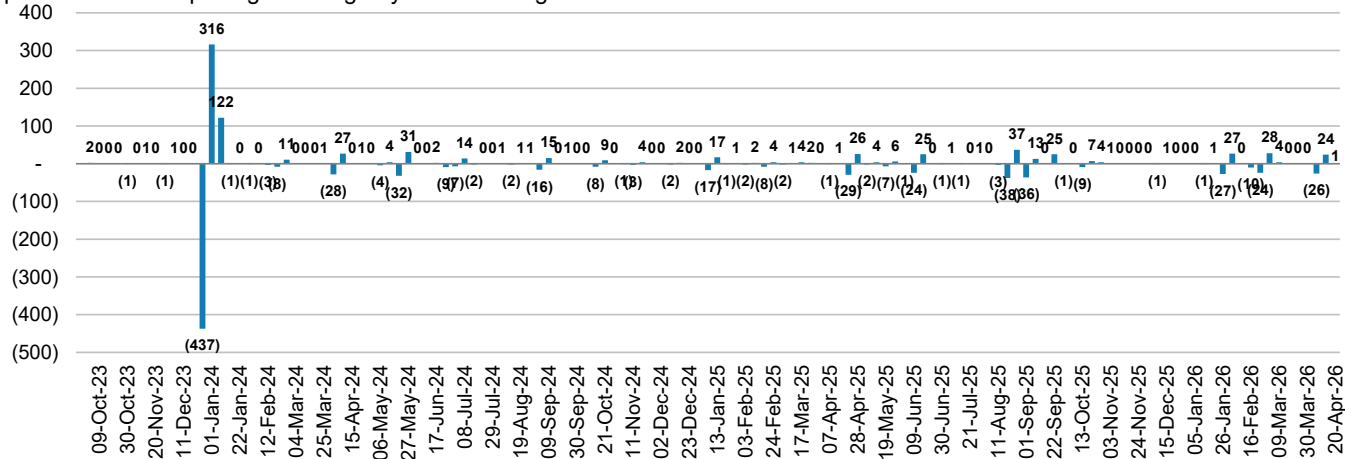
Exhibit 9: UPDATED: As of Monday, April 20th, 520 of Apple's 525 global retail stores are open (99% of stores)

				As of: 04/21/2026
	Total Stores	Stores Open	Stores Closed	% of Stores Open
United States	271	271	-	100%
Australia	22	21	1	95%
Austria	1	1	-	100%
Belgium	1	1	-	100%
Brazil	2	2	-	100%
Canada	28	28	-	100%
China Mainland	45	44	1	98%
France	20	20	-	100%
Germany	16	16	-	100%
Hong Kong	6	6	-	100%
India	2	2	-	100%
Italy	17	17	-	100%
Japan	10	10	-	100%
Macau	2	2	-	100%
Mexico	2	2	-	100%
Netherlands	3	3	-	100%
Singapore	3	3	-	100%
South Korea	5	5	-	100%
Spain	11	10	1	91%
Sweden	3	2	1	67%
Switzerland	4	4	-	100%
Taiwan	2	2	-	100%
Thailand	2	2	-	100%
Turkey	3	3	-	100%
United Arab Emirates	4	4	-	100%
United Kingdom	40	39	1	98%
Total	525	520	5	99%

Source: AlphaWise, Morgan Stanley Research, Apple.com

Exhibit 10: UPDATED: Looking month-over-month, the number of Apple stores that are open was relatively flat M/M

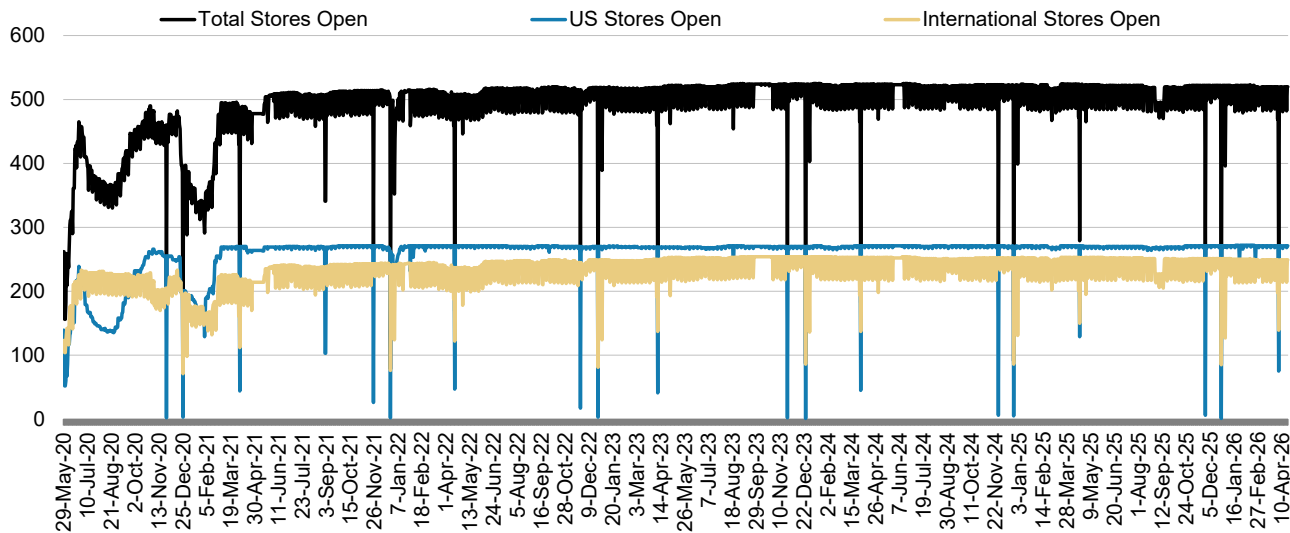
Apple Retail Store Openings/Closings By Week Ending:



Source: Apple.com, Morgan Stanley Research

Exhibit 11: UPDATED: Over the past 3 months, Apple's open store count has remained relatively steady

Apple Retail Store Status Tracker



Source: Apple.com, Morgan Stanley Research

Exhibit 12: UPDATED: As of April 20th, Apple had 5 store closures in the US

Source: AlphaWise, Morgan Stanley Research, Apple.com

Exhibit 15: UPDATED: Internationally, the iPhone 17e, iPhone Air, iPhone 17, and iPhone Pro Max and lead times are longer than in the US, while the iPhone 17 Pro lead time is shorter.

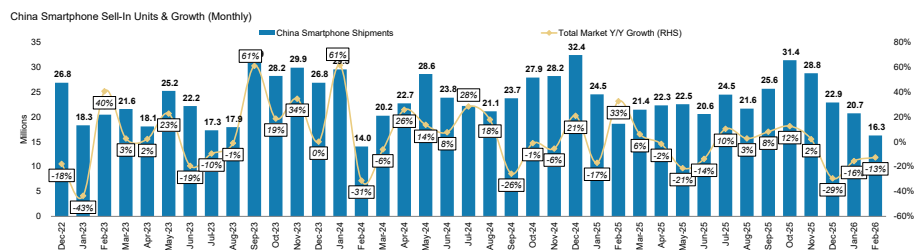
iPhone 17 Lead Times by Region													
Region	Model	T+4	T+7	T+11	T+14	T+18	T+39	T+154	T+158	T+203	T+207	T+210	T+214
US	iPhone 17 Pro Max (2025)	22.5	27.5	26.5	27.5	25.5	18.5	8.0	7.0	8.0	7.0	9.0	7.0
	iPhone 17 Pro (2025)	14.2	20.5	19.5	20.5	18.5	11.5	8.0	7.0	8.0	7.0	8.0	7.0
	iPhone Air (2025)	6.7	5.6	3.0	4.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0
	iPhone 17 (2025)	15.5	20.5	19.5	20.5	18.5	18.5	1.0	1.0	1.0	1.0	1.0	1.1
	iPhone 17e (2026)	1.0	1.0	1.0	1.0	1.0	1.0						
China	iPhone 17 Pro Max (2025)	30.5	35.5	33.5	35.5	35.5	19.5	12.0	8.0	6.0	5.0	5.0	5.0
	iPhone 17 Pro (2025)	30.5	28.5	26.5	21.5	21.5	2.0	12.0	8.0	6.0	5.0	5.0	5.0
	iPhone Air (2025)	-	-	-	-	-	-	7.0	3.0	1.0	1.0	1.0	1.0
	iPhone 17 (2025)	30.5	35.5	33.5	35.5	35.5	19.5	7.0	3.0	1.0	1.0	1.0	1.0
	iPhone 17e (2026)	2.0	2.0	3.1	1.5	1.5	1.0						
Japan	iPhone 17 Pro Max (2025)	24.0	29.5	27.5	28.5	26.5	19.5	11.5	8.5	5.0	5.0	5.0	5.0
	iPhone 17 Pro (2025)	16.5	22.0	20.0	20.0	19.5	12.0	6.0	5.0	5.0	6.9	7.1	6.9
	iPhone Air (2025)	9.5	2.0	8.7	5.2	4.3	3.0	1.0	1.0	1.0	1.0	1.0	1.0
	iPhone 17 (2025)	24.0	22.0	20.0	20.0	19.5	22.5	1.0	1.0	1.0	1.0	1.0	1.0
	iPhone 17e (2026)	2.0	1.0	1.0	2.0	2.0	1.0						
UK	iPhone 17 Pro Max (2025)	22.5	27.5	25.5	27.5	25.5	18.5	8.0	7.0	11.0	7.0	8.0	7.0
	iPhone 17 Pro (2025)	15.5	20.5	18.5	20.5	18.5	12.5	8.0	7.0	11.0	7.0	8.0	7.0
	iPhone Air (2025)	9.5	14.5	1.0	1.0	1.0	1.0	1.0	1.0	5.0	1.0	1.0	1.0
	iPhone 17 (2025)	15.5	20.5	18.5	18.5	18.5	18.5	1.0	1.0	5.0	1.0	1.0	1.0
	iPhone 17e (2026)	1.0	3.0	1.0	1.0	1.0	1.0						
France	iPhone 17 Pro Max (2025)	22.5	27.5	25.5	27.5	25.5	18.5	8.0	7.0	9.0	7.0	8.0	7.0
	iPhone 17 Pro (2025)	15.5	20.5	18.5	20.5	18.5	12.5	8.0	7.0	9.0	7.0	8.0	7.0
	iPhone Air (2025)	9.5	14.5	2.0	5.3	2.7	1.0	3.0	2.0	5.0	1.0	3.0	1.0
	iPhone 17 (2025)	15.5	20.5	18.5	20.5	18.5	18.5	3.0	2.0	5.0	1.0	3.0	1.0
	iPhone 17e (2026)	1.0	3.0	2.0	3.0	1.0	1.0						
Germany	iPhone 17 Pro Max (2025)	23.5	28.5	26.5	28.5	28.5	20.5	8.0	7.0	11.0	7.0	8.0	7.0
	iPhone 17 Pro (2025)	16.0	21.5	19.5	21.5	19.5	15.5	8.0	7.0	11.0	7.0	8.0	7.0
	iPhone Air (2025)	3.0	4.0	2.0	3.0	2.0	1.7	3.0	2.7	5.0	1.7	3.0	1.7
	iPhone 17 (2025)	16.0	21.5	19.5	21.5	19.5	20.5	3.0	3.0	5.0	1.3	3.0	1.3
	iPhone 17e (2026)	1.0	3.0	2.0	1.0	1.0	1.5						
India	iPhone 17 Pro Max (2025)	21.0	24.0	25.0	25.0	25.0	17.0	6.0	5.5	7.0	5.5	6.0	5.5
	iPhone 17 Pro (2025)	14.5	18.0	18.0	18.0	17.0	13.3	6.0	5.5	9.3	8.0	6.0	5.5
	iPhone Air (2025)	8.0	9.7	2.0	4.0	2.0	2.0	3.0	2.0	3.0	1.0	3.0	2.0
	iPhone 17 (2025)	12.5	18.0	18.0	18.0	17.0	17.0	3.0	2.0	3.0	2.0	3.0	2.0
	iPhone 17e (2026)	2.0	3.0	2.0	3.0	2.0	2.0						
Int'l Average	iPhone 17 Pro Max (2025)	24.6	29.7	27.7	29.5	28.3	19.3	9.5	7.5	8.4	6.2	6.8	6.2
	iPhone 17 Pro (2025)	18.8	22.6	20.6	20.8	19.5	10.9	8.4	6.8	8.4	6.6	7.2	6.6
	iPhone Air (2025)	7.9	8.8	3.4	3.6	2.5	1.7	3.0	1.9	3.4	1.1	1.8	1.1
	iPhone 17 (2025)	20.3	24.0	22.0	23.2	22.3	19.9	3.0	2.0	3.4	1.1	1.8	1.1
	iPhone 17e (2026)	1.4	2.4	1.8	1.7	1.3	1.1						

Source: Apple.com, Morgan Stanley Research; *For the lead time data points prior to iPhone availability (T and T+4), the lead time is calculated from the date of first availability (T+7)

Monthly China Smartphone Shipments

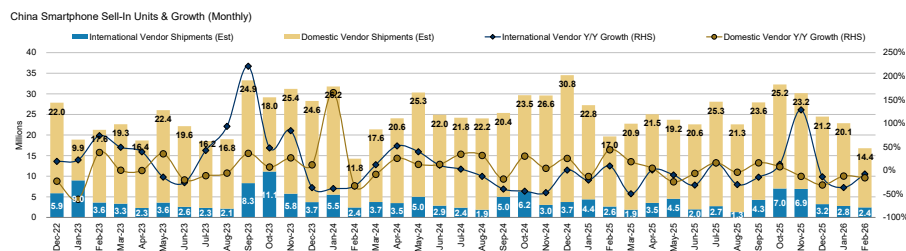
- The Chinese government, through the China Academy of Information and Communications Technology (CAICT), releases smartphone sell-in data in China each month. We also received monthly China smartphone shipment data from IDC on a lag, which is included at the end of this section

Exhibit 16: UPDATED: Total smartphone shipments in China reached 16.3M units in February 2026, down 13% Y/Y



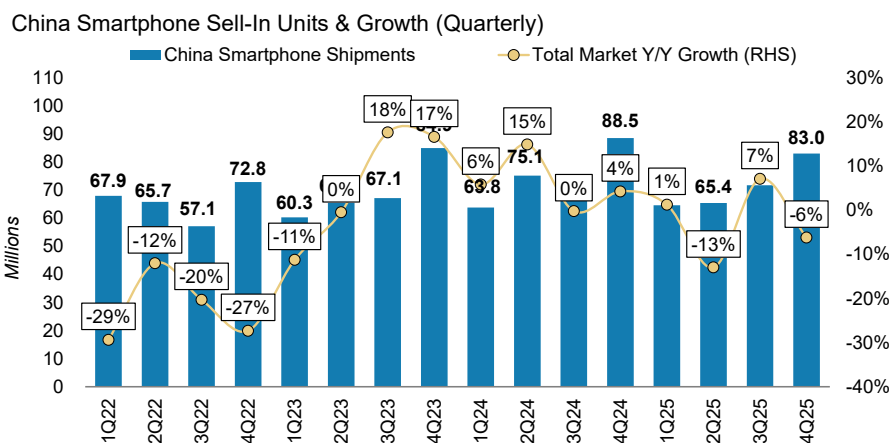
Source: CAICT, Morgan Stanley Research

Exhibit 17: UPDATED: Based on international vs. domestic vendor disclosures from the CAICT, we estimate iPhone shipments in China decreased 8% Y/Y in February, while domestic Chinese brands decreased 16% Y/Y



Source: CAICT, Morgan Stanley Research

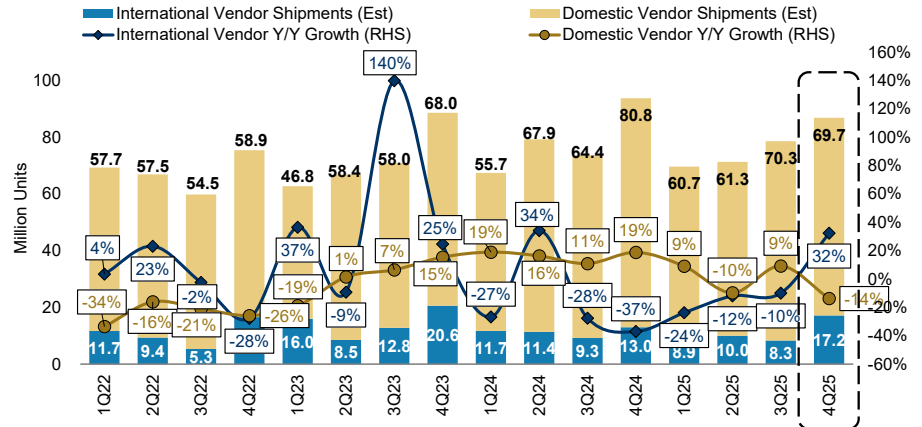
Exhibit 18: According to the CAICT, total smartphone shipments in China reached 83.0M units in the December quarter, down 6% Y/Y



Source: CAICT, Morgan Stanley Research

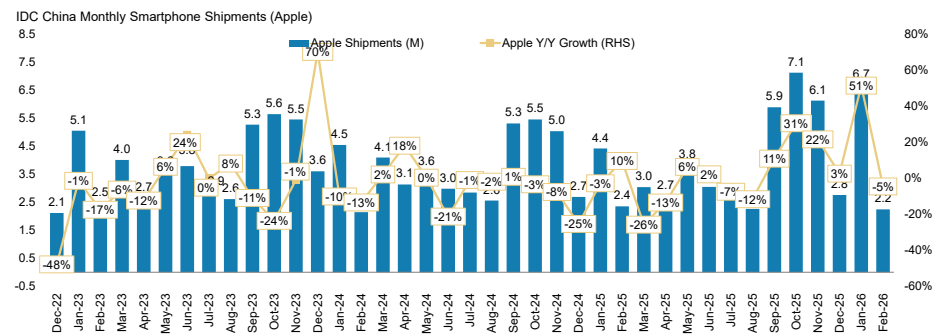
Exhibit 19: Monthly CAICT disclosures suggest iPhone shipments grew 32% Y/Y in the December quarter, outperforming domestic Chinese smartphone vendors that saw shipments of 14% Y/Y decline in the quarter

China Smartphone Sell-In Units & Growth (Quarterly)



Source: CAICT, Morgan Stanley Research

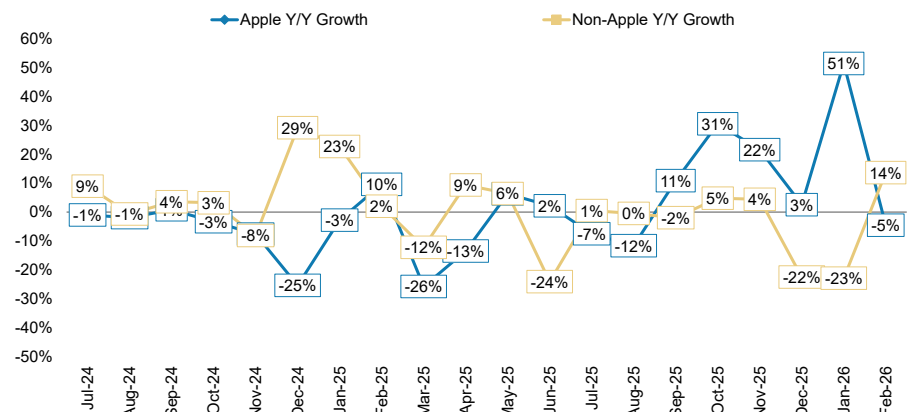
Exhibit 20: UPDATED: Monthly IDC data suggest iPhone shipments declined 5% Y/Y in February



Source: IDC, Morgan Stanley Research

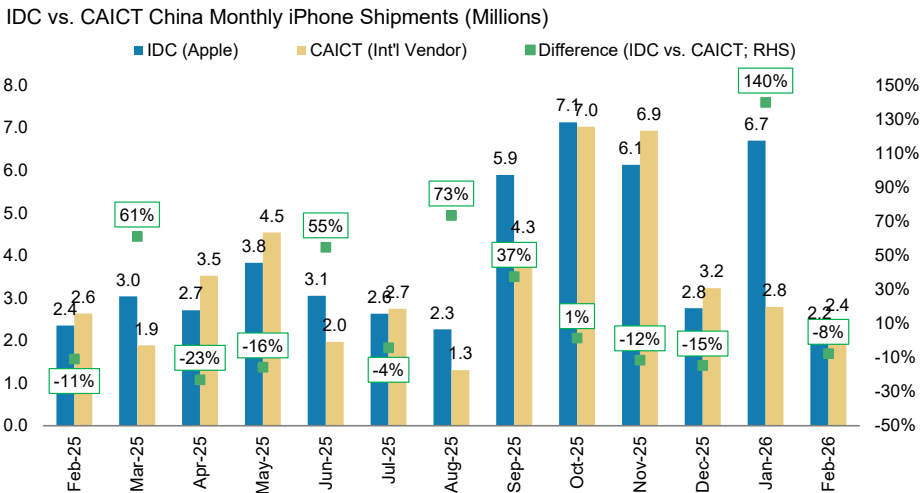
Exhibit 21: UPDATED: According to IDC's monthly data for China's smartphone, non-Apple (Android + Huawei) smartphone shipments grew 14% Y/Y in February, outperformed 19 points vs. Apple shipments of -5% Y/Y

China Monthly Smartphone Shipments (Apple vs. Others)



Source: IDC, Morgan Stanley Research

Exhibit 22: UPDATED: There is a consistent gap between the IDC and CAICT shipments for Apple/international vendor in China

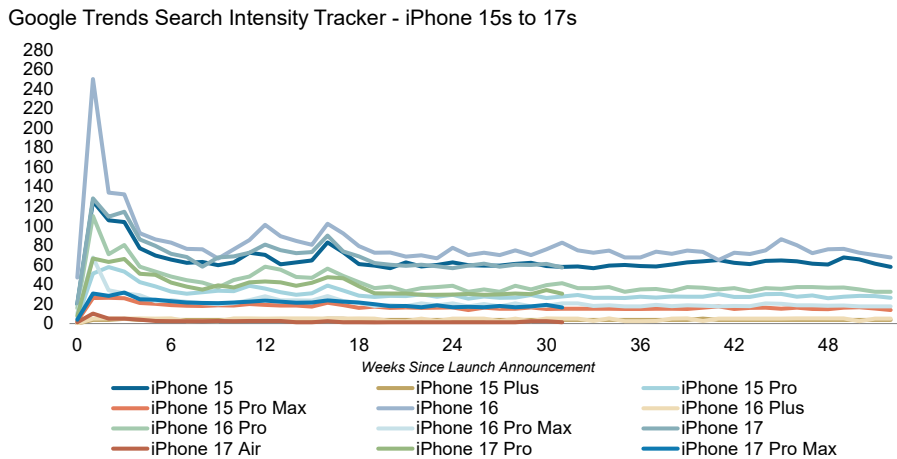


Source: IDC, CAICT, Morgan Stanley Research

Google Search iPhone Tracker

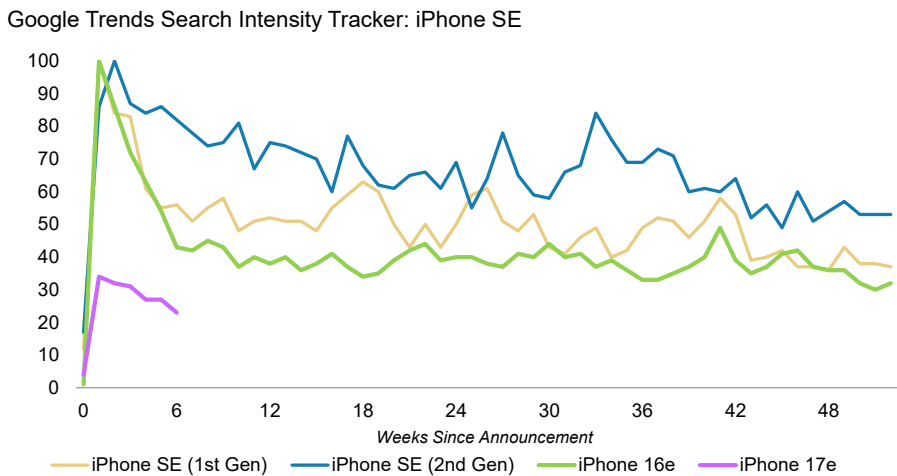
In partnership with our AlphaWise colleagues, we track the intensity of global Google searches for the iPhone on a weekly basis (with a one- or two-week lag)

Exhibit 23: UPDATED: Google search intensity for the iPhone 17 is roughly in line with the iPhone 16, 31 weeks after launch



Source: AlphaWise, Morgan Stanley Research; Google; Data for the week ending April 5th, 2026

Exhibit 24: UPDATED: Google search intensity for the iPhone 17e is below the search intensity for the first-generation iPhone SE, the second-generation iPhone SE, and the iPhone 16e (6 weeks from announcement)



Source: AlphaWise, Morgan Stanley Research; Google; Data for the week ending April 5th, 2026.

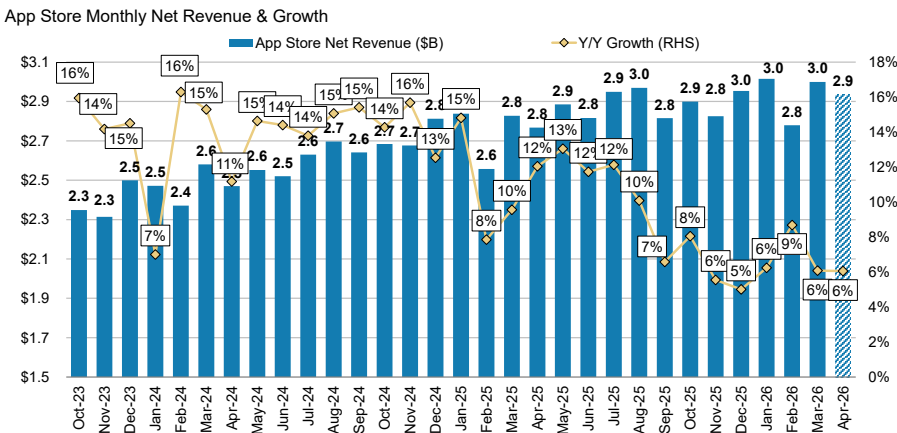


Apple Services

App Store Net Revenue and Downloads

Using data from Sensor Tower, we track Apple's App Store monthly and quarterly net revenue and download data across 110+ countries and 25 app categories

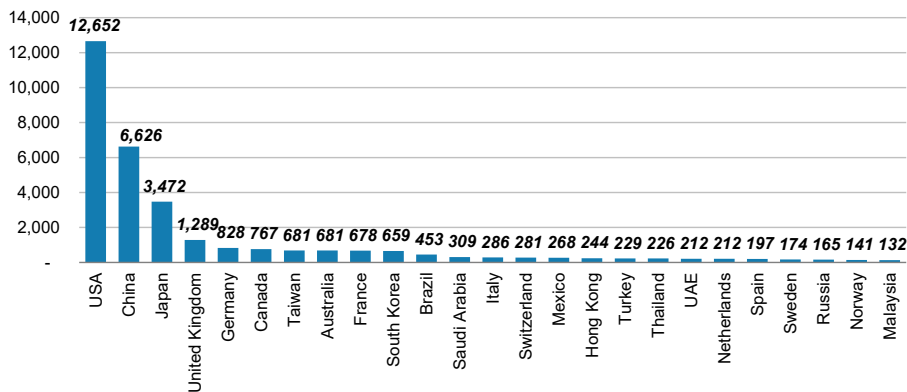
Exhibit 25: UPDATED: We estimate total App Store net revenue grew 6.1% Y/Y in March and month-to-date through April 19, App Store is tracking to 6.1% Y/Y growth



Source: Sensor Tower, Morgan Stanley Research

Exhibit 26: UPDATED: The US, China, and Japan collectively represent 66% of App Store trailing 12-month net revenue as of March 2026. The App Store's top 10 markets collectively represent 83% of T12M net revenue

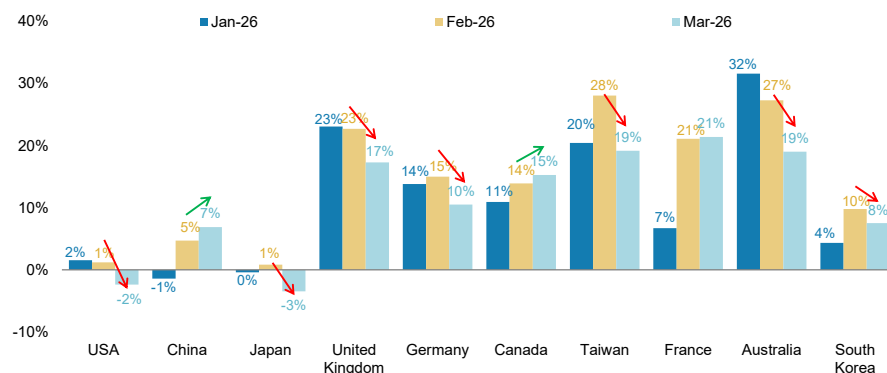
Largest App Store Markets (By T12M Net Revenue; \$M)



Source: Sensor Tower, Morgan Stanley Research

Exhibit 27: UPDATED: 7 of the 10 largest App Store markets saw growth deceleration in the month of March

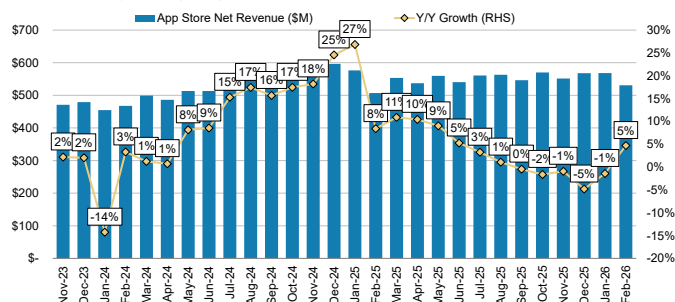
Y/Y Net Revenue Growth For 10 Largest App Store Markets



Source: Sensor Tower, Morgan Stanley Research

Exhibit 28: UPDATED: App Store net revenue growth in China accelerated 2 points from February to +7% Y/Y in March

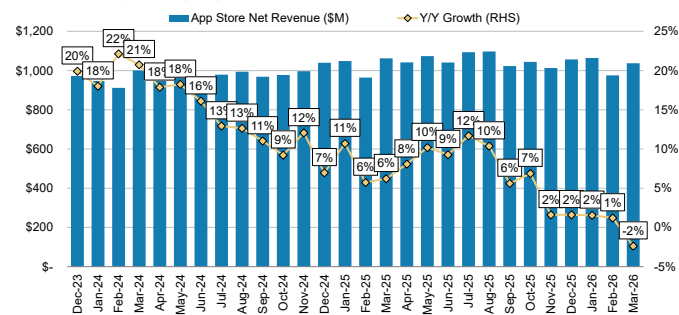
App Store Monthly Trends (China)



Source: Sensor Tower, Morgan Stanley Research

Exhibit 29: UPDATED: App Store net revenue growth in the US decelerated 3 points to -2% Y/Y in March

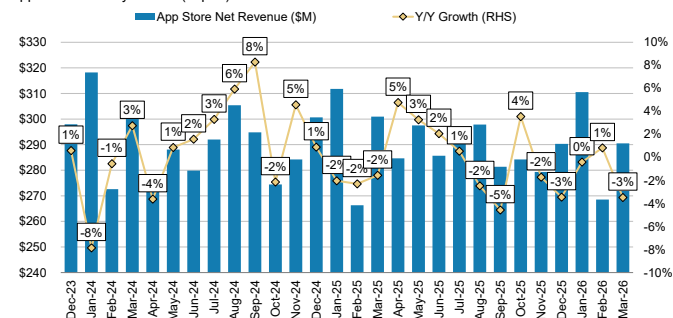
App Store Monthly Trends (USA)



Source: Sensor Tower, Morgan Stanley Research

Exhibit 30: UPDATED: App Store net revenue growth in Japan decelerated 4 points from February to -3% Y/Y in March

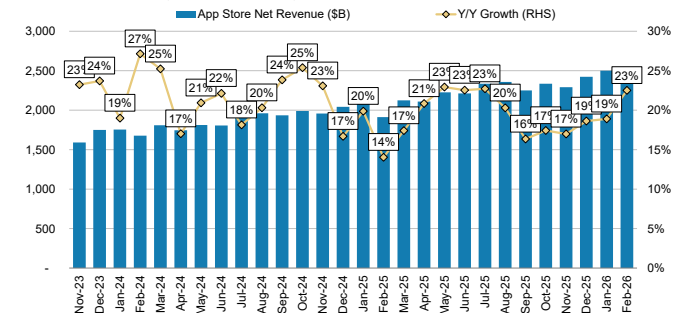
App Store Monthly Trends (Japan)



Source: Sensor Tower, Morgan Stanley Research

Exhibit 31: UPDATED: Outside of the 3 largest countries (USA, China and Japan), Y/Y App Store net revenue growth decelerated 4 points to +19% Y/Y in March

App Store Net Revenue (ROW Outside Top 3)

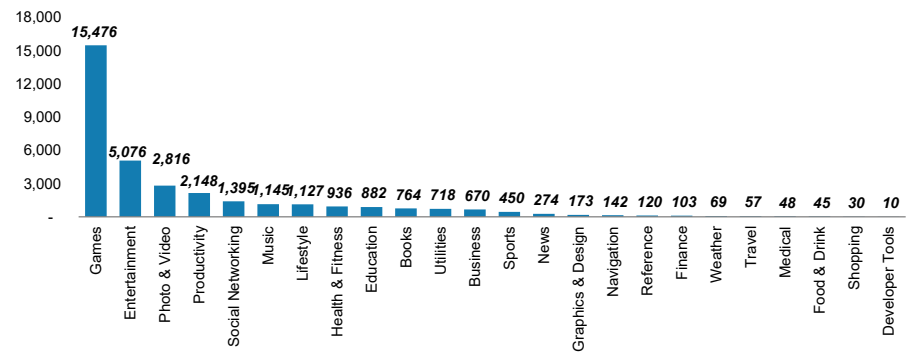


Source: Sensor Tower, Morgan Stanley Research

Exhibit 32:

UPDATED: Gaming represents the largest revenue-generating app category in the App Store by far, accounting for 45% of T12M App Store net revenue as of March 2026

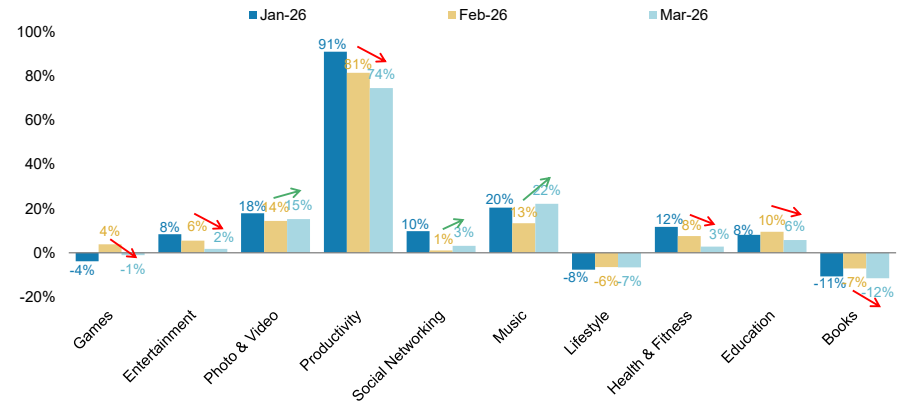
Largest App Store App Categories (By T12M Net Revenue; \$M)



Source: Sensor Tower, Morgan Stanley Research

Exhibit 33: UPDATED: 6 of the 10 largest App Store app categories saw a deceleration in net revenue growth in March

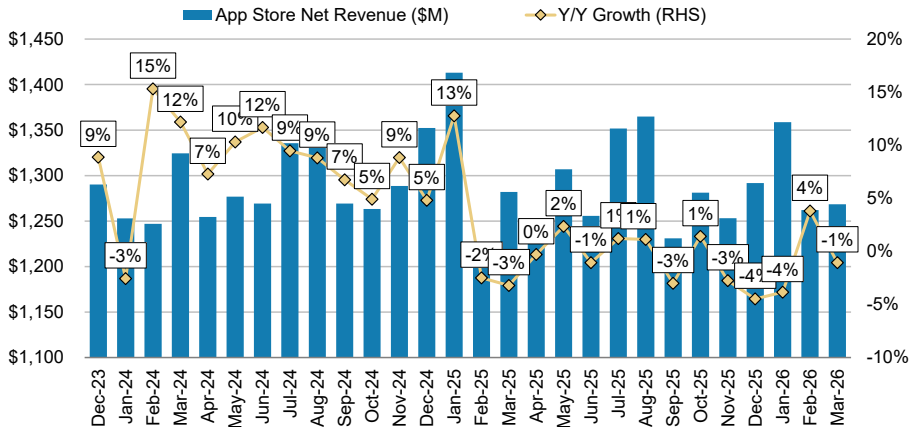
Y/Y Net Revenue Growth For 10 Largest App Store Categories



Source: Sensor Tower, Morgan Stanley Research

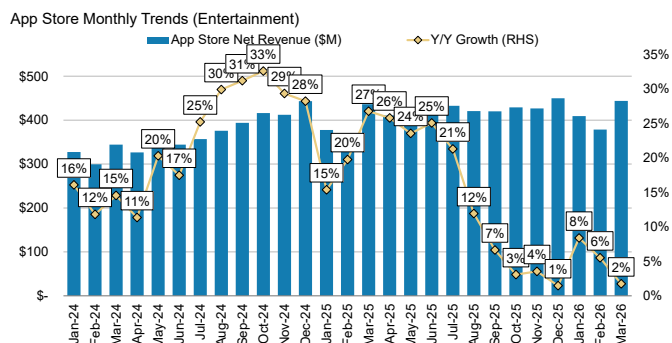
Exhibit 34: UPDATED: Gaming net revenue growth decelerated 5 points M/M to -1% Y/Y in March

App Store Monthly Trends (Gaming)



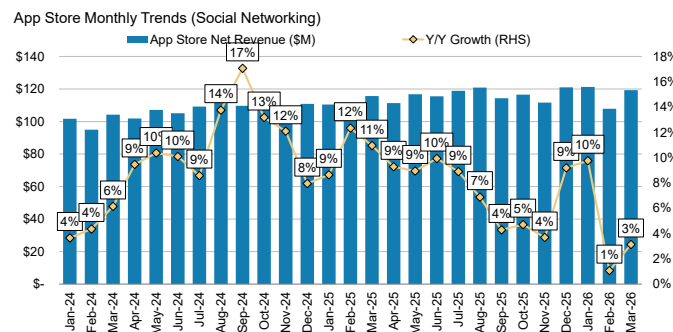
Source: Sensor Tower, Morgan Stanley Research

Exhibit 35: UPDATED: Entertainment-related App Store net revenue growth decelerated 4 points M/M to +2% Y/Y in March



Source: Sensor Tower, Morgan Stanley Research

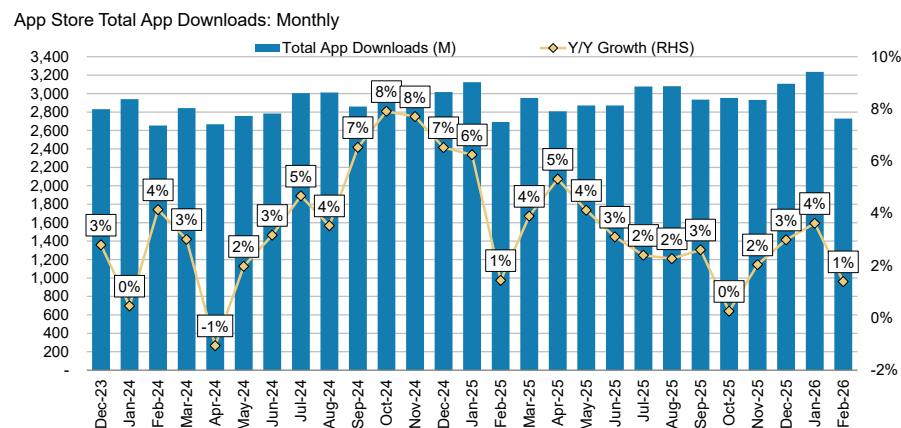
Exhibit 36: UPDATED: Social Networking-related App Store net revenue growth accelerated 2 points M/M to +3% Y/Y in March



Source: Sensor Tower, Morgan Stanley Research

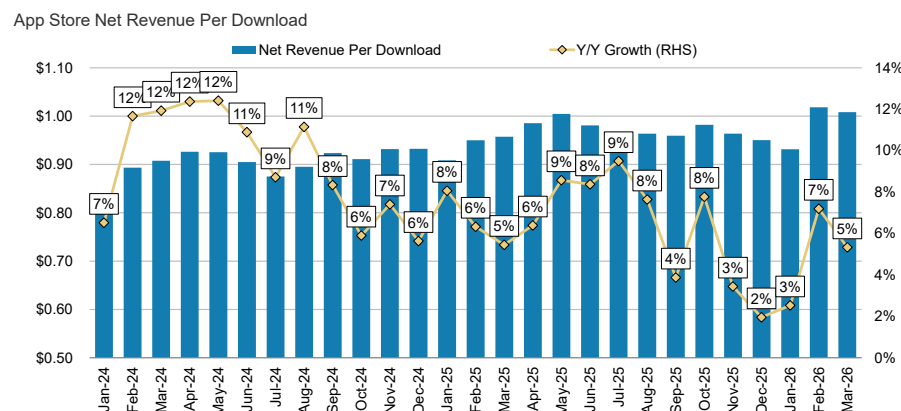
Exhibit 37:

UPDATED: Total App Store app downloads were +1% Y/Y in March, stabilizing from February



Source: Sensor Tower, Morgan Stanley Research

Exhibit 38: UPDATED: App Store net revenue per download grew 5% Y/Y in March, decelerating 2 points from February

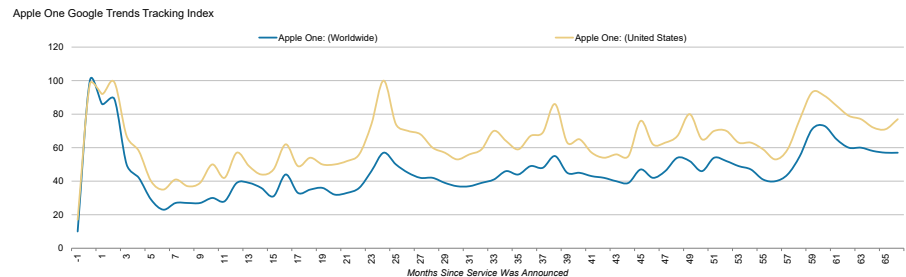


Source: Sensor Tower, Morgan Stanley Research

Apple Services Google Search Trackers

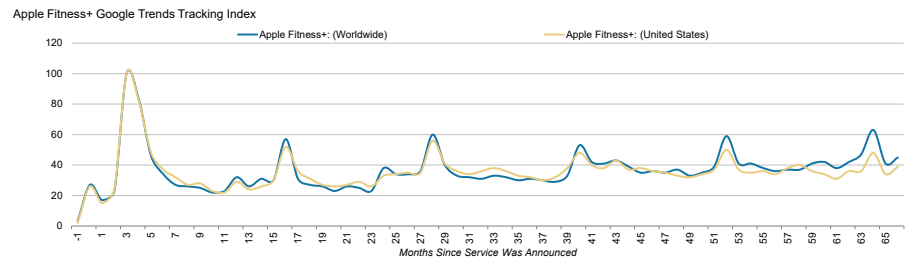
- In partnership with our AlphaWise research colleagues, we track the intensity of both US and global Google searches for all of Apple's most recent Services launches, including Apple One, Apple Fitness+, Apple TV+, Apple News+, Apple Card, Apple Arcade and Apple TV Channels, on a monthly basis

Exhibit 39: Google Search intensity for the Apple One bundle in the United States upticked in March



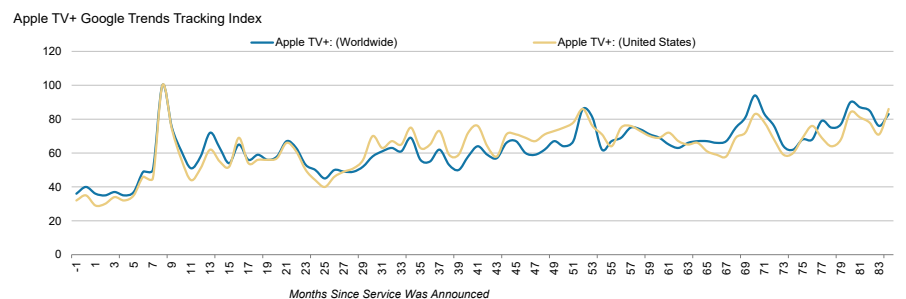
Source: AlphaWise, Morgan Stanley Research; Google; Latest data for the month of March.

Exhibit 40: Google Search intensity for the Apple Fitness+ bundle spiked in the week of December 13th, 2020 when the service was made available and upticked in March.



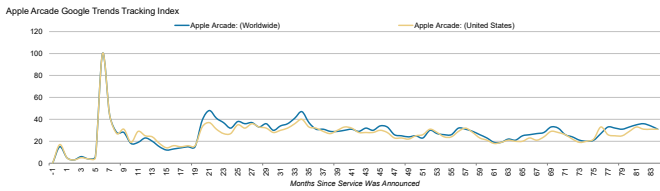
Source: AlphaWise, Morgan Stanley Research; Google; Latest data for the month of March.

Exhibit 41: Apple TV+ Google search intensity upticked in March



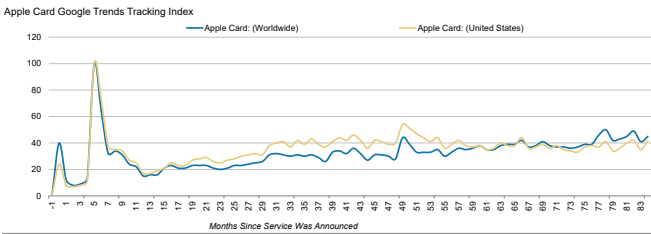
Source: AlphaWise, Morgan Stanley Research; Google; Latest data for the month of March.

Exhibit 42: Search intensity for Apple Arcade remains significantly below its September 2019 peak



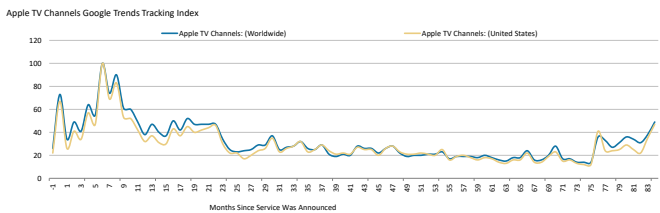
Source: AlphaWise, Morgan Stanley Research; Google; Latest data as of the month of March.

Exhibit 43: Search intensity for the Apple Card remains well below its August 2019 peak



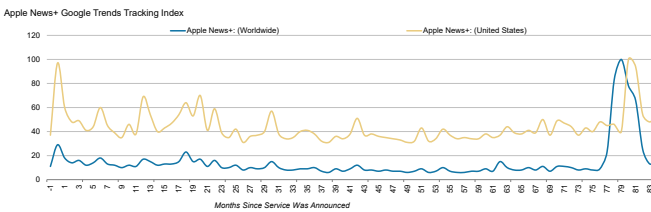
Source: AlphaWise, Morgan Stanley Research; Google; Latest data as of the month of March.

Exhibit 44: Search intensity for Apple TV Channels upticked further in the month of March



Source: AlphaWise, Morgan Stanley Research; Google; Latest data as of the month of March.

Exhibit 45: Search intensity for Apple News+ upticked in March



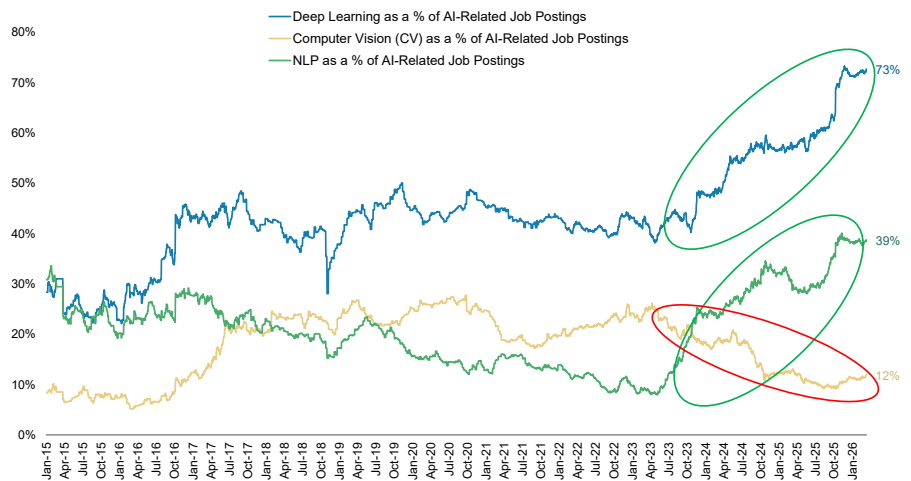
Source: AlphaWise, Morgan Stanley Research; Google; Latest data as of the month of March.

Apple AI Job Postings

- We view employee count as another indicator of Apple's ramp on its AI efforts and will now add Apple AI Job postings to our monthly data tracker moving forward

Exhibit 46: UPDATED: Over the past several months, deep learning and NLP have risen as a % of AI jobs postings, with Deep Learning appearing in 73% of Apple's AI job postings (flat since March) and NLP appearing in 39% of postings (flat since March)

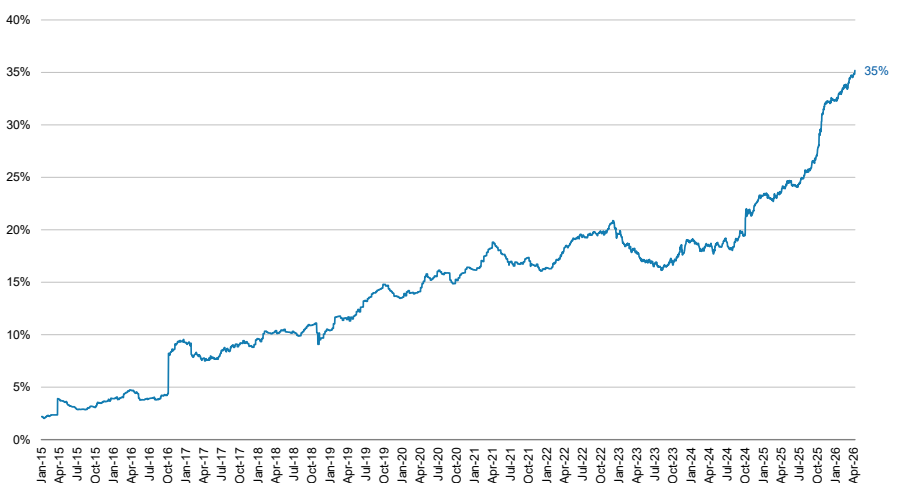
Apple AI-Related Job Postings by Topic



Source: LinkUp, Morgan Stanley Research

Exhibit 47: UPDATED: We estimate that 35% of Apple's current job postings are AI-related, up from just 10% nearly 6 years ago, showing the steady ramp to Apple's AI-technologies

Apple AI-Related Job Postings as % Total Job Postings



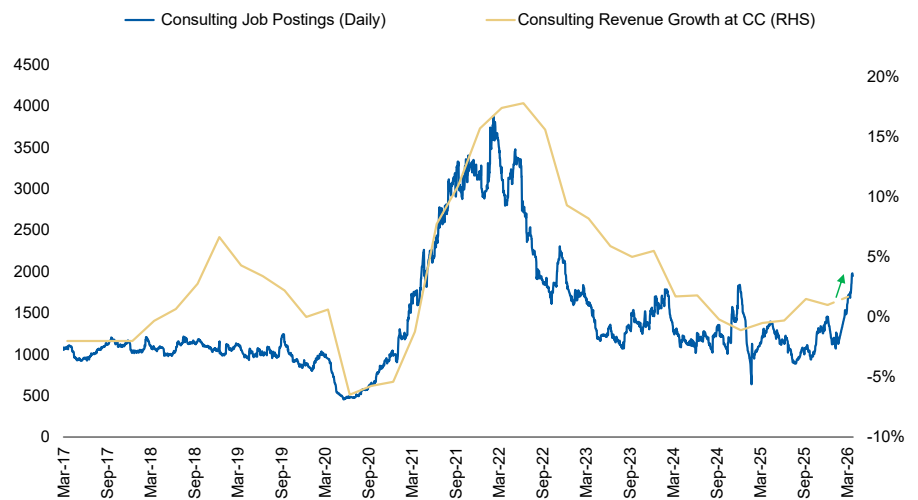
Source: LinkUp, Morgan Stanley Research

IBM Consulting Job Postings and WatsonX Trends

- We view employee count as an important leading indicator for IBM's Consulting business and Google Trends on WatsonX as an important insight to IBM's Software business. In addition to our quarterly IBM previews, we will now add IBM active Consulting job postings and Google trends on IBM WatsonX to our monthly data tracker moving forward

Exhibit 50: UPDATED: On a daily basis, IBM active Consulting job postings are up 58% from the end of 4Q

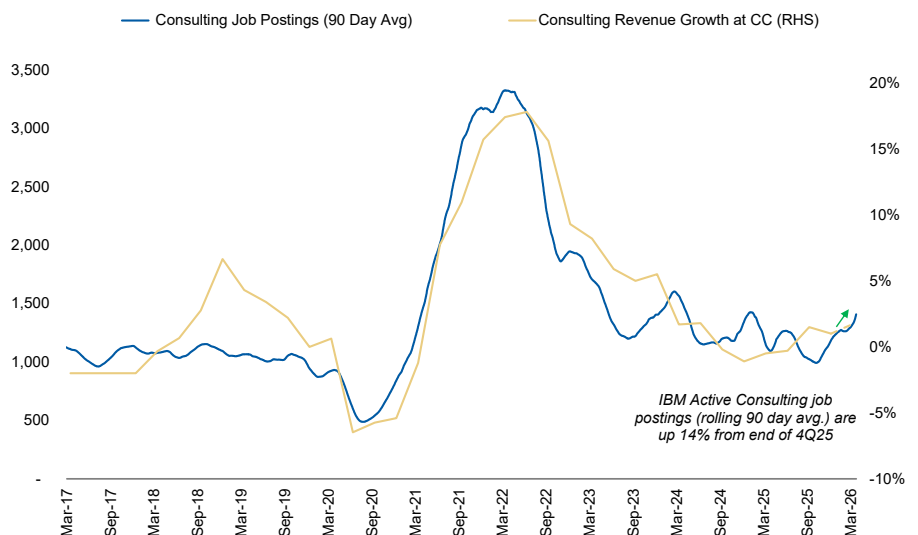
IBM Active Consulting Job Postings



Source: LinkUp, Morgan Stanley Research

Exhibit 51: UPDATED: On a rolling 90-day average basis, IBM active Consulting job postings are up 14% from end of 4Q25

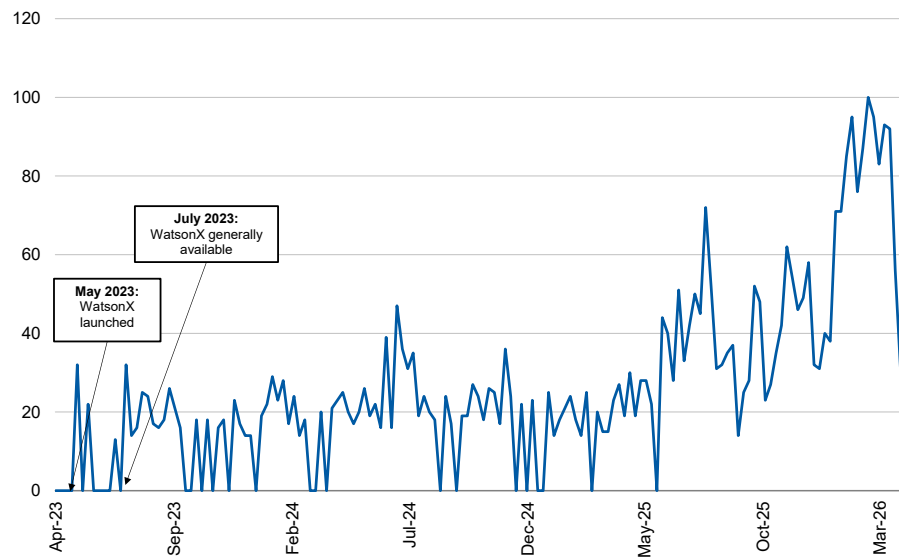
IBM Active Consulting Job Postings vs. Consulting Revenue Growth



Source: LinkUp, Morgan Stanley Research

Exhibit 52: UPDATED: IBM WatsonX Google Search decreased by 61 points to 32 on April 12th from 93 on March 15th. Google notes that the value of 100 is peak popularity for the term

Google Trends: IBM WatsonX



Source: Google, Morgan Stanley Research

PC Supply and Demand

Monthly Notebook ODM Builds

- Each month, our Greater China Technology Hardware team (led by Sharon Shih) publishes total monthly/quarterly Notebook build estimates from the leading Notebook original design manufacturers (ODMs)

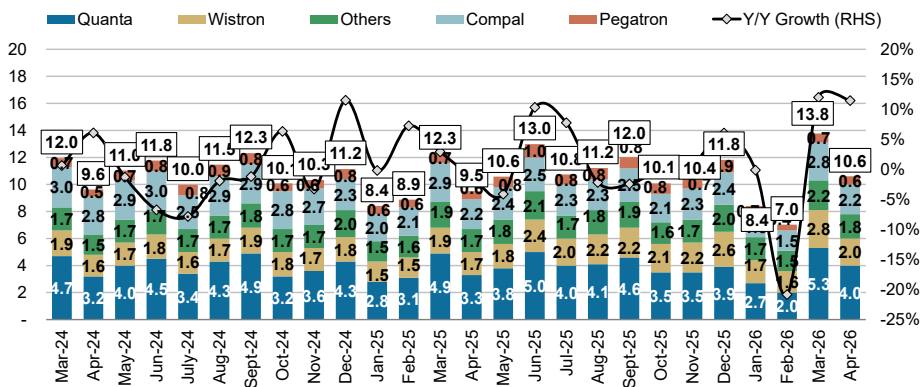
Exhibit 53: UPDATED: Our Greater China Tech Hardware research colleagues forecast top 5 Notebook ODM builds will reach 10.6M units in April 2026 (+11% Y/Y, -23% M/M).

	Feb-24	Mar-24	Apr-24	May-24	Jun-24	July-24	Aug-24	Sept-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sept-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26
Quanta	2,900	4,700	3,200	4,000	4,500	3,400	4,300	4,900	3,200	3,600	4,300	2,800	3,100	4,900	3,300	3,800	5,000	4,000	4,100	4,600	3,500	3,900	2,700	2,000	5,300	4,000	
Wistron	1,400	1,900	1,600	1,700	1,800	1,600	1,700	1,800	1,800	1,700	1,800	1,500	1,500	1,900	1,700	1,800	2,400	2,000	2,200	2,200	2,100	2,200	2,600	1,700	1,600	2,800	2,000
Others	1,300	1,700	1,500	1,700	1,700	1,700	1,800	1,800	1,700	2,000	1,500	1,500	1,600	1,900	1,700	1,800	2,100	1,700	1,800	1,600	1,700	2,000	1,700	1,500	2,200	1,800	
Compal	2,300	3,000	2,800	2,900	3,000	2,500	2,900	2,900	2,800	2,700	2,300	2,000	2,100	2,900	2,200	2,400	2,500	2,300	2,300	2,500	2,100	2,300	2,400	1,600	1,500	2,800	2,200
Pegatron	375	650	525	730	775	775	875	825	575	625	750	610	575	700	610	775	990	750	825	825	775	710	925	700	425	675	600
Total	8,275	11,950	9,625	11,030	11,775	9,975	11,475	12,325	10,075	10,325	11,150	8,410	8,875	12,300	9,510	10,575	12,990	10,750	11,225	12,025	10,075	10,410	11,825	8,400	7,025	13,775	10,600
M/M Growth																											
Quanta	0%	62%	-32%	25%	13%	-24%	26%	14%	-35%	13%	19%	-35%	11%	58%	-33%	15%	32%	-20%	2%	12%	-24%	0%	11%	-31%	-26%	165%	-25%
Wistron	8%	36%	-16%	6%	6%	-11%	6%	12%	-5%	-6%	6%	-17%	0%	27%	-11%	6%	33%	-17%	10%	0%	-5%	5%	18%	-35%	-6%	75%	-29%
Others	-13%	31%	-12%	13%	0%	0%	0%	6%	-6%	0%	18%	-25%	7%	19%	-11%	6%	17%	-19%	6%	6%	-16%	6%	18%	-15%	-12%	47%	-18%
Compal	5%	30%	-7%	4%	3%	-17%	16%	0%	-3%	-4%	-15%	-13%	5%	38%	-24%	9%	4%	-8%	0%	9%	-16%	10%	4%	-33%	-6%	87%	-21%
Pegatron	-30%	73%	-19%	39%	6%	0%	13%	-6%	-30%	9%	20%	-19%	-6%	22%	-13%	27%	28%	-24%	10%	0%	-6%	-8%	30%	-24%	-39%	59%	-11%
Total	-2%	44%	-19%	15%	7%	-15%	15%	7%	-18%	2%	8%	-25%	6%	39%	-23%	11%	23%	-17%	4%	7%	-16%	3%	14%	-29%	-16%	96%	-23%
Y/Y Growth																											
Quanta	-6%	2%	-3%	-5%	-12%	-11%	-7%	4%	10%	-5%	16%	-3%	7%	4%	3%	-5%	11%	18%	-5%	-6%	9%	-3%	-9%	-4%	-35%	8%	21%
Wistron	17%	19%	14%	13%	6%	7%	0%	-5%	6%	-6%	0%	15%	7%	0%	6%	33%	25%	29%	16%	17%	29%	44%	13%	7%	47%	18%	
Others	-7%	6%	7%	-6%	0%	13%	6%	0%	21%	6%	33%	1%	23%	12%	13%	6%	24%	0%	6%	6%	-6%	0%	0%	13%	-6%	16%	6%
Compal	5%	-9%	17%	-3%	-4%	-24%	0%	-6%	-3%	-7%	-8%	-9%	-8%	-9%	-3%	-21%	-17%	-17%	-8%	-21%	-14%	-25%	-15%	4%	-20%	-29%	-3%
Pegatron	-32%	-16%	-9%	8%	-6%	7%	-3%	-6%	0%	9%	50%	14%	53%	8%	16%	6%	28%	-3%	-6%	0%	35%	14%	23%	15%	-26%	-4%	-2%
Total	-2%	1%	6%	-1%	-7%	-8%	-2%	-1%	6%	-3%	12%	0%	7%	3%	-1%	-4%	10%	8%	-2%	-2%	0%	1%	6%	0%	-21%	12%	11%

Source: Company data, Morgan Stanley Research

Exhibit 54: UPDATED: Our Greater China Tech Hardware research colleagues expect NB builds at Pegatron to decline Y/Y in April, while NB builds at Quanta, Wistron and Compal are expected to grow Y/Y.

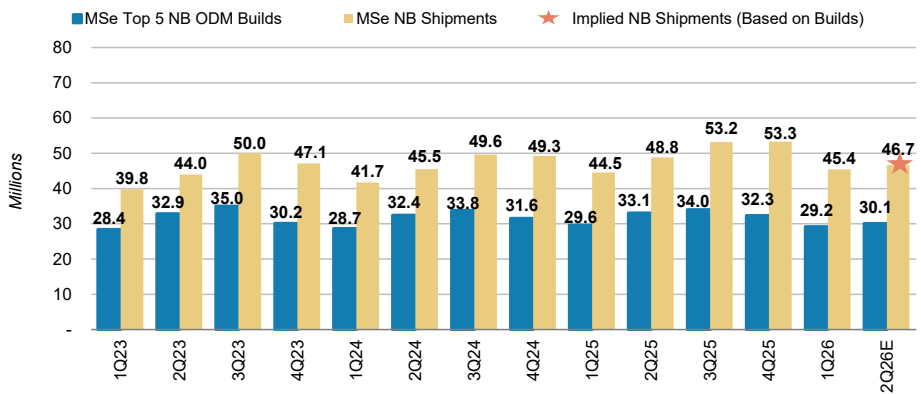
Monthly Top 5 Notebook ODM Builds (M)



Source: Company data, Morgan Stanley Research

Exhibit 55: UPDATED: Our Greater China Technology Hardware team now forecasts 30.1M NB ODM builds in C2Q26.

Quarterly Top 5 Notebook (NB) ODM Builds vs. MS NB Shipment Forecast

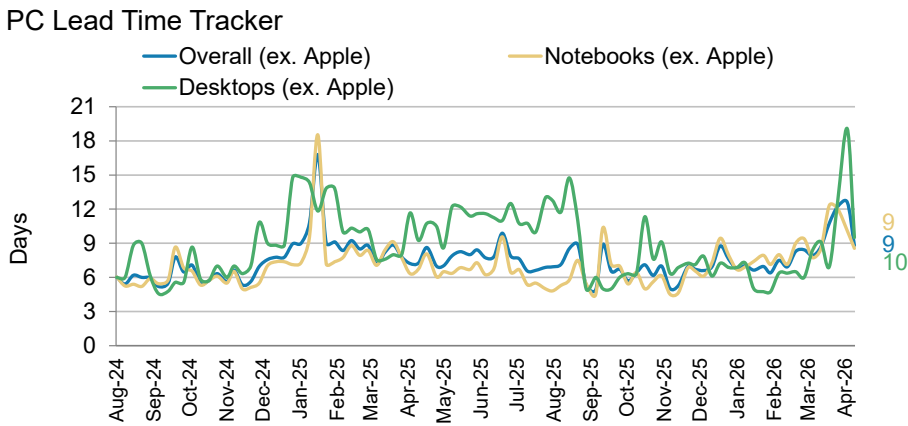


Source: Company data, Morgan Stanley Research estimates

Weekly PC Lead Time Tracker

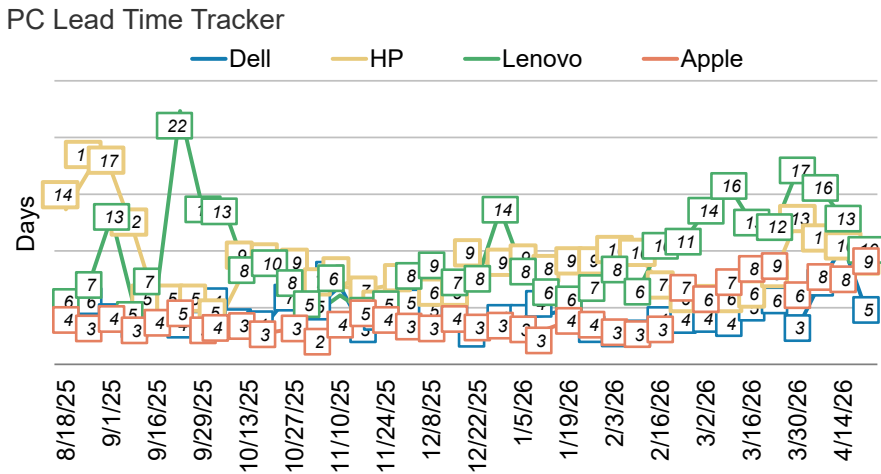
Our proprietary PC Lead Time tracker collects data from leading PC vendors such as Dell, HP, Lenovo, and Apple. The tracker reflects the number of days between the order date and estimated delivery date for 40 different PC SKUs.

Exhibit 56: UPDATED: Overall lead times ex. Apple remained unchanged over the past month (9 days on average as of April 20th), with desktop lead times at 10 days and notebook lead times at 9 days



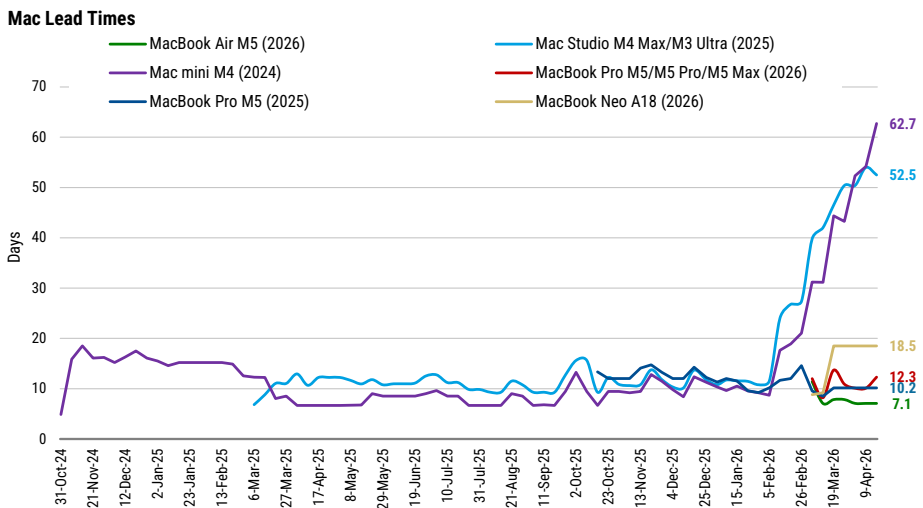
Source: Company websites, Morgan Stanley Research

Exhibit 57: UPDATED: Lead times for Lenovo and Dell decreased 2 and 1 days compared to last month, respectively. While lead times for HP increased 1 day, and Apple lead times remained unchanged during the same period (as of April 20th)



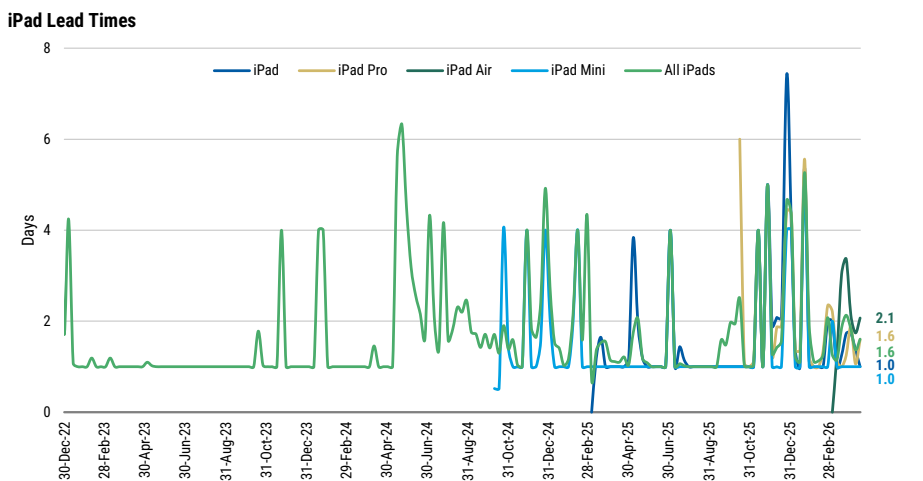
Source: Company websites, Morgan Stanley Research

Exhibit 58: UPDATED: Lead times for Apple Mac products had been falling from near-record highs, but the Mac Mini M4 (2024) is currently at ~63 days



Source: Company websites, Morgan Stanley Research

Exhibit 59: UPDATED: Lead times average for all Apple iPad products is currently at 1.6 days, with the average new iPad Air lead times being the highest at 2.1 days, followed by iPad Pro at 1.6 days, while the iPad and iPad Mini have a current lead time average of 1 day.



Source: Company websites, Morgan Stanley Research

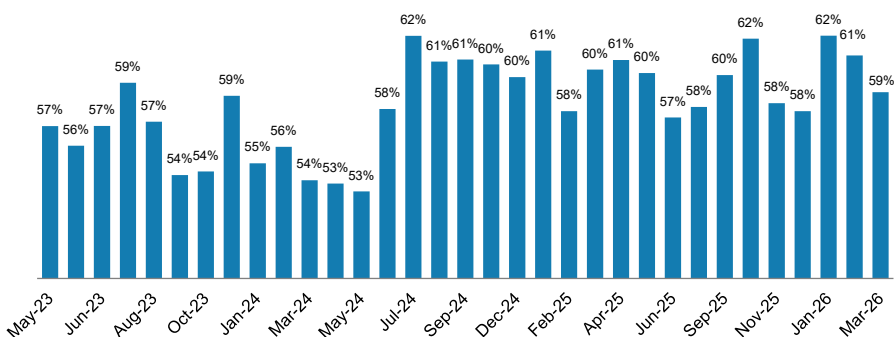
AlphaWise Pulse Survey – Computers & Related Accessories

- AlphaWise, Morgan Stanley's longstanding evidence-based research capability, completed its 74th survey of ~2,000 US consumers on March 19 - March 23 ([AlphaWise US Consumer Pulse Survey Wave 74](#)).
- We focus on current spending (now vs. last month) and future spending intentions (next month vs. now) for computers and related accessories.

Overall, are you spending more money, less or the same now compared to a month ago on computers & related accessories (monitor, laptop, keyboard, mouse, etc.)?

Exhibit 60: UPDATED: Our AlphaWise survey data show that current consumer computer and related accessories purchasing intentions downticked 2 points vs. the last survey at 59%.

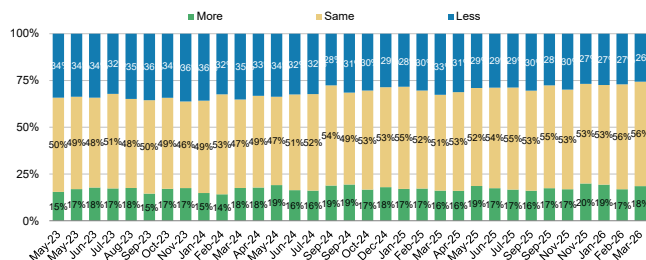
% of Respondents That Purchased Computers & Related Access. (Now vs. Month Ago)



Source: AlphaWise, Morgan Stanley Research; Note: x-axis corresponds to the days each survey was conducted

Exhibit 61: UPDATED: The latest survey shows a 1-point increase in the % of respondents who spent more on computers & related accessories compared to last month, while the % who spent less decreased 1 point.

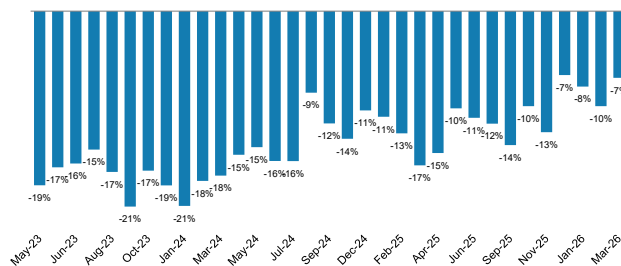
Computer & Related Access. Spending (Now vs. Month Ago)



Source: AlphaWise, Morgan Stanley Research. Reflects % on respondents that are purchasing; Note: x-axis corresponds to the days each survey was conducted

Exhibit 62: UPDATED: As a result, net spending intentions (today vs. last month) improved to -7%

Computer & Related Access. Net Spending , More Minus Less (Now vs. Month Ago)

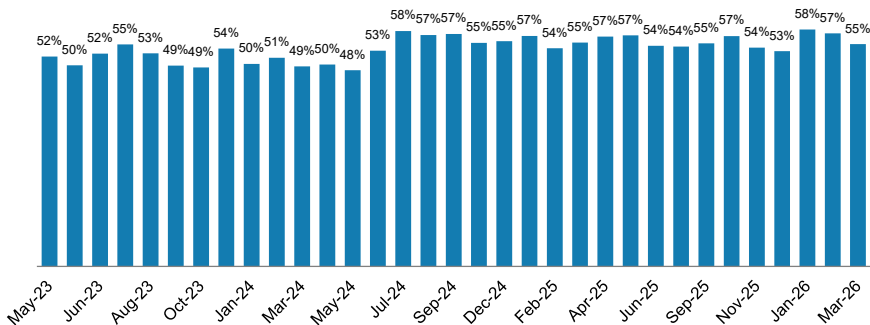


Source: AlphaWise, Morgan Stanley Research. NET: Percentage of consumers who said "More" – "Less"; Note: x-axis corresponds to the days each survey was conducted

Over the next month, do you expect to spend more money, less or the same on computers & related accessories (monitor, laptop, keyboard, mouse, etc.)?

Exhibit 63: UPDATED: Forward-looking computer and related accessories spending intentions downticked 2 points M/M to 55%

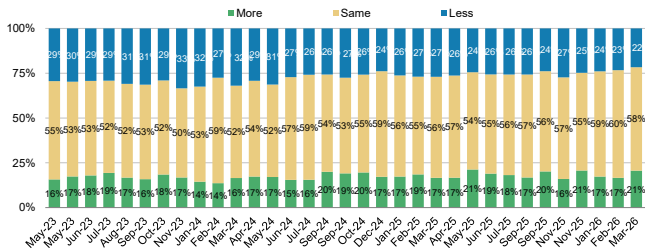
% of Respondents That Will Purchase Computers & Related Access. (Next Month vs. Now)



Source: AlphaWise, Morgan Stanley Research; Note: x-axis corresponds to the days each survey was conducted

Exhibit 64: UPDATED: The latest survey shows that the % of respondents expecting to spend less on computers and related accessories next month relative to this month downticked by 1 point M/M, and the % expecting to spend more upticked 4 points...

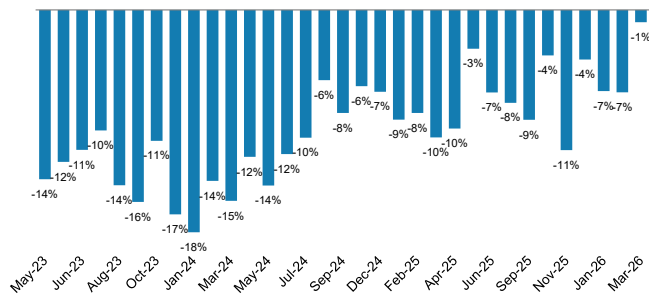
Computers & Related Access. Spending Intentions (Next Month vs. Now)



Source: AlphaWise, Morgan Stanley Research. Reflects % on respondents that are purchasing; Note: x-axis corresponds to the days each survey was conducted

Exhibit 65: UPDATED: ... as a result, net future computer and related accessories spending intentions upticked at -1%

Computer & Related Access. Net Spending Intentions, More Minus Less (Next Month vs. Now)



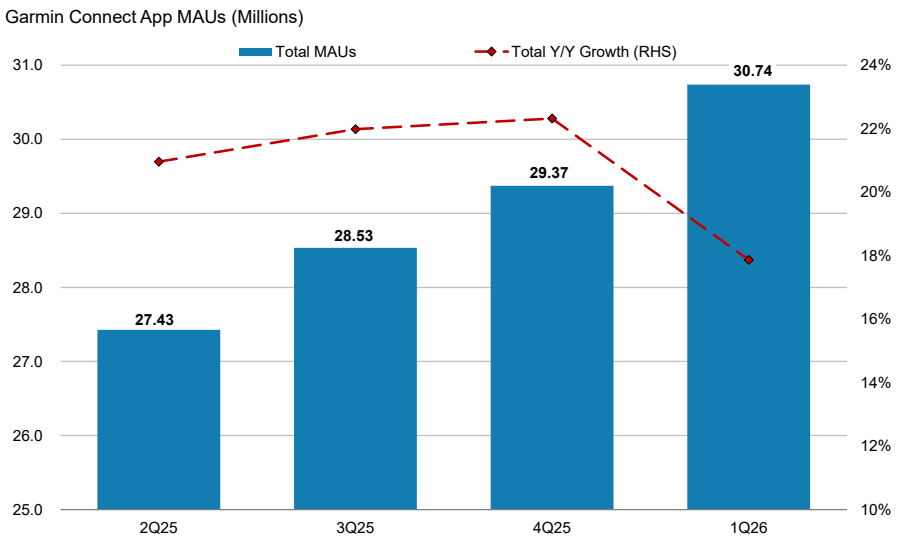
Source: AlphaWise, Morgan Stanley Research. NET: Percentage of consumers who said "More" – "Less"; Note: x-axis corresponds to the days each survey was conducted

Consumer Electronics

Monthly Active User App Data

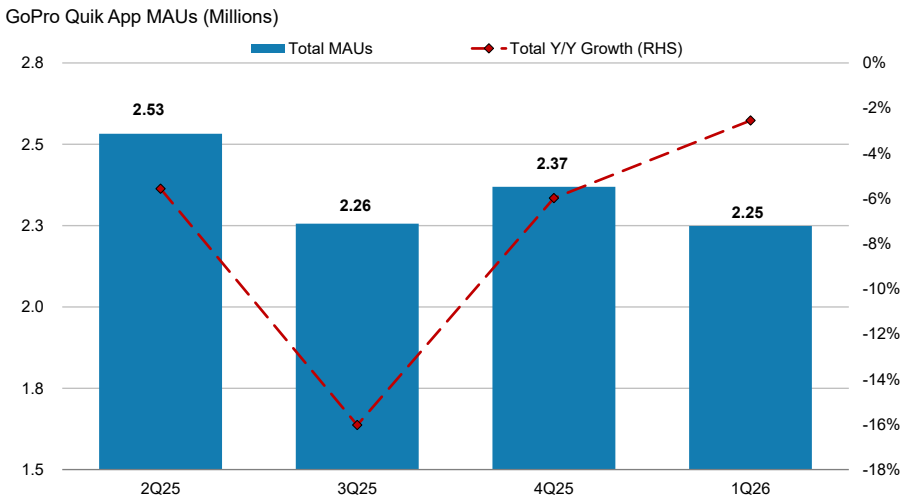
Using data from Sensor Tower, we track the total number of Monthly Active Users (MAUs) for each of 5 apps: 1) Garmin Connect, 2) GoPro Quik, 3) Sonos Controller, and 4) Cricut Design Space.

Exhibit 66: UPDATED: Sensor Tower estimates that the Garmin Connect app had 29.9M MAUs at the end of 1Q26, up 18% Y/Y



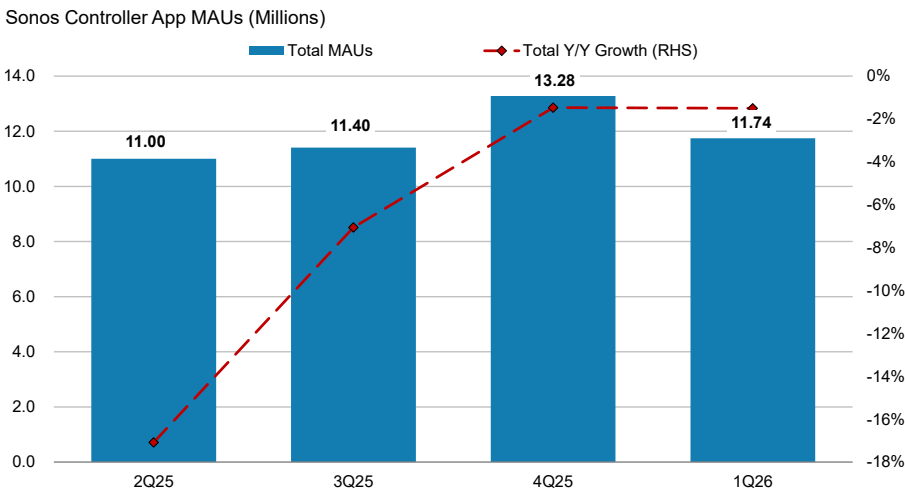
Source: Sensor Tower, Morgan Stanley Research

Exhibit 67: UPDATED: Sensor Tower estimates that the GoPro Quik app had 2.3M MAUs at the end of 1Q26, -3% Y/Y.



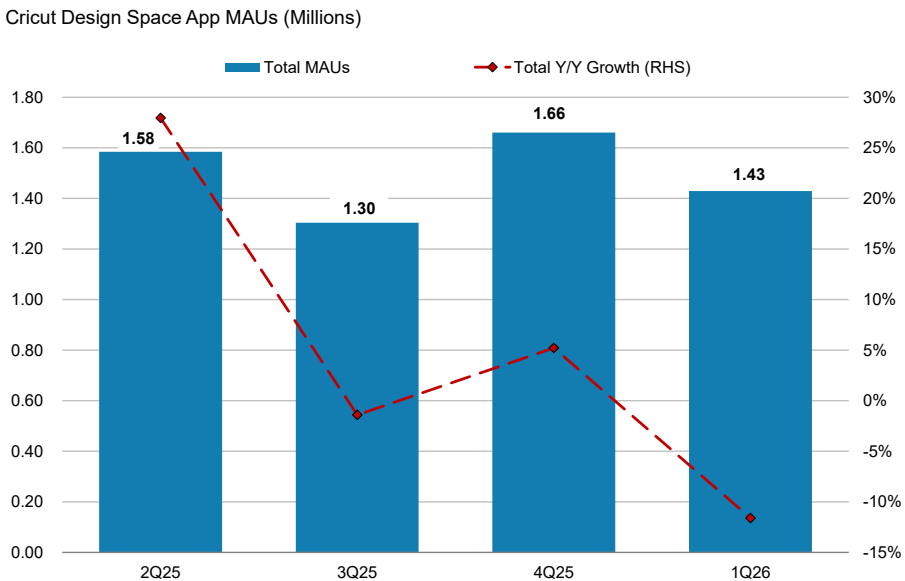
Source: Sensor Tower, Morgan Stanley Research

Exhibit 68: UPDATED: Sensor Tower estimates that the Sonos Controller apps had 11.7M MAUs at the end of 1Q26, down 2% Y/Y.



Source: Sensor Tower, Morgan Stanley Research

Exhibit 69: UPDATED: Sensor Tower estimates that the Cricut Design Space app had 1.4M MAUs at the end of 1Q26, down 12% Y/Y

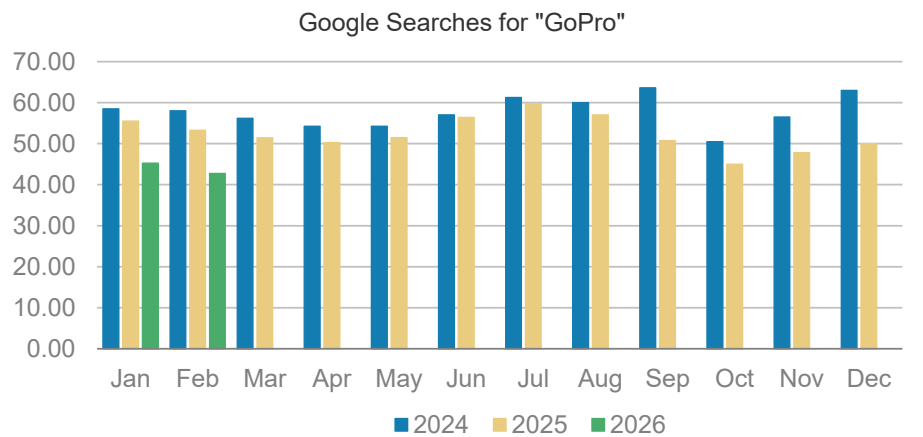


Source: Sensor Tower, Morgan Stanley Research

AlphaWise Consumer Electronics Demand Trackers

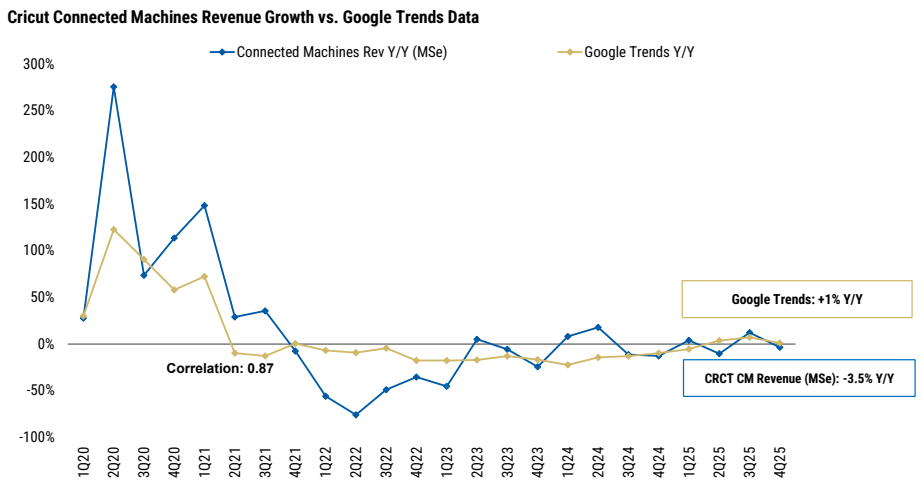
- l In partnership with our AlphaWise colleagues, we track the intensity of global Google searches for a number of consumer electronics products, and analyze how those data impact our view on unit shipments, on a quarterly basis.

Exhibit 70: UPDATED: According to Google Trends data, search intensity for "GoPro" was down 20% Y/Y in February 2026.



Source: AlphaWise, Morgan Stanley Research; Google

Exhibit 71: UPDATED: According to Google Trends data, search intensity for "Cricut" was up 1% Y/Y vs. 3.5% Y/Y declines in CRCT's Connected Machine revenue in 4Q25.

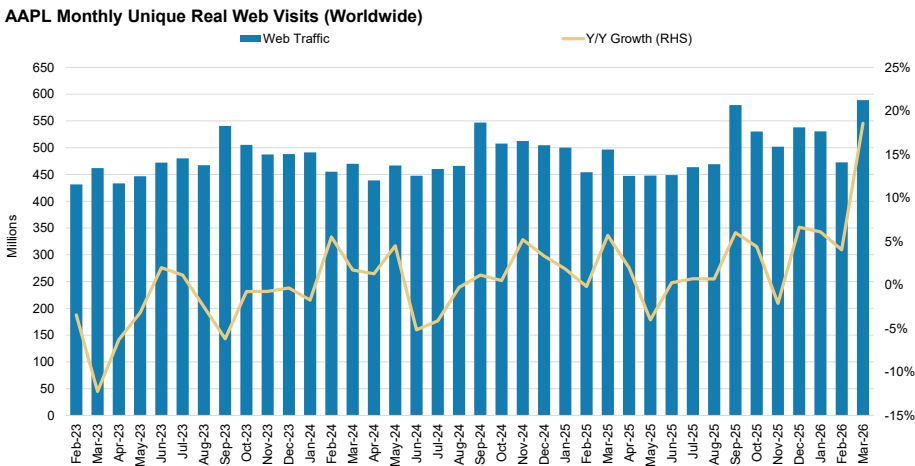


Source: AlphaWise, Morgan Stanley Research; Google

Consumer Electronics Web Traffic Data

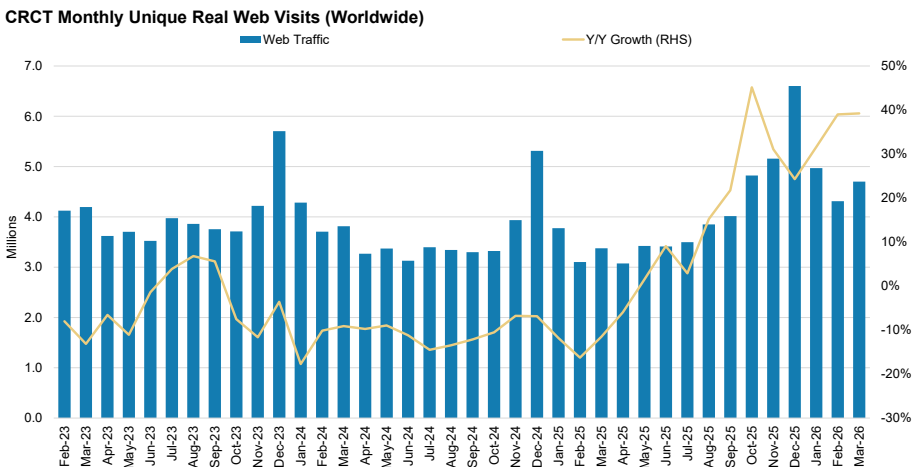
- Using data from Similarweb, we track the total number of monthly unique website visits for 1) AAPL, 2) CRCT, 3) GPRO, 4) GRMN, 5) LOGI, and 6) SONO.

Exhibit 72: According to Similarweb web traffic data, unique website visits for Apple.com were up 19% Y/Y in the month of March.



Source: Similarweb, Morgan Stanley Research

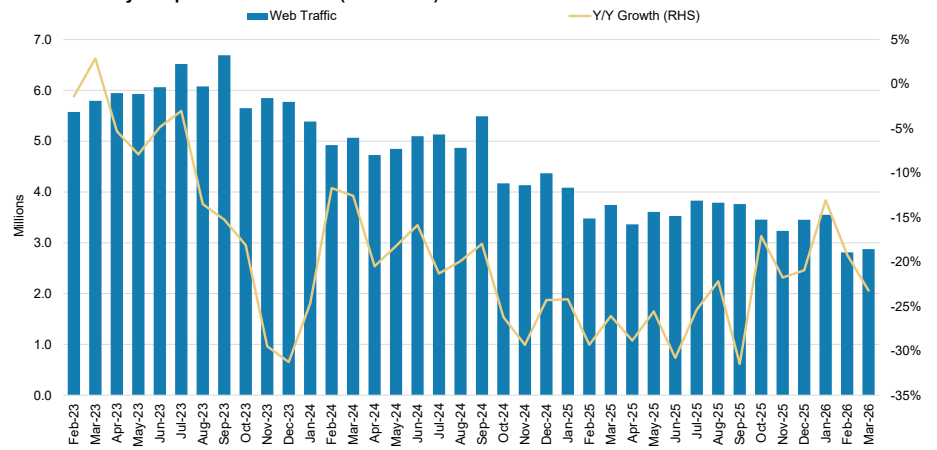
Exhibit 73: According to Similarweb web traffic data, unique website visits for Cricut.com grew 39% Y/Y in the month of March.



Source: Similarweb, Morgan Stanley Research

Exhibit 74: According to Similarweb web traffic data, unique website visits for Gopro.com were down 23% Y/Y in the month of March.

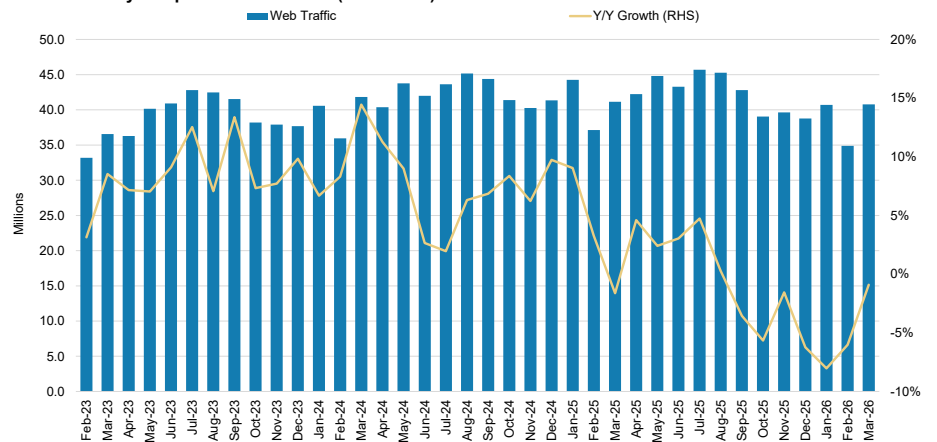
GPRO Monthly Unique Real Web Visits (Worldwide)



Source: Similarweb, Morgan Stanley Research

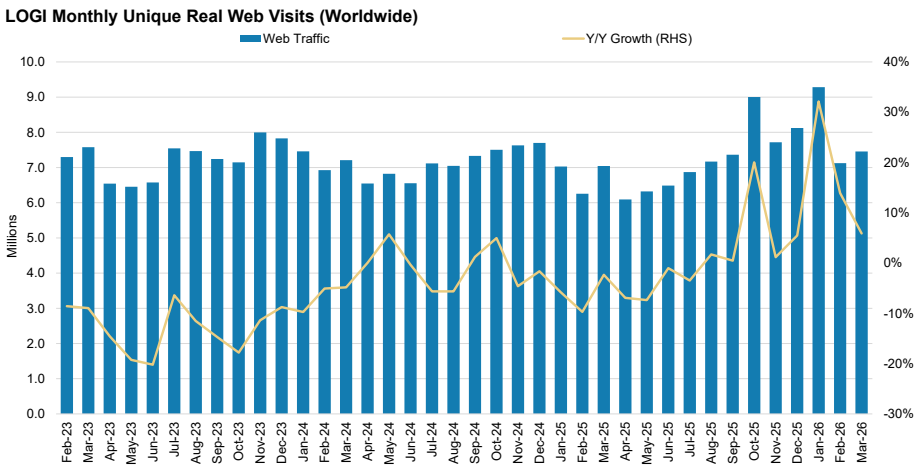
Exhibit 75: According to Similarweb web traffic data, unique website visits for Garmin.com were down 1% Y/Y in the month of March.

GRMN Monthly Unique Real Web Visits (Worldwide)



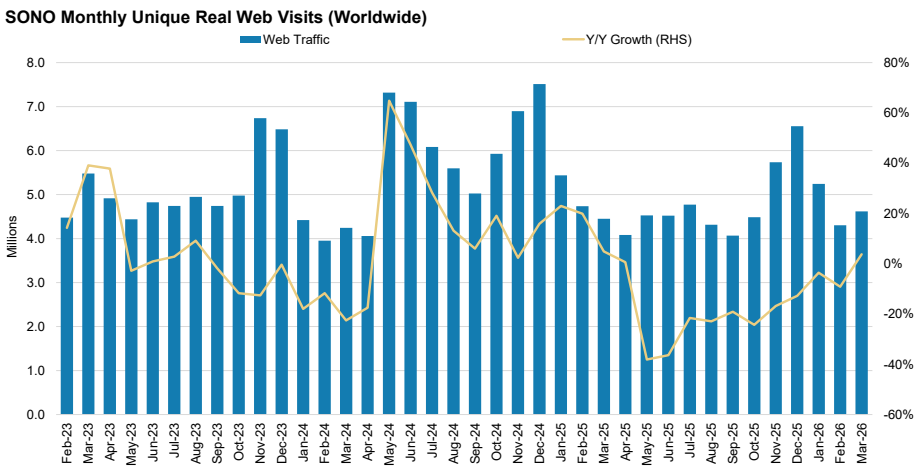
Source: Similarweb, Morgan Stanley Research

Exhibit 76: According to Similarweb web traffic data, unique website visits for Logitech.com were up 6% Y/Y in the month of March.



Source: Similarweb, Morgan Stanley Research

Exhibit 77: According to Similarweb web traffic data, unique website visits for Sonos.com were up 4% Y/Y in the month of March.



Source: Similarweb, Morgan Stanley Research

Our proprietary Sonos, GoPro and Logitech lead time trackers collect data points on lead times for various products from direct and indirect channels

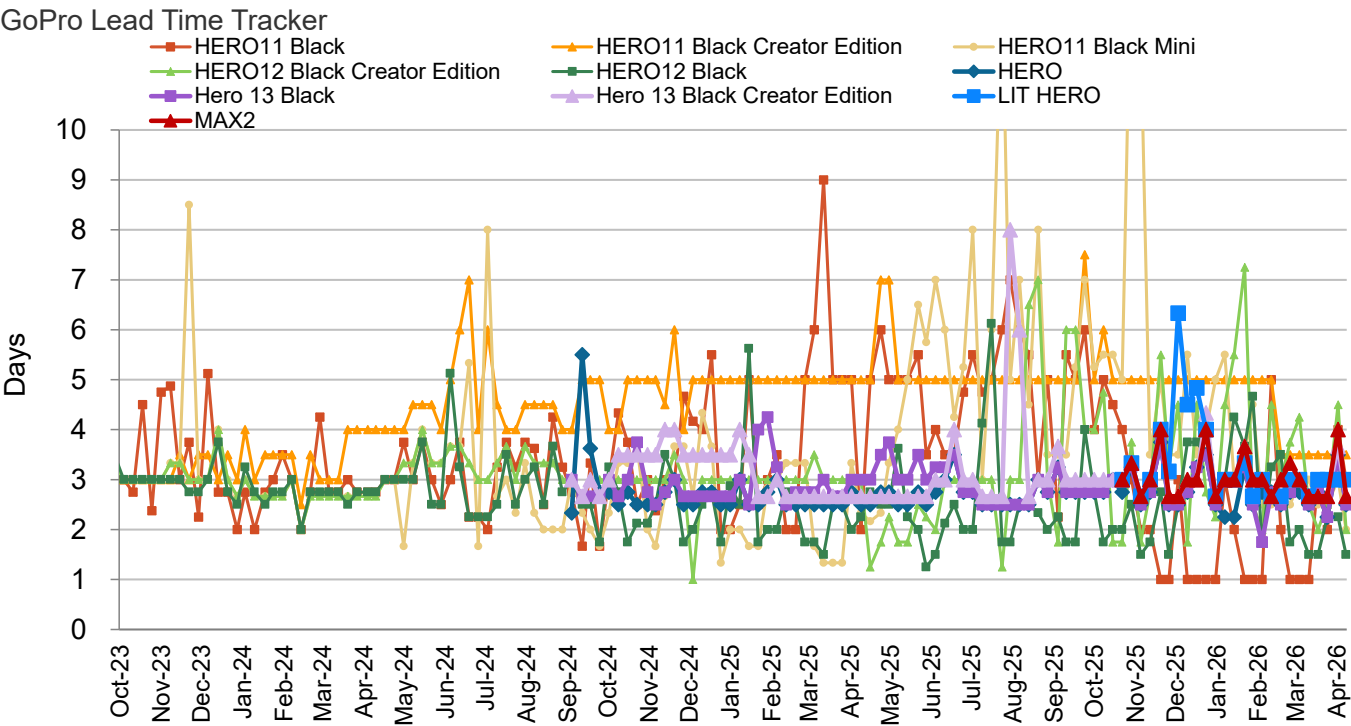
Sonos Lead Time Tracker by Product Category



Sonos Headphones 'Ace' Lead Time Tracker

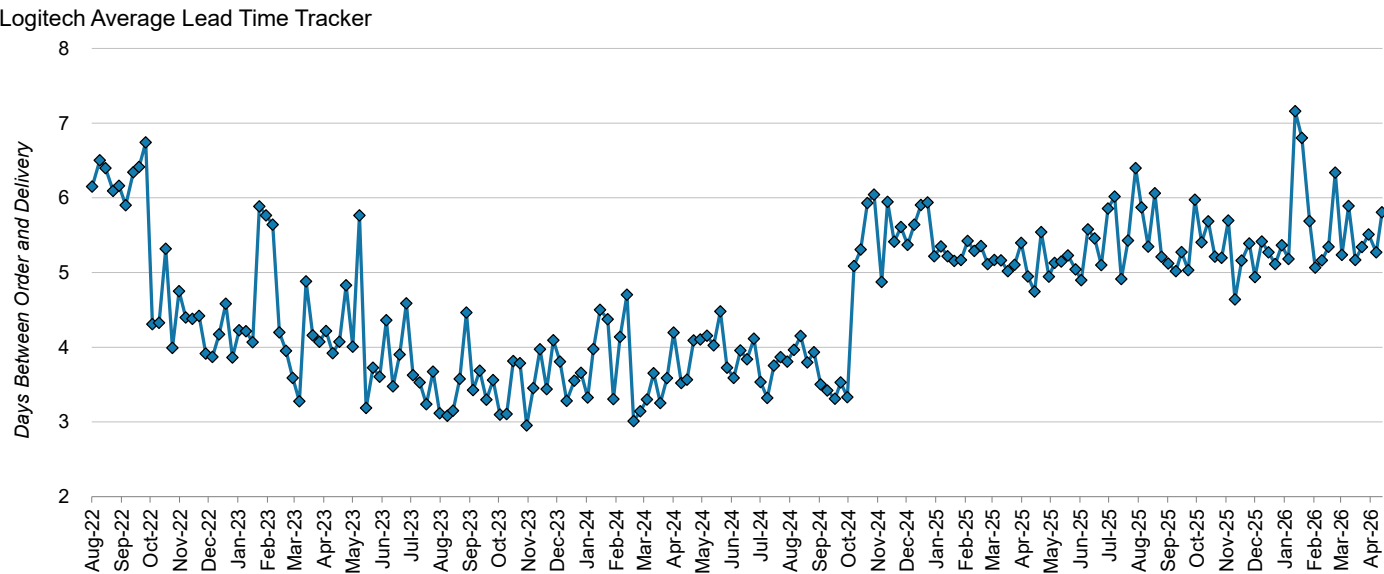


Exhibit 80: UPDATED: GoPro average lead times are ~2.9 days as of April 20th, up from ~2.6 days a month ago



Source: GoPro.com, BestBuy.com, Amazon.com, Target.com, Morgan Stanley Research

Exhibit 81: UPDATED: The average lead time for Logitech's PC, tablet, and video conferencing peripherals is ~5.8 days as of April 20th, up from ~5.2 a month ago



Source: Logitech.com, Amazon, Best Buy, Morgan Stanley Research

Morning Consult Data on Sonos, Garmin and Apple

- l We now track high-frequency data sets on user sentiment and purchase consideration metrics in our monthly data tracker, specifically Net Promoter Score and Net Favorability from Morning Consult.

Morning Consult Definitions

- **Net Promoter Score:** The likelihood of recommending a brand to a friend or a colleague based on survey responses from Morning Consult. The question is asked based on a standard 10 point scale. NPS is calculated by subtracting % of detractors (those who select 0-6) from the % of promoters (those who select 9-10). NPS is asked among users of the brand.
- **Net Favorability:** A net score on favorable/unfavorable impressions among survey respondents. The score is calculated by subtracting the % of respondents who select "somewhat unfavorable" and "very unfavorable" from those who select the top 2 positive choices of "very favorable" and "somewhat favorable".

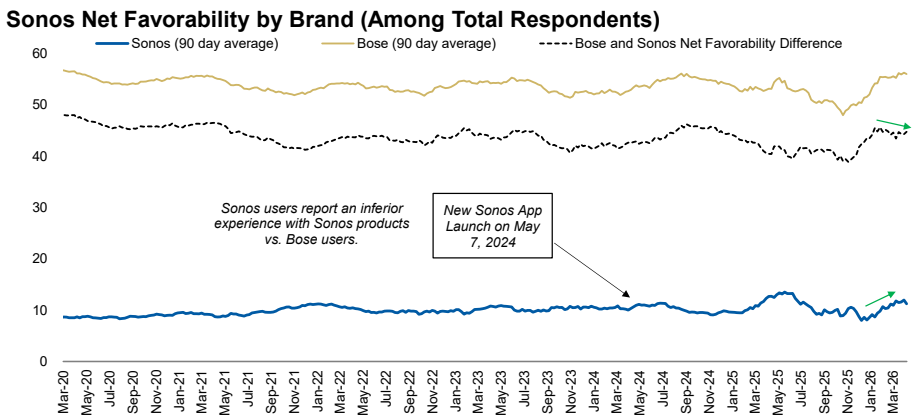
Exhibit 82: Sonos' average net promoter score has upticked in the past month, now at 2.9 from -1.5 last month

Sonos Net Promoter Score by Brand



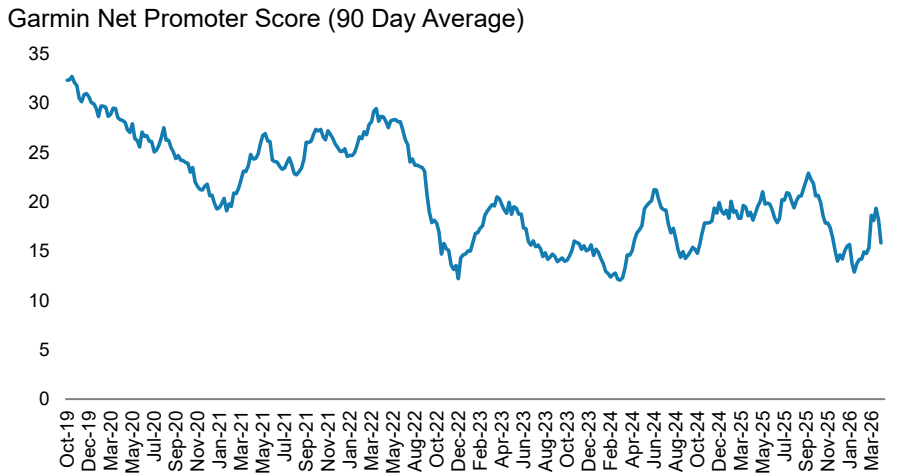
Source: Morning Consult, Morgan Stanley Research, Data as of April 6th.

Exhibit 83: Sonos' net favorability moved modestly lower, ticking down to 11.2 from 11.8 last month



Source: Morning Consult, Morgan Stanley Research, Data as of April 6th.

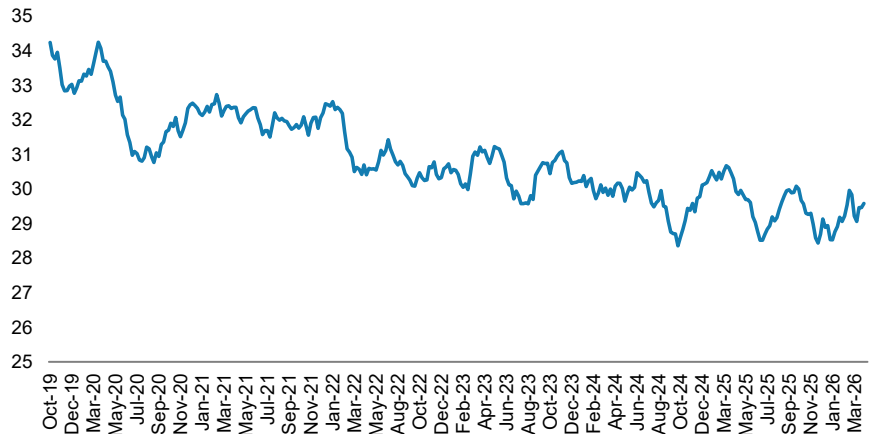
Exhibit 84: Garmin NPS has been on the decline over the past 5 years but recently upticked to 15.8 (from 18.6 a month ago)



Source: Morning Consult, Morgan Stanley Research, Data as of April 13th.

Exhibit 85: Garmin Favorability has been on a slight decline over the past 5 years but upticked in recent weeks to 29.6 (from 29.2 a month ago)

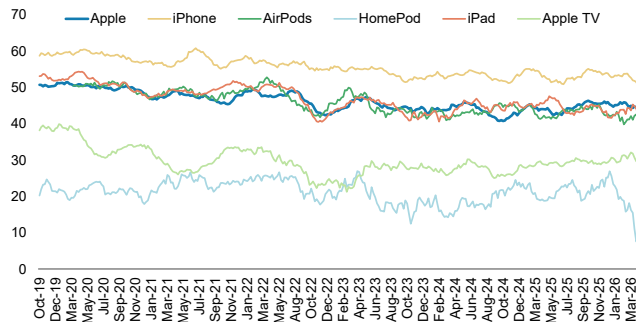
Garmin Net Favorability (90 Day Average)



Source: Morning Consult, Morgan Stanley Research, Data as of April 13th.

Exhibit 86: On both the brand and product levels, Apple's overall NPS has been declining over the past 5 years...

Apple Net Promoter Score By Product (90 day average)



Source: Morning Consult, Morgan Stanley Research, Data as of April 13th.

Exhibit 88: Apple net promoter score has downticked by 1 point to 44.2 from 45.0 a month ago...

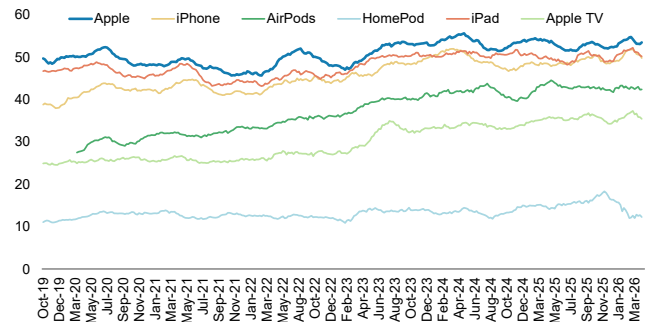
Apple (Brand) Net Promoter Score (90 Day Average)



Source: Morning Consult, Morgan Stanley Research, Data as of April 13th.

Exhibit 87: ... however, Apple's Net favorability has been steadily increasing for all Apple products we track in the past 5 years

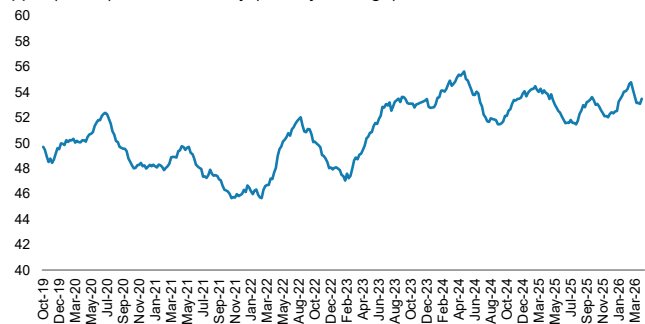
Apple Net Favorability By Product (90 day average)



Source: Morning Consult, Morgan Stanley Research, Data as of April 13th.

Exhibit 89: ... and net favorability slightly decreased to 53.5 from 53.7 a month ago

Apple (Brand) Net Favorability (90 Day Average)



Source: Morning Consult, Morgan Stanley Research, Data as of April 13th.

Exhibit 90: iPhone's NPS has been gradually declining over the past 5 years, and it showed some near-term downtick (now at 50.3, down from 52.6 a month ago)

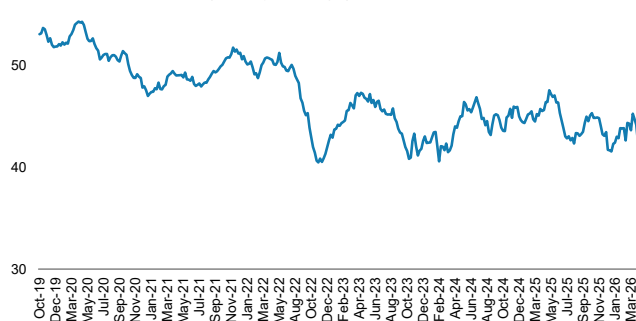
iPhone Net Promoter Score (90 Day Average)



Source: Morning Consult, Morgan Stanley Research, Data as of April 13th.

Exhibit 92: iPad's NPS has been declining over the past 5 years, now at 42.3...

iPad Net Promoter Score (90 Day Average)



Source: Morning Consult, Morgan Stanley Research, Data as of April 13th.

Exhibit 94: AirPods' NPS has been declining over the past 5 years, and it is now at 40.7...

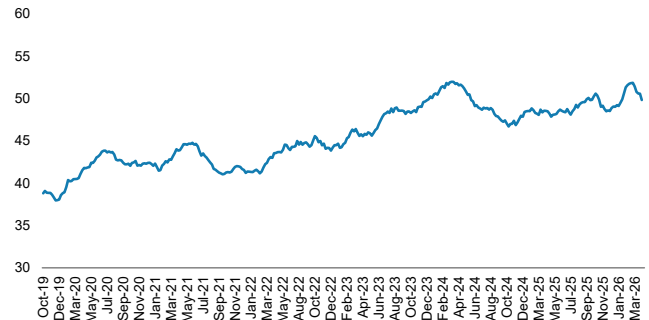
AirPods Net Promoter Score (90 Day Average)



Source: Morning Consult, Morgan Stanley Research, Data as of April 13th.

Exhibit 91: iPhone's Net Favorability has been on a general uptick, but recently showed a slight downtick to 49.8

iPhone Net Favorability (90 Day Average)



Source: Morning Consult, Morgan Stanley Research, Data as of April 13th.

Exhibit 93: ... while Net Favorability has been on a general uptick, now at 50.2

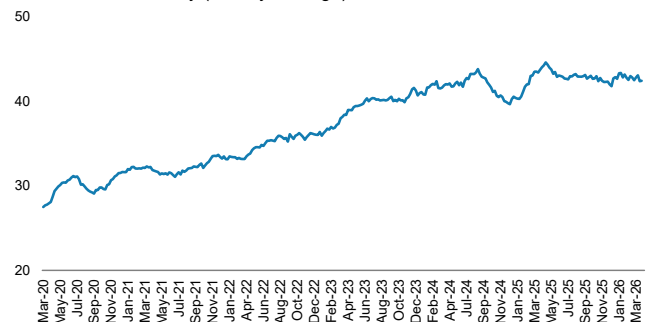
iPad Net Favorability (90 Day Average)



Source: Morning Consult, Morgan Stanley Research, Data as of April 13th.

Exhibit 95: ... while Net Favorability has been on a general uptick, though it downticked in previous months and it is now at 42.4

AirPods Net Favorability (90 Day Average)



Source: Morning Consult, Morgan Stanley Research, Data as of April 13th.

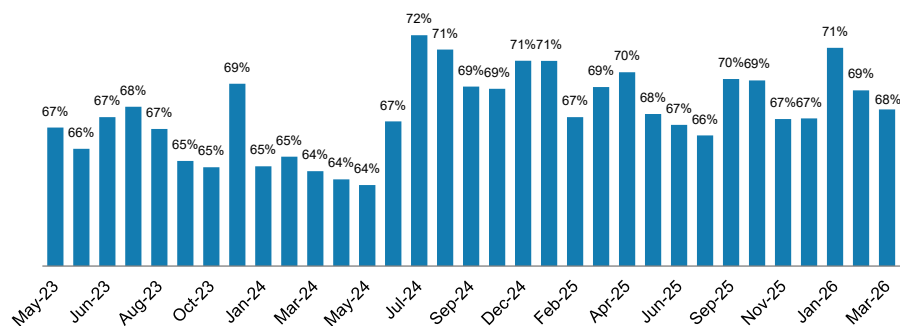
AlphaWise Pulse Survey – Consumer Electronics

- AlphaWise, Morgan Stanley's longstanding evidence-based research capability, completed its 74th survey of ~2,000 US consumers on March 19 - March 23 ([AlphaWise US Consumer Pulse Survey Wave 74](#)).
- We focus on current spending (now vs. last month) and future spending intentions (next month vs. now) for consumer electronics.

Overall, are you spending more money, less or the same now compared to a month ago on consumer electronics (smartphone, tablet, TV, etc.)?

Exhibit 96: UPDATED: Our AlphaWise survey shows that current consumer electronics purchasing intentions downticked 1 point from our prior survey to 68%.

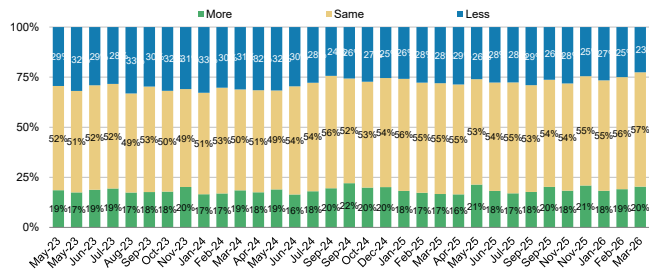
% of Respondents That Purchased Consumer Electronics (Now vs. Month Ago)



Source: AlphaWise, Morgan Stanley Research; Note: x-axis corresponds to the days each survey was conducted

Exhibit 97: UPDATED: The latest survey shows the percentage of respondents spending more on consumer electronics this month relative to last month upticked 1 point vs. the prior survey, while the percentage of respondents spending less downticked 2 points

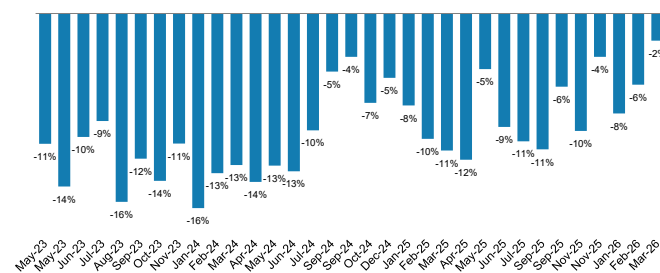
Consumer Electronics Spending (Now vs. Month Ago)



Source: AlphaWise, Morgan Stanley Research. Reflects % on respondents that are purchasing; Note: x-axis corresponds to the days each survey was conducted

Exhibit 98: UPDATED: As a result, net spending intentions on consumer electronics this month vs. last month improved to -2%

Consumer Electronics Net Spending , More Minus Less (Now vs. Month Ago)

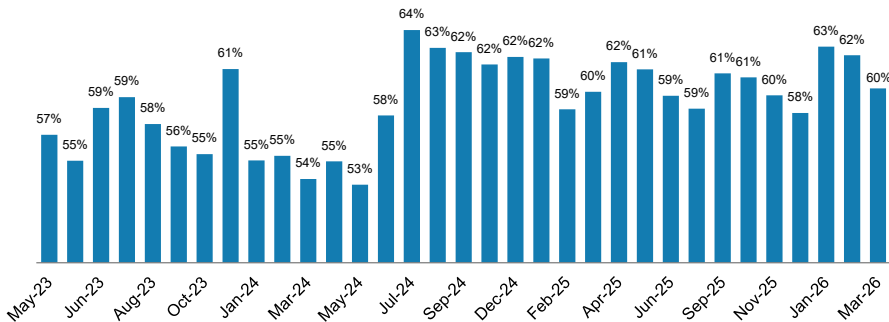


Source: AlphaWise, Morgan Stanley Research. NET: Percentage of consumers who said "More" – "Less"; Note: x-axis corresponds to the days each survey was conducted

Over the next month, do you expect to spend more money, less or the same on consumer electronics (smartphone, tablet, TV, etc.)?

Exhibit 99: UPDATED: Forward-looking consumer electronics spending intentions downticked 2 points at 60% vs. our prior survey.

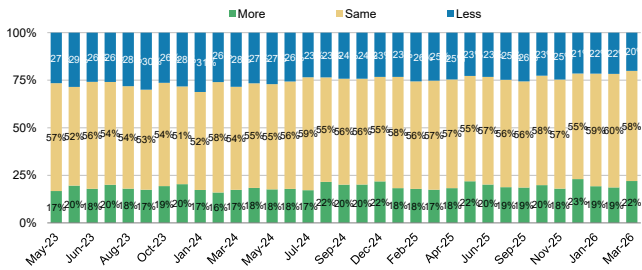
% of Respondents That Will Purchase Consumer Electronics (Next Month vs. Now)



Source: AlphaWise, Morgan Stanley Research; Note: x-axis corresponds to the days each survey was conducted

Exhibit 100: UPDATED: The latest survey data show the % of respondents expecting to spend more on consumer electronics next month vs. this month increased 3 points to 22%, while the % expecting to spend less decreased 2 points to 20%...

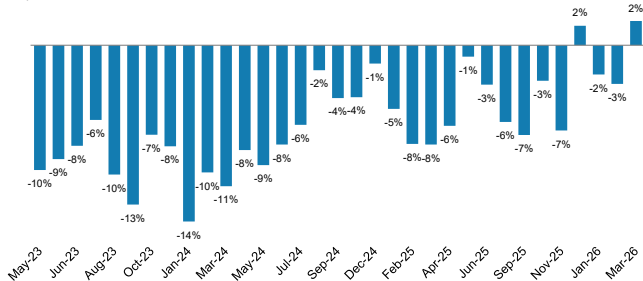
Consumer Electronics Spending Intentions (Next Month vs. Now)



Source: AlphaWise, Morgan Stanley Research. Reflects % on respondents that are purchasing; Note: x-axis corresponds to the days each survey was conducted

Exhibit 101: UPDATED: ... as a result, net spending intentions on consumer electronics next month vs. this month increased to 2%

Consumer Electronics Net Spending Intentions, More Minus Less (Next Month vs. Now)

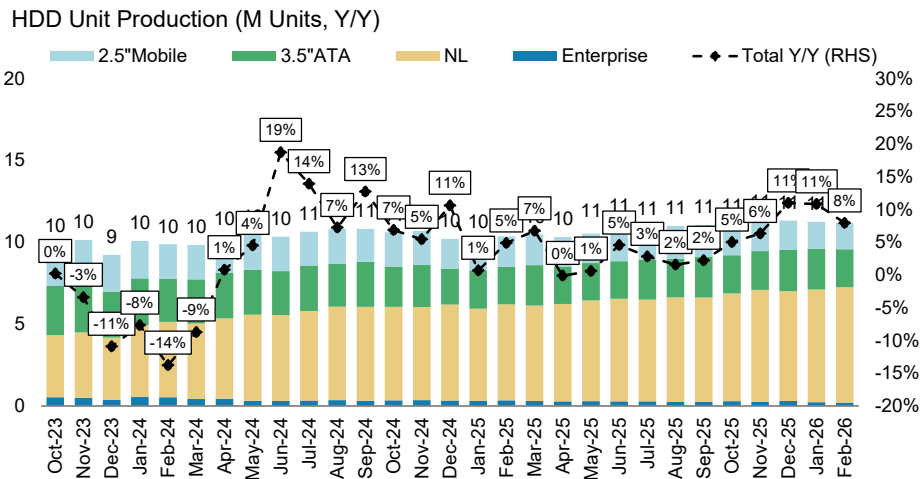


Source: AlphaWise, Morgan Stanley Research. NET: Percentage of consumers who said "More" – "Less"; Note: x-axis corresponds to the days each survey was conducted

Monthly TSR HDD Production

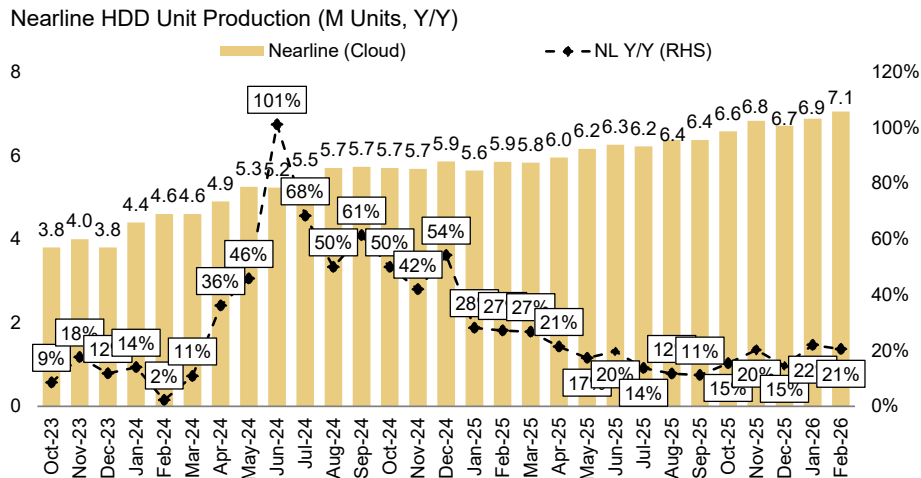
TSR, a data provider located in Japan, provides HDD unit production data on a monthly basis with a one-month lag

Exhibit 102: UPDATED: In February, total HDD production was up 8% Y/Y at 11M units



Source: TSR, Morgan Stanley Research

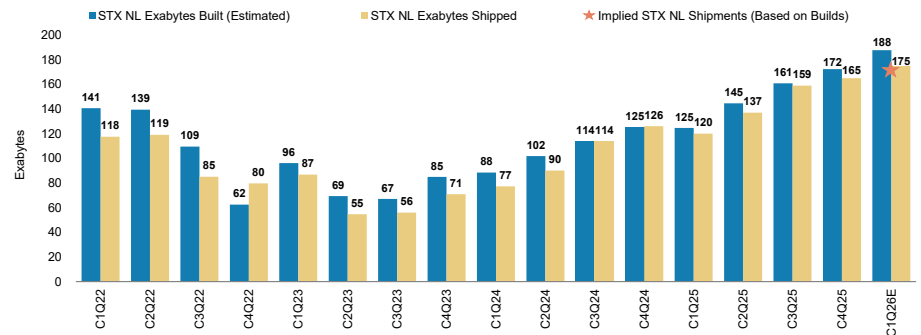
Exhibit 103: UPDATED: Nearline HDD unit production growth was +21% Y/Y in February, decelerating 1 point from January



Source: TSR, Morgan Stanley Research

Exhibit 104: UPDATED: Our STX nearline EB shipment tracker points to 174.6EB shipped in the March Q, largely in line with our estimate of 174.9EB

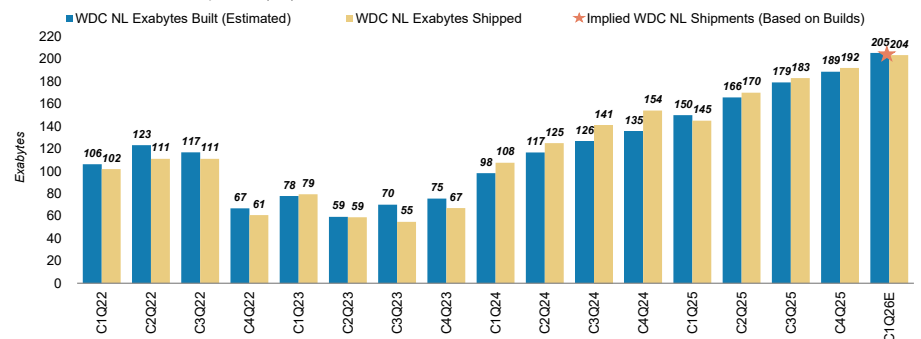
STX Nearline Builds vs. Shipments (EB)



Source: TSR, Morgan Stanley Research estimates

Exhibit 105: UPDATED: Our WDC nearline EB shipment tracker points to 203.3EB shipped in the March Q, consistent with our estimate of 203.5EB

WDC Nearline Builds vs. Shipments (EB)



Source: TSR, Morgan Stanley Research estimates

Quarterly TSR HDD Seminar

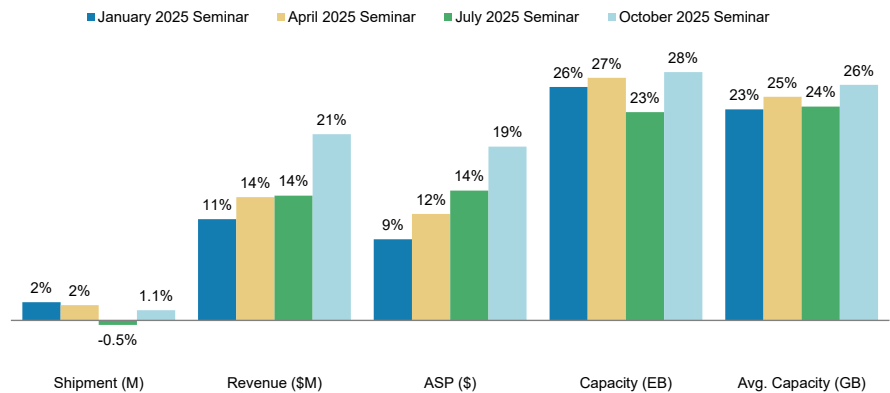
- Our team covering the HDD supply chain hosts a quarterly discussion with TSR on updated views of the HDD market. Below, we highlight key takeaways from the presentation.

TSR Seminar Takeaways – October 22, 2025

At its **October seminar**, TSR raised its **2025 HDD revenue forecasts compared to its July seminar**. TSR forecasts 2025 HDD industry unit growth of 1% Y/Y (vs. 0.5% Y/Y decline prior), revenue growth of 21% Y/Y (7 points higher than 14% prior), ASP growth of 19% Y/Y (up from 14% prior), capacity growth of 28% Y/Y (up from 23% prior), and average capacity per drive growth of 26% Y/Y (up from 24% prior). TSR forecasts that nearline (NL) HDD shipments will grow 13% Y/Y to 65.8M in 2025, which is still 10% lower than 2021 levels, but still a meaningful improvement from 2024. TSR believes NL both output and shipments have bottomed in the September quarter of 2023, and that shipments are expected to continue to expand into December quarter of 2025 and beyond, with media and heads becoming the bottlenecks for expanding NL HDD production volume and capacity.

Exhibit 106: TSR now expects shipments to grow 1% Y/Y, and with ASP growing 19% Y/Y, HDD industry revenue will grow 21% Y/Y in CY25, following 42% Y/Y growth in CY24

CY25 HDD Industry Metrics Y/Y (TSR)



Source: TSR October 2025 Seminar, Morgan Stanley Research

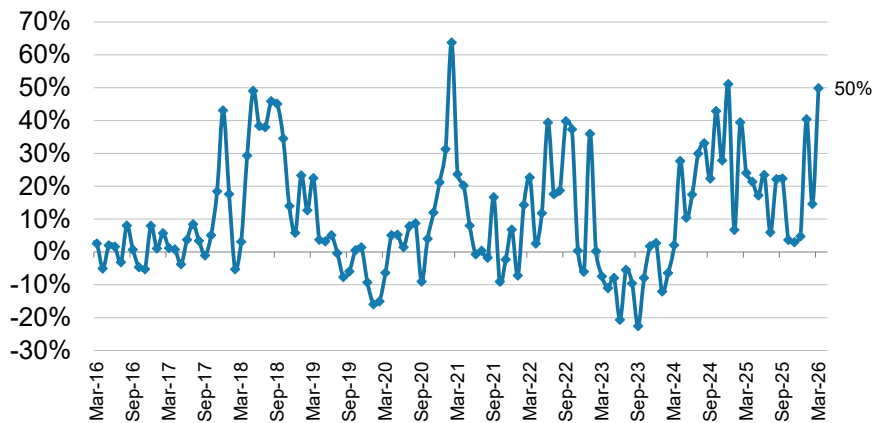
Cloud and Enterprise Servers

Monthly Taiwan ODM Revenue

- l We collect monthly sales data from Taiwan ODM vendors, including LandMark, Delta, Inventec, Nanya Tech, Aspeed, Hon Hai and Wiywynn as a proxy for cloud and enterprise server production. Monthly sales are typically released during the second week of the following month.

Exhibit 107: UPDATED: As of March 31st, monthly sales from Taiwan ODM vendors grew 50% Y/Y

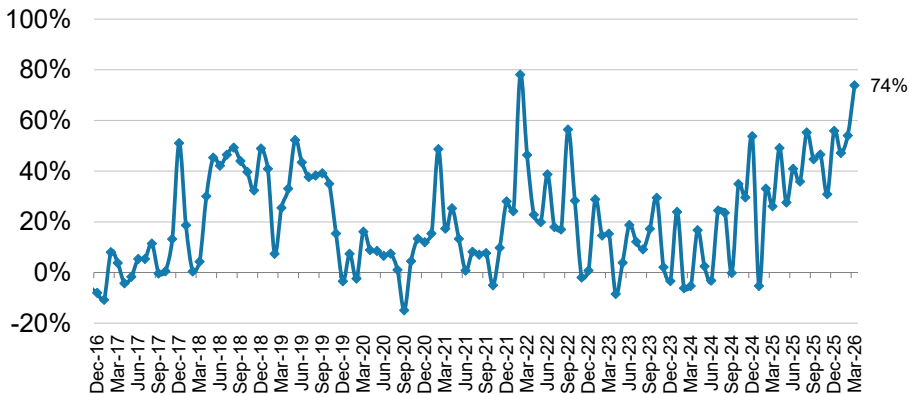
Taiwan ODM Monthly Revenue Y/Y



Source: Company data, Morgan Stanley Research

Exhibit 108: UPDATED: 2-year stacked revenue grew 74% Y/Y in March, a 20pt deceleration from February

2-Yr Stacked Taiwan ODM Monthly Revenue Y/Y



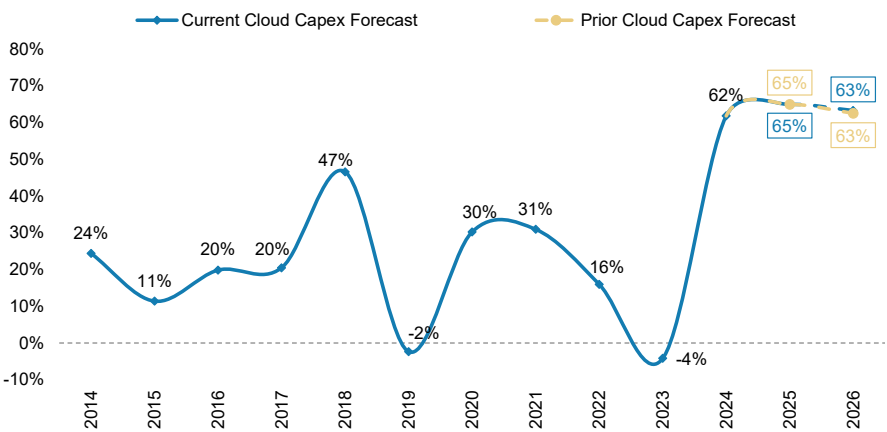
Source: Company data, Morgan Stanley Research

Hyperscale Cloud Capex Tracker

- We track capex spending from the top 11 hyperscalers by server installed base. These include Google, Amazon, Microsoft, Meta Platforms, CoreWeave, Oracle, Tencent, Baidu, Apple, and IBM. Dell Oro estimates that roughly ~75% of hyperscale capex goes towards data centers, which makes these companies a strong proxy for cloud data center equipment spending.

Exhibit 109: UPDATED: Our cloud capex tracker now points to 63% Y/Y growth in 2026, flat from a month ago. Consensus 2026 cloud capex estimate is now 10 points below MSE of +73% Y/Y

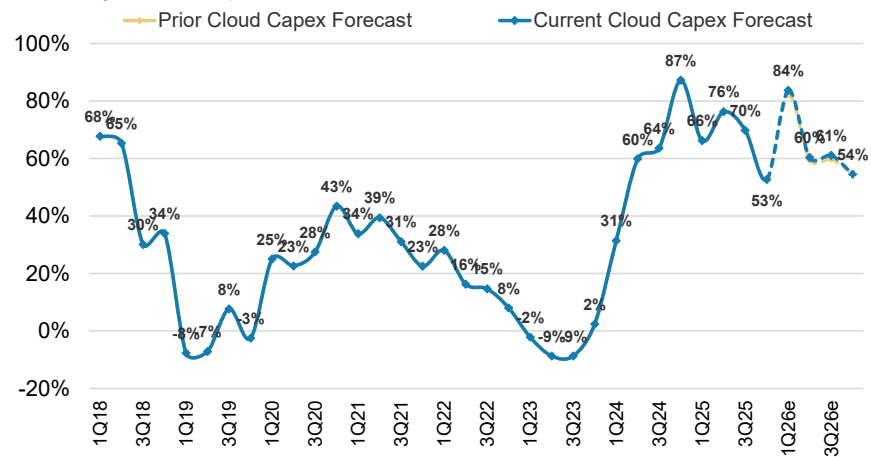
Top 11 Cloud Providers: Cloud Capex Y/Y Growth



Source: Company data, FactSet, Morgan Stanley Research, irs.gov. Note: Cloud capex includes capex from Amazon, Alphabet, Microsoft, Meta Platforms, Tencent, Baidu, Alibaba, Apple, IBM, and Oracle.

Exhibit 110: UPDATED: Our cloud capex tracker now points to 84% Y/Y growth in C1Q26

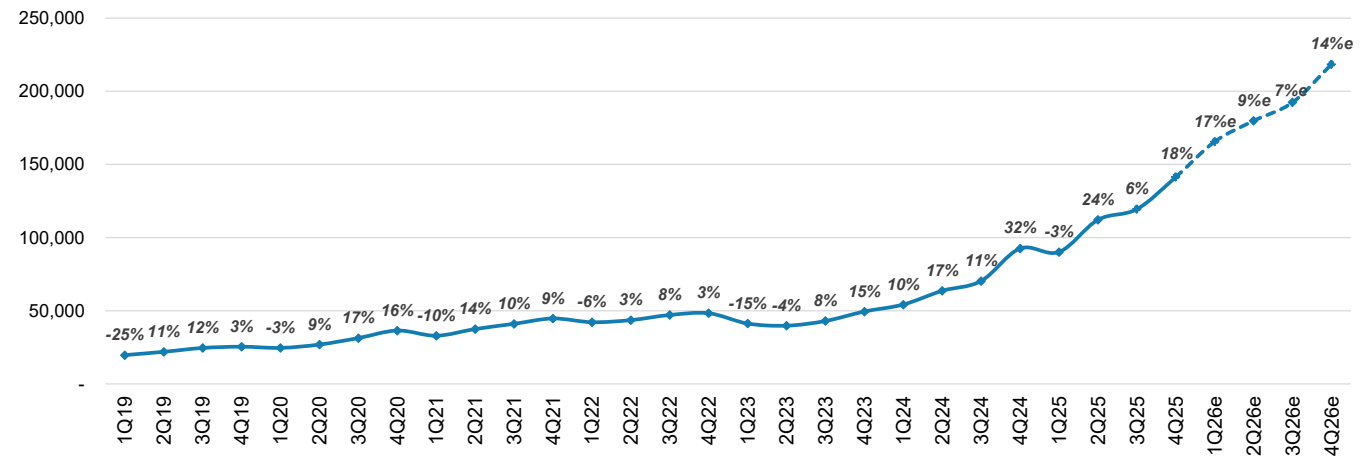
Quarterly Cloud Capex Growth Y/Y



Source: Company data, FactSet, Morgan Stanley Research. Note: Cloud capex includes capex from Amazon, Alphabet, Microsoft, Meta Platforms, Tencent, Baidu, Alibaba, Apple, IBM, and Oracle.

Exhibit 111: UPDATED: While cloud capex spending patterns will ebb and flow, it's becoming clear that spending cycles are smoothing out from a sequential basis

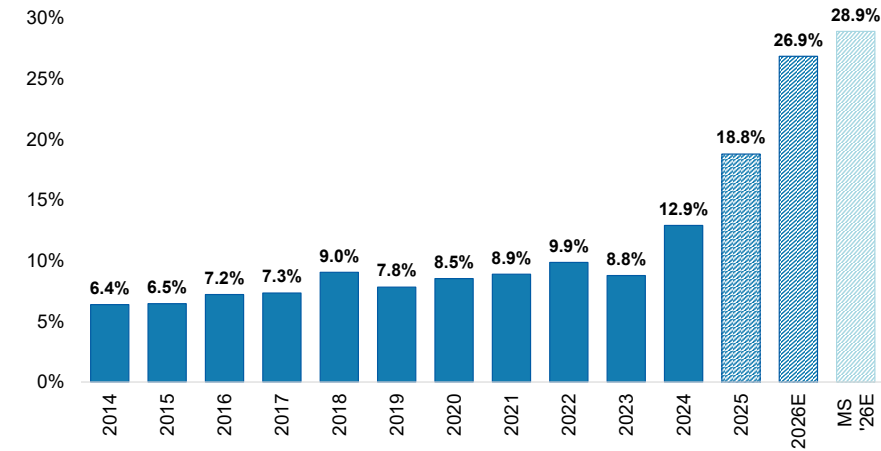
Top 11 Cloud Providers: Total Quarterly Capex (\$M) and Q/Q Growth



Source: Company data, FactSet, Morgan Stanley Research. Note: Cloud capex includes capex from Amazon, Alphabet, Microsoft, Meta Platforms, Tencent, Baidu, Alibaba, Apple, IBM, and Oracle. Forward estimates include MSe for Tencent and Baidu, consensus est. for the others. Note: This chart includes Amazon total capex, which includes logistics and fulfillment spend.

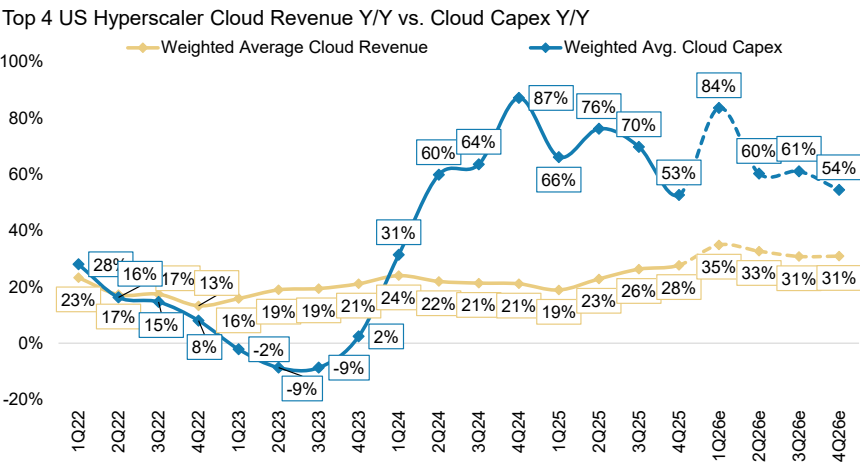
Exhibit 112: UPDATED: Our cloud capex tracker indicates that capital intensity will remain at a 10+ year high of 26.9% in 2026, up 10bps from a month ago

Top 11 Cloud Providers: Capital Intensity



Source: Company data, FactSet, Morgan Stanley Research. Note: Cloud capex includes capex from Alphabet, Amazon, Microsoft, Meta Platforms, Tencent, Baidu, Alibaba, Apple, IBM, and Oracle.

Exhibit 113: UPDATED: Morgan Stanley estimates top 4 US hyperscaler cloud revenue growth to accelerate to 30%+ levels in the next 12 months



Source: Company data, Morgan Stanley Research estimates. Note: Cloud capex includes capex from Alphabet, Amazon, Microsoft, Meta Platforms, Tencent, Baidu, Alibaba, Apple, IBM, and Oracle; top 4 US hyperscalers include Alphabet, Meta Platforms, Microsoft, and Amazon.

Public Cloud Use / Hyperscale Data Center Commentary

- We collect anecdotes about public cloud use and commentary from cloud service providers and hyperscale data center vendors.

Exhibit 114: UPDATED: Commentary on public cloud use and hyperscaler data center capex commentary updated on a weekly basis

Date	Topic (Source)	Comment
4/16/2026	AMZN (DT)	AMZN cuts AI data center build time from 15 weeks to 3 with Project Houdini
4/14/2026	META, AMZN, GOOGLE (MSR)	META, AMZN, GOOGLE previews / Brian Nowak thinks NT revenues will accelerate and markets will get more signal on ROIC this EPS season, but current FY27 capex consensus numbers are way too low. He's 15% above the Street based on Hardware and Data Center component checks, estimating capex up low 20s in 2027 vs consensus up +6%.
4/10/2026	LITE, Hyperscalers (BBG)	LITE CEO said it's "falling further and further behind the demand" and would be sold out through all of 2028 within two quarters. "The capex numbers from the US hyperscalers are enormous and there seems to be no end in sight ... We're falling further and further behind the demand. We would be sold out though all of 2028 within two quarters."
4/10/2026	AMZN (BI)	AMZN reportedly an internal effort called Project Houdini aimed at materially compressing AWS data center build timelines by moving core server-room construction off-site into factories with 'modular' method. The key implication is faster time-to-capacity for AI workloads, lower labor intensity, and potentially better capex efficiency at scale.
4/9/2026	AMZN (PR)	AMZN capex reiterated at \$200B in 2026 mostly tied to AI infrastructure.
4/2/2026	MSFT (BBG)	Bloomberg report says MSFT's CFO paused some Data Center expansions in early 2025, which may have led to its current supply crunch + growth bottleneck.
3/30/2026	META (WSJ)	META to fund Entergy Louisiana's new energy infrastructure for its Louisiana data center including seven natural gas power plants. "META will fund seven new natural gas power plants totaling more than 5,200 megawatts, 240 miles of 500 kilovolt transmission lines and battery energy storage across three locations ... The \$27 billion data center project currently under construction in Richland Parish, La., will be Meta's largest ever data center, potentially scaling up to 5 gigawatts."
3/27/2026	META (CNBC)	META plans to increase its investment in a data center in El Paso TX to more than \$10B, a significant rise from the initial \$1.5B commitment.
3/25/2026	MSFT (BBG)	MSFT agrees to a deal with Crusoe to lease a data center in Abilene, Texas, representing ~700 MW of capacity, after ORCL & OpenAI walked away.
3/17/2026	BABA (MSR)	BABA / Gary Yu argues China AI cloud is entering a structurally stronger phase, with GenAI IaaS + MaaS CAGR of 72% from 2024-29E to US\$218B / Rmb218bn, driven by surging token consumption, rising inference mix, and improving public cloud adoption.
3/16/2026	Hyperscalers (SA)	Massive hyperscaler Capex (\$600B+ this year) is largely pre-spending for infrastructure coming online years later (power plants, turbines, data centers, wafer capacity).
3/13/2026	AMZN, META, Ncscale (TI)	Nscale is in talks to buy a major data center site in West Virginia while AMZN & META have also expressed interest in the site.
3/12/2026	MSFT, ORCL, OpenAI (TI)	MSFT in advanced talks to lease hundreds of megawatts of data center capacity at an Abilene TX site after ORCL + OpenAI walked away from the same opportunity -- prior reporting had said META was interested.
3/11/2026	ORCL (MSR)	Keith Weiss is focused on how they finance the >10 GW buildout as over the past two Qs, ORCL has spent \$30B in capex and delivered ~800 MWs of capacity. Prior to the AI infrastructure build-out, Oracle capex averaged <\$1.7 billion per quarter. Rough math, assuming \$4B in non-AI capex for the two quarters or \$26B in AI capex, the company is spending \$32.5 million in capex per MW, suggesting the 10 GWs would cost ~\$325B (at the mid-point of the range we estimated in the report cited above).
3/3/2026	AMD, META, OpenAI (MSR)	AMD sounded positive on MI450/455 ramp at META + OpenAI with optimism on adding more hyper-scale customers.
2/26/2026	SNDK, SK Hynix (SN)	SNDK rises on partnership with SK Hynix to standardize memory chip architecture tailored for AI data centers
2/24/2026	AMZN (CNBC)	AMZN to invest \$12B in new data centers in Louisiana and says it worked with the local utility "to ensure we pay 100% of the costs" tied to the campus
2/19/2026	AAPL (Bloomberg)	AAPL has become the 'anti AI capex' stock -- the hedge on high capex spending + FCF pressure in MAG7 / hyper-scalers.
2/12/2026	META (Bloomberg)	META plans to spend more than \$10B to build a 1GW data center campus in Lebanon Indiana expected to be operational at the end of 2027 or in early 2028

Source: Various news sources and Morgan Stanley Research

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(as of March 31, 2026)

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Stock Rating Category	Coverage Universe		Investment Banking Clients (IBC)			Other Material Investment Services Clients (MISC)	
	Count	% of Total	Count	% of Total IBC	% of Rating Category	Count	% of Total Other MISC
Overweight/Buy	1534	42%	461	50%	30%	698	43%
Equal-weight/Hold	1573	43%	372	40%	24%	716	44%
Not-Rated/Hold	4	0%	1	0%	25%	1	0%
Underweight/Sell	568	15%	89	10%	16%	209	13%
Total	3,679		923			1624	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

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INDUSTRY COVERAGE: IT Hardware

COMPANY (TICKER)	RATING (AS OF)	PRICE* (04/21/2026)
Erik W Woodring		
Apple, Inc. (AAPL.O)	O (05/26/2009)	\$266.17
CDW Corporation (CDW.O)	E (01/20/2026)	\$141.41
Cricut Inc (CRCT.O)	U (08/12/2021)	\$4.62
Dell Technologies Inc. (DELL.N)	U (11/16/2025)	\$212.36
Everpure, Inc. (P.N)	E (06/11/2024)	\$69.17
Garmin Ltd (GRMN.N)	E (02/18/2026)	\$265.49
GoPro Inc (GPRO.O)	U (12/12/2023)	\$1.40
Hewlett Packard Enterprise (HPE.N)	E (11/16/2025)	\$28.76
HP Inc. (HPQ.N)	U (11/16/2025)	\$21.09
IBM (IBM.N)	E (01/18/2023)	\$255.68
Ingram Micro (INGM.N)	E (06/11/2025)	\$30.86
Kornit Digital Ltd. (KRNT.O)	E (11/06/2025)	\$15.69
Logitech International SA (LOGI.O)	U (01/20/2026)	\$98.17
NetApp Inc (NTAP.O)	U (01/20/2026)	\$111.80
Resideo Technologies Inc (REZI.N)	O (08/11/2025)	\$40.28
Seagate Technology (STX.O)	O (03/26/2024)	\$559.90
SmartRent, Inc. (SMRT.N)	++	\$1.48
Sonos Inc. (SONO.O)	E (11/06/2025)	\$14.94
TD Synnex Corporation (SNX.N)	O (06/11/2025)	\$215.19
Teradata (TDC.N)	O (04/08/2025)	\$27.51
Western Digital (WDC.O)	O (04/16/2025)	\$383.81
Sanjit K Singh		
Nutanix Inc (NTNX.O)	E (01/12/2026)	\$41.07

Stock Ratings are subject to change. Please see latest research for each company.

* Historical prices are not split adjusted.

INDUSTRY COVERAGE: Internet

COMPANY (TICKER)	RATING (AS OF)	PRICE* (04/21/2026)
Brian Nowak, CFA		
Airbnb Inc (ABNB.O)	U (12/06/2022)	\$142.65
Alphabet Inc. (GOOGL.O)	O (08/11/2015)	\$332.29
Amazon.com Inc (AMZN.O)	O (04/24/2015)	\$249.91
Booking Holdings Inc (BKNG.O)	O (02/23/2026)	\$190.86
DoorDash Inc (DASH.O)	O (02/21/2024)	\$182.45
Expedia Inc. (EXPE.O)	E (01/09/2019)	\$273.80
Instacart (CART.O)	E (01/29/2024)	\$42.85
Lyft Inc (LYFT.O)	E (10/24/2019)	\$14.75
Meta Platforms Inc (META.O)	O (03/20/2023)	\$668.84
Pinterest Inc (PINS.N)	O (07/20/2025)	\$20.62
Reddit Inc (RDDT.N)	O (12/08/2024)	\$156.82
Snap Inc. (SNAP.N)	E (07/22/2024)	\$5.64
Uber Technologies Inc (UBER.N)	O (06/04/2019)	\$77.26
Matthew Cost		
AppLovin Corp (APP.O)	O (04/10/2025)	\$473.18
Compass, Inc. (COMP.N)	E (01/12/2026)	\$7.83
Criteo SA (CRO.O)	E (01/26/2016)	\$19.35
DoubleVerify Holdings Inc (DV.N)	E (06/25/2024)	\$10.66
Electronic Arts Inc (EA.O)	E (08/04/2021)	\$203.55
MNTN Inc (MNTN.N)	E (06/16/2025)	\$10.06
Opendoor Technologies Inc (OPEN.O)	E (07/24/2023)	\$5.45
Playtika Holding Corp (PLTK.O)	E (11/27/2022)	\$3.56

Roblox Corporation (RBLX.N)	O (11/04/2024)	\$61.26
Shutterstock Inc (SSTK.N)	E (07/28/2022)	\$17.99
Take-Two Interactive Software (TTWO.O)	O (02/01/2018)	\$217.65
Trade Desk Inc (TTD.O)	E (09/10/2025)	\$23.20
Unity Software Inc (U.N)	O (09/02/2024)	\$25.41
Webtoon Entertainment Inc (WBTN.O)	E (07/22/2024)	\$12.32
Yelp Inc (YELP.N)	U (01/10/2019)	\$29.03
Zillow Group Inc (Z.O)	E (04/18/2018)	\$46.17
Nathan Feather		
Bumble Inc. (BMBL.O)	E (03/08/2021)	\$4.47
Chewy Inc (CHWY.N)	O (10/31/2023)	\$27.74
Duolingo Inc (DUOL.O)	E (02/27/2026)	\$102.63
eBay Inc (EBAY.O)	O (04/18/2024)	\$105.40
Etsy Inc (ETSY.N)	E (07/20/2025)	\$65.19
FIGS, Inc. (FIGS.N)	E (02/29/2024)	\$15.91
Grindr Inc. (GRND.N)	E (02/24/2026)	\$13.29
Match Group Inc (MTCH.O)	E (04/18/2024)	\$35.93
Peloton Interactive, Inc. (PTON.O)	E (03/14/2022)	\$5.00
Revolve Group Inc (RVLV.N)	E (10/20/2024)	\$27.01
WW International Inc (WW.O)	E (08/01/2025)	\$9.12

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INDUSTRY COVERAGE: Software

COMPANY (TICKER)	RATING (AS OF)	PRICE* (04/21/2026)
Chris Quintero		
BILL Holdings Inc (BILL.N)	E (06/10/2025)	\$39.78
Blackline Inc (BL.O)	O (09/29/2024)	\$31.56
Descartes Systems Group Inc (DSGX.O)	O (01/15/2026)	\$75.91
Manhattan Associates Inc. (MANH.O)	E (10/21/2025)	\$134.89
Navan Inc (NAVN.O)	O (11/24/2025)	\$15.44
SPS Commerce Inc (SPSC.O)	E (11/11/2025)	\$57.36
Vertex Inc. (VERX.O)	O (01/17/2024)	\$12.50
Elizabeth Porter, CFA		
Amplitude Inc. (AMPL.O)	O (01/15/2026)	\$7.00
Autodesk (ADSK.O)	O (08/23/2024)	\$245.48
Figma Inc (FIG.N)	E (08/25/2025)	\$18.72
Five9 Inc (FIVN.O)	E (10/10/2022)	\$16.49
Freshworks Inc (FRSH.O)	E (10/18/2021)	\$8.83
GoDaddy Inc (GDDY.N)	E (07/19/2021)	\$88.60
HubSpot, Inc. (HUBS.N)	O (03/21/2023)	\$230.46
Klaviyo, Inc (KVYO.N)		\$20.31
LegalZoom.com Inc (LZ.O)	U (07/28/2022)	\$6.55
Liveramp Holdings Inc (RAMP.N)	E (01/13/2025)	\$29.18
NICE Ltd. (NICE.O)	O (10/16/2023)	\$106.26
RingCentral Inc (RNG.N)	E (08/08/2023)	\$41.34
Semrush Holdings Inc -A (SEMR.N)	E (08/05/2025)	\$11.99
Sprinklr Inc (CXM.N)	E (07/19/2021)	\$5.21
Sprout Social Inc (SPT.O)	E (11/17/2020)	\$5.97
Twilio Inc (TWLO.N)	O (02/24/2025)	\$145.30
Wix.Com Ltd (WIX.O)	O (01/13/2025)	\$77.11
Zeta Global Holdings Corp (ZETA.N)	E (08/01/2024)	\$17.81
ZoomInfo Technologies Inc (GTM.O)	E (02/01/2024)	\$6.21

Josh Baer, CFA

Asana Inc (ASAN.N)	U (05/20/2025)	\$6.36
Box Inc (BOX.N)	E (05/21/2024)	\$24.33
CCC Intelligent Solutions Holdings Inc (CCC.O)	O (11/13/2024)	\$5.37
Commerce.com Inc. (CMRC.O)	++	\$3.08
Coursera, Inc. (COUR.N)		\$6.35
DigitalOcean Holdings Inc (DOCN.N)	O (01/16/2025)	\$94.71
Docebo Inc. (DCBO.O)	E (05/12/2025)	\$18.21
DocuSign Inc (DOCU.O)	E (01/16/2024)	\$47.60
Lightspeed POS Inc. (LSPD.N)	E (02/18/2021)	\$9.81
monday.com Ltd (MNDY.O)	O (08/12/2025)	\$67.86
Nebius Group NV (NBIS.O)	E (01/15/2026)	\$156.55
Sabre Corp (SABR.O)	E (03/16/2021)	\$1.96
ServiceTitan Inc (TTAN.O)	O (01/20/2026)	\$64.10
Toast, Inc. (TOST.N)	O (12/16/2021)	\$28.67
Udemy Inc (UDMY.O)		\$5.06
Via Transportation Inc (VIA.N)	O (01/20/2026)	\$17.49
Zoom Communications (ZM.O)	E (10/11/2022)	\$90.96
Keith Weiss, CFA		
Adobe Inc. (ADBE.O)	E (09/24/2025)	\$247.18
Atlassian Corporation PLC (TEAM.O)	O (01/13/2020)	\$71.22
Cloudflare Inc (NET.N)	O (12/02/2024)	\$207.67
CoreWeave (CRWV.O)	E (04/22/2025)	\$115.16
Intuit (INTU.O)	O (02/26/2025)	\$404.85
Microsoft (MSFT.O)	O (01/13/2016)	\$424.16
Oracle Corporation (ORCL.N)	E (01/15/2019)	\$181.17
Salesforce, Inc. (CRM.N)	O (12/21/2023)	\$187.11
Samsara Inc (IOT.N)	E (03/23/2023)	\$31.43
ServiceNow Inc (NOW.N)	O (09/24/2025)	\$100.14
Shopify Inc (SHOP.O)	O (04/19/2024)	\$131.13
Workday Inc (WDAY.O)	E (02/19/2025)	\$129.16
Meta A Marshall		
Check Point Software Technologies Ltd. (CHKP.O)	E (10/16/2023)	\$140.08
CrowdStrike Holdings Inc (CRWD.O)	O (03/10/2026)	\$449.61
Fortinet Inc. (FTNT.O)	U (09/02/2025)	\$85.26
Gen Digital Inc. (GEN.O)	E (06/07/2024)	\$19.91
Netskope, Inc. (NTSK.O)	O (10/13/2025)	\$10.09
Okta, Inc. (OKTA.O)	O (12/02/2024)	\$77.64
Palo Alto Networks Inc (PANW.O)	O (10/10/2017)	\$174.96
Qualys Inc (QLYS.O)	U (02/09/2021)	\$86.28
Rapid7 Inc (RPD.O)	E (08/11/2015)	\$6.34
SailPoint Inc (SAIL.O)	O (09/02/2025)	\$12.16
SentinelOne, Inc. (S.N)	E (12/02/2024)	\$14.46
Tenable Holdings Inc (TENB.O)	E (12/02/2024)	\$20.11
Varonis Systems, Inc. (VRNS.O)	E (01/26/2026)	\$24.59
Zscaler Inc (ZS.O)	O (09/02/2025)	\$139.61
Sanjit K Singh		
Akamai Technologies, Inc. (AKAM.O)	O (01/12/2026)	\$98.08
Appian Corp (APPN.O)	O (01/12/2026)	\$21.06
C3.ai (AI.N)	U (01/04/2021)	\$9.20
Datadog, Inc. (DDOG.O)	O (01/12/2026)	\$129.29
Dynatrace Inc (DT.N)	E (02/13/2024)	\$35.72
Elastic NV (ESTC.N)	O (12/16/2024)	\$48.39
GitLab Inc (GTLB.O)	E (01/12/2026)	\$22.15
JFrog Ltd. (FROG.O)	O (12/21/2023)	\$46.10
MongoDB Inc (MDB.O)	O (04/12/2023)	\$261.43

PagerDuty, Inc. (PD.N)	E (01/24/2024)	\$6.56
Palantir Technologies Inc. (PLTR.O)	E (02/04/2025)	\$145.97
Snowflake Inc. (SNOW.N)	O (06/24/2025)	\$150.84
UiPath Inc (PATH.N)	E (09/07/2022)	\$10.78

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* Historical prices are not split adjusted.

INDUSTRY COVERAGE: Semiconductors

COMPANY (TICKER)	RATING (AS OF)	PRICE* (04/21/2026)
Joseph Moore		
Advanced Micro Devices (AMD.O)	E (06/09/2024)	\$284.49
Aeva Technologies Inc (AEVA.O)	E (07/19/2021)	\$16.53
Allegro Microsystems Inc (ALGM.O)	O (02/13/2026)	\$41.28
Ambarella Inc (AMBA.O)	O (03/29/2016)	\$59.98
Amkor Technology Inc (AMKR.O)	E (11/08/2023)	\$70.21
Analog Devices Inc. (ADI.O)	O (11/16/2023)	\$375.27
Astera Labs Inc (ALAB.O)	O (05/11/2025)	\$191.97
Broadcom Inc. (AVGO.O)	O (06/09/2024)	\$402.17
GlobalFoundries Inc (GFS.O)	E (10/28/2024)	\$59.25
Intel Corporation (INTC.O)	E (02/22/2023)	\$66.26
IonQ Inc (IONQ.N)	E (04/25/2023)	\$46.28
Marvell Technology Group Ltd (MRVL.O)	E (09/14/2015)	\$151.31
Microchip Technology Inc. (MCHP.O)	E (07/10/2024)	\$80.93
Micron Technology Inc. (MU.O)	O (10/06/2025)	\$449.38
Navitas Semiconductor Corp (NVT.S.O)	U (04/06/2025)	\$15.33
NVIDIA Corp. (NVDA.O)	O (03/16/2023)	\$199.88
NXP Semiconductor NV (NXPI.O)	O (02/11/2025)	\$224.50
ON Semiconductor Corp. (ON.O)	E (05/11/2025)	\$86.91
Qorvo Inc (QRVO.O)	E (10/28/2025)	\$83.09
Qualcomm Inc. (QCOM.O)	U (02/10/2026)	\$135.56
SanDisk Corporation. (SNDK.O)	O (03/03/2025)	\$903.49
Semtech Corp. (SMTC.O)	E (04/06/2025)	\$103.48
Silicon Laboratories Inc. (SLAB.O)	E (01/19/2021)	\$214.53
Skyworks Solutions Inc (SWKS.O)	E (11/28/2018)	\$59.94
Texas Instruments (TXN.O)	U (04/13/2020)	\$233.15
Wolfspeed, INC (WOLF.N)	NR (04/06/2025)	\$24.70
Lee Simpson		
Arm Holdings plc (ARM.O)	E (04/07/2026)	\$175.49
Cadence Design Systems Inc (CDNS.O)	O (02/14/2024)	\$325.84
Synopsys Inc. (SNPS.O)	E (02/27/2026)	\$467.58

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* Historical prices are not split adjusted.

INDUSTRY COVERAGE: Technology - Software & Services

COMPANY (TICKER)	RATING (AS OF)	PRICE* (04/21/2026)
Adam Wood		
Indra (IDR.MC)	E (01/12/2026)	€54.02
SAP SE (SAP.N)	O (02/20/2026)	\$176.44
SAP SE (SAPG.DE)	O (03/20/2020)	€151.16
George W Webb		
Amadeus IT Holdings S.A. (AMA.MC)	O (04/10/2026)	€52.64
Capgemini (CAPP.PA)	E (02/19/2026)	€109.50
Dassault Systemes SA (DAST.PA)	E (03/17/2026)	€19.02

Hexagon AB (HEXAb.ST)	++	SKr 101.95
IONOS Group SE (IOSn.DE)	E (05/12/2025)	€27.92
Nemetschek SE (NEKG.DE)	E (07/13/2022)	€67.85
Netcompany Group A/S (NETCG.CO)	U (01/12/2026)	DKr 398.00
Sage (SGE.L)	O (12/08/2021)	917p
Mark Hyatt		
HBX Group International PLC (HBX.MC)	E (04/17/2026)	€7.03
Temenos Group AG (TEMN.S)	U (12/15/2017)	SFr 76.95
Tietoenvy Oyj (TIEO.HE)	U (01/12/2026)	€18.97
Trustpilot (TRST.L)	O (12/05/2025)	261p

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* Historical prices are not split adjusted.

INDUSTRY COVERAGE: Greater China Technology Semiconductors

COMPANY (TICKER)	RATING (AS OF)	PRICE* (04/21/2026)
Charlie Chan		
ACM Research Inc (ACMR.O)	O (03/07/2023)	\$51.21
Advanced Micro-Fabrication Equipment Inc (688012.SS)	O (11/06/2023)	Rmb308.88
Advanced Wireless Semiconductor Co (8086.TWO)	U (07/14/2025)	NT\$146.00
Alchip Technologies Ltd (3661.TW)	O (05/14/2021)	NT\$3,985.00
ASE Technology Holding Co. Ltd. (3711.TW)	O (09/15/2024)	NT\$472.00
Global Unichip Corp (3443.TW)	O (07/27/2024)	NT\$3,735.00
GlobalWafers Co Ltd (6488.TWO)	O (09/19/2025)	NT\$597.00
Gudeng Precision (3680.TWO)	O (11/25/2025)	NT\$503.00
Hua Hong Semiconductor Ltd (1347.HK)	E (03/12/2026)	HK\$95.40
King Yuan Electronics Co Ltd (2449.TW)	O (03/03/2023)	NT\$281.00
Maxscend Microelectronics Co Ltd (300782.SZ)	U (01/11/2021)	Rmb111.74
MediaTek (2454.TW)	O (11/28/2025)	NT\$2,090.00
Nanya Technology Corp. (2408.TW)	E (03/20/2026)	NT\$220.00
NAURA Technology Group Co Ltd (002371.SZ)	O (11/06/2023)	Rmb450.36
OmniVision Integrated Circuits Group Inc (603501.SS)	E (11/17/2025)	Rmb92.85
Phison Electronics Corp (8299.TWO)	E (02/25/2026)	NT\$1,765.00
SG Micro Corp. (300661.SZ)	E (11/03/2025)	Rmb78.50
Silergy Corp. (6415.TW)	E (04/21/2026)	NT\$394.00
SMIC (0981.HK)	O (10/21/2025)	HK\$60.10
TSMC (2330.TW)	O (02/07/2022)	NT\$2,050.00
UMC (2303.TW)	E (04/20/2026)	NT\$76.20
Vanguard International Semiconductor (5347.TWO)	E (01/14/2026)	NT\$138.50
WIN Semiconductors Corp (3105.TWO)	U (07/14/2025)	NT\$617.00
Daisy Dai, CFA		
ASMPT Ltd (0522.HK)	O (07/24/2025)	HK\$148.10
China Resources Microelectronics Limited (688396.SS)	U (03/02/2026)	Rmb51.59
Elan Microelectronics Corp (2458.TW)	O (10/03/2025)	NT\$137.00
Empyrean Technology Co Ltd (301269.SZ)	E (01/17/2025)	Rmb85.50
Hangzhou Silan Microelectronics Co. Ltd. (600460.SS)	U (08/25/2025)	Rmb27.08
Innoscence (2577.HK)	E (10/13/2025)	HK\$64.70
JCET Group Co Ltd (600584.SS)	E (01/16/2026)	Rmb44.03
Shanghai Fudan Microelectronics (1385.HK)	O (03/07/2025)	HK\$44.92
SICC Co Ltd (688234.SS)	O (03/20/2026)	Rmb96.54
StarPower Semiconductor Ltd (603290.SS)	O (03/01/2022)	Rmb101.01
Unigroup Guoxin Microelectronics Co Ltd (002049.SZ)	U (01/10/2023)	Rmb70.27
Universal Scientific Ind. (Shanghai) (601231.SS)	O (11/05/2025)	Rmb41.59
Yangjie Technology (300373.SZ)	O (06/10/2022)	Rmb81.39

Daniel Yen, CFA

AP Memory Technology Corp (6531.TW)	O (07/11/2025)	NT\$720.00
ASMedia Technology Inc (5269.TW)	U (10/03/2025)	NT\$1,255.00
Aspeed Technology (5274.TWO)	O (06/09/2025)	NT\$15,245.00
Egis Technology Inc (6462.TWO)	E (01/28/2026)	NT\$130.50
Espressif Systems (688018.SS)	O (05/15/2023)	Rmb167.80
GigaDevice Semiconductor Beijing Inc (603986.SS)	O (05/15/2025)	Rmb306.27
Macronix International Co Ltd (2337.TW)	O (09/18/2025)	NT\$132.50
Montage Technology Co Ltd (6809.HK)	O (03/18/2026)	HK\$207.20
Montage Technology Co Ltd (688008.SS)	O (03/18/2026)	Rmb158.40
Novatek (3034.TW)	U (02/04/2026)	NT\$415.50
Nuvoton Technology Corporation (4919.TW)	U (11/10/2025)	NT\$144.50
Parade Technologies Ltd (4966.TWO)	E (01/30/2026)	NT\$537.00
Powerchip Semiconductor Manufacturing Co (6770.TW)	O (10/27/2025)	NT\$54.00
Realtek Semiconductor (2379.TW)	E (01/30/2026)	NT\$551.00
Shenzhen Goodix Technology Co Ltd (603160.SS)	U (07/14/2025)	Rmb69.07
Winbond Electronics Corp (2344.TW)	E (03/20/2026)	NT\$91.10
WPG Holdings (3702.TW)	O (03/16/2026)	NT\$102.50
WT Microelectronics Co. Ltd. (3036.TW)	O (01/27/2026)	NT\$217.50
Duan Liu		
Dosilicon Co Ltd (688110.SS)	U (09/06/2024)	Rmb116.28
Shenzhen Longsys Electronics Co Ltd (301308.SZ)	E (02/25/2026)	Rmb375.96
Tiffany Yeh		
AllRing Tech Co. (6187.TWO)	O (09/23/2025)	NT\$1,330.00
FOCI Fiber Optic Communications Inc (3363.TWO)	O (01/15/2025)	NT\$990.00
Himax Technologies Inc (HIMX.O)	E (02/04/2026)	\$11.64
Hon Precision (7769.TW)	O (04/17/2026)	NT\$4,465.00
MPI Corporation (6223.TWO)	O (04/17/2026)	NT\$4,940.00
Silicon Motion (SIMO.O)	O (05/06/2024)	\$142.45
Winway Technology Co Ltd (6515.TW)	O (04/17/2026)	NT\$10,715.00

Stock Ratings are subject to change. Please see latest research for each company.

* Historical prices are not split adjusted.