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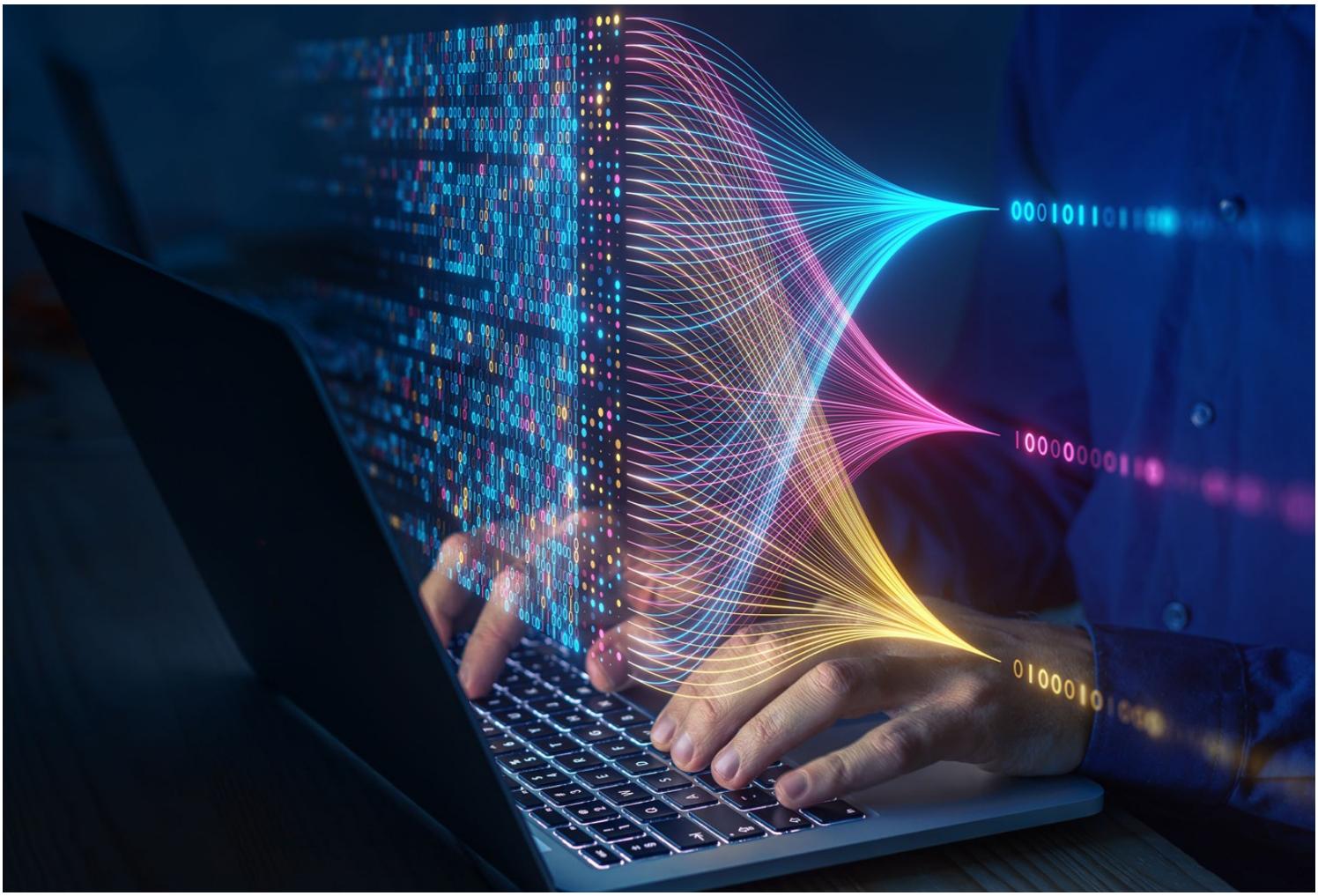
GLOBAL INSIGHT

September 24, 2026 04:01 AM GMT

Thematics

Mapping AI's Rate of Change: From Buildout to Broadening

AI leadership is entering a new phase: from a concentrated enabler trade toward a broader, barbelled opportunity set spanning select enablers and emerging adopters. Our 6th global AI stock mapping across ~3,600 stocks provides us with quantitative backing.



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A cycle in transition: Expect a "barbell" of outperformance of key infrastructure "enablers" and early software players & AI "adopters." Cycles typically play out with semis outperforming first, followed by infrastructure, and then software and services. We see AI leadership entering a new phase: from a concentrated enabler trade toward a broader, barbelled opportunity set spanning select enablers and emerging adopters. With semis and infrastructure having outperformed the S&P 500 by 500-700 pts since the beginning of the cycle, we believe now is the time to start adding exposure to early software enablers and AI adopters. However, we also believe the scale of the AI capex buildout and key bottlenecks like power will elongate upside for select players — as a result, we don't expect the same linear handoff in market leadership seen in prior computing cycles.

For this transition period, we expect a "barbell" of outperformance and recommend to: **1) own power names addressing key data center bottlenecks, 2) remain selective across semis/infrastructure,** and **3) broaden exposure to early software enablers and AI adopters.**

Margin benefits are not fully reflected in adopter out-year estimates: Consensus expects high-materiality adopters to deliver 460bps of EBIT margin expansion in 2025-26, nearly twice the MSCI ACWI IMI. Yet that advantage fades in subsequent years. We expect productivity gains to prove more durable, creating potential upside to out-year earnings especially as adoption deepens.

Earnings are broadening as Adopter valuations reset: Consensus NTM EPS for our adopter cohort has risen ~70% over two years, well ahead of the broader market. Estimates have more than doubled for the enablers. Adopters' median forward P/E has fallen to 18x versus 22x for enablers. Improving fundamentals and lower valuations create a more attractive entry point, in our view.

AI exposure is spreading while deepening remains concentrated: New AI entrants increasingly come from outside Tech, including Real Estate, Autos, Consumer Durables, Transportation, and Consumer Services. Rising materiality remains concentrated in Software, Semiconductors, Utilities, and Media. The opportunity set is expanding without a clean handoff from existing beneficiaries.

Materiality matters. Among enablers and adopters, companies where AI is "core to thesis" have outperformed those where it is "significant." Performance gaps are even wider among AI-challenged stocks. We see materiality as critical to identifying where AI can meaningfully reshape fundamentals, on both sides of the coin.

Please click here for the full database of ~3,600 stocks mapped by AI exposure and materiality. In addition to our AI mapping, we also map all stocks under Morgan Stanley coverage on exposure to subthemes within our four key themes: AI & Tech Diffusion, the Multipolar World, Societal Shifts, & the Future of Energy. Please see The Thematic Map - Scaling Themes in AlphaSignals for more information.

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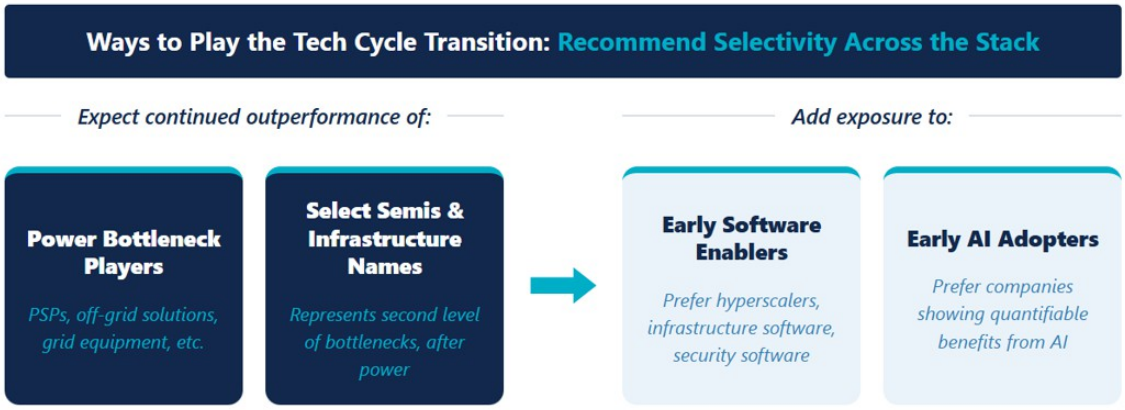
Executive Summary

We believe the AI trade is at an important transition. We're calling for a "barbell" approach as we move deeper into the cycle — a broadening into software enablers and AI adopters, while still owning players addressing key data center bottlenecks. In historical computing cycles, we've seen a similar pattern of stock outperformance across three categories of technology "enablers": semis, infrastructure, then software/services. Together, these companies provide the technology stack that enables each computing cycle, from the chips, infrastructure, and devices that form its physical backbone to the software layered on top. There is also a technology diffusion component to each cycle, and these companies are the "adopters" that leverage the new technology to drive productivity gains and revenue growth. We expect the diffusion of AI into other sectors to drive greater outperformance for the adopter category than in tech cycles that preceded it. Why? The exponential scaling of LLM capabilities and AI's full potential productivity impact suggest a broad, and meaningful opportunity for value creation.

We believe now is the time to start adding exposure to early software enablers and AI adopters. We have clearly seen this outperformance pattern play out this cycle, with semis and infrastructure outperforming the S&P 500 by 500-700 pts. Now, we are calling for a broadening into early software enablers, particularly categories like infrastructure and security software.

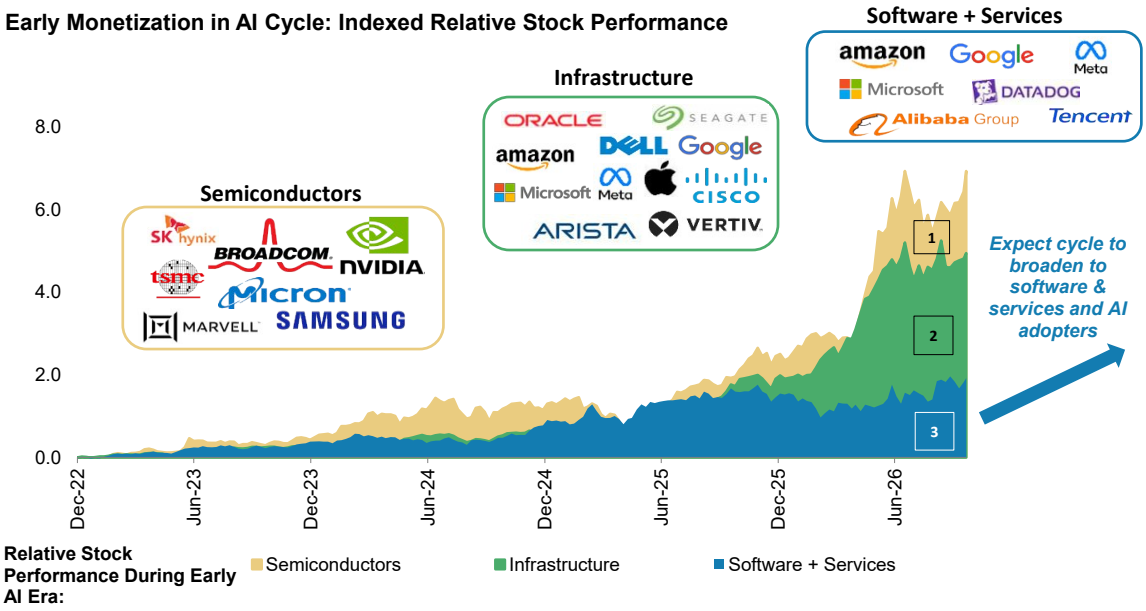
However, we also believe this cycle is different, given the unprecedented scale of the AI capex buildout and key bottlenecks that are constraining its pace. We believe demand for compute is likely to significantly exceed supply for years to come. We continue to see constraints across the "3 P's": People, Power, and Politics. Power remains in short supply (our team forecasts a 57 GW shortfall in 2026-28) while labor constraints and regulatory hurdles are also slowing the pace of data center development (see our work on data center moratoriums). As a result, we don't expect the same linear handoff in market leadership seen in prior computing cycles. Instead, we are calling for a "barbell" of outperformance over the next 6-12 months as the cycle transitions, with further outperformance of **1) power names addressing key data center bottlenecks and *select* semis/infrastructure names, and 2) early software enablers and AI adopters** beginning to translate the technology into measurable productivity and revenue benefits. We expect late-stage software enablers (like application software) and services companies to benefit later in the cycle. Our proprietary AI mapping database provides the quantitative backing for this call.

Exhibit 1: We are recommending a selective approach across the stack for this part of the cycle: Power bottleneck players, select semis/infra names, and early software enablers & AI adopters.



Source: Morgan Stanley Research

Exhibit 2: We expect a broadening in the tech cycle, as performance shifts from semis to infrastructure to software, in-line with prior cycles.



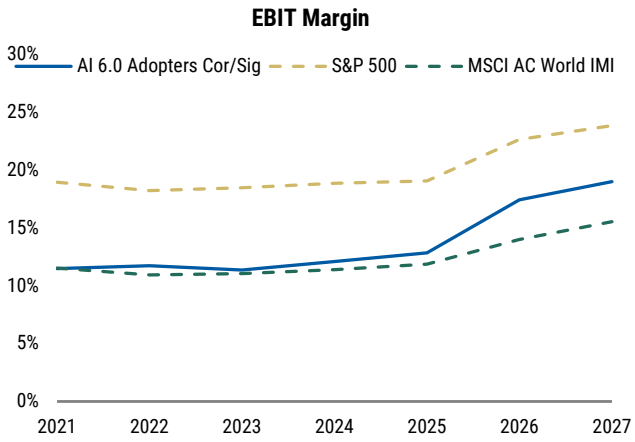
Source: Factset, Morgan Stanley Research. Note: Logos don't reflect all companies included in analysis.

5 Key Takeaways from our 6th AI Mapping

(1) AI Adoption Benefits Are Making Their Way Into Margins, but Aren't Yet Embedded in Out-Year Estimates. Consensus expects AI Adopters to deliver 4.6% of EBIT margin expansion in 2025-26, modestly ahead of the S&P 500 and nearly twice the MSCI ACWI. Yet that advantage fades quickly in out year estimates, with expected margin expansion for Adopters converging toward the broader market in 2026-27 and 2027-28. Put differently, while estimates are beginning to reflect near-term margin benefits among companies with the most material AI adoption, analysts are not yet underwriting a sustained or compounding productivity benefit. This is especially notable given the meaningful margin inflection expected this year; consensus appears to recognize the initial benefit, but not its persistence. We expect AI driven productivity gains to prove more

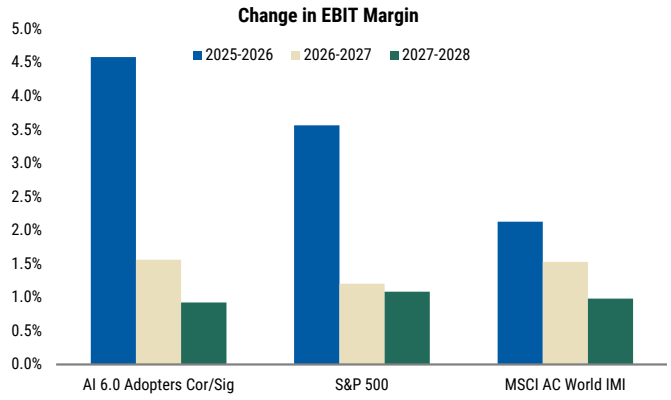
durable than currently embedded in estimates, creating potential upside to out year earnings as those benefits become more evident. *Please note, companies may be classified as both AI Adopters and AI Enablers, but analysts assess and tag the materiality of each exposure separately.*

Exhibit 3: AI Adopters Deliver Margin Expansion



Note: Adopters with high materiality (Significant or Core to Thesis). Median.
Source: FactSet, Morgan Stanley Research

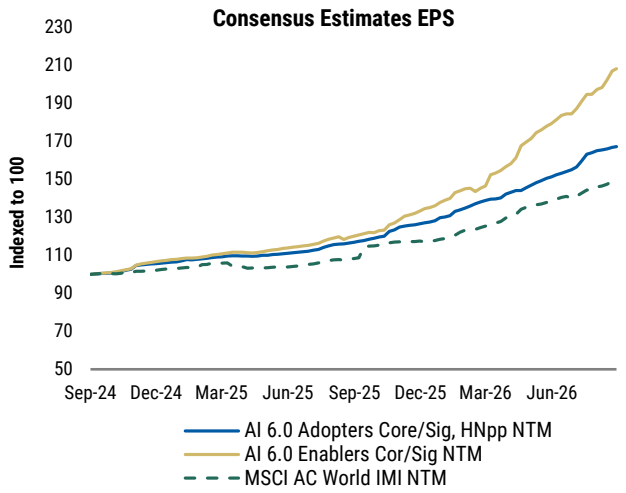
Exhibit 4: Out-Year Margin Estimates Don't Recognize AI Benefits



Source: Note: Adopters and Enablers with high materiality (Significant or Core to Thesis). Median.
Source: FactSet, Morgan Stanley Research

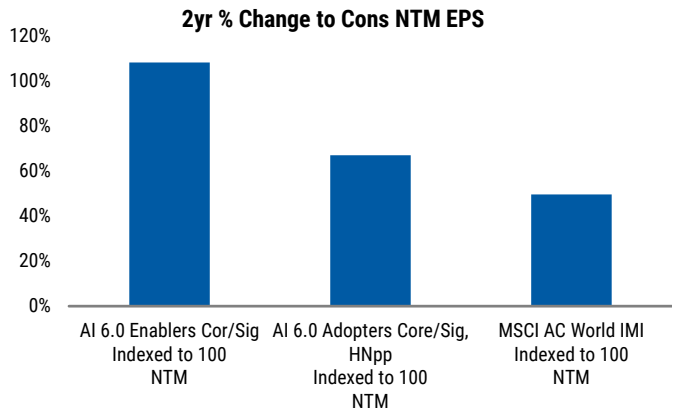
(2) AI Earnings Momentum Is Broadening Beyond Enablers. Consensus forward earnings trends reinforce our view that the next phase of AI leadership is more likely to broaden than completely rotate. Enablers continue to show the strongest earnings momentum, with consensus NTM EPS more than doubling over the past two years. Importantly, however, Adopters are also seeing a meaningful earnings inflection, with NTM EPS rising roughly 70% over that period, ahead of the broader market. The divergence has become more pronounced over the past year as Adopter estimates have accelerated alongside continued strength in the Enablers. In our view, this is the fundamental setup for the barbell: earnings momentum remains strong among select Enablers, but is increasingly extending to Adopters as AI benefits begin to translate into company fundamentals.

Exhibit 5: AI Adopters See a Forward Earnings Boost



Note: Adopters with high materiality (Significant or Core to Thesis) and High or Neutral Pricing Power High, Enablers with high materiality. MC-Weighted.
Source: FactSet, Morgan Stanley Research

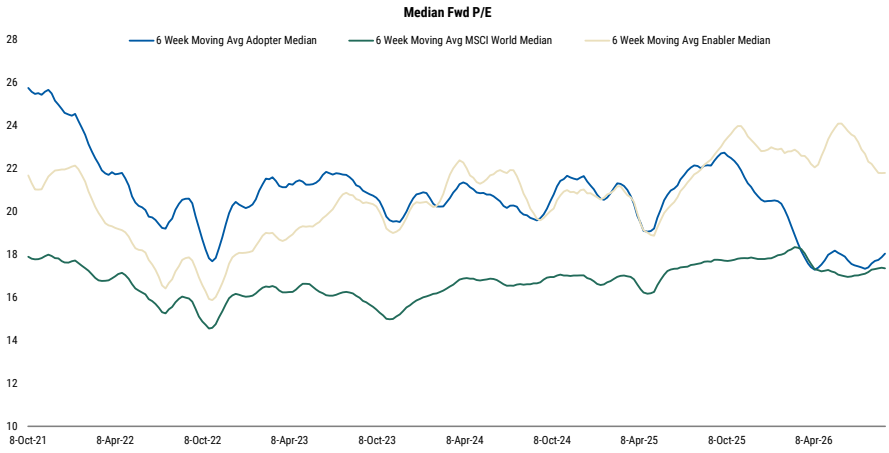
Exhibit 6: 2yr % Change in NTM Cons EPS



Note: Adopters with high materiality (Significant or Core to Thesis) and High or Neutral Pricing Power High, Enablers with high materiality. MC-Weighted.
Source: FactSet, Morgan Stanley Research

(3) Valuation Divergence Is Improving the Risk/Reward on the Adopter Side of the Barbell. While select Enablers will continue to command a valuation premium, reflecting their more established earnings exposure to the AI buildout, Adopter valuations have reset meaningfully over the past year. The median forward P/E for our high-materiality Adopters has fallen to 18x, broadly in line with the MSCI World and well below the 22x multiple for Enablers. In our view, this divergence creates a more attractive entry point for Adopters at a time when the fundamental benefits of AI adoption are beginning to emerge in margins and earnings, but may not yet be fully reflected in out-year expectations. This supports our barbell approach: retain exposure to select Enablers where earnings durability can justify a premium, while increasing exposure to Adopters where improving fundamentals are now paired with a more favorable valuation setup.

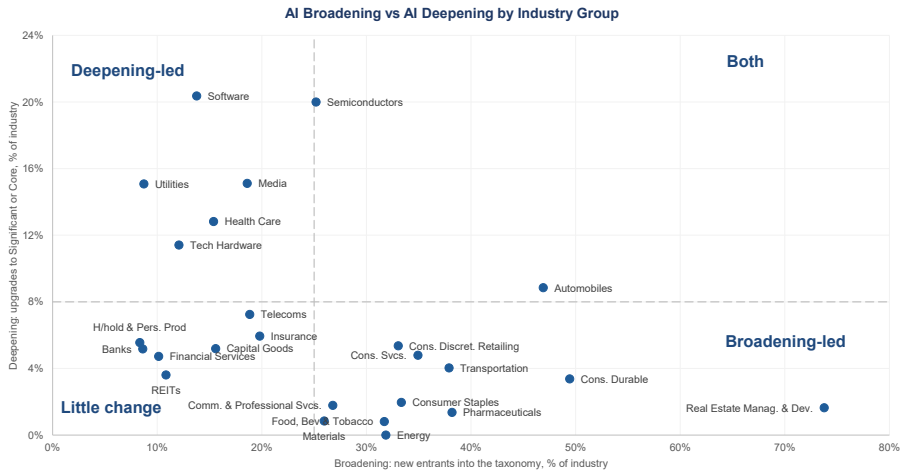
Exhibit 7: Adopter Valuations Have Declined, Providing an Attractive Entry Point



Source: Adopters and Enablers with high materiality (Significant and Core to Thesis) and high or neutral pricing power.
Source: FactSet, Morgan Stanley Research

(4) AI Exposure Is Broadening Across the Market, but Deepening Remains Concentrated. Broadening captures the expansion of the AI opportunity set, as companies move from no prior AI exposure to positive exposure today, while deepening captures rising AI materiality among companies already exposed to the theme. New AI entrants are increasingly coming from outside the traditional technology complex, with industries such as Real Estate, Autos, Consumer Durables, Transportation, and Consumer Services seeing a meaningful broadening of AI exposure. However, the companies where AI is becoming more material to the investment thesis remain concentrated in areas such as Software, Semiconductors, Utilities, and Media. AI is diffusing across the broader market, creating a growing pool of potential Adopters, while simultaneously deepening within select Enablers and other industries where AI is already material.

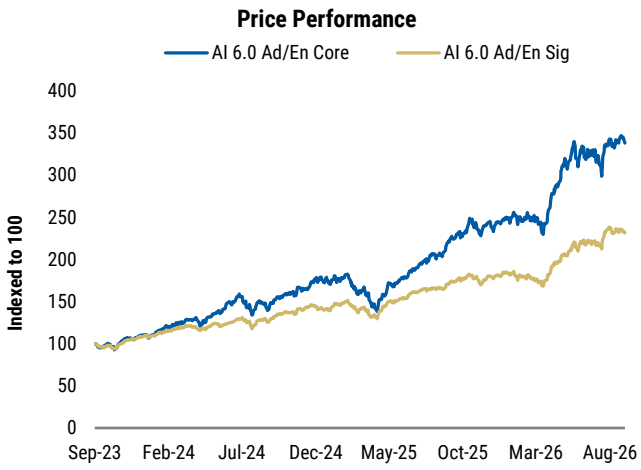
Exhibit 8: AI Broadening vs AI Deepening



Source: Morgan Stanley Research

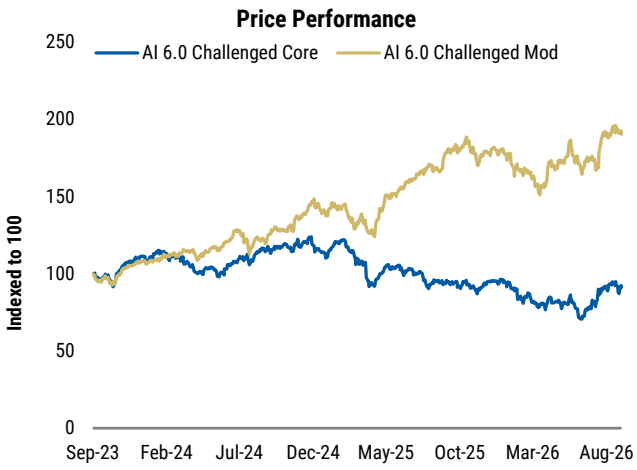
(5) The Market Is Increasingly Pricing the Magnitude of AI Exposure. Simply having exposure to AI, either positive or negative, is not enough; the degree to which AI matters to the investment thesis is increasingly driving relative performance. Among enablers and adopters, companies where AI is "core to thesis" have outperformed those where it is "significant" by 107%. The differentiation is even more pronounced among companies exposed to disruption: businesses where AI represents a core threat have underperformed those facing moderate disruption by ~161%. These performance gaps have widened suggesting investors are becoming more discerning about where AI can meaningfully reshape company fundamentals. As we recommend our barbell approach, looking at materiality is critical when assessing which area of adopters to increase exposure to.

Exhibit 9: AI Materiality Matters Both on the Long...



Note: Includes Adopters and Enablers with high materiality. MC-Weighted.
Source: FactSet, Morgan Stanley Research

Exhibit 10: ...and Short Side



Note: Includes AI Challenged stocks with high materiality. MC-Weighted.
Source: FactSet, Morgan Stanley Research

What to Own

#1: Adopters: Adopters with Positive Rate of Change

- **Rate of Change:** Positive Increase in Materiality (eg Moderate to Significant)
- **AI Adopter Materiality:** Moderate to Core to Thesis
- **Exposure:** AI Adopter with Adopter Exposure More Significant than Enabler Exposure
- **Stock Rating:** Overweight Rated by Morgan Stanley Analyst
- **Market Cap Ranking**: 10 largest stocks by market cap in each region meeting criteria above

Exhibit 11: AI Adopters with A Materiality Increase

Company	Ticker	GICS Industry	Rating	Price (USD)	Market Cap (USD mn)	Upside to PT %
APAC + Japan						
Agricultural Bank of China Limited	1288.HK	Banks	Overweight	0.82	350,905	15%
HSBC Holdings	0005.HK	Banks	Overweight	21.03	349,170	7%
China Construction Bank Corp.	0939.HK	Banks	Overweight	1.26	311,525	14%
Bank of China Limited	3988.HK	Banks	Overweight	0.78	270,954	10%
BHP Group Ltd	BHGJ.J	Materials	Overweight	42.53	209,987	14%
China Merchants Bank	3968.HK	Banks	Overweight	6.73	155,002	15%
Japan Tobacco	2914.T	Food Beverage & Tobacco	Overweight	44.05	79,530	4%
China CITIC Bank Corporation Limited	0998.HK	Banks	Overweight	1.08	71,121	21%
Postal Savings Bank of China Co Ltd	1658.HK	Banks	Overweight	0.69	63,410	17%
Industrial Bank Co. Ltd.	601166.SS	Banks	Overweight	2.71	55,411	45%
Europe						
Novartis AG	NOVN.S	Pharmaceuticals Biotechnology & Life Sciences	Overweight	139.59	277,912	19%
AstraZeneca Plc	AZN.L	Pharmaceuticals Biotechnology & Life Sciences	Overweight	164.30	257,304	26%
AXA	AXAF.PA	Insurance	Overweight	50.65	101,905	10%
Standard Chartered Bank	STAN.L	Banks	Overweight	31.08	68,390	10%
Bayer AG	BAYGn.DE	Pharmaceuticals Biotechnology & Life Sciences	Overweight	57.21	55,584	32%
Naturgy	NTGY.MC	Utilities	Overweight	33.56	31,194	14%
Sartorius Stedim Biotech SA	STDM.PA	Pharmaceuticals Biotechnology & Life Sciences	Overweight	213.40	22,953	36%
Coca-Cola HBC AG	CCH.L	Food Beverage & Tobacco	Overweight	62.78	21,265	(1%)
Sartorius AG	SATG_p.DE	Pharmaceuticals Biotechnology & Life Sciences	Overweight	264.32	9,938	32%
North America						
Apple, Inc.	AAPL.O	Technology Hardware & Equipment	Overweight	333.08	4,965,766	8%
Eli Lilly & Co.	LLY.N	Pharmaceuticals Biotechnology & Life Sciences	Overweight	1,138.28	1,043,520	25%
Walmart Inc	WMT.O	Consumer Staples Distribution & Retail	Overweight	109.08	949,427	15%
Costco Wholesale Corp	COST.O	Consumer Staples Distribution & Retail	Overweight	918.91	418,460	23%
RTX Corp	RTX.N	Capital Goods	Overweight	195.34	257,408	23%
Welltower Inc.	WELL.N	Equity Real Estate Investment Trusts (REITs)	Overweight	234.21	165,628	7%
AppLovin Corp	APP.O	Software & Services	Overweight	334.24	110,388	35%
Northrop Grumman Corp.	NOC.N	Capital Goods	Overweight	527.39	72,432	41%
Target Corp	TGT.N	Consumer Staples Distribution & Retail	Overweight	158.70	72,223	7%
MetLife Inc.	MET.N	Insurance	Overweight	97.75	61,178	14%

Source: Factset, Morgan Stanley Research. Data as of 9/22/2026

#2 Adopters: Adopters with High Pricing Power

- **Pricing Power:** High
- **AI Adopter Materiality:** Moderate to Core to Thesis
- **Exposure:** AI Adopter
- **Stock Rating:** Overweight Rated by Morgan Stanley Analyst

Exhibit 12: AI Adopters with High Pricing Power

Company	Ticker	GICS Industry	Rating	Price (USD)	Market Cap (USD mn)	Upside to PT %
APAC + Japan						
Samsung Electronics	005930.KS	Technology Hardware & Equipment	Overweight	185.62	1,524,639	53%
Foxconn Industrial Internet Co. Ltd.	601138.SS	Technology Hardware & Equipment	Overweight	9.18	176,546	34%
Fast Retailing	9983.T	Consumer Discretionary Distribution & Retail	Overweight	434.81	144,338	30%
Ping An Insurance Group Co of China Ltd	2318.HK	Insurance	Overweight	6.83	136,406	64%
Hon Hai Precision	2317.TW	Technology Hardware & Equipment	Overweight	7.86	112,102	25%
Samsung Electro-Mechanics	009150.KS	Technology Hardware & Equipment	Overweight	996.68	84,089	96%
Japan Tobacco	2914.T	Food Beverage & Tobacco	Overweight	44.05	79,530	4%
Kao	4452.T	Household & Personal Products	Overweight	22.50	19,993	4%
Advantech	2395.TW	Technology Hardware & Equipment	Overweight	21.18	19,142	7%
NIO Inc.	9866.HK	Automobiles & Components	Overweight	3.74	16,826	98%
Europe						
Airbus SE	AIR.PA	Capital Goods	Overweight	226.16	176,155	31%
Rolls-Royce Holdings PLC	RR.L	Capital Goods	Overweight	19.25	165,773	40%
ENGIE	ENGIE.PA	Utilities	Overweight	27.31	66,056	32%
Informa	INF.L	Media & Entertainment	Overweight	12.21	15,285	20%
North America						
Apple, Inc.	AAPL.O	Technology Hardware & Equipment	Overweight	333.08	4,965,766	8%
Visa Inc.	V.N	Financial Services	Overweight	375.28	605,693	11%
MasterCard Inc	MA.N	Financial Services	Overweight	574.42	490,851	19%
Coca-Cola Co.	KO.N	Food Beverage & Tobacco	Overweight	89.35	381,280	12%
Procter & Gamble Co.	PG.N	Household & Personal Products	Overweight	146.13	340,938	14%
GE Aerospace	GE.N	Aerospace & Defense	Overweight	317.56	331,211	26%
Home Depot Inc	HD.N	Consumer Discretionary Distribution & Retail	Overweight	310.87	304,129	29%
Philip Morris International Inc	PM.N	Food Beverage & Tobacco	Overweight	194.86	296,569	10%
RTX Corp	RTX.N	Capital Goods	Overweight	195.34	257,408	23%
Lowe's Companies Inc	LOW.N	Consumer Discretionary Distribution & Retail	Overweight	198.17	109,609	30%

Source: Factset, Morgan Stanley Research. Data as of 9/22/2026

#3 Enablers: Power Bottlenecks

- Stocks across the Powered Shell Providers (PSPs), Data Center REITs, Off Grid Power Generation, Energy Storage, Renewable Energy Developers, Midstream Energy, and Equipment chosen in coordination with our industry analysts

Exhibit 13: Ways to Play: Power Bottlenecks

Name	Ticker	Analyst	Region	Rating	Price (USD)	Price Target (USD)	Upside (Downside) to PT
Powered Shell Providers (PSPs)							
Terawulf	WULF	Stephen Byrd	US	OW	17.33	62.50	260.6%
Hut8	HUT	Stephen Byrd	US	OW	106.61	273.00	156.1%
Cipher Mining	CIFR	Stephen Byrd	US	OW	19.09	54.00	182.9%
Riot Platforms	RIOT	Stephen Byrd	US	OW	24.93	43.00	72.5%
Data Center REITs							
Equinix	EQIX	Cameron McVeigh	US	OW	1,059.26	1,250.00	18.0%
Singapore Telecom	STEL.SI	Da Wei Lee	APAC	OW	3.36	4.31	28.5%
Off-Grid Power Generation							
Solaris	SEI	Dave Arcaro	US	OW	65.67	90.00	37.0%
Bloom Energy	BE	Dave Arcaro	US	OW	276.53	310.00	12.1%
GE Vernova	GEV	Dave Arcaro	US	OW	950.28	1,350.00	42.1%
INNIO Group	INIO	Dave Arcaro	US	OW	19.51	47.00	140.9%
Liberty Energy	LBRT	Joe Laetsch	US	OW	18.04	30.00	66.3%
Erock Inc.	EROC	Angel Castillo	US	OW	12.83	23.00	79.3%
Siemens Energy	ENR GY	Max Yates	EMEA	OW	165.85	223.74	34.9%
Energy Storage							
CATL	300750.SZ	Jack Lu	APAC	OW	44.93	88.81	97.7%
Cummins	CMI	Angel Castillo	US	OW	526.13	761.00	44.6%
Samsung SDI	006400.KS	Young Suk Shin	APAC	OW	384.81	494.86	28.6%
Renewable Energy Developers / IPPs							
NextEra Energy	NEE	Dave Arcaro	US	OW	79.26	111.00	40.0%
Clearway	CWEN	Robert Kad	US	OW	30.65	58.00	89.2%
Adani Green	ADNA.NS	Girish Achhipalia	APAC	OW	13.61	15.95	17.2%
JSW Energy	JSWE.NS	Girish Achhipalia	APAC	OW	5.45	6.98	28.0%
Midstream Energy							
Williams Companies	WMB	Robert Kad	US	OW	70.98	103.00	45.1%
Data Center Electrical Equipment							
Schneider Electric	SCHN.PA	Max Yates	EMEA	OW	336.59	367.17	9.1%
Legrand	LEGD.PA	Max Yates	EMEA	OW	158.51	183.58	15.8%
Rexel S.A.	RXL.PA	Max Yates	EMEA	OW	42.82	47.04	9.9%
Grid Eqipment / Transformer							
HD Hyundai Electric	267260.KS	Ryan Kim	APAC	OW	522.93	1,107.89	111.9%
LS Electric	010120.KS	Ryan Kim	APAC	OW	151.78	199.42	31.4%
CG Power & Industrials	CGPO.NS	Girish Achhipalia	APAC	OW	9.36	7.63	(18.5%)
Data Center Transmission / Other							
Adani Energy	ADAI.NS	Girish Achhipalia	APAC	OW	14.44	20.33	40.8%
Adani Enterprises	ADEL.NS	Girish Achhipalia	APAC	OW	31.31	38.06	21.5%

Source: Morgan Stanley Research, Factset. Data as of 9/22/2026

#4: Enablers: Semis/Hardware Names with Durability

- Stocks across semiconductors/semi equipment, networking, and hard disk drives chosen in coordination with our industry analysts

Exhibit 14: Ways to Play: Semis/Hardware Names With Durability

Name	Ticker	Analyst	Region	Rating	Price (USD)	Price Target (USD)	Upside (Downside) to PT
GPU / ASICs							
Nvidia	NVDA	Joe Moore	US	OW	228.87	300.00	31.1%
Broadcom	AVGO	Joe Moore	US	OW	364.54	505.00	38.5%
MediaTek	2454.TW	Charlie Chan	APAC	OW	163.78	176.51	7.8%
Global Unichip Corporation (GUC)	3443.TW	Charlie Chan	APAC	OW	264.86	198.62	(25.0%)
Cloud Semi							
Aspeed	5274.TWO	Daniel Yen	APAC	OW	640.60	758.10	18.3%
Montage	688008.SS	Daniel Yen	APAC	OW	33.34	56.27	68.8%
Foundry							
TSMC	TSM	Charlie Chan	APAC	OW	78.97	94.38	19.5%
Semiconductor Equipment							
ASML	ASML.AS	Lee Simpson	EMEA	OW	1739.23	1950.58	12.2%
Wafer Substrates and Materials							
Soitec	SOIT.PA	Nigel van Putten	EMEA	OW	172.86	229.48	32.8%
ABF Substrate							
Unimicron	3037.TW	Howard Kao	APAC	OW	36.64	46.28	26.3%
Nan Ya PCB	8046.TW	Howard Kao	APAC	OW	38.22	48.96	28.1%
Samsung Electro-Mechanics	009150.KS	Shawn Kim	APAC	OW	1113.06	1935.12	73.9%
Ibiden	4062.T	Shoji Sato	APAC	OW	124.26	174.75	40.6%
MLCC							
Murata	6981.T	Shoji Sato	APAC	OW	49.33	69.90	41.7%
Samsung Electro-Mechanics	009150.KS	Shawn Kim	APAC	OW	1113.06	1935.12	73.9%
Back-End Semicap / OSAT							
Advantest	6857.T	Suzune Tamura	APAC	OW	203.66	228.76	12.3%
Chroma Ate Inc	2360.TW	Derrick Yang	APAC	OW	73.44	88.45	20.4%
King Yuan Electronics Co	2449.TW	Charlie Chan	APAC	OW	9.60	10.68	11.2%
Power							
Delta Electronics	2308.TW	Derrick Yang	APAC	OW	60.02	85.29	42.1%
Memory							
CXMT	688825.SS	Charlie Chan	APAC	OW	8.75	13.14	50.1%
SK Hynix	000660.KS	Shawn Kim	APAC	OW	1375.27	1920.35	39.6%
Samsung Electronics	005930.KS	Shawn Kim	APAC	OW	210.87	281.41	33.5%
KIOXIA	285A.T	Kazuo Yoshikawa	APAC	OW	346.76	698.99	101.6%
Networking							
Lumentum	LITE	Meta Marshall	US	EW	945.67	1000.00	5.7%
Nokia	NOKIA.HE	Terrance Tsui	EMEA	OW	10.84	16.06	48.2%
Furukawa Electric	5801.T	Yu Shirakawa	APAC	OW	24.79	38.76	56.4%
Hard Disk Drives							
Seagate	STX	Erik Woodring	US	OW	919.84	1187.00	29.0%
Materials							
Mitsui Kinzoku	5706.T	Yu Shirakawa	APAC	OW	144.85	228.76	57.9%

Source: Morgan Stanley Research, Factset. Data as of 9/22/2026

#5: Enablers: Early Software

- Early cycle software chosen in coordination with our industry analysts

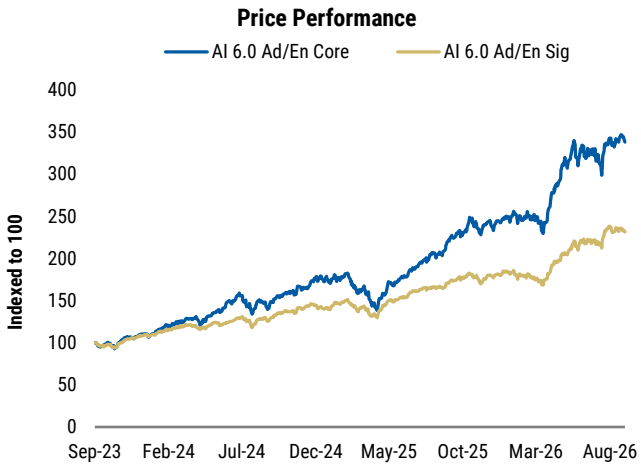
Exhibit 15: Ways to Play: Early Software Enablers

Name	Ticker	Analyst	Region	Rating	Price	Price Target	Upside (Downside) to PT
Infrastructure Software							
Microsoft	MSFT	Adam Wood	US	OW	498.00	600.00	20.5%
Snowflake	SNOW	Sanjit Singh	US	OW	336.59	470.00	39.6%
Datadog	DDOG	Sanjit Singh	US	OW	247.48	300.00	21.2%
MongoDB	MDB	Sanjit Singh	US	OW	427.69	430.00	0.5%
Dynatrace	DT	Sanjit Singh	US	OW	57.20	65.00	13.6%
Cloudflare	NET	Sanjit Singh	US	OW	353.00	370.00	4.8%
Security Software							
Palo Alto Networks	PANW	Meta Marshall	US	OW	374.57	410.00	9.5%
Crowdstrike	CRWD	Meta Marshall	US	OW	250.06	254.00	1.6%
Okta	OKTA	Meta Marshall	US	OW	196.62	200.00	1.7%
SaaS Applications							
Atlassian	TEAM	Adam Wood	US	OW	188.65	180.00	(4.6%)
ServiceNow	NOW	Adam Wood	US	OW	137.00	180.00	31.4%
Shopify	SHOP	Adam Wood	US	OW	147.74	192.00	30.0%
ServiceTitan	TTAN	Chris Quintero	US	OW	61.56	92.00	49.4%
Navan Inc	NAVN	Chris Quintero	US	OW	20.97	33.00	57.4%
Model Providers / Consumer Applications							
Meta	META	Brian Nowak	US	OW	736.60	775.00	5.2%
Google	GOOGL	Brian Nowak	US	OW	351.16	400.00	13.9%
Amazon	AMZN	Brian Nowak	US	OW	254.98	335.00	31.4%
Minimax	0100.HK	Gary Yu	APAC	OW	35.05	114.71	227.3%
Z.ai	2513.HK	Gary Yu	APAC	OW	82.85	229.43	176.9%
Tencent	0700.HK	Gary Yu	APAC	OW	56.21	70.10	24.7%
Alibaba	BABA.N	Gary Yu	APAC	OW	116.31	180.00	54.8%
Meitu	1357.HK	Lydia Lin	APAC	OW	0.49	1.30	163.6%

Source: Morgan Stanley Research, Factset. Data as of 9/22/2026

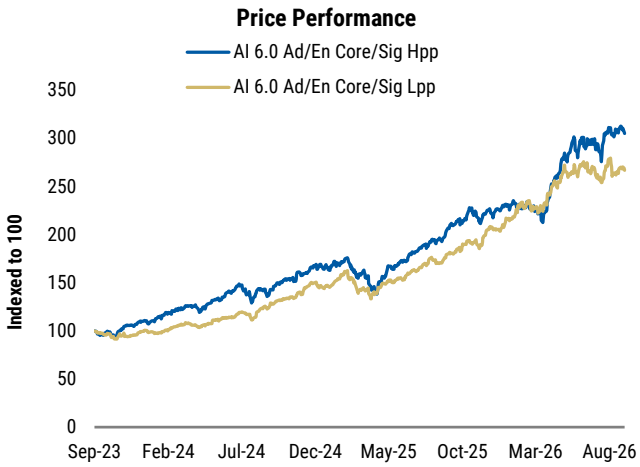
AI's Rate of Return in Stock Performance Charts

Exhibit 16: Core Enablers & Adopters Outperform Significant Enablers & Adopters



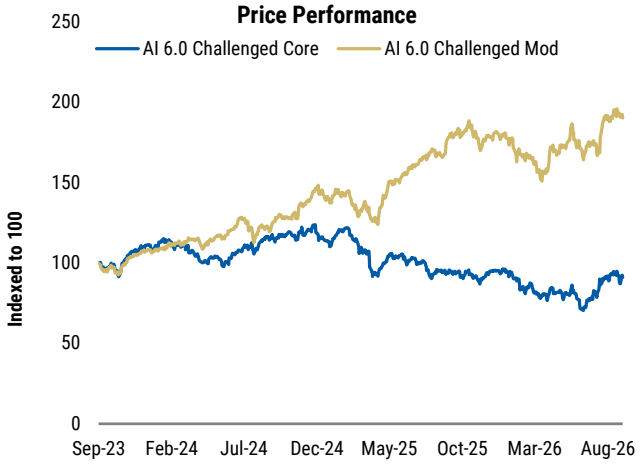
Source: FactSet, Morgan Stanley Research. MC-Weighted.

Exhibit 17: Adopters & Enablers with High Pricing Power Outperform those with Low Pricing Power



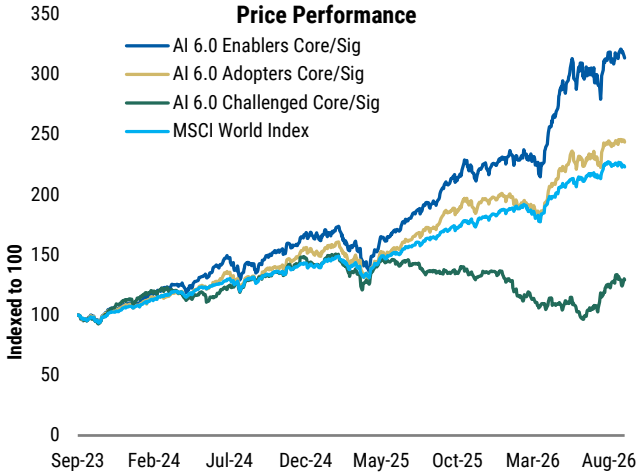
Note: Includes Adopters and Enablers with higher materiality (Sig-Core)
Source: FactSet and Morgan Stanley Research. MC-Weighted.

Exhibit 18: Disrupted Core Underperform Disrupted Moderate



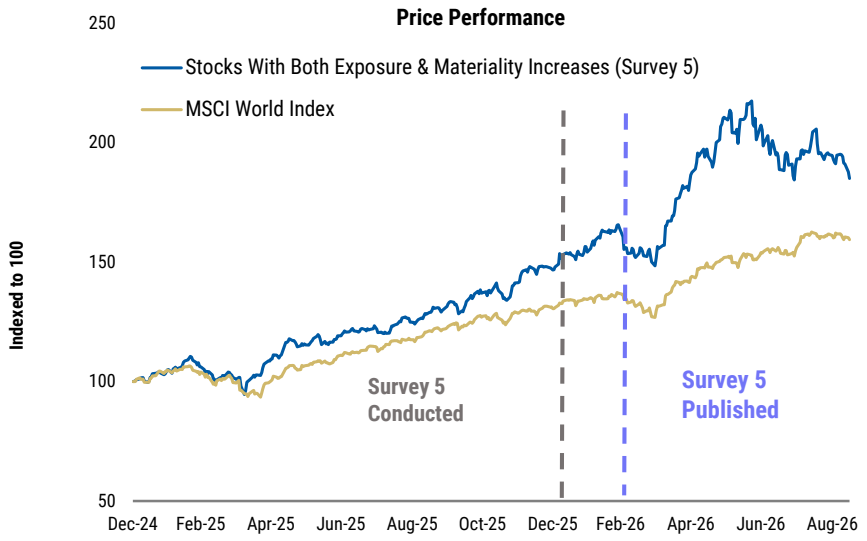
Source: FactSet, Morgan Stanley Research. MC-Weighted.

Exhibit 19: Enablers Lead the Pack



Note: Includes Enablers and Adopters with high materiality (Sig-Core) MC-Weighted.
Source: FactSet and Morgan Stanley Research.

Exhibit 20:
Rate of Change Drivers Outperformance



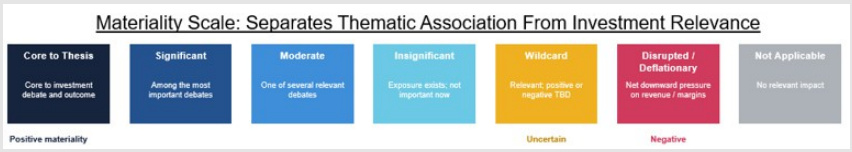
Source: FactSet, Morgan Stanley Research. MC-Weighted.

About the Data Set:

This is the sixth mapping of our global coverage (~3600 stocks)as it pertains to the speed and breadth of AI. See our prior mapping notes at AI 1.0, AI 2.0, AI 3.0, AI 4.0, and AI 5.0. We surveyed Morgan Stanley Research analysts across the firm's global stock coverage with the following questions:

- **How do you currently classify the company's AI exposure?** AI Adopter, AI Enabler, AI Challenged. *Note: We no longer have an "Enabler/Adopter" category but stocks can't be tagged as both adopters and enablers with varying materiality to each.*
- **How material do you believe AI will be to the investment thesis in the next 12-24 months?** 5 categories from Core to Thesis down to Insignificant.
- **How do you perceive this company's pricing power** (i.e., ability to retain cost savings vs. passing through to customers)? 3 categories High, Neutral, and Low.

Exhibit 21: Materiality Scale

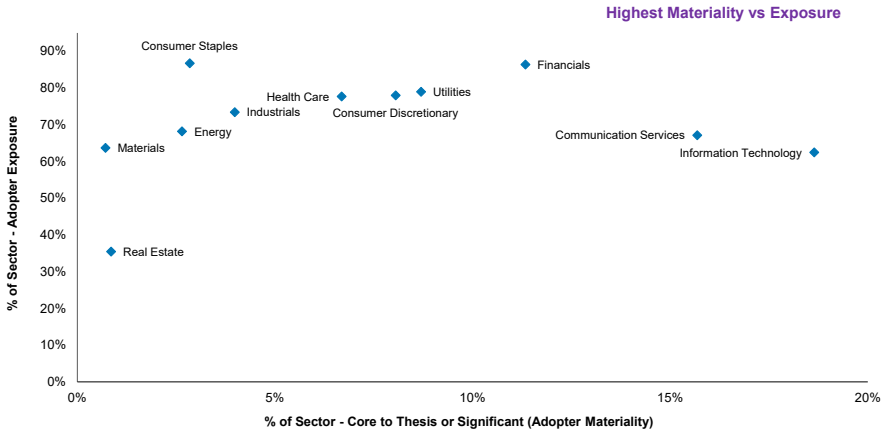


Source: Morgan Stanley Research

A complete list of Adopters, Enablers and AI Challenged stocks is available upon request: Please click here if you would like to receive that database. In addition to our AI mapping, we also map all stocks under MS coverage on exposure to subthemes within our four key themes: AI & Tech Diffusion, the Multipolar World, Societal Shifts, & the Future of Energy. Please see The Thematic Map - Scaling Themes in AlphaSignals for more information.

AI Mapping Data by Sector & Geography

Exhibit 22: Industry Groups by Highest Materiality and Exposure



Source: Morgan Stanley Research.

Exhibit 23: Sector by Exposure

GICS Sector	AI Adopter	AI Enabler	AI Challenged	At Least 1/3 AI Tags	Total Companies
Communication Services	137	75	97	151	204
Consumer Discretionary	397	136	185	424	509
Consumer Staples	183	13	25	183	211
Energy	103	20	7	109	151
Financials	381	36	175	393	441
Health Care	279	62	60	280	359
Industrials	387	224	154	421	527
Information Technology	295	355	147	404	472
Materials	179	101	83	184	281
Real Estate	83	6	47	109	234
Utilities	109	95	11	116	138

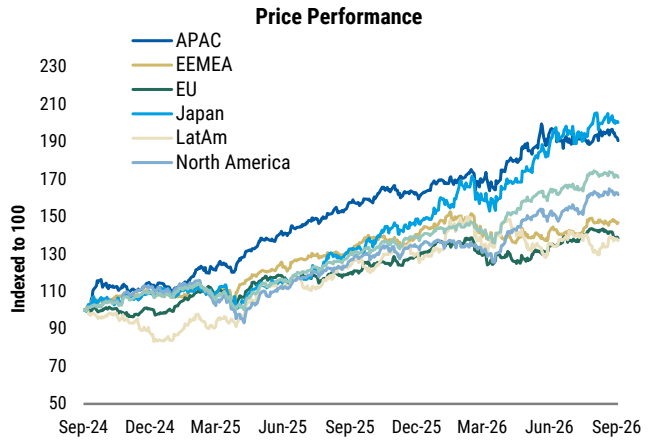
Source: Morgan Stanley Research.

Exhibit 24: Industry Group by Exposure

GICS Industry	AI Adopter	AI Enabler	AI Challenged	At Least 1/3 AI Tags	Total Companies
Automobiles & Components	84	73	53	96	119
Banks	147	2	46	149	162
Capital Goods	227	177	82	251	324
Commercial & Professional Services	48	18	37	57	67
Consumer Discretionary Distribution & Retail	102	15	47	106	137
Consumer Durables & Apparel	77	22	23	78	91
Consumer Services	134	26	62	144	162
Consumer Staples Distribution & Retail	43	7	11	43	52
Energy	103	20	7	109	151
Equity Real Estate Investment Trusts (REITs)	33	6	22	58	149
Financial Services	136	29	95	146	173
Food Beverage & Tobacco	103	5	8	103	117
Health Care Equipment & Services	105	31	22	105	138
Household & Personal Products	37	1	6	37	42
Insurance	98	5	34	98	106
Materials	179	101	83	184	281
Media & Entertainment	84	20	69	86	128
Pharmaceuticals Biotechnology & Life Sciences	174	31	38	175	221
Real Estate Management & Development	50	0	25	51	85
Semiconductors & Semiconductor Equipment	60	123	21	123	139
Software & Services	128	120	98	139	178
Technology Hardware & Equipment	107	112	28	142	155
Telecommunication Services	53	55	28	65	76
Transportation	112	29	35	113	136
Utilities	109	95	11	116	138

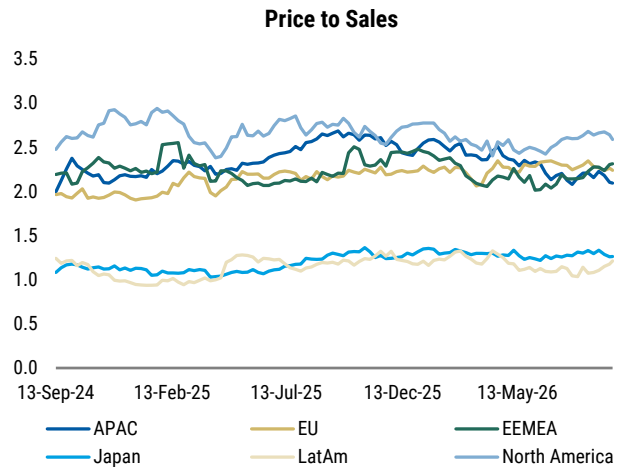
Source: Morgan Stanley Research.

Exhibit 25: AI Adopters Relative Returns



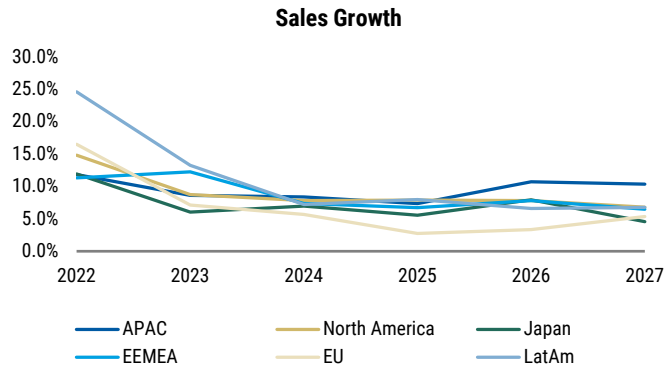
Note: Includes Adopters (Moderate - Core to Thesis). MC-Weighted.
Source: FactSet, Morgan Stanley Research

Exhibit 26: AI Adopters Price to Sales



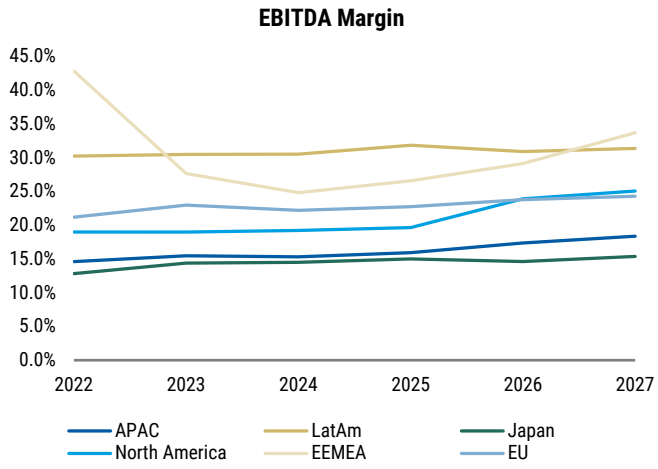
Note: Includes Adopters (Moderate - Core to Thesis).
Source: FactSet, Morgan Stanley Research

Exhibit 27: AI Adopters Sales Growth



Note: Includes Adopters (Moderate - Core to Thesis).
Source: FactSet, Morgan Stanley Research

Exhibit 28: AI Adopters EBITDA Margin



Note: Includes Adopters (Moderate - Core to Thesis).
Source: FactSet, Morgan Stanley Research

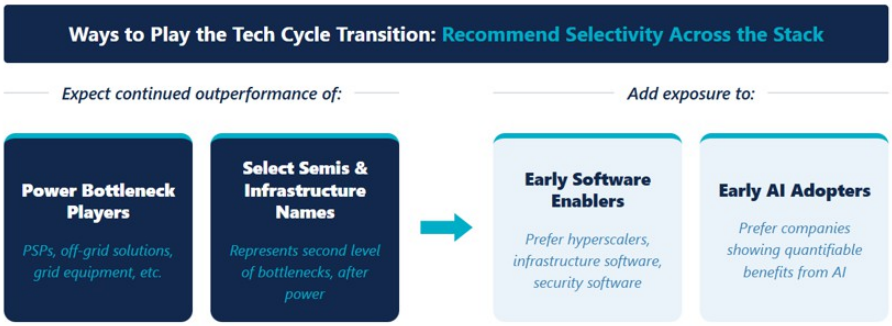
Tech Cycle in Transition: Recommend Selectivity Across the Stack

We're calling for a "barbell" approach as we move deeper into the AI cycle; a broadening into software enablers and AI adopters, while still owning players addressing key data center bottlenecks. In every historical computing cycle, we've seen a similar pattern of stock outperformance across three categories of technology "enablers": semis, infrastructure, then software & services (Exhibit 30). Together, these companies provide the technology stack that enables each computing cycle, from the chips, infrastructure, and devices that form its physical backbone to the software layered on top. There is also a technology diffusion component to each cycle — these companies are the adopters that leverage the new technology to drive productivity gains and revenue growth. We expect the diffusion of AI into other sectors to drive greater outperformance for the adopter category than in tech cycles that preceded it. Why? The exponential scaling of LLM capabilities and AI's full potential productivity impact suggest a broad, and meaningful opportunity for value creation. This is supported by the fact that companies are now citing quantifiable benefits from AI.

Now is the time to start adding exposure to early software enablers and AI adopters. We have clearly seen this outperformance pattern play out this cycle, with semis and infrastructure outperforming the S&P 500 by 500-700 pts. Now, we are calling for a broadening into early software enablers in the US — particularly infrastructure and security software, as well as select applications. We believe services will be a later-cycle beneficiary, once companies find a repeatable path to AI returns that services firms can help implement.

However, we also believe the cycle is different, given 1) the size of the AI capex build-out, and 2) key bottlenecks that are slowing the cycle. We continue to believe the demand for compute is likely to significantly exceed supply for many years to come. As we've written, we see key bottlenecks across the "3 P's" — People, Power, and Politics. We continue to be short power (our team forecasts a 57 GW shortfall in 2026-28, or 33 GW net of time-to-power solutions), labor remains a challenge, and regulatory hurdles are also slowing the pace of the data center buildout (see our work on data center moratoriums). As a result, it's likely we don't see as clear a linear handoff as in past cycles. **Thus, we believe it's time to be selective across multiple parts of the stack during this transition period** and are recommending continued outperformance of 1) power bottleneck players and *select* semis & infrastructure names, as well as broadening outperformance of 2) early software enablers and AI adopters.

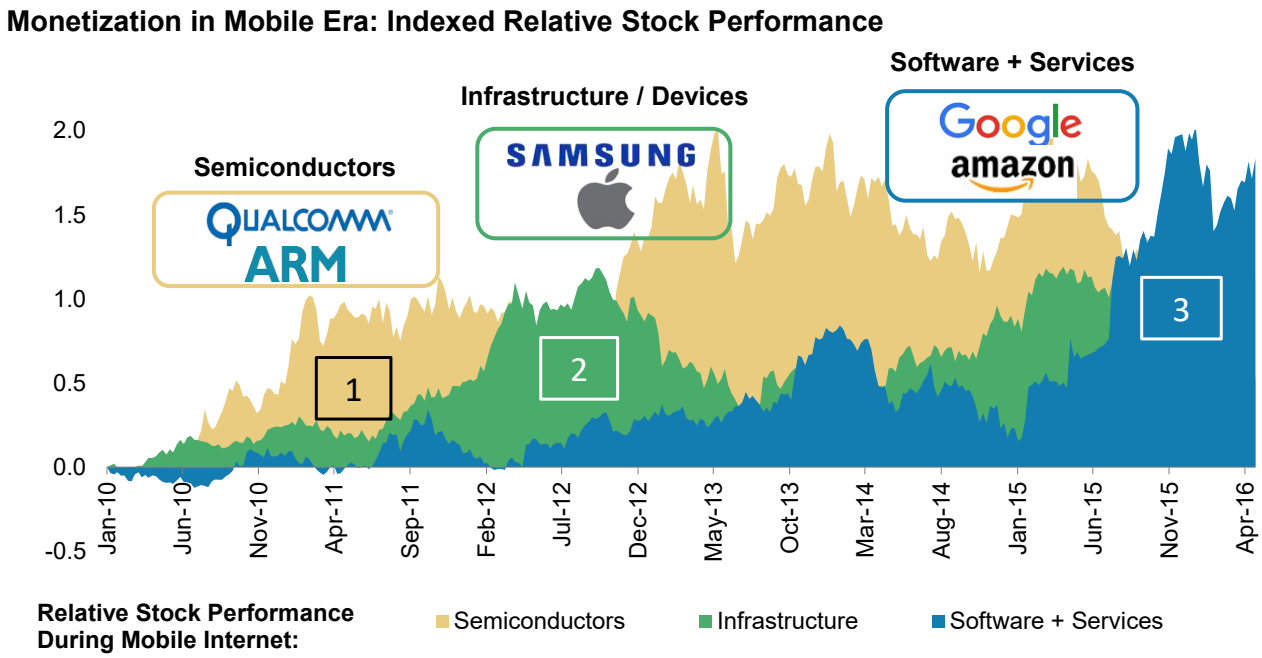
Exhibit 29: We are recommending a selective approach across the stack for this part of the cycle: Power bottleneck players, select semis/infra names, and early software enablers & AI adopters.



Source: Morgan Stanley Research

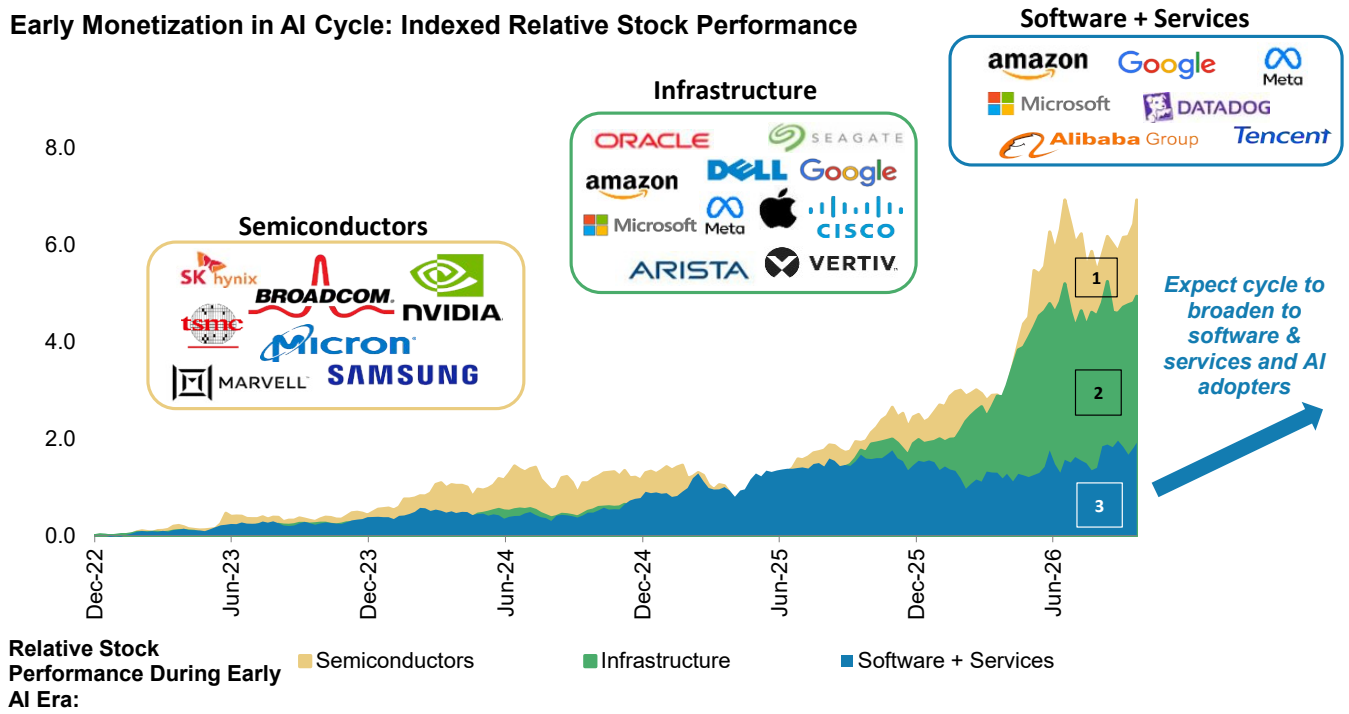
This cycle is already playing out like others … but faster and larger than before. Since November 2022, we've seen the classic compute cycle playbook materialize — semis have outperformed the S&P 500 by ~700pts, followed by infrastructure outperforming by ~500pts and software/services by ~200pts (Exhibit 31). Compared to past tech cycles, we are seeing faster adoption and larger equity value creation than ever before. AI has penetrated US households at 2x the rate of the Mobile Era, reaching 50% penetration at just three years (Exhibit 5). Semis and infrastructure relative stock performance is already 3-4x higher than peak stock outperformance in the Mobile Era, and we are still in earlier innings (Exhibit 6). We expect to see the same — if not even greater — levels of outperformance for software/services and AI adopters, given the transformational and productivity-enhancing applications of AI.

Exhibit 30: In the Mobile Era, we saw clear outperformance of Semis names (like Qualcomm/ARM), followed by Infrastructure/Devices (Samsung/Apple), and then Software & Services (Google/Amazon).



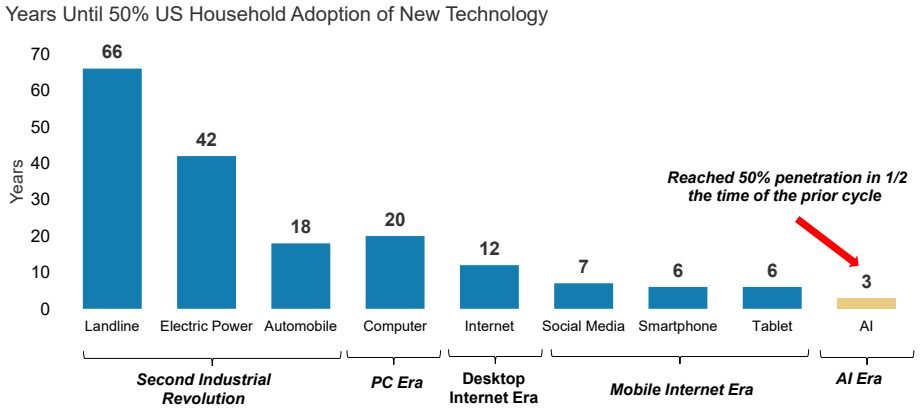
Source: Factset, Morgan Stanley Research

Exhibit 31: We are seeing the same dynamic play out this cycle and expect outperformance to broaden to Software & Services over the coming years.



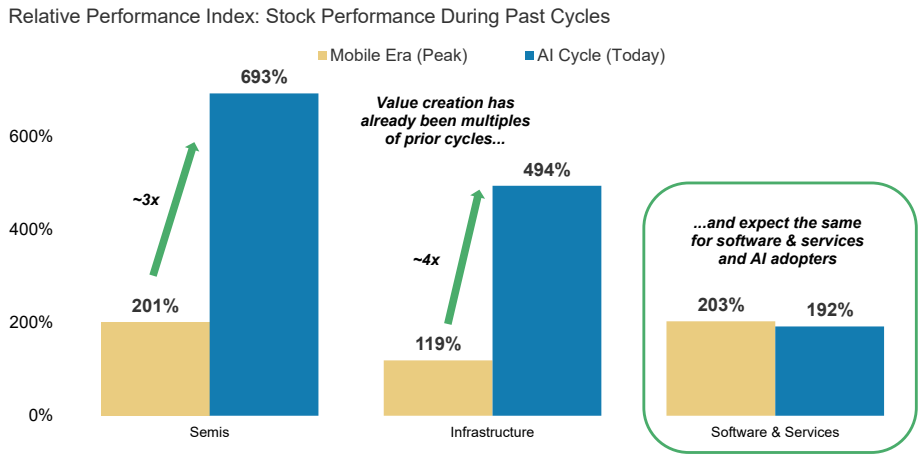
Source: Factset, Morgan Stanley Research. Note: Logos don't reflect all companies included in analysis

Exhibit 32: This cycle, we've seen AI reach 50% penetration in ~3 years, roughly half the time it took in the Mobile Era.



Source: OurWorldinData, Morgan Stanley Research, various websites

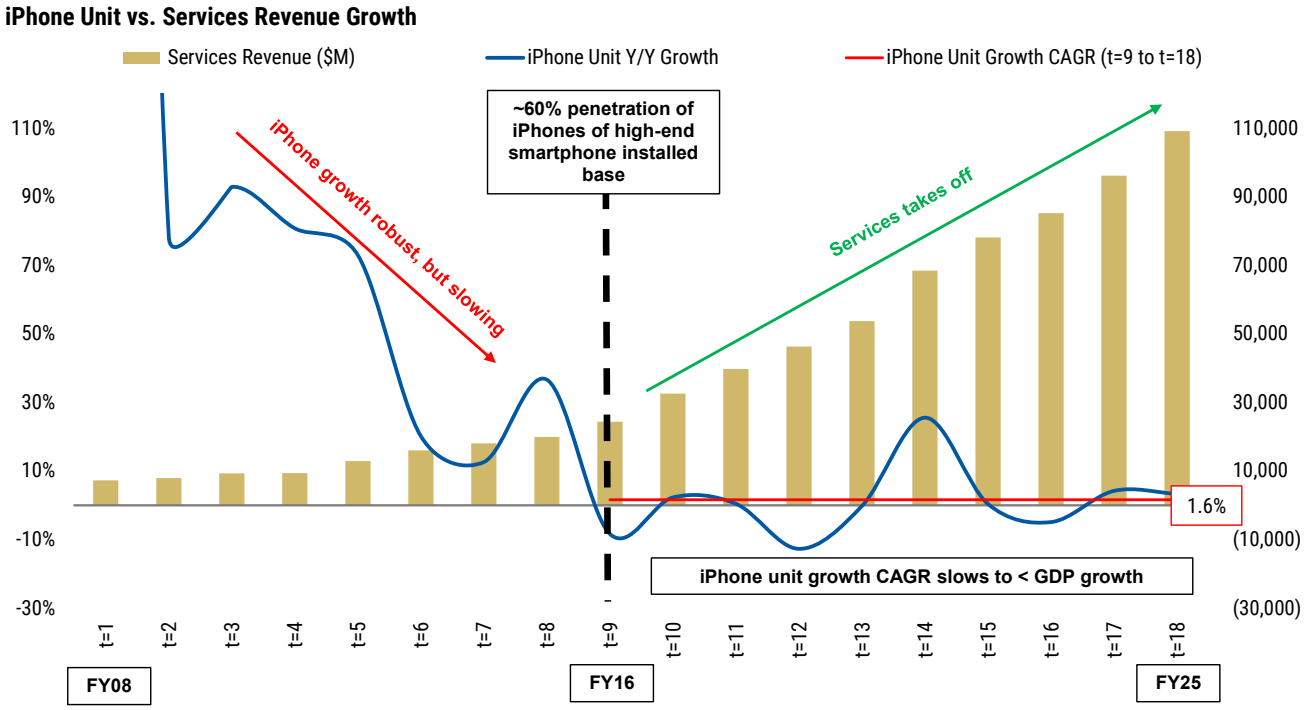
Exhibit 33: This cycle, we've already seen 3-4x more outperformance vs. prior cycles, confirming our view that the AI cycle will be larger and more transformative than any other we've seen before.



Source: Factset, Morgan Stanley Research

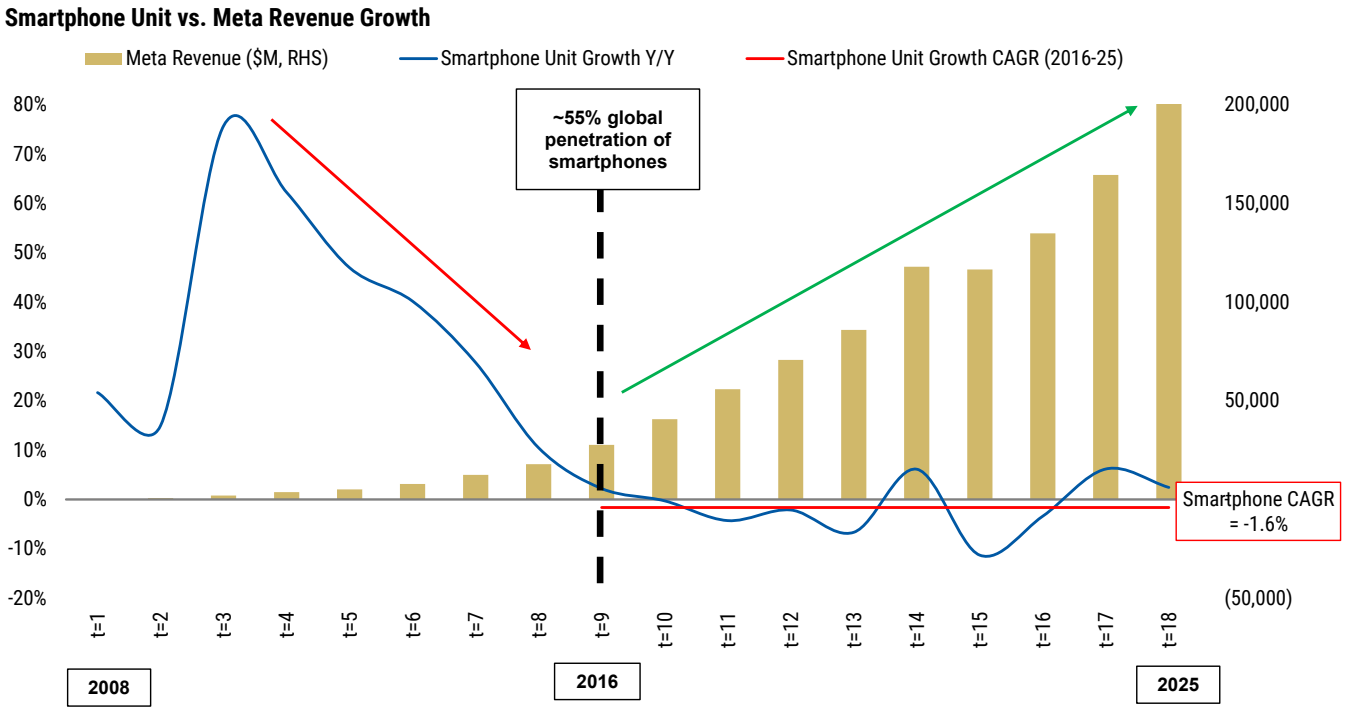
In past tech cycles, we've seen a hardware-to-software handoff when hardware growth slows to single digits. Historically, once hardware penetration reaches maturity, growth begins to slow and we see value creation shift to the software/services built on the underlying technology. An example is the iPhone and Apple Services. Once the iPhone installed base reached ~650M and represented ~60% of the global high-end smartphone installed base, iPhone unit growth began to slow to a CAGR nearing GDP growth (Exhibit 34). Growth then shifted to Services, which compounded at an 18% CAGR in FY16-25. We've also seen similar dynamics play out with smartphones penetration and Meta revenue once global smartphone penetration reached 55%. In both of these cases, there was an inflection in software/services revenue once hardware penetration reached 50-60% and hardware growth slowed to single digits.

Exhibit 34: Once iPhone growth slowed to a CAGR roughly in-line with GDP growth, Apple Services began to take off, growing at an 18% CAGR for the next nine years.



Source: Company filings, Morgan Stanley Research

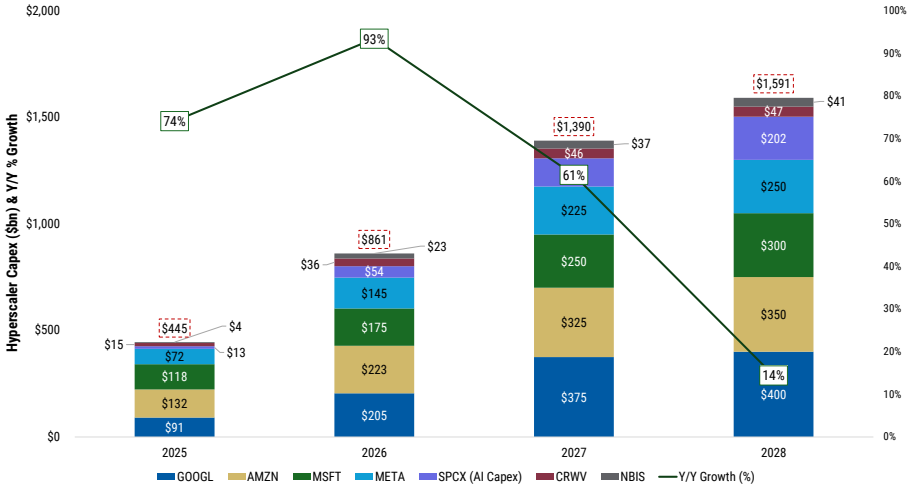
Exhibit 35: ...as well as smartphones and Meta revenue during the mobile cycle.



Source: Company filings, Morgan Stanley Research

How does this apply to the AI cycle? Our teams forecast a hyperscaler capex growth deceleration in 2028, indicating we could be entering a transition from hardware to applications. Morgan Stanley teams forecast hyperscaler/neocloud capex Y/Y growth decelerating from 93% growth this year to 14% in 2028 (Exhibit 10). This indicates we could soon see a transition from hardware to software/services in 2028, and we expect this shift heading into next year as this is priced in.

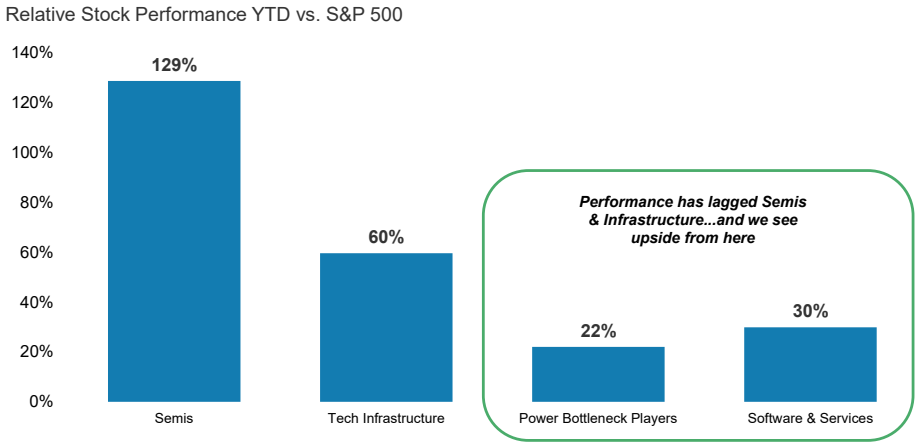
Exhibit 36: Our teams forecast hyperscaler/neocloud capex growth decelerating from 93% Y/Y in 2026 to 61% Y/Y in 2027 and 14% Y/Y in 2028.



Source: Company Filings, Morgan Stanley Research. Excludes ORCL.

We want to be clear that we still expect outperformance of select enablers, as AI bottlenecks are bigger than ever before. We still see power as the key bottleneck preventing faster data center buildout and AI adoption — we forecast as 57 GW shortfall from 2026-28 (translates to a 30-40% power shortfall) and recent data points from PSPs indicate 1) an urgency from customers to energize sites by year-end 2027, and 2) heightened competition for deals with firm power grid access. Local opposition that has delayed or cancelled $286B of US data center projects since 2025 are also slowing the pace of the buildout, with communities fearing rising power bills, environmental issues, and quality of life concerns. These dynamics favor power bottleneck players (including PSPs, data center REITs, off-grid generation / renewables, grid equipment, data center electrical equipment, and others), and this cohort has outperformed the S&P 500 YTD, but underperformed semis and infrastructure by 100pts and 40pts, respectively.

Exhibit 37: Year to date, power bottleneck names have outperformed the S&P 500, but performance has lagged the semis and infrastructure stacks.

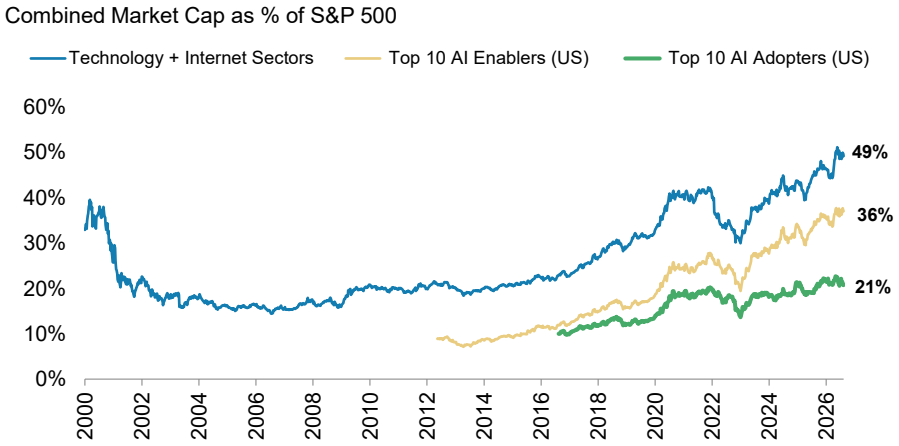


Source: Factset, Morgan Stanley Research

We also expect gains to extend to US software, as enterprise adoption accelerates... We see large growth opportunities across pockets of software/services enablers and expect leadership to rotate into these types of categories, as enterprise adoption rises from low levels. As our US Software team has written here, the software cycle generally progresses from infrastructure software to security and finally applications. We've seen the same dynamics play out this cycle, as companies focus on data infrastructure, observability, and orchestration required to provide models with enterprise context, as well as security due to the recent AI breaches. We expect outperformance to then shift to application software and like select names in this space (more below). We believe an uplift to software enabler names in Europe and Asia will be longer-tailed, given 1) there are less of them in general, and 2) the software names that do exists are skewed more toward applications than infrastructure/security.

...and early adopters, as companies prove they're generating quantifiable benefits and clear market leadership with AI. Today, market cap is concentrated in AI enablers vs. adopters, with over 1/3 of S&P 500 market cap concentrated in the top 10 AI enablers by market cap vs. 1/5 for the top 10 AI adopters. We expect performance to broaden to adopters over time. This is important, as our prior work indicates that companies who have best adopted new technologies have tended to rise ahead of peers and become the largest market cap companies — examples include Ford and GM aggregating share with the assembly line, as well as software players leveraging the internet and iPhone platform (Exhibit 39). **Why now?** While we have been talking about adopters for a while, it has taken time for enterprise adoption to materialize. We believe we are at the early stages of an inflection point where companies generate tangible ROI from AI adoption. Nearly 25% of the S&P 500 cites quantifiable benefits from AI in earnings transcripts, and consensus expects AI Adopters to deliver 4.6% of EBIT margin expansion in 2025-26, modestly ahead of the S&P 500 and nearly twice the MSCI ACWI (Exhibit 40 , Exhibit 3, Exhibit 42). We believe this adopter trade starts to work when benefits hit the P&L, especially when companies can prove durable revenue and market share leadership due to AI.

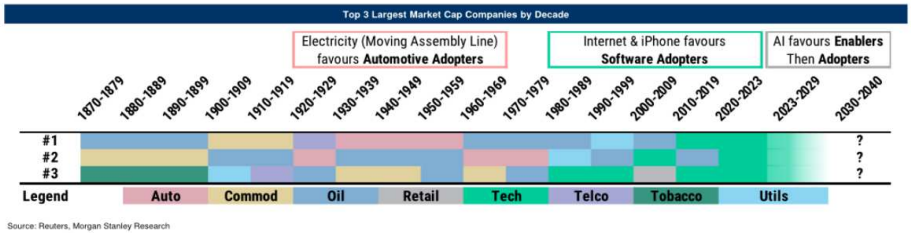
Exhibit 38: Significant market cap is concentrated in AI enablers today, and we expect leadership to broaden to adopters over time



**Top 10 reflects top 10 market cap. SPCX added at time of IPO in June 2026.*

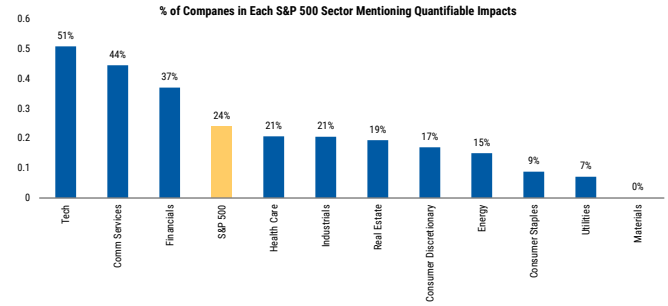
Source: Compustat, Factset, Morgan Stanley Research

Exhibit 39: In historical tech cycles, the largest market cap companies have ended to be technology adopters — example are autos companies with the moving assembly line and software players with the rise of the internet and iPhone



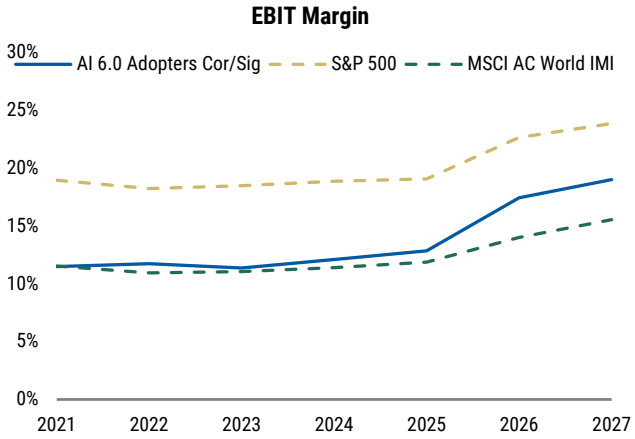
Source: Reuters, Morgan Stanley Research

Exhibit 40: Percent of Companies within S&P 500 Sectors Mentioning Quantifiable AI-Related Impacts



Source: Morgan Stanley Research.

Exhibit 41: AI Adopters Deliver Margin Expansion



Note: Adopters with high materiality (Significant or Core to Thesis). Median.
Source: FactSet, Morgan Stanley Research

Exhibit 42:

Examples of companies quantifying the financial impacts of AI.

Ticker	Name	Sector	Quote
IRTC.O	iRhythm Holdings	Health Care	The benefits of the third-generation algorithm are significant to us. It will reduce our clinician review time by almost half, which over the next five years will generate at least $100 million of savings to us from the current run rate of what you see in our P&L.
EFX.N	Equifax, Inc.	Industrials	Equifax expects to deliver $75 million worth of productivity over the next couple of years through AI deployment in operations.... we're going to take $75 million of costs out in 2026 and 2027, and we put that in our guide for the year, the 75 basis points versus 50, so 25 basis points of incremental margin lift, so really big deal.
HPQ.N	HP, Inc.	Information Technology	We have been focused on driving some cost savings and transformation through AI enablement across our whole company. And we've been seeing good traction on that. Some examples are that in our supply chain, we've been scaling AI agents that enable us to automate order entry and returns.... That program is intended to drive $1 billion in gross annual run rate savings by its third year by FY 2028. We're well on track there.
CTSH.O	Cognizant Technology Solutions Corp.	Information Technology	Consistent with this shift, we delivered 2.5% and 5% increases in trailing 12-month revenue and adjusted operating margin per employee, respectively. We're beginning to see the emergence of AI-infused rate cards where pricing reflects a blended model of human effort and digital effort.
SLB.N	SLB Ltd.	Energy	Turning to Digital, revenue increased 9% year-on-year driven by strong uptake in Digital Operations. Of note, automated footage drilled increased by 145% year-on-year as customer continued to adopt digital and AI-powered solutions to boost operational performance and efficiency.
VZ.N	Verizon Communications, Inc.	Communication Services	We already have over $200 million of energy savings as a result of deploying AI into the network and looking at how we can optimize on energy, and we are doing things now at industrial scale.
AXON.O	Axon Enterprise, Inc.	Industrials	While all of our software products continue to grow, AI was a standout with AI product revenue growing more than 700% year-over-year. This is on a small revenue base, but is delivering on the strong bookings from last year and will continue to scale.
ABNB.O	Airbnb, Inc.	Consumer Discretionary	You see, when guests contact us through our AI Assistant, over 40% of issues are now resolved without a human agent, and this is up from about a third in Q4 with significantly faster resolution time. We've seen the cost per booking decrease about 10% year-over-year in Q1 and we expect to see more of this as we improve AI customer support this year.
VMRK.N	Vivmark Residential	Real Estate	Our next set of priorities include the further deployment of AI solutions and our seamless digital self-service experiences, additional enhancements to our technology and data platforms, and further optimization of neighborhood and centralized staffing, all on our way to our Horizon 2 target of $80 million of annual incremental NOI in the coming years.
THC.N	Tenet Healthcare Corp	Healthcare	So, I gave an example the other day on the call about analytics in Conifer and standardizing and automating some of those analytics using AI tools. Well, we produce the same reports for ourselves internally and every one of our clients. They're not different. So we were able to do that and reduce that cost by 60%.

Source: AlphaWise, Morgan Stanley Research

Services is the sector where performance is yet to come. While we recommend the shift to software, we are not yet recommending a shift into services. We expect services to be a late cycle beneficiary, as it comes into play when there is accelerated deployment of a technology. In order for services companies to help companies with AI implementations and transformations, we have to see a repeatable path to generating ROI from AI. Given many companies remain in experimentation or pilot phases, this creates a difficult environment for services names, as IT budgets are pressured in non-AI areas.

How to play our call for a "barbell" of outperformance across data center bottlenecks, select semis/infrastructure names, early software enablers, and early AI adopters. Below are our ways to play the transition:

- **Power Bottleneck Players (Exhibit 43).** We continue to "Power Bottleneck Players" that are addressing data center energization. This group includes the PSPs, data center REITs, off-grid generation / renewables, grid equipment, data center electrical equipment, and others.
- **Select Semis/Infrastructure Names We Still Like (Exhibit 14).** While power is the biggest bottleneck, we also highlight select AI semis/infrastructure names that are either 1) attacking secondary bottlenecks after power, or 2) can still see outperformance due to idiosyncratic reasons. Semis names (SOX index) have de-rated by from ~8x since late February to ~21x NTM P/E today, and we still see

windows of opportunity with select names and sub-segments like components, substrates, and testing equipment.

- **Early Software Beneficiaries (Exhibit 45).** For software/services, we expect leadership to rotate into companies monetizing and building new applications on top of AI — this includes the hyperscalers, infrastructure software, security software, and select applications.
- **Early AI Adopters (Exhibit 11 ; Exhibit 12).** For adopters, *please see our AI Adopters Screen* — we believe we will see the first value creation across AI Adopters where AI is "Core to Thesis."

Exhibit 43: Ways to Play: Power Bottlenecks

Name	Ticker	Analyst	Region	Rating	Price (USD)	Price Target (USD)	Upside (Downside) to PT
Powered Shell Providers (PSPs)							
Terawulf	WULF	Stephen Byrd	US	OW	17.33	62.50	260.6%
Hut8	HUT	Stephen Byrd	US	OW	106.61	273.00	156.1%
Cipher Mining	CIFR	Stephen Byrd	US	OW	19.09	54.00	182.9%
Riot Platforms	RIOT	Stephen Byrd	US	OW	24.93	43.00	72.5%
Data Center REITs							
Equinix	EQIX	Cameron McVeigh	US	OW	1,059.26	1,250.00	18.0%
Singapore Telecom	STEL.SI	Da Wei Lee	APAC	OW	3.36	4.31	28.5%
Off-Grid Power Generation							
Solaris	SEI	Dave Arcaro	US	OW	65.67	90.00	37.0%
Bloom Energy	BE	Dave Arcaro	US	OW	276.53	310.00	12.1%
GE Vernova	GEV	Dave Arcaro	US	OW	950.28	1,350.00	42.1%
INNIO Group	INIO	Dave Arcaro	US	OW	19.51	47.00	140.9%
Liberty Energy	LBRT	Joe Laetsch	US	OW	18.04	30.00	66.3%
Erock Inc.	EROC	Angel Castillo	US	OW	12.83	23.00	79.3%
Siemens Energy	ENR GY	Max Yates	EMEA	OW	165.85	223.74	34.9%
Energy Storage							
CATL	300750.SZ	Jack Lu	APAC	OW	44.93	88.81	97.7%
Cummins	CMI	Angel Castillo	US	OW	526.13	761.00	44.6%
Samsung SDI	006400.KS	Young Suk Shin	APAC	OW	384.81	494.86	28.6%
Renewable Energy Developers / IPPs							
NextEra Energy	NEE	Dave Arcaro	US	OW	79.26	111.00	40.0%
Clearway	CWEN	Robert Kad	US	OW	30.65	58.00	89.2%
Adani Green	ADNA.NS	Girish Achhipalia	APAC	OW	13.61	15.95	17.2%
JSW Energy	JSWE.NS	Girish Achhipalia	APAC	OW	5.45	6.98	28.0%
Midstream Energy							
Williams Companies	WMB	Robert Kad	US	OW	70.98	103.00	45.1%
Data Center Electrical Equipment							
Schneider Electric	SCHN.PA	Max Yates	EMEA	OW	336.59	367.17	9.1%
Legrand	LEGD.PA	Max Yates	EMEA	OW	158.51	183.58	15.8%
Rexel S.A.	RXL.PA	Max Yates	EMEA	OW	42.82	47.04	9.9%
Grid Eqipment / Transformer							
HD Hyundai Electric	267260.KS	Ryan Kim	APAC	OW	522.93	1,107.89	111.9%
LS Electric	010120.KS	Ryan Kim	APAC	OW	151.78	199.42	31.4%
CG Power & Industrials	CGPO.NS	Girish Achhipalia	APAC	OW	9.36	7.63	(18.5%)
Data Center Transmission / Other							
Adani Energy	ADAI.NS	Girish Achhipalia	APAC	OW	14.44	20.33	40.8%
Adani Enterprises	ADEL.NS	Girish Achhipalia	APAC	OW	31.31	38.06	21.5%

Source: Morgan Stanley Research, Factset.Data as of 9/22/2026

Exhibit 44: Ways to Play: Semis/Hardware Names With Durability

Name	Ticker	Analyst	Region	Rating	Price (USD)	Price Target (USD)	Upside (Downside) to PT
GPU / ASICs							
Nvidia	NVDA	Joe Moore	US	OW	228.87	300.00	31.1%
Broadcom	AVGO	Joe Moore	US	OW	364.54	505.00	38.5%
MediaTek	2454.TW	Charlie Chan	APAC	OW	163.78	176.51	7.8%
Global Unichip Corporation (GUC)	3443.TW	Charlie Chan	APAC	OW	264.86	198.62	(25.0%)
Cloud Semi							
Aspeed	5274.TWO	Daniel Yen	APAC	OW	640.60	758.10	18.3%
Montage	688008.SS	Daniel Yen	APAC	OW	33.34	56.27	68.8%
Foundry							
TSMC	TSM	Charlie Chan	APAC	OW	78.97	94.38	19.5%
Semiconductor Equipment							
ASML	ASML.AS	Lee Simpson	EMEA	OW	1739.23	1950.58	12.2%
Wafer Substrates and Materials							
Soitec	SOIT.PA	Nigel van Putten	EMEA	OW	172.86	229.48	32.8%
ABF Substrate							
Unimicron	3037.TW	Howard Kao	APAC	OW	36.64	46.28	26.3%
Nan Ya PCB	8046.TW	Howard Kao	APAC	OW	38.22	48.96	28.1%
Samsung Electro-Mechanics	009150.KS	Shawn Kim	APAC	OW	1113.06	1935.12	73.9%
Ibiden	4062.T	Shoji Sato	APAC	OW	124.26	174.75	40.6%
MLCC							
Murata	6981.T	Shoji Sato	APAC	OW	49.33	69.90	41.7%
Samsung Electro-Mechanics	009150.KS	Shawn Kim	APAC	OW	1113.06	1935.12	73.9%
Back-End Semicap / OSAT							
Advantest	6857.T	Suzune Tamura	APAC	OW	203.66	228.76	12.3%
Chroma Ate Inc	2360.TW	Derrick Yang	APAC	OW	73.44	88.45	20.4%
King Yuan Electronics Co	2449.TW	Charlie Chan	APAC	OW	9.60	10.68	11.2%
Power							
Delta Electronics	2308.TW	Derrick Yang	APAC	OW	60.02	85.29	42.1%
Memory							
CXMT	688825.SS	Charlie Chan	APAC	OW	8.75	13.14	50.1%
SK Hynix	000660.KS	Shawn Kim	APAC	OW	1375.27	1920.35	39.6%
Samsung Electronics	005930.KS	Shawn Kim	APAC	OW	210.87	281.41	33.5%
KIOXIA	285A.T	Kazuo Yoshikawa	APAC	OW	346.76	698.99	101.6%
Networking							
Lumentum	LITE	Meta Marshall	US	EW	945.67	1000.00	5.7%
Nokia	NOKIA.HE	Terrance Tsui	EMEA	OW	10.84	16.06	48.2%
Furukawa Electric	5801.T	Yu Shirakawa	APAC	OW	24.79	38.76	56.4%
Hard Disk Drives							
Seagate	STX	Erik Woodring	US	OW	919.84	1187.00	29.0%
Materials							
Mitsui Kinzoku	5706.T	Yu Shirakawa	APAC	OW	144.85	228.76	57.9%

Source: Morgan Stanley Research, Factset. Data as of 9/22/2026

Exhibit 45: Ways to Play: Early Software Enablers We Like

Name	Ticker	Analyst	Region	Rating	Price	Price Target	Upside (Downside) to PT
Infrastructure Software							
Microsoft	MSFT	Adam Wood	US	OW	498.00	600.00	20.5%
Snowflake	SNOW	Sanjit Singh	US	OW	336.59	470.00	39.6%
Datadog	DDOG	Sanjit Singh	US	OW	247.48	300.00	21.2%
MongoDB	MDB	Sanjit Singh	US	OW	427.69	430.00	0.5%
Dynatrace	DT	Sanjit Singh	US	OW	57.20	65.00	13.6%
Cloudflare	NET	Sanjit Singh	US	OW	353.00	370.00	4.8%
Security Software							
Palo Alto Networks	PANW	Meta Marshall	US	OW	374.57	410.00	9.5%
Crowdstrike	CRWD	Meta Marshall	US	OW	250.06	254.00	1.6%
Okta	OKTA	Meta Marshall	US	OW	196.62	200.00	1.7%
SaaS Applications							
Atlassian	TEAM	Adam Wood	US	OW	188.65	180.00	(4.6%)
ServiceNow	NOW	Adam Wood	US	OW	137.00	180.00	31.4%
Shopify	SHOP	Adam Wood	US	OW	147.74	192.00	30.0%
ServiceTitan	TTAN	Chris Quintero	US	OW	61.56	92.00	49.4%
Navan Inc	NAVN	Chris Quintero	US	OW	20.97	33.00	57.4%
Model Providers / Consumer Applications							
Meta	META	Brian Nowak	US	OW	736.60	775.00	5.2%
Google	GOOGL	Brian Nowak	US	OW	351.16	400.00	13.9%
Amazon	AMZN	Brian Nowak	US	OW	254.98	335.00	31.4%
Minimax	0100.HK	Gary Yu	APAC	OW	35.05	114.71	227.3%
Z.ai	2513.HK	Gary Yu	APAC	OW	82.85	229.43	176.9%
Tencent	0700.HK	Gary Yu	APAC	OW	56.21	70.10	24.7%
Alibaba	BABA.N	Gary Yu	APAC	OW	116.31	180.00	54.8%
Meitu	1357.HK	Lydia Lin	APAC	OW	0.49	1.30	163.6%

Source: Morgan Stanley Research, Factset. Data as of 9/22/2026

Where could we be wrong? The capex cycle proves more durable than we expect — driven by much higher demand or greater bottlenecks — leading to stronger-for-longer semis and infrastructure growth. We have historically underestimated the size of past tech cycles (Exhibit 46), so it's possible that demand continues to exceed supply for many years to come, driving more elevated and consistent capex.

Exhibit 46: On average, Wall Street has underestimated the size of the PC, internet, mobile, and cloud opportunities by ~70% on average, showing it's possible the AI cycle is larger than we even anticipate.

Compute Cycle	Initial Forecast	Actual	% Outperformance	10 YR CAGR	Initial Forecast Date
PC	**225mn** *PC Users in 2000*	**354mn** *PC Users in 2000*	57%	**14%** *1995-2005*	February 1996
Internet	**152mn** *Internet Users in 2000*	**361mn** *Internet Users in 2000*	138%	**41%** *1996-2006*	February 1996
Mobile	**657mn** *Smartphone Shipments in 2013*	**1,019mn** *Smartphone Shipments in 2013*	55%	**15%** *2010-2020*	January 2010
Cloud	**$90.2bn** *Top 3 Cloud Provider Revenue in 2020*	**$115.6bn** *Top 3 Cloud Provider Revenue in 2020*	28%	**29%** *2017-2027*	March 2017

Source: Morgan Stanley Research

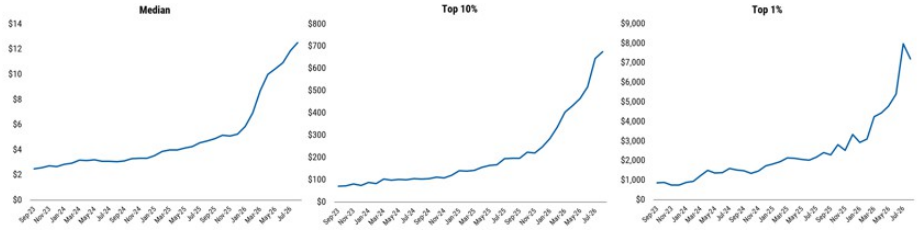
Key Views from Our Tech Teams

US Semiconductors (Joe Moore)

Demand remains exceptionally strong for all of the data center–related end markets, with NVDA/AVGO both looking for 70-100% y/y growth in 2027 from a broad range of spenders. Across hyperscalers, neoclounds, frontier model developers, sovereigns, and enterprise we are not seeing any slowing in AI spend or adoption. Token consumption continues to grow exponentially, and with increased product momentum in agenetic applications (SpaceXAI's Grok Bot and META's Muse) we could see a broadening beyond chat bots and coding agents to broader consumer use cases — further increasing the demand for compute.

Within the enterprise there still remains a long runway for growth, and measures like the Ramp AI index show the average business is still spending very little on AI today. Either enterprise or consumer could be another catalyst for further semiconductor demand, and should serve to lift the multiples of the stocks most pricing in a slowdown, which looks like Nvidia at 14x next year's EPS and Broadcom at 11x its FY28 EPS guidance, with both meaningfully supply constrained at those levels.

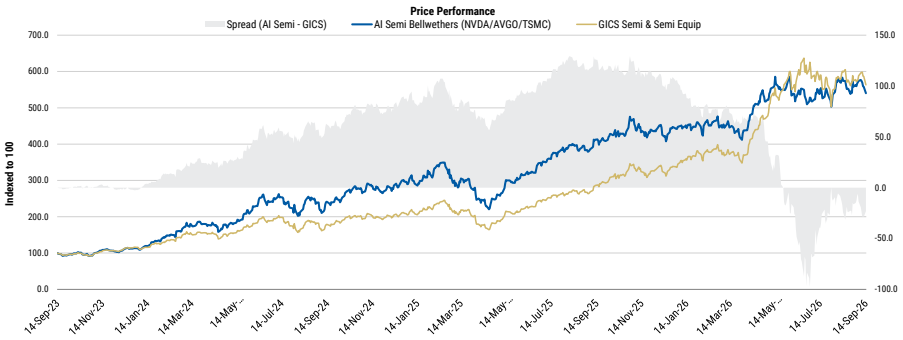
Exhibit 47: AI spending per employee at the median firm 1/50th the top 10%, with all groups up ~3x y/y



Source: Ramp AI Index, Morgan Stanley

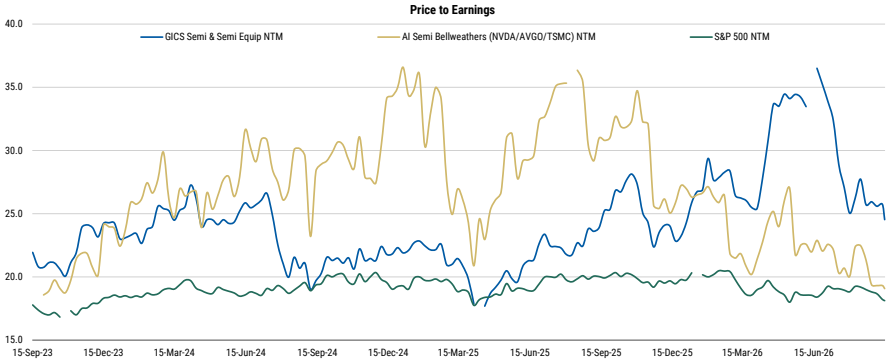
However as the constraint to AI increasingly moves to data center land and powered shell availability we expect leadership within semis to shift away from pricing leverage–driven stocks (INTC, MU, SNDK) and toward (1) the highest quality franchises at already trough multiples (Nvidia/Broadcom), along with (2) data center content stories (CBRS, ALAB). To us, Nvidia remains the most attractive, with exposure to all the most exciting content stories: fast inference with groq, agenetic CPU demand, CPO solutions etc. and the most compelling product cycle in Vera Rubin, offering 35x performance improvements vs the current generation Blackwell. Nvidia is also in a position to gain share if lead times come in due to constraints elsewhere, which played out in 2023.

Exhibit 48: The spread between Nvidia/Broadcom/TSM and broader semis has converged this year



Source: Factset, Morgan Stanley Research

Exhibit 49: Mostly due to multiple compression, which we see creating a buying opportunity



Source: Factset, Morgan Stanley Research

US Internet (Brian Nowak)

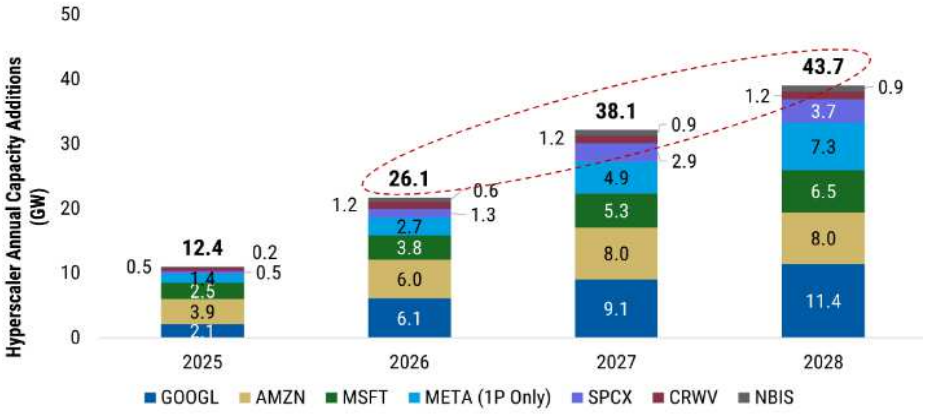
Agentic workflows are making compute an increasingly scarce asset… We believe compute itself remains a bottleneck that the hyperscalers will continue being able to monetize. Agentic products that plan, browse and execute multi-step tasks consume materially more compute per user than prompt-and-response chat. The launch of SpaceXAI's Grok Bot and META's Muse, which provision users with a persistent cloud VM that keeps working after closing the app, will add to this dynamic. In effect, single tasks fan out into chained inference calls and tool/browser use (e.g., Meta checking a user's Gmail to know when a flight is so it can order something that ships in time), thus tokens per task continues to rise and GPUs are utilized even without a human in the loop between sessions. As we have written here, this is also a memory story. Agents that carry context across sessions need somewhere to keep that latent state resident, and higher KV cache/long-context requirements raise memory capacity needs at both the chip and rack level...already visible in our bottom-up work, where memory moves from HSD% of our Blackwell rack estimates to ~25% of our Vera Rubin rack cost estimates.

...with the hyperscalers set to 4X compute capacity from '25 to '28. We see ~80 GW of capacity coming online across the hyperscalers and neoclouds in '27/'28 (~38 GW/~44 GW), taking total capacity to ~145 GW by '28, up ~4X from ~36 GW in '25, with GOOGL adding the most in both years (~9 GW/~11 GW). Compute capacity pricing is as simple as

supply and demand, and as discussed in Internet: The Paths to 25-50% GenAI ROIC (27 Jul 2026), 1 GW of GB300 rented as IaaS supports $19-27bn of revenue at 25-40% ROIC with ~70% incremental EBIT margins. Total hyperscaler margins will be lower in aggregate due to 1) lower monetizing custom silicon and 2) hardware sales in the case of GOOGL, but we view these businesses as attractive given the demand at the top of the stack.

We prefer META, AMZN, and GOOGL as best ways to play compute scarcity. We believe META has multiple call options not currently reflected in the stock at ~18X our '28 EPS. We have written about these upside nodes here, and the recent release of Muse (its personal assistant/agent, see here) has made us incrementally positive on their ability to serve their 3.6bn DAUs and address the $30tn TAM of consumer spend across agentic offerings. Beyond META, we believe GOOGL/AMZN/MSFT are all set to benefit from compute pricing remaining high as newer chips (with higher token throughput) come online, as we model 52% hyperscaler revenue growth in '27 across AWS/Azure/GCP, up from 43% growth in '26. ***Please let us know if interested in our bottoms up capex per GW or capacity deployment models.***

Exhibit 50: We expect the hyperscalers to add ~25-45 GW of capacity per year from 2026-28.



Source: Morgan Stanley Research

US Software (Adam Wood)

AI Value Capture Starts in Infrastructure + Cyber, with Select Application Winners Emerging. Across our software coverage, we continue to prefer Infrastructure Software (MSFT, SNOW, DDOG, NET, DT) and Cybersecurity (PANW, CRWD) as the earlier beneficiaries of the next phase of AI tooling, consistent with our view that the software cycle should progress from infrastructure to security and ultimately applications (see *Software: The Moat & The Journey – Assessing Software Durability + Growth in the Age of AI (21 Jul 2026)*). As enterprise AI adoption moves into production, we expect spending to first accrue to the data infrastructure, observability and orchestration layers required to provide models with enterprise context, while the proliferation of agents and AI-enabled workflows expands the attack surface and creates incremental security requirements. Further, the infrastructure software vendors are positioned to provide the data/context required by AI applications, while cybersecurity becomes increasingly important in securing agentic workflows. Within Application Software, we remain selective and continue to prefer TEAM, NOW, SHOP, NAVN, and TTAN, where recent results provided

increasingly tangible evidence of AI acting as a growth enabler. In particular, TEAM is benefiting from strong cloud momentum and emerging monetization through Collections and its Teamwork Graph, while NOW is among the earliest application vendors showing a measurable AI-driven growth inflection. SHOP has also delivered early evidence that AI interfaces can act as an incremental merchant channel, with internally-developed tools improving merchant performance and productivity. Separately, sentiment has also recently improved around CRM following better-than-expected Q2 results (see *Salesforce, Inc.: Q2 Results – Better Leading Indicators, but 2H Execution Still Matters (27 Aug 2026)*), given rate of change improvement in leading indicators, stronger AI monetization signals, and greater evidence that its system-of-record and workflow position can remain durable in an agentic world. However, we remain EW as we need more evidence that headless monetization and AI momentum can offset legacy portfolio drags to accelerate overall organic growth.

Exhibit 51: Sequencing the Cycle: Infrastructure

primary expected beneficiary | emerging / contested | mixed / watch | at risk

Category / driver	Bellwethers (illustrative)	Today	Mid-term	Later	Sequencing – what to watch
Analytical data infrastructure *Data modernization & AI-readiness*	SNOW (Pref OW)	■	■		Earliest beneficiary – data modernization / AI-readiness initiatives.
Observability *App & agent monitoring*	DDOG (Pref OW) DT (Pref OW)		■		Benefits as AI apps and agentic initiatives hit production scale.
Transactional databases *OLTP for agentic apps*	MDB (Debated OW) ORCL NTNX		■	■	Follows closely as production workloads scale; **MDB** nearer-term than **ORCL**.
Compute / inference / agent infra *Edge & inference platforms*	NET (Pref OW) AKAM (Debated OW)		■		Follows closely – compute, inference and agent-infrastructure demand; **NET** higher conviction.
Software development automation *Dev tooling / DevOps*	TEAM (Pref OW) GTLB				Usage is already strong; monetization depends on a transition away from pure seat-based pricing.

How to Position **Own preferred beneficiaries SNOW, DDOG, NET, and DT now. MDB and AKAM are debated OWs positioned to benefit as production workloads scale; dev-automation remains later-cycle and pricing-transition dependent.**

Source: Morgan Stanley Research

Exhibit 52: Sequencing the Cycle: Cybersecurity

primary expected beneficiary | emerging / contested | mixed / watch | at risk

Phase / focus	Bellwethers (illustrative)	Today	Mid-term	Later	What it addresses – what to watch
Phase 1 · AI Modernization *Upgrade to modern platforms; retire technical debt*	PANW (Pref OW) FTNT, CHKP CSCO	■			**Current phase** — platform upgrades and immediate AI-threat modernization.
Phase 2 · AI Capabilities for Security *Automate & assist the SOC*	PANW, CRWD (Pref OWs)		■		Automates and assists the SOC for AI-driven attacks.
Phase 3 · Security for AI *Secure enterprise data & new agentic identities*	PANW, CRWD (Pref OWs) OKTA (Debated OW) Rubrik (Not Covered)			■	Secures enterprise data and new agentic identities.

How to Position **Own PANW and CRWD now as preferred, multi-phase beneficiaries.**

Source: Morgan Stanley Research

Exhibit 53: Sequencing the Cycle: Applications

primary expected beneficiary | emerging / contested | mixed / watch | at risk

Application cohort / driver	Bellwethers (illustrative)	Today	Mid-term	Later	Positioning / evidence gates
Vertical / transactional platforms *Workflow + payments / volume pricing*	SHOP (Pref OW) NAVN (Pref OW) TTAN (Pref OW) TOST (high-moat beneficiary)				**SHOP/NAVN/TTAN:** pref OWs; **TOST:** high-moat beneficiary. Watch AI attach, volume monetization and GP/OP leverage.
Enterprise workflow orchestration *Agents across IT, service, HR, ops*	NOW (Pref OW) TEAM (Pref OW) APPN (category beneficiary)				**NOW** is the closest broad SaaS inflection; **TEAM** pricing-gated; APPN category beneficiary.
Governed back-office systems *High-gravity ERP / finance / HCM data*	SAP (debated OW) INTU (EW) WDAY (UW)				**Durable moat; timing and ratings vary. SAP** has stronger governed-ecosystem opportunity; **INTU/WDAY** remain farther from inflection.
Front-office / headless transition *Front-office workflows + hybrid pricing*	HUBS (debated OW) CRM (improving sentiment)				**CRM** owns a deep system of record, but legacy drags persist; **HUBS** OW with pricing/GTM transition risk.
Content-generation exposure *Model-lab encroachment*	ADBE (UW)				**ADBE** remains exposed to model-lab encroachment in content generation.
Low-moat / simple-workflow point solutions *Simple workflows / limited control*	ASAN, GTM, RNG, LZ, PATH				**Weak workflow ownership and greater structural risk.**

How to Position **Maintain near-term preference for Infrastructure/Security. Apps: preferred SHOP/NAVN/TTAN/NOW/TEAM; NOW is closest broad SaaS inflection and OW; SAP/HUBS debated OWs; CRM (improving sentiment)/INTU EW; ADBE/WDAY UW.**

Source: Morgan Stanley Research

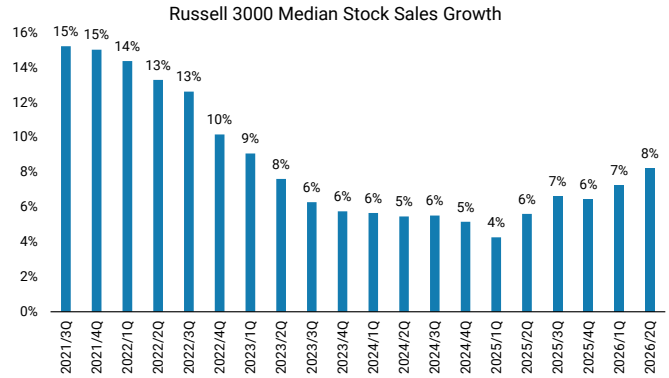
Regional Views

North America

Andrew Pauker & Michelle Weaver

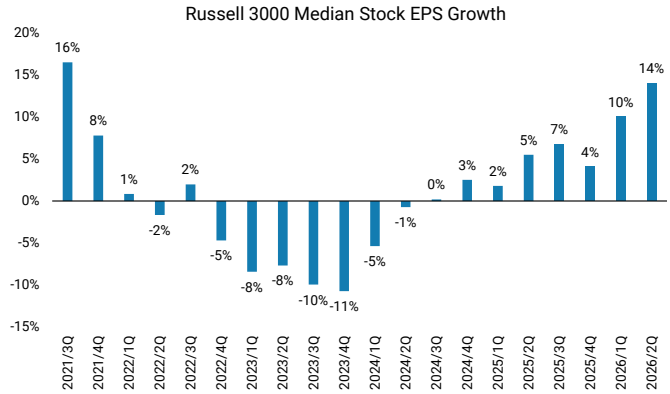
Our earnings broadening thesis continues to play out. Russell 3000 median stock EPS growth has accelerated to 14%, the strongest level since 2021, while median stock sales growth is running at 8%, around the best level since 2023. At the same time, 88% of S&P 500 companies beat on EPS in 2Q, up from 82% in 1Q. S&P 500 earnings revisions breadth stands at 25%, while 88% of S&P industry groups are now showing positive revisions breadth, with both measures near a cycle high. The key point is that earnings strength is no longer confined to a narrow group of mega-cap stocks. Broader participation at the median-stock level, coupled with improving revisions breadth, remains consistent with our view that the earnings recovery is progressing and should support greater index resilience as the cycle matures.

Exhibit 54: Median Stock Sales Growth Is Strong



Source: FactSet, Morgan Stanley Research

Exhibit 55: Median Stock EPS Growth is Accelerating



Source: FactSet, Morgan Stanley Research

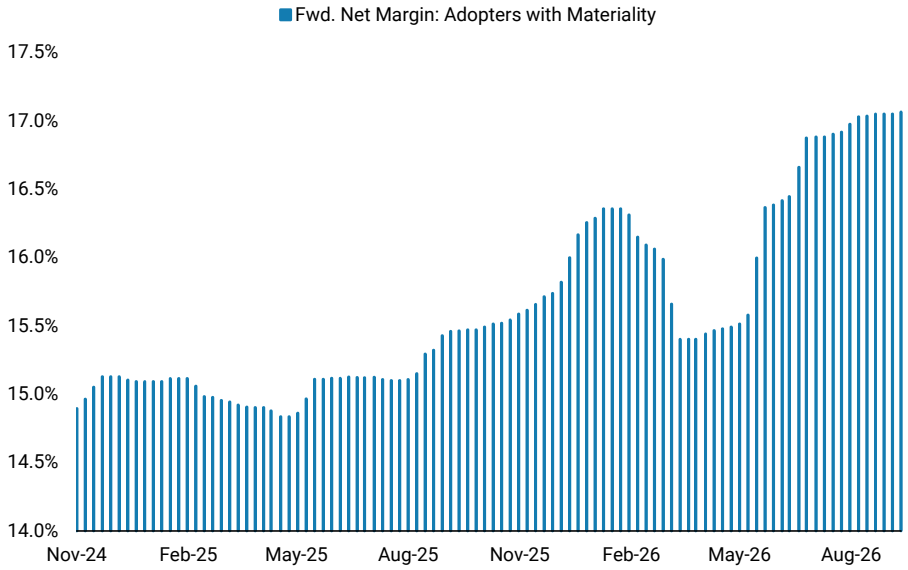
Against that backdrop, we believe the US equity market is transitioning from an early- to mid-cycle regime. Historically, this is a period when leadership shifts from lower- to higher-quality as cyclically driven operating leverage begins to moderate and the market places greater emphasis on earnings durability, margin stability, free cash flow generation and operational efficiency. The maturation of the business and earnings cycles is consistent with this view, as is a Fed that is moving from active easing toward a more hawkish stance. The shift toward quality should be supportive of the S&P 500 given the index's quality bias — over 40% of the S&P screens as high quality based on our factor framework. In addition, a greater focus on margin expansion and operational efficiency should continue to favor companies demonstrating tangible benefits from AI adoption.

Work from our thematic research colleagues shows that adoption is moving decisively from experimentation toward measurable enterprise value. In 2Q26, 40% of identified AI adopters cited at least one quantifiable benefit, up from 21% a year earlier and 37% in the prior quarter. Across the broader S&P 500, roughly 25% cited measurable benefits, versus 14% a year ago. Those gains are concentrated in revenue generation, cost savings, capital efficiency and productivity, with the strongest momentum in Technology, Communication

Services and Financials. Companies also reported an average 9.6% net productivity increase over the past year, led by software development, customer service, finance and operations. The labor impact is therefore less about wholesale replacement and more about role redesign, higher revenue per employee and durable operating leverage — suggesting the adoption cycle remains early. See here and here for more.

Interestingly, several industries often viewed as vulnerable — including Transports, Software & Services, and Professional Services — also rank among the more attractive adopter groups in our thematic research team's AI mapping work and our industry-level analysis. Earnings revisions are beginning to reflect this opportunity across the market, with forward margin expectations improving most clearly for companies where AI is material to the investment thesis and pricing power is neutral to strong. We continue to view AI adoption as an important source of earnings growth and operating leverage, with roughly 100 basis points of net margin expansion through 2027 expected to be tied to adoption.

Exhibit 56: AI Adopters Are Seeing Meaningful Margin Expansion



Source: Morgan Stanley Research. Based on our Thematic team's mapping work. Significant or Core to Thesis Materiality. Based on median stock. Smoothed 6-wks.

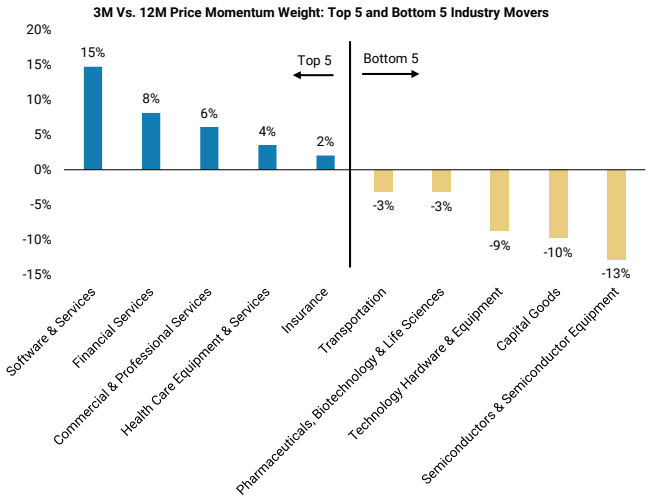
Our factor work continues to show quality-oriented factors such as high free cash flow yield and low accruals leading the market. Interestingly, factors tied to operating efficiency are also seeing clear outperformance, with the high sales-per-employee factor up 5% over the last month. In our view, this ties directly to our constructive call on AI adopters. Consistent with this rotation, the closely followed momentum factor is also seeing its leadership shift toward quality and toward services-oriented, asset-light and fee-based industries. Unsurprisingly, these industry groups are also among the best-positioned areas of the market from an AI adoption perspective.

Exhibit 57: Recent Factor Performance Clearly Skews Toward Quality and Operating Efficiency...

Top Factor Performance: Last 1 Month	
Total Yield (High vs Low)	5.4%
Sales per Employee (High vs Low)	4.7%
Y/Y % Change in number of employees (Low vs High)	4.3%
Receivables Turnover (High vs Low)	4.1%
Free Cash Flow Yield (High vs Low)	4.0%
Enterprise Value-to-Free Cash Flow (Low vs High)	3.9%
Composite Free Cash Flow (High vs Low)	3.8%
Inventory-to-Sales (Low vs High)	3.7%
Composite Accruals (Low vs High)	3.6%
Price-to-Sales (Cheap vs Expensive)	3.4%

Source: Compustat, Morgan Stanley Research.

Exhibit 58: ...While Composition of the Momentum Factor Is Shifting Toward Services-Oriented Industries with Greater AI Adoption Potential



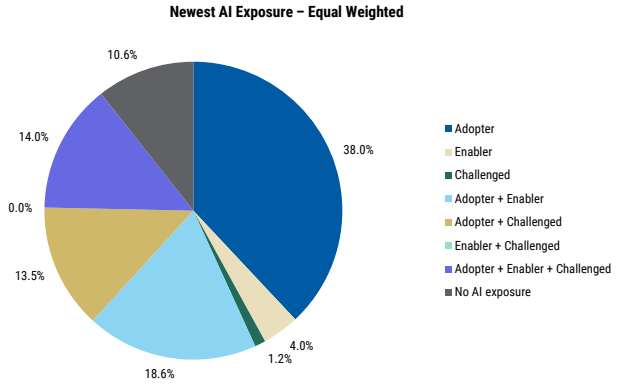
Source: Compustat, Morgan Stanley Research.

Survey Highlights

This round of the AI Mapping, we are able to view exposure to AI on a more flexible level, allowing for any combination of Adopter, Enabler and/or Challenged exposure. Across North American names, AI exposure is close to universal, only ~11% carry no tag at all. Adoption is the dominant lens: 84% are flagged as Adopters in some combination, versus 37% as Enablers and ~29% as Challenged. The single largest bucket by count is pure Adopter at 38%, followed by Adopter + Enabler (19%), Adopter + Enabler + Challenged (14%) and Adopter + Challenged (13.5%). Pure Enabler and pure Challenged are thin tails, and Enabler + Challenged without adoption is empty.

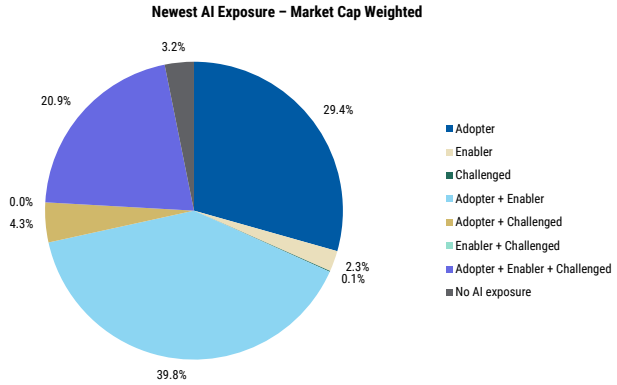
On a market-cap weighted basis the picture shifts materially. Weighting by cap, Adopter + Enabler jumps to ~40% of the universe (from 19% by count) and the triple-tagged bucket to 21% (from 14%), while pure Adopter falls to 29% from 38%. In other words, the largest companies are the ones sitting in multiple AI roles enabling and adopting simultaneously and the single-role names skew small. Mega-cap tech continues to dominate the multi-role cohorts: NVDA, AAPL, META, and AVGO are examples of Adopters + Enablers. These multi exposures make it critical to also assess materiality when thinking about a company's role within the broader AI landscape.

Exhibit 59: Exposure - Equal W eight



Source: Morgan Stanley Research

Exhibit 60: Exposure - Market Cap Weight

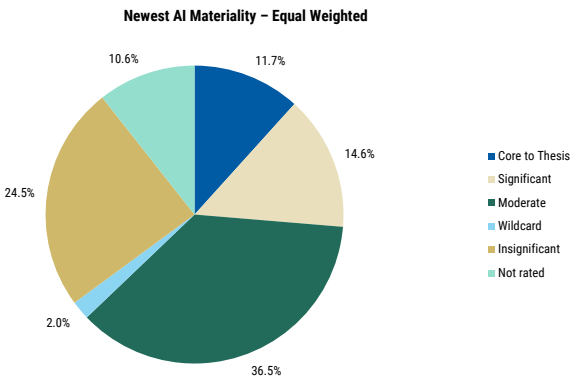


Source: FactSet, Morgan Stanley Research. Market cap weights from date of survey used.

The same size skew also appears in the materiality ranking. Core to Thesis covers just 12% of names but ~44% of market cap; adding Significant, roughly a quarter of the universe by count accounts for 58% of capitalization. Companies with large market caps are also the ones with AI as an important part of their investment thesis. The bulk of names sit lower down: Moderate is the largest bucket at 36% of count and 21% of cap, and Insignificant at ~25% and 17%.

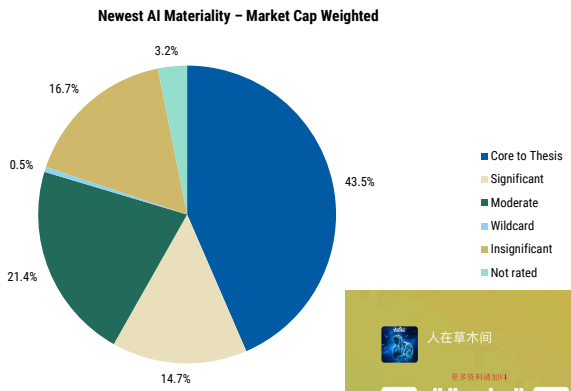
Looking at the materiality attached to Challenged exposure tells a different story from the headline ranking. Twenty-nine percent of the universe, 25% of market cap, carries a Challenged tag, but the severity assigned to that disruption risk is overwhelmingly low. Insignificant is the single largest at 38% of Challenged names, and Wildcard accounts for a further 26%, together roughly two thirds of the cohort. Only 18% of the Challenged group are rated Significant or Core to Thesis on the Challenged axis, and those represent under 6% of Challenged market cap. In other words, analysts are willing to flag that AI could hurt a business far more often than they are willing to underwrite it as a base-case driver of the investment thesis. The market-cap cut sharpens the point. Wildcard alone is 50% of Challenged market cap and Moderate a further 34%.

Exhibit 61: Materiality - Equal Weight



Source: Morgan Stanley Research

Exhibit 62: Materiality - Market Cap Weight



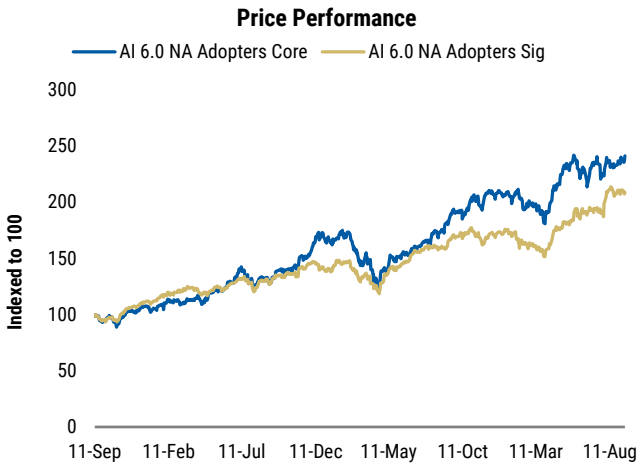
Source: FactSet, Morgan Stanley Research. Market cap weights from

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Materiality matters for performance. Among positively exposed cohorts, Core to Thesis AI Adopters in North America have continued to outperform those Significant. The performance gap began in earnest after the liberation day lows seen last year.Companies are becoming more effective at communicating the benefits from AI adoption and the benefits are becoming more tangible to drive this performance spread.

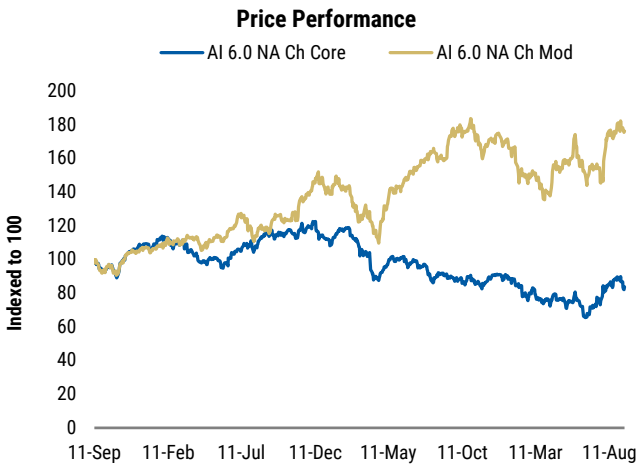
Pricing Power Continues to Be a Differentiator. Adopters and/or Enablers with Core to Thesis or Significant materiality that also have high or neutral pricing power continue to outperform those with low pricing power.

Exhibit 63: Core Enablers & Adopters Outperform Significant Enablers & Adopters



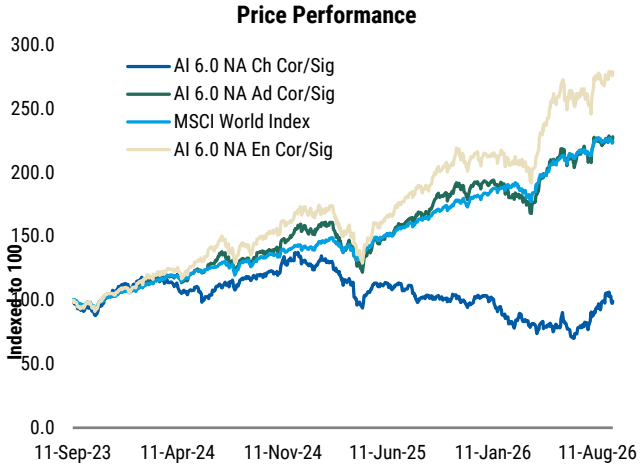
Source: FactSet and Morgan Stanley Research. MC-Weighted.

Exhibit 64: Disrupted Core Underperform Disrupted Moderate



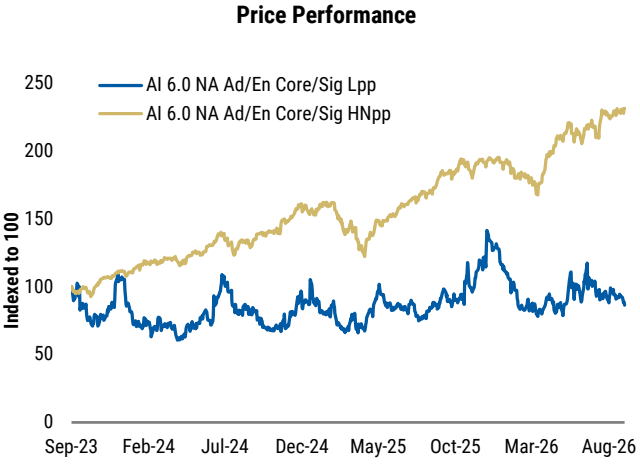
Source: FactSet and Morgan Stanley Research. MC-Weighted.

Exhibit 65: Enablers Lead the Pack



Note: Includes Adopters, Enablers, AI Challenged with high materiality (Sig-Core). MC-Weighted.
Source: FactSet and Morgan Stanley Research.

Exhibit 66: Pricing Power Matters for Performance



Note: Includes Adopters, Enablers with high materiality (Sig-Core). MC-Weighted.
Source: FactSet and Morgan Stanley Research.

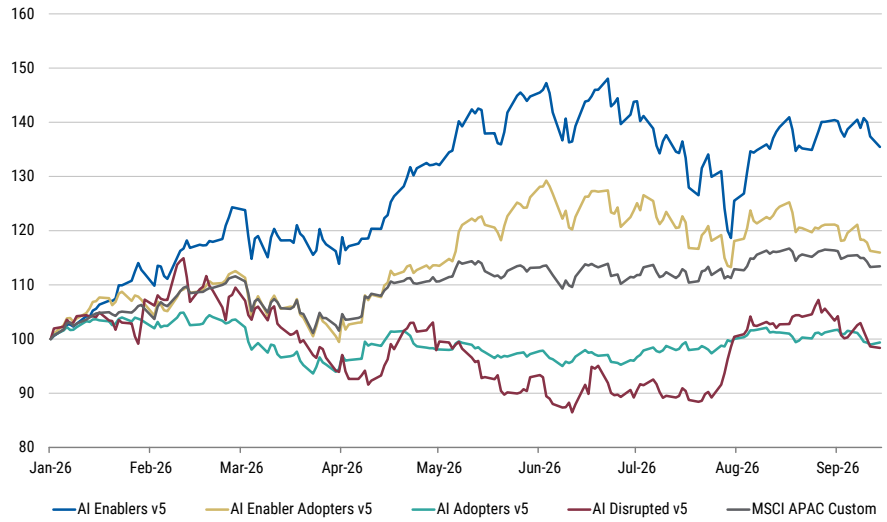
Asia & EM

Daniel Blake & Kristal Ji

Previously Identified AI Enablers and Enabler/Adopters Have Led YTD Performance in Asia/EM

We revisit the stocks identified in our January 2026 AI mapping survey (Version 5) to assess subsequent performance. The companies previously identified by our analysts as AI enablers and enabler/adopters have outperformed the MSCI AC APAC benchmark, while broader AI adopters (stocks that have at least a "Moderate" materiality to AI adoption in the AI mapping survey, regardless of pricing power) and AI-disrupted stocks have underperformed. This reflects the concentration of the Asia/EM indices in AI supply chain beneficiaries, where strong performance to 22 June drove index returns.

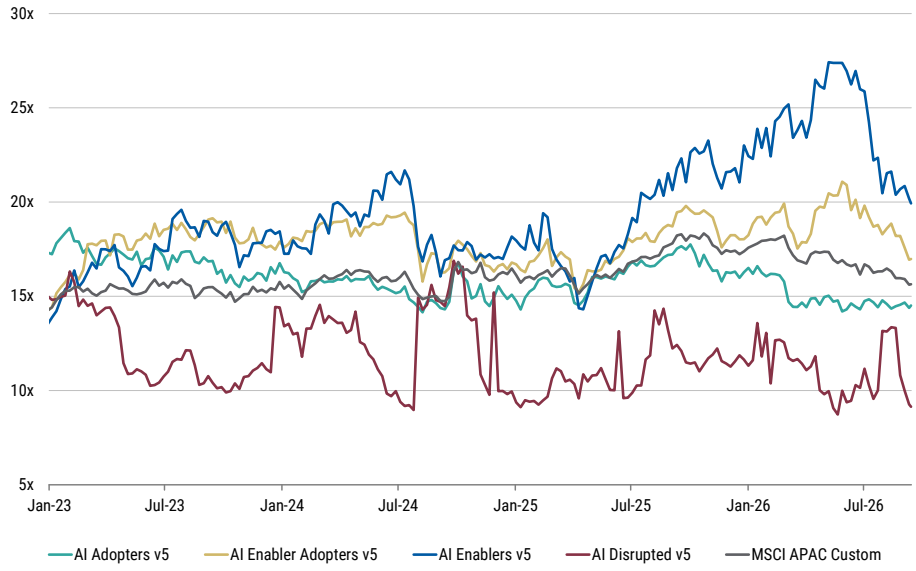
Exhibit 67: YTD Performance of Asia/EM Stocks by AI Category (version 5) - AI enablers and enabler/adopters have generated alpha since the launch of version 5 earlier this year



Source: Factset, Morgan Stanley Research; Data as of September 11, 2026. Note: Performance data is of equal weighted baskets. Past performance is no guarantee of future results

Previously identified AI enablers in Asia/EM continue to command a clear valuation premium, trading at ~20x NTM P/E versus ~16x for the MSCI AC APAC benchmark. Enablers saw the strongest re-rating through June before consolidating thereafter, while enabler/adopters followed a similar, albeit less pronounced, trajectory. Broader AI adopters have modestly de-rated YTD and now trade below the benchmark, while AI-disrupted stocks have seen further multiple compression and remain at a significant discount.

Exhibit 68: NTM P/E of stocks of Asia/EM based on AI category (version 5) - AI enablers continue to trade at a premium to the broader market, while AI-disrupted stocks remain at a significant discount



Source: Factset, Morgan Stanley Research; Data as of September 11, 2026. Note: Performance data is of equal weighted baskets. Past performance is no guarantee of future results.

Selectively Broaden Exposure to AI Adoption Beneficiaries, While Retaining Core AI Enablers

In Asia Thematic Alpha: Broaden Exposures to AI Adoption Beneficiaries, but Hold onto Core AI Enablers (4 Sep 2026), we shared our views around broadening out which are seen in developed markets, particularly the US. **In Asia/EM, however, earnings momentum remains concentrated in upstream/capex beneficiaries, while revisions for consumer/services remain broadly negative.**

AI adopters are beginning to show signs of improving earnings momentum, supporting our view to retain core exposure to AI enablers while selectively broadening into adoption beneficiaries that appear ahead of peers in monetization (more details below). Our new Asia Pacific sub-theme ranking framework reinforces this view. In this framework, we incorporated the latest thematic tagging database to capture the up-to-date classificaion by our analysts; see Global Thematics: The Thematic Map – Scaling Themes into AlphaSignals (16 Aug 2026).

Exhibit 69: Asia Pacific Sub-Theme Ranking – AI Compute Infrastructure, AI Enablers and Powering AI rank as top three with strong sales and earnings momentum, followed by China's AI Path and AI Adopters.

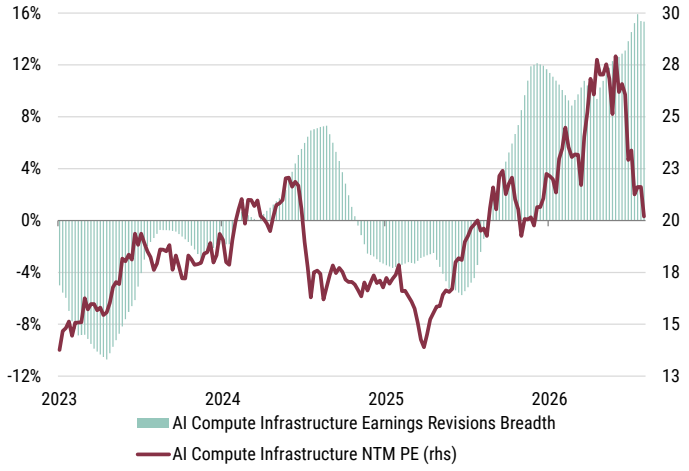
Asia-Pacific Sub-Themes (Core/Significant Materiality)	Rank	Growth 2yr CAGR		Revisions (FY2)			ROE	12m Forward Valuations				Target Prices			Technical
		Sales	EPS	Sales 3m % Δ	Net Inc 3m % Δ	ERB 3mma	2028	P/E	P/Sales	P/E 10y %ile	P/Sales 10y %ile	Upside to Base	Upside to Bull	Bull Bear Skew	13w/52w
AI Compute Infrastructure	1	18.4%	27.6%	6.9%	10.0%	14.3%	24.2%	19.4x	3.1x	81%	94%	34%	88%	2.8	29.7%
AI Enablers	2	17.4%	25.6%	5.8%	7.2%	9.9%	21.0%	20.9x	2.7x	83%	94%	29%	79%	2.7	21.5%
China's AI Path	3	14.8%	21.8%	0.3%	0.2%	-3.6%	19.6%	16.2x	1.5x	1%	2%	31%	89%	2.9	2.3%
Powering AI	4	11.6%	21.3%	2.6%	4.2%	7.5%	18.4%	17.9x	2.2x	76%	90%	38%	88%	2.8	20.6%
AI Adopters	5	10.1%	16.9%	2.4%	2.5%	2.1%	16.8%	16.7x	1.8x	7%	15%	20%	68%	2.2	0.1%
Economic Security & Reindustrializati	6	8.9%	16.5%	3.3%	5.5%	6.3%	15.5%	16.2x	1.7x	76%	85%	23%	61%	2.6	14.3%
AI Sovereignty & Semi Localization	7	16.7%	25.7%	6.7%	9.5%	9.2%	16.3%	23.6x	3.5x	94%	97%	24%	79%	2.8	20.3%
Korea Reform Renaissance	8	5.0%	10.6%	1.7%	4.2%	8.8%	10.2%	9.8x	1.1x	40%	97%	21%	51%	2.3	16.6%
Humanoid & Embodied AI	9	13.9%	19.8%	-0.2%	-1.9%	-2.4%	15.5%	14.7x	1.3x	31%	34%	36%	79%	2.5	2.1%
Japan's Corporate Reform	10	4.4%	9.0%	1.9%	3.7%	11.8%	11.0%	13.7x	1.3x	37%	97%	5%	43%	1.4	9.9%
Renewable Energy & Storage	11	10.1%	18.5%	0.4%	-3.1%	-0.5%	13.8%	14.1x	1.5x	39%	76%	29%	73%	2.2	3.2%
Diabesity and Nutrition	12	9.5%	15.2%	1.3%	1.5%	-0.2%	15.8%	18.9x	2.8x	5%	83%	17%	56%	2.2	3.0%
Rise in Defense Spending	13	8.5%	15.4%	1.0%	2.1%	7.9%	17.2%	19.2x	2.0x	84%	91%	30%	79%	3.2	10.4%
Globalization of Natural Gas	14	3.3%	7.2%	1.1%	2.2%	8.6%	9.4%	13.9x	1.0x	75%	93%	10%	54%	1.6	7.6%
Nuclear Renaissance	15	8.7%	19.2%	2.6%	5.5%	3.5%	14.8%	18.5x	2.3x	87%	97%	21%	94%	2.1	1.8%
Critical Minerals	15	3.5%	7.5%	0.4%	2.5%	-0.1%	14.1%	11.6x	1.4x	47%	85%	12%	52%	1.7	1.9%
Preparing for an Aging Population	15	8.3%	12.9%	-0.1%	0.5%	-0.6%	13.7%	15.4x	1.7x	0%	2%	23%	68%	2.6	-4.6%
Asian AI Adoption Leaders	18	9.0%	16.5%	-0.1%	-4.4%	6.8%	19.0%	19.2x	2.2x	19%	8%	24%	67%	1.6	1.7%
Asia Climate Adaption	19	6.5%	14.6%	-1.1%	-1.2%	-4.7%	13.7%	13.7x	1.2x	10%	89%	29%	69%	2.1	3.0%
AI & Smart Health Care	20	12.0%	19.0%	-1.0%	-0.1%	2.3%	13.9%	21.5x	2.7x	25%	60%	24%	76%	3.0	-7.6%
AI & the Future of Work	20	11.1%	20.9%	0.2%	-0.6%	-7.9%	18.3%	26.9x	6.1x	13%	29%	17%	42%	1.6	-2.1%
China's SOE Reform	22	4.0%	13.5%	-1.6%	-2.9%	-1.4%	12.2%	9.8x	1.1x	52%	86%	30%	78%	2.6	-2.4%

Source: FactSet, Morgan Stanley Research; Data as of 11 September 2026

AI & Tech Diffusion sub-themes rank broadly in the top third of our framework, supported by strong growth and profitability profiles. Upstream themes, including AI Compute Infrastructure and Powering AI, generally trade at higher valuations, but continue to benefit from strong sales and earnings estimate revisions. Specifically, earning revision breadth for *AI Compute Infrastructure* continues to trend higher, while valuations have de-rated through the recent crowding unwind between late June to early August.

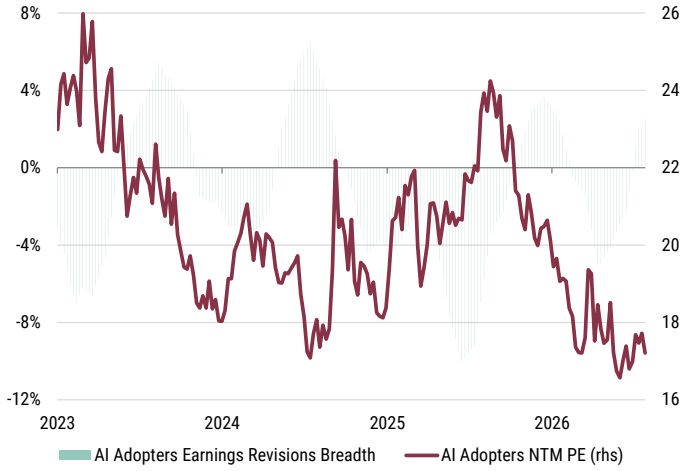
AI Adopters are trading at cheaper valuations than most sub-themes, with NTM P/E of 17.2x standing at the 16th percentile of its 10-year history. Recent earnings have surprised on the upside, according to our analysts, and both revenue and earnings have been raised over the last three months. Technically, *AI Adopters* have also just marked a golden cross on a 13w/52w technical.

Exhibit 70: Valuations in APAC AI Compute Infrastructure have corrected, despite further lift in earnings estimate revisions breadth



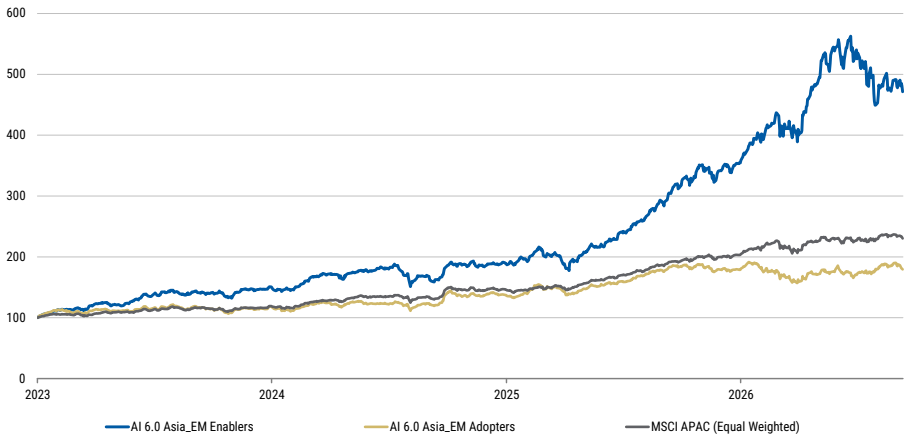
Source: FactSet, Workspace, Morgan Stanley Research; Data as of 3 September 2026

Exhibit 71: APAC Core/Significant AI Adopters trade at cheaper valuations and have seen a recovery in earnings estimate revisions



Source: FactSet, Workspace, Morgan Stanley Research; Data as of 3 September 2026

Exhibit 72:
Nascent rally in APAC AI Adopters has been supported by a pickup in earnings estimate revisions over the last three months, not just a reversal of price momentum



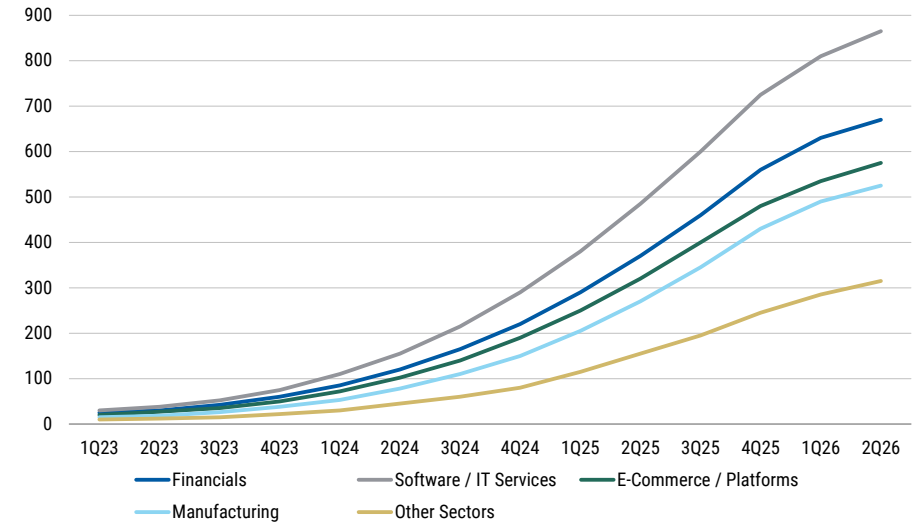
Source: FactSet, Refinitiv, Morgan Stanley Research. Data as of September 11, 2026.

Increasing Transcript Mentions of Quantifiable Benefits from AI Adoption in Asia/EM, with Broadening Revenue Contribution

We screen company commentary or transcripts in Asia/EM to look for quantifiable benefits from AI adoption.

The trajectory has shifted from early exploratory phases in 2023 to systematic cost savings and revenue expansion in 2026. Analysis of corporate earnings transcripts, filings, and investor disclosures across thousands of listed equities in Asia/EM reveals an exponential rise in transcript mentions that report specific metrics such as labor hours saved, cost reductions, expansion in output per employee, and incremental revenue contributions. Total quantifiable mentions expanded from approximately 100 in 1Q23 to 2,950 in 2Q26, reflecting a fundamental shift toward agentic AI deployment and outcome-based monetization.

Exhibit 73: Number of Transcripts Mentions of Quantifiable Benefits from AI Adoption in Asia/EM by Key Verticals – quantifiable benefits from AI adoption have become more notable in the past three years across Software/IT Services, Financials, E Commerce/ Platforms and Manufacturing



Source: AlphaSense, Morgan Stanley Research.

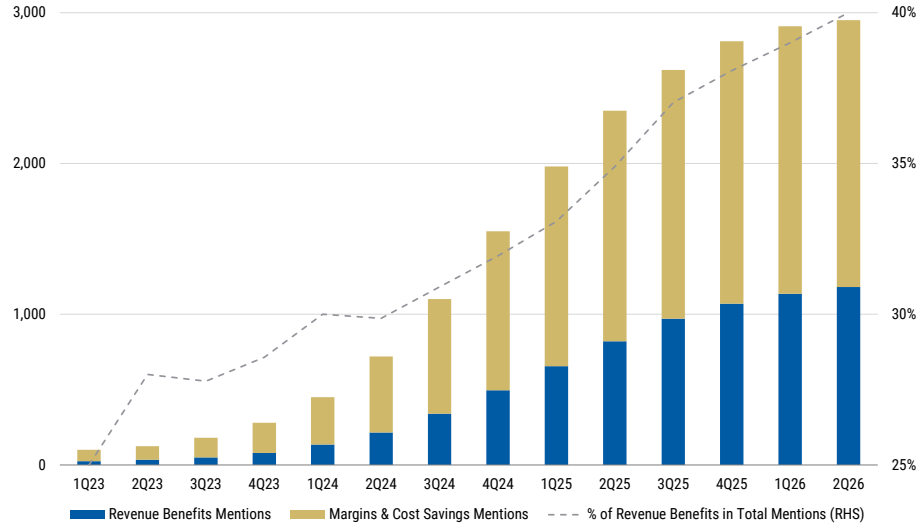
AI benefits are broadening from cost savings to revenue growth: Early corporate AI adoption was primarily focused on efficiency, with margin and cost savings accounting for ~75% of quantifiable AI benefit mentions in early 2023. That mix is gradually shifting: revenue benefits have increased from 25% of mentions in 1Q23 to 40% in 2Q26 (Exhibit 13), suggesting that companies are increasingly moving beyond cost optimization toward using AI to support revenue growth.

We see this evolution playing out in two phases across Asia/EM corporates:

Early-Stage Cost Optimization (2023–24): Initial deployment centered on internal productivity, workflow automation, and labor optimization. Enterprise surveys indicate that early AI adopters achieved EBIT margin expansion through process automation, software engineering acceleration, and reduced customer support handle times.

Monetization and Revenue Expansion (2025–26): Top-line benefit mentions expanded from 25% of total quarterly citations in 1Q23 to 40% by 2Q26. Rather than focusing on headcount reductions, corporate commentary increasingly emphasizes "revenue-headcount decoupling," where existing teams leverage AI toolkits to drive higher average revenue per employee and reallocation of workflows to higher-ROI tasks.

Exhibit 74: Transcript Mentions of Quantifiable AI Benefits: Revenue vs. Margin & Cost Savings — margin benefits still dominate, but the revenue contribution is broadening



Source: AlphaSense, Morgan Stanley Research.

Asia/EM AI Adoption Leaders v4

In the Thematic Alpha report, we utilized our thematic tagging framework to filter for companies identified as AI Adopters with Core to Thesis, Significant, or Moderate materiality. We also narrowed the universe to those with a market cap over US$5bn and Overweight or Equal-weight ratings by Morgan Stanley analysts. During the process, we further looked into each key vertical and worked with our industry analysts to select the companies that are ahead of peers in AI adoption and more likely to monetize on AI Adoption, via productivity benefits and/or revenue expansion.

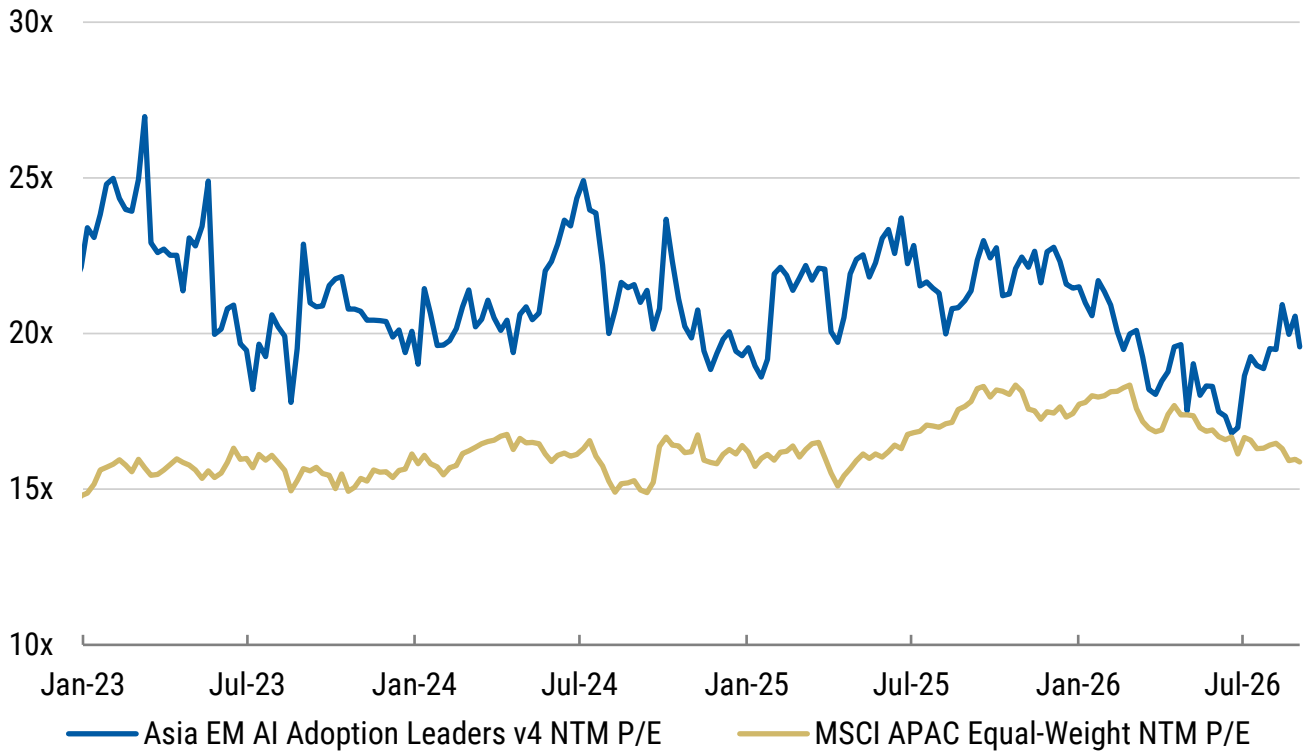
Exhibit 75: Asia/EM AI Adoption Leaders v4 – We shortlist 22 companies ahead of peers in AI adoption and well positioned to monetize AI, and updated our list of Asia/EM AI Adoption Leaders

Ticker	Materiality	Company Name	Market	Mkt Cap (US$bn)	Last Price (LCY)	Upside to Target Price	MS Analyst	MS Rating	Category	12mf P/E	2027-28 MSe Net Income CAGR
0700.HK	Core To Thesis	Tencent Holdings Ltd.	China	509.5	430.60	28%	Yu, Gary	Overweight	Media & Entertainment	14.8	1%
DBSM.SI	Significant	DBS Group Holdings	Singapore	173.9	77.66	-13%	Lord, Nick	Equal-Weight	Banks	17.6	9%
6501.T	Significant	Hitachi	Japan	153.5	5,221.00	9%	Yoshikawa, Kazuo	Equal-Weight	Capital Goods	19.9	21%
9983.T	Moderate	Fast Retailing	Japan	137.3	66,620.00	31%	Koba, Hiroshi	Overweight	Consumer Discretionary Distribution & Retail	35.2	13%
6758.T	Moderate	Sony Group	Japan	142.3	3,725.00	34%	Yoshikawa, Kazuo	Overweight	Consumer Durables & Apparel	14.2	5%
6098.T	Significant	Recruit Holdings	Japan	151.9	16,845.00	19%	Tsusaka, Tetsuro	Overweight	Commercial & Professional Services	25.7	12%
1299.HK	Moderate	AIA Group Ltd	Hong Kong	101.6	75.45	34%	Xu, Richard	Overweight	Insurance	10.9	13%
MELI.O	Significant	Mercadolibre Inc.	Argentina	96.3	1,900.24	29%	Ruben, Andrew	Overweight	Consumer Discretionary Distribution & Retail	31.4	45%
1810.HK	Significant	Xiaomi Corp	China	92.4	27.16	22%	Meng, Andy	Overweight	Technology Hardware & Equipment	18.4	38%
SE.N	Moderate	Sea Ltd	Singapore	69.4	108.68	41%	Gangahar Kothiyal, Divya	Overweight	Consumer Discretionary Distribution & Retail	25.8	38%
NU.N	Core To Thesis	Nu Holdings Ltd.	Brazil	71.9	14.41	46%	Kuri, Jorge	Overweight	Banks	11.1	44%
BJFN.NS	Significant	Bajaj Finance Limited	India	67.3	1,034.50	26%	Iyer, Subramanian	Overweight	Financial Services	24.8	31%
2888.HK	Significant	Standard Chartered	Hong Kong	70.7	246.60	7%	Lord, Nick	Overweight	Banks	11.8	12%
6702.T	Significant	Fujitsu	Japan	44.3	3,945.00	27%	Tsusaka, Tetsuro	Overweight	Software & Services	18.1	11%
6701.T	Significant	NEC	Japan	41.2	4,795.00	25%	Tsusaka, Tetsuro	Overweight	Software & Services	19.9	9%
4689.T	Moderate	LY Corporation	Japan	27.7	564.90	6%	Tsusaka, Tetsuro	Overweight	Media & Entertainment	17.0	16%
BEKE.N	Significant	KE Holdings Inc	China	19.8	16.70	38%	Wang, Eddy	Overweight	Real Estate Management & Development	11.9	17%
REA.AX	Significant	REA Group Limited	Australia	14.9	157.23	46%	McLeod, Andrew	Overweight	Media & Entertainment	27.7	13%
DSYJ.J	Significant	Discovery Limited	South Africa	11.1	26,780.00	22%	Bam, Warwick	Equal-Weight	Insurance	13.4	15%
2359.HK	Moderate	WuXi AppTec Co Ltd	China	8.3	197.90	11%	Tam, Laurence	Overweight	Pharmaceuticals, Biotechnology & Life Sciences	21.9	5%
0300.HK	Significant	Midea Group Co Ltd.	China	8.3	100.00	3%	Lou, Lillian	Overweight	Consumer Durables & Apparel	12.6	9%
5838.T	Significant	Rakuten Bank	Japan	7.2	6,383.00	-1%	Nagasaka, Mia	Equal-Weight	Banks	12.1	11%

Source: Factset, Morgan Stanley Research; Data as of September 14, 2026. See more details in Asia Thematic Alpha: Broaden Exposures to AI Adoption Beneficiaries, but Hold onto Core AI Enablers (4 Sep 2026).

The list trades with a median stock valuation of 19.6x NTM P/E, representing a 23% premium to the index on an equivalent equal-weighted basis.

Exhibit 76: NTM P/E of Asia EM AI Adoption Leaders v4 vs. MSCI AC APAC (Equal-Weighted) – The list of stocks is trading at 19.6x NTM P/E, a 23% premium to the index



Source: Factset, Morgan Stanley Research; Data as of September 2, 2026.

For prior versions 1-3, please see:

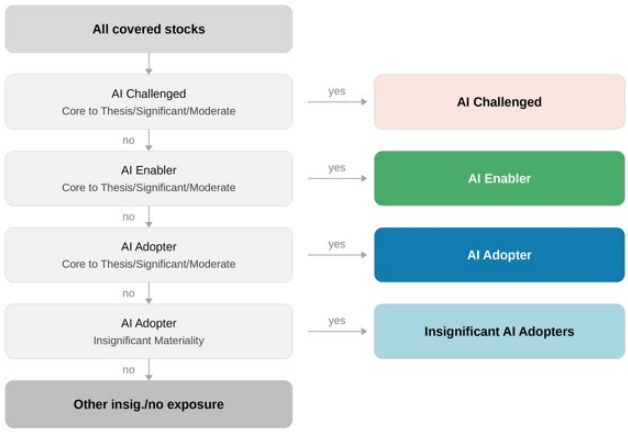
- Mapping AI Adoption and Disruption Opportunities (11 Feb 2026)
- Asia/EM AI Mapping - Adoption Leaders Emerging, but Pricing Power Crucial (27 Aug 2025)
- Asia/EM AI Adoption Leaders - Identifying 38 Potential Winners in the next Phase of AI Diffusion (10 Mar 2025)

Europe

Leoni Externest, Marina Zavolock & Regiane Yamanari

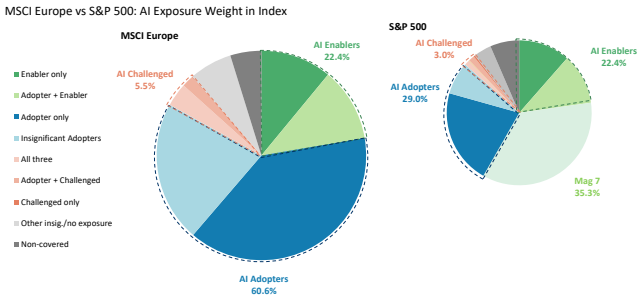
Europe's AI exposure is relatively skewed toward adoption. ~40% of MSCI Europe has material exposure to AI adoption (excluding AI Enablers & AI Challenged), if we also include those with "Insignificant" AI Adoption exposure, this rises to ~60% of the index by weight. By contrast, the S&P 500 has less than 30% exposure to "pure play" AI adopters on the same basis (excluding Mag 7 stocks). **Europe's enabler exposure is narrower but still meaningful** at just over a fifth of the index (and growing) — its composition is very different to the US, **weighted toward the physical layer of the AI buildout** in Semis, Cap Goods, Utilities and Mining rather than the hyperscalers. **The AI Challenged group is the smallest of the three** at under 6% of index weight, though close to double the S&P 500 on a comparable basis, and sits mainly in Software, Business Services, and Medtech.

Exhibit 77: Many stocks are tagged in more than one AI vertical (enabler, adopter, challenged) - to avoid double counting, we split stocks as follows:



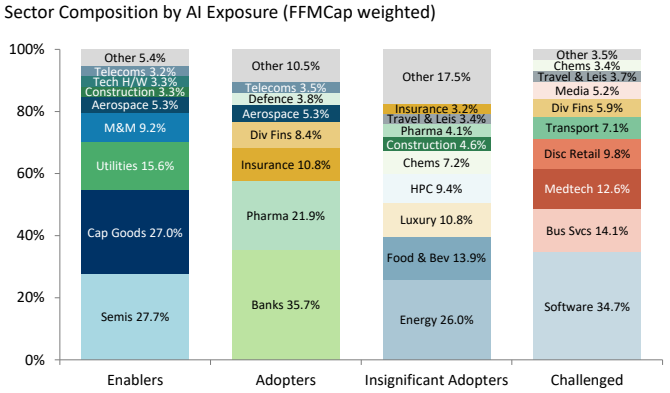
Source: Morgan Stanley Research

Exhibit 78: AI adoption is critical for the European index given a much higher skew of exposure to adoption over enabling relative to the US



Note: Free-float market cap weighted; We include stocks with material exposure (core to thesis, significant or moderate); Source: LSEG Data & Analytics, Morgan Stanley Research

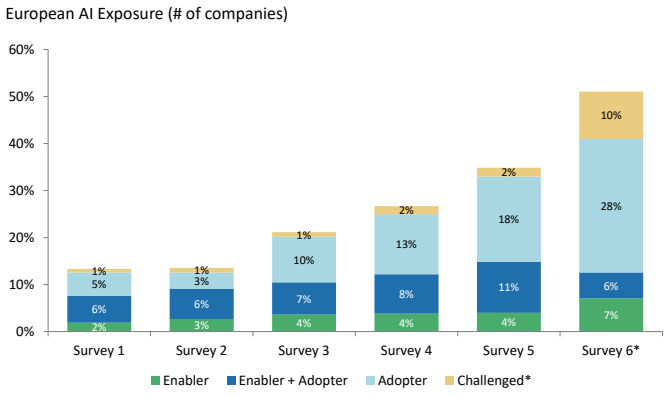
Exhibit 79: European AI adopters with at least moderate adoption exposure are dominated by Financials and Pharma



Note: Only includes stocks with material exposure (core to thesis, significant or moderate); Stocks with at least moderate AI Enabler exposure are classed as Enablers; We remove AI Challenged stocks from Enablers & Adopters; Source: LSEG Data & Analytics, Morgan Stanley Research

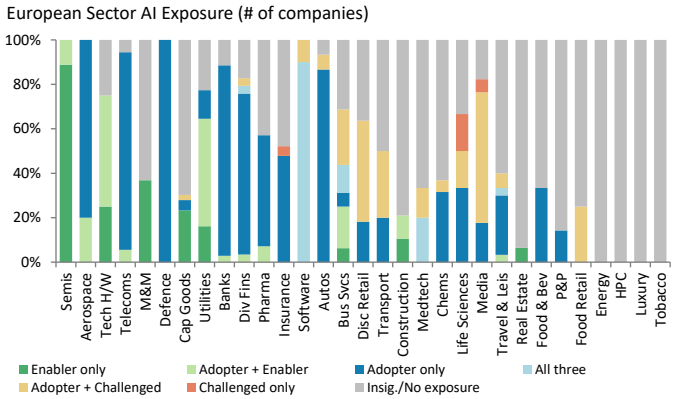
The percent of stocks with material exposure to AI continues to rise, with just over half of European companies having at least "moderate" exposure to AI, compared with around a third in our last survey, and just over 10% in our first survey. The proportion of companies classified as AI Challenged has seen the most significant increase, although this is largely due to a change in methodology — the three groups are no longer mutually exclusive, so analysts can now flag a company as both a beneficiary of, and potentially disrupted by, AI. This is evident in the sector data, with Media, Discretionary Retail, Transport, Business Services and Div Fins sectors all carrying a large proportion of companies tagged as both AI Adopters and AI challenged, as well as Software where ~90% of companies are tagged in all three categories.

Exhibit 80: The share of stocks with positive AI exposure (adopters, enablers and both) has continued to rise with each wave of the survey



*Methodology change; Note: Only includes stocks with material exposure (core to thesis, significant or moderate); Stocks with at least moderate AI Enabler exposure are classed as Enablers; We remove AI Challenged stocks from Enablers & Adopters; Source: LSEG Data & Analytics, Morgan Stanley Research

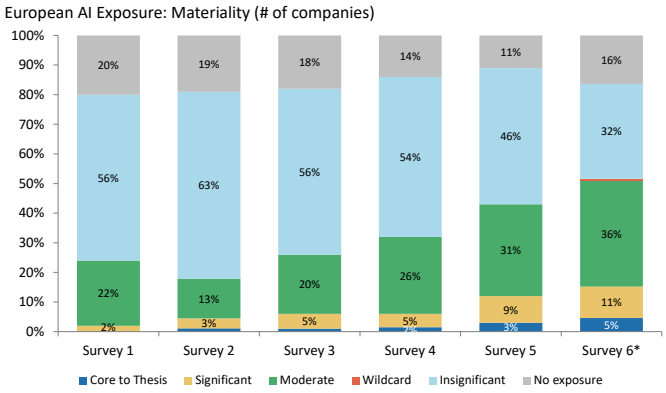
Exhibit 81: Semis and Tech H/W have the highest share of AI Enablers, while Tobacco, Luxury, HPC and Energy have no material AI exposure



Note: We include stocks with material exposure (core to thesis, significant or moderate); Source: Morgan Stanley Research

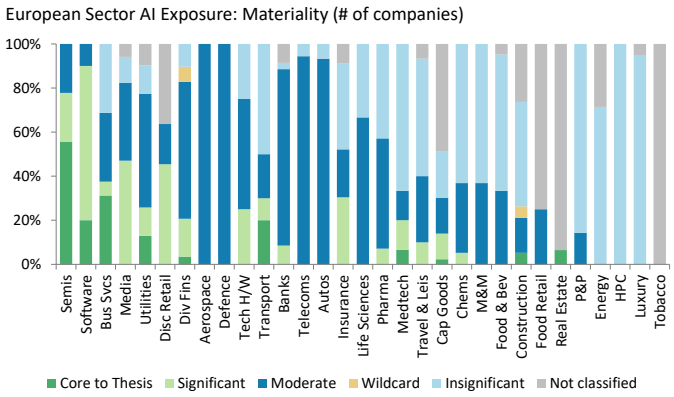
Materiality has deepened alongside the broadening in exposure. AI is at least moderately material for 51% of European companies, versus 43% in the last survey and 24% in the first, with the Insignificant bucket shrinking by a comparable amount. Core to Thesis remains a small group but has continued to rise with each survey. At the sector level, Semis and Software maintain the most material AI exposure, while Tobacco, Luxury, HPC, and Energy sectors consist of stocks with insignificant or no exposure to AI.

Exhibit 82: The percent of stocks with moderate or higher materiality has more than doubled since the first survey



*Methodology change; Source: Morgan Stanley Research

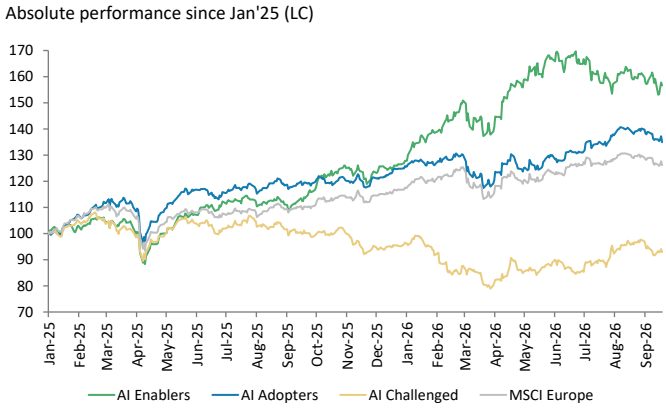
Exhibit 83: Semis, Software, Business Services and Media are the sectors with the most material AI exposure



Source: Morgan Stanley Research

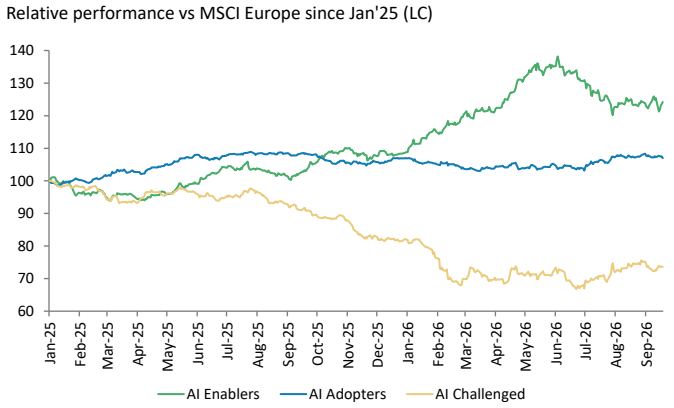
Performance has tracked the survey categories closely, with enablers ahead and challenged stocks lagging. Enablers have led European performance since the start of last year and widened that lead through to a peak in June, with performance rolling over more recently amid the momentum unwind. Adopters are only modestly ahead of the index, while Challenged stocks are the clear laggards, albeit rising off lows in recent months.

Exhibit 84: Europe's AI Enablers were strongly outperforming the index until the momentum unwind over summer...



Note: Equal-weighted performance; Only includes stocks with material exposure (core to thesis, significant or moderate); Stocks with at least moderate AI Enabler exposure are classed as Enablers; We remove AI Challenged stocks from Enablers & Adopters; Source: Factset, Morgan Stanley Research

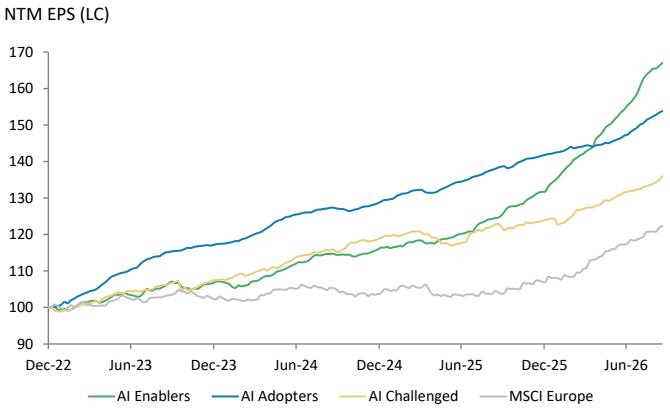
Exhibit 85: ...Whereas European AI Adopters have continued to perform broadly in-line with the index



Note: Equal-weighted performance; Only includes stocks with material exposure (core to thesis, significant or moderate); Stocks with at least moderate AI Enabler exposure are classed as Enablers; We remove AI Challenged stocks from Enablers & Adopters; Source: Factset, Morgan Stanley Research

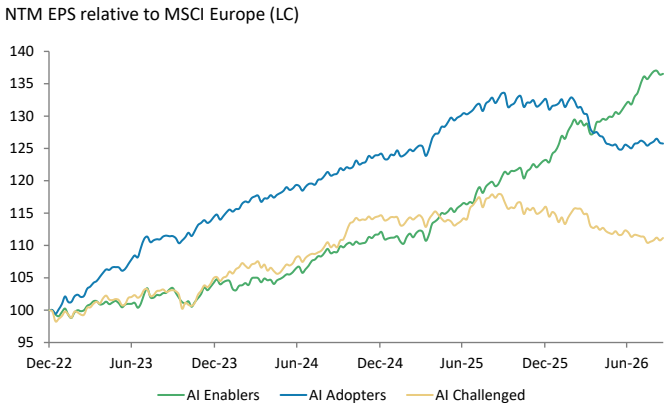
Earnings tell the same story and are still moving in favour of Enablers. NTM EPS for AI Enablers has grown at roughly three times the pace of the index since the end of 2022 and continues to move higher. Meanwhile, earnings trends for AI Adopters have recently reversed, with the group's NTM EPS underperforming relative to the index since the start of the year. Similarly, earnings for AI Challenged stocks have been trending downward on a relative basis over the last 12 months. Earnings revision breadth is positive for all three groups, with Enablers ahead of the index and Adopters broadly in line. Valuation shows a similar story, with Enablers trading at a clear premium, albeit below the peak reached earlier this year, and Adopters broadly in line with MSCI Europe. The largest move has been in the AI Challenged group, which has de-rated from a substantial premium to roughly market multiples.

Exhibit 86: AI Enablers' earnings have continued to accelerate...



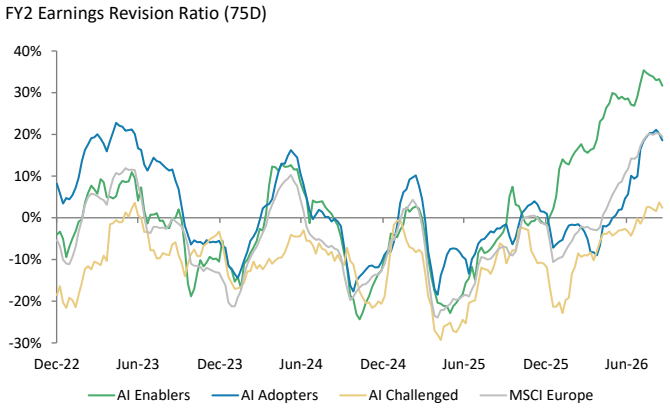
Note: Equal-weighted for AI exposure groups; Only includes stocks with material exposure (core to thesis, significant or moderate); Stocks with at least moderate AI Enabler exposure are classed as Enablers; We remove AI Challenged stocks from Enablers & Adopters; Source: Factset, Morgan Stanley Research

Exhibit 87: ...Whereas AI Adopters' earnings strength has faded relative to MSCI Europe since the start of the year



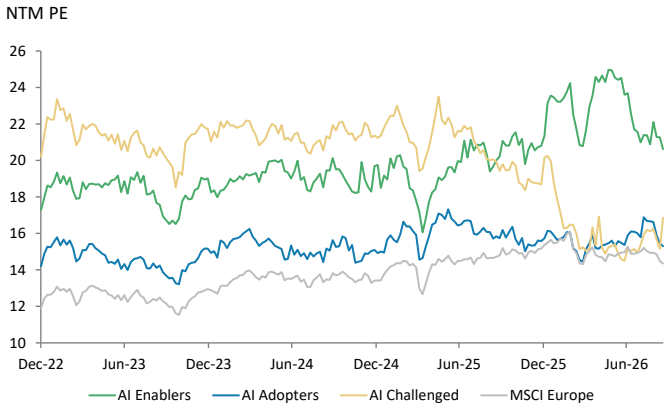
Note: Equal-weighted for AI exposure groups; Only includes stocks with material exposure (core to thesis, significant or moderate); Stocks with at least moderate AI Enabler exposure are classed as Enablers; We remove AI Challenged stocks from Enablers & Adopters; Source: Factset, Morgan Stanley Research

Exhibit 88: Earnings revision breadth is in positive territory across all groups, albeit with AI Enablers significantly above, and AI Challenged significantly below, the index level



Note: Only includes stocks with material exposure (core to thesis, significant or moderate); Stocks with at least moderate AI Enabler exposure are classed as Enablers; We remove AI Challenged stocks from Enablers & Adopters; Source: Factset, Morgan Stanley Research

Exhibit 89: AI Challenged stocks have seen the largest valuation move, de-rating from a substantial premium to roughly market multiples



Note: Equal-weighted for AI exposure groups; Only includes stocks with material exposure (core to thesis, significant or moderate); Stocks with at least moderate AI Enabler exposure are classed as Enablers; We remove AI Challenged stocks from Enablers & Adopters; Source: Factset, Morgan Stanley Research

Other companies mentioned: Adobe (ADBE.O, US$238), Akamai Technologies (AKAM.O, US$118), Appian (APPN.O, US$37), Astera Labs (ALAB.O, US$363), Cerebras Systems (CBRS.O, US$212), HubSpot (HUBS.N, US$218), Intel (INTC.O, US$124), Intuit (INTU.O, US $292), Micron Technology (MU.O, $1,096), Salesforce (CRM.N, US$233), SanDisk (SNDK.O, US$1,887), SAP SE (SAP.N, US$211), Toast (TOST.N, $30), and Workday (WDAY.O, $188).

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Within the last 12 months, Morgan Stanley managed or co-managed a public offering (or 144A offering) of securities of Akamai Technologies, Inc., Alibaba Group Holding, Alphabet Inc., Amazon.com Inc, AstraZeneca Plc, AXA, Bank of China Limited, Bayer AG, Bloom Energy Corp., Broadcom Inc., Cerebras Systems, Cipher Mining Inc., Clearway Energy Inc, Cloudflare Inc, Contemporary Amperex Technology Co. Ltd., Dynatrace Inc, Eli Lilly & Co., ENGIE, Equinix Inc., ERock Inc, GE Vernova, HSBC Holdings, Informa, Innio N.V., Intel Corporation, Intuit, LY Corporation,

MasterCard Inc, MediaTek, Mercadolibre Inc., Meta Platforms Inc, MetLife Inc., MiniMax, Montage Technology Co Ltd, Navan Inc, NEC, NextEra Energy Inc, NVIDIA Corp., Philip Morris International Inc, Procter & Gamble Co., Salesforce, Inc., Samsung Electronics, SAP SE, Schneider Electric, ServiceNow Inc, Solaris Energy Infrastructure, Sony Group, Standard Chartered, Standard Chartered Bank, Tencent Holdings Ltd., TeraWulf Inc, Unimicron, Walmart Inc, Williams Companies Inc, WuXi AppTec Co Ltd.

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Inc, Siemens Energy AG, SK hynix, Snowflake Inc., Sony Group, Standard Chartered, Standard Chartered Bank, Taiwan Semiconductor Manufacturing Co Lt, Target Corp, Tencent Holdings Ltd., TeraWulf Inc, Toast, Inc., Visa Inc., Walmart Inc, Welltower Inc., Williams Companies Inc, Workday Inc, WuXi AppTec Co Ltd, Xiaomi Corp.
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Global Stock Ratings Distribution

(as of August 31, 2026)
The Stock Ratings described below apply to Morgan Stanley's Fundamental Equity Research and do not apply to Debt Research produced by the Firm.
For disclosure purposes only (in accordance with FINRA requirements), we include the category headings of Buy, Hold, and Sell alongside our ratings of Overweight, Equal-weight, Not-Rated and Underweight. Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold, and sell but represent recommended relative weightings (see definitions below). To satisfy regulatory requirements, we correspond Overweight, our most positive stock rating, with a buy recommendation; we correspond Equal-weight and Not-Rated to hold and Underweight to sell recommendations, respectively.

	Coverage Universe		Investment Banking Clients (IBC)			Other Material Investment Services Clients (MISC)	
Stock Rating Category	Count	% of Total	Count	% of Total IBC	% of Rating Category	Count	% of Total Other MISC
Overweight/Buy	1555	42%	450	48%	29%	767	44%
Equal-weight/Hold	1577	43%	395	42%	25%	770	44%
Not-Rated/Hold	3	0%	1	0%	33%	1	0%
Underweight/Sell	559	15%	93	10%	17%	216	12%
Total	3,694		939			1754	

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.

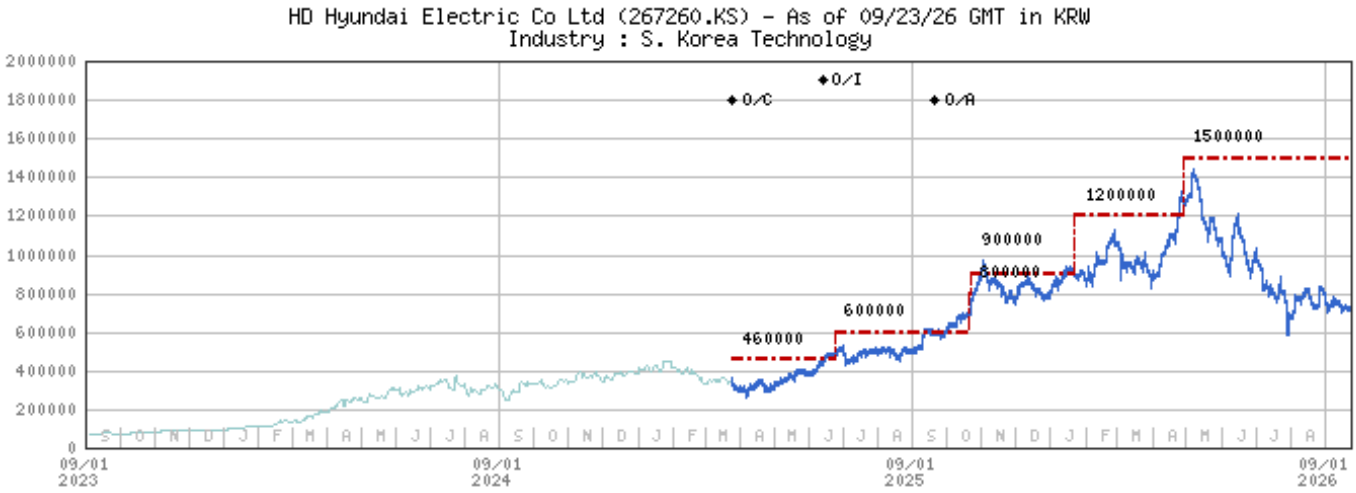
Analyst Stock Ratings

Overweight (O or Over) - The stock's total return is expected to exceed the total return of the relevant country MSCI Index or the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis over the next 12-18 months.
Equal-weight (E or Equal) - The stock's total return is expected to be in line with the total return of the relevant country MSCI Index or the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis over the next 12-18 months.
Not-Rated (NR) - Currently the analyst does not have adequate conviction about the stock's total return relative to the relevant country MSCI Index or the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.
Underweight (U or Under) - The stock's total return is expected to be below the total return of the relevant country MSCI Index or the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.
Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.
In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.
Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.
Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

Stock Price, Price Target and Rating History (See Rating Definitions)



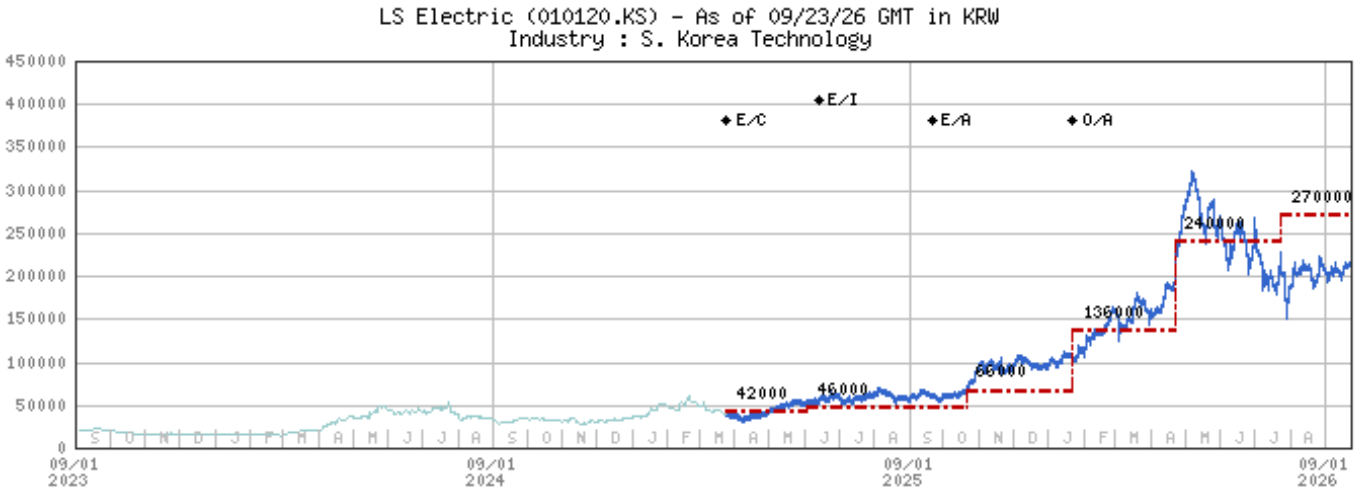
Stock Rating History: 3/25/25 : O/C; 6/13/25 : O/I; 9/21/25 : O/A

Price Target History: 3/25/25 : 460000; 6/24/25 : 600000; 10/21/25 : 800000; 10/23/25 : 900000; 1/22/26 : 1200000; 4/28/26 : 1500000

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target -·- No Price Target Assigned (NA)
Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) ▬
Stock and Industry Ratings (abbreviations below) appear as ◆ Stock Rating/Industry View
Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)
Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

Effective January 13, 2014, the stocks covered by Morgan Stanley Asia Pacific will be rated relative to the analyst's industry (or industry team's) coverage.

Effective January 13, 2014, the industry view benchmarks for Morgan Stanley Asia Pacific are as follows: relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.



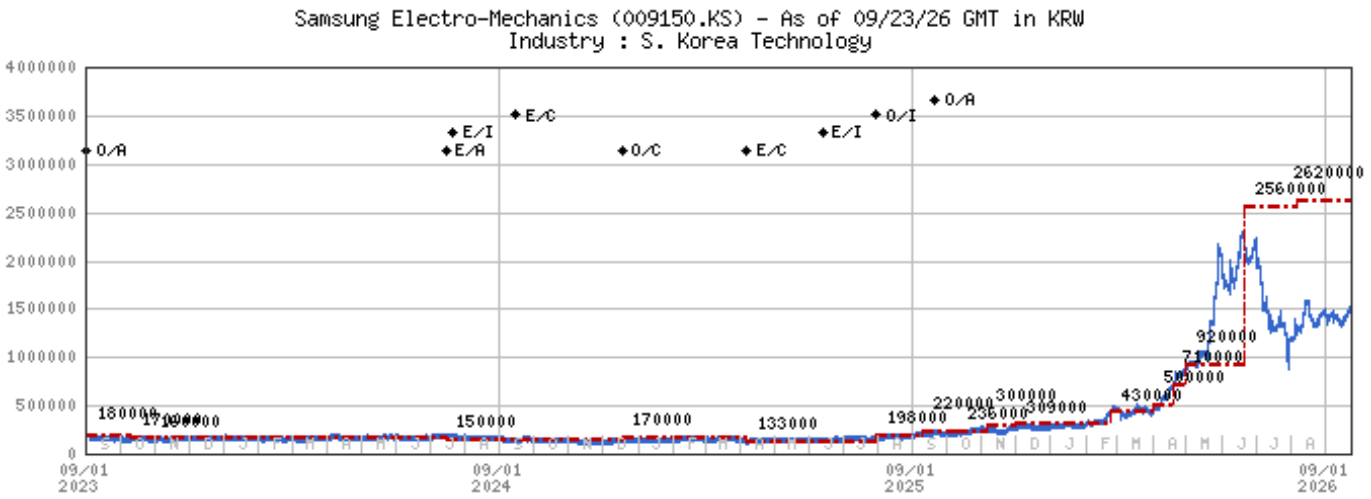
Stock Rating History: 3/25/25 : E/C; 6/13/25 : E/I; 9/21/25 : E/A; 1/22/26 : O/A

Price Target History: 3/25/25 : 42000; 6/3/25 : 46000; 10/21/25 : 66000; 1/22/26 : 136000; 4/22/26 : 240000; 7/24/26 : 270000

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target -·- No Price Target Assigned (NA)
Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) ▬
Stock and Industry Ratings (abbreviations below) appear as ◆ Stock Rating/Industry View
Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)
Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

Effective January 13, 2014, the stocks covered by Morgan Stanley Asia Pacific will be rated relative to the analyst's industry (or industry team's) coverage.

Effective January 13, 2014, the industry view benchmarks for Morgan Stanley Asia Pacific are as follows: relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.



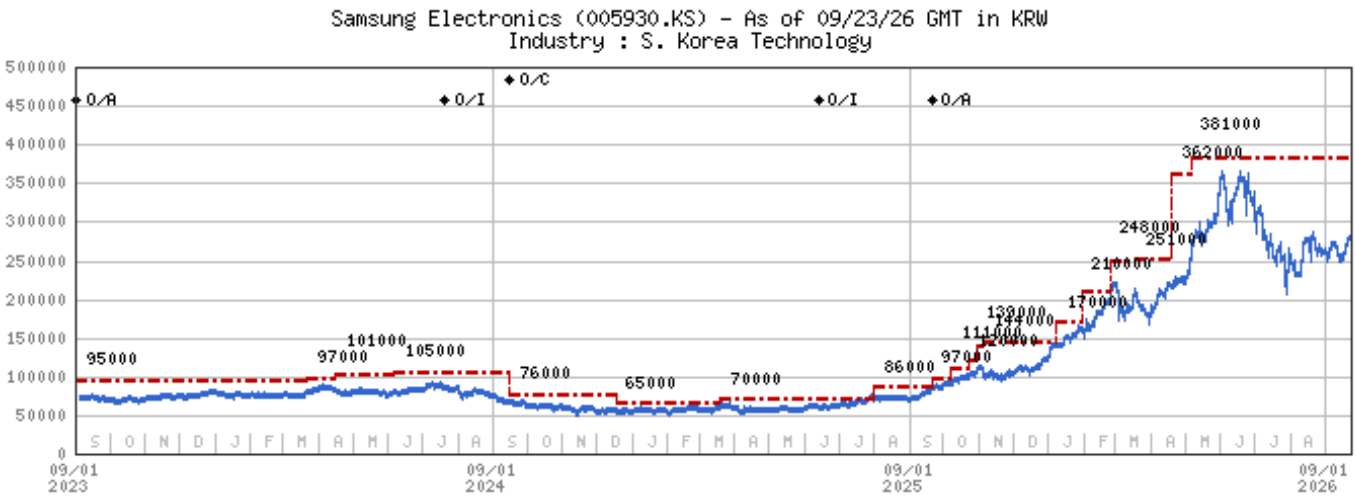
Stock Rating History: 9/1/21 : E/C; 6/1/22 : U/C; 10/4/22 : U/A; 11/9/22 : O/A; 7/15/24 : E/A; 7/21/24 : E/I; 9/15/24 : E/C; 12/18/24 : O/C; 4/7/25 : E/C; 6/13/25 : E/I; 7/31/25 : O/I; 9/21/25 : O/A

Price Target History: 5/12/21 : 180000; 10/19/21 : 170000; 10/27/21 : 160000; 1/24/22 : 180000; 3/18/22 : 170000; 6/1/22 : 140000; 11/9/22 : 180000; 10/11/23 : 170000; 10/27/23 : 160000; 7/15/24 : 150000; 12/18/24 : 170000; 4/7/25 : 133000; 7/31/25 : 198000; 9/10/25 : 220000; 10/10/25 : 236000; 11/5/25 : 300000; 12/1/25 : 309000; 2/23/26 : 430000; 4/2/26 : 500000; 4/19/26 : 710000; 5/1/26 : 920000; 6/22/26 : 2560000; 8/7/26 : 2620000

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target No Price Target Assigned (NA)
Stock Price (Not Covered by Current Analyst) Stock Price (Covered by Current Analyst)
Stock and Industry Ratings (abbreviations below) appear as ◆ Stock Rating/Industry View
Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)
Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

Effective January 13, 2014, the stocks covered by Morgan Stanley Asia Pacific will be rated relative to the analyst's industry (or industry team's) coverage.

Effective January 13, 2014, the industry view benchmarks for Morgan Stanley Asia Pacific are as follows: relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.



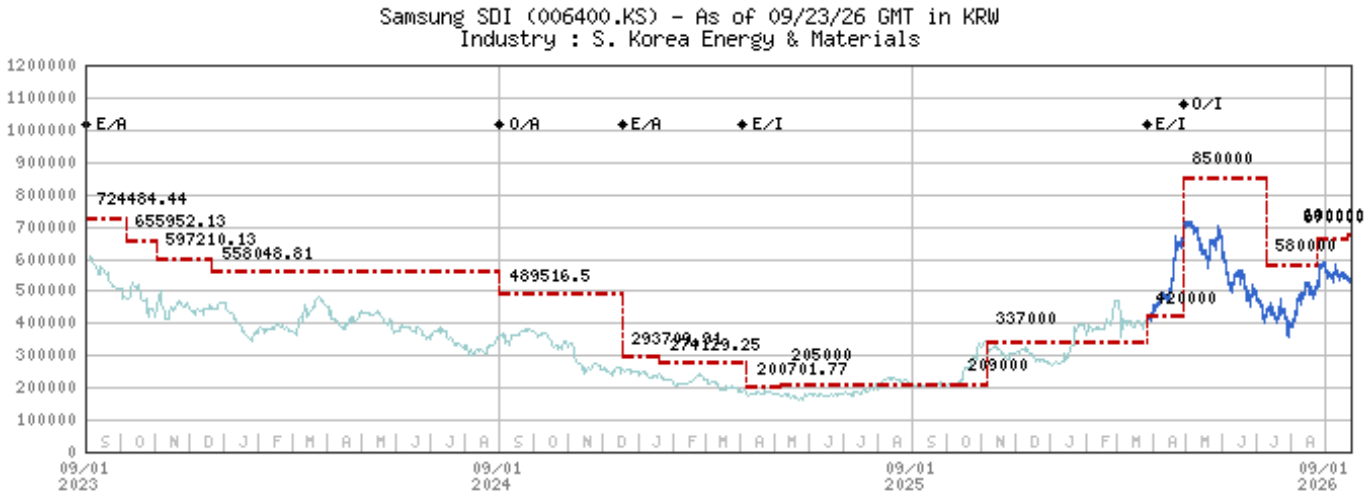
Stock Rating History: 9/1/21 : O/C; 10/4/22 : O/A; 7/21/24 : O/I; 9/15/24 : O/C; 6/13/25 : O/I; 9/21/25 : O/A

Price Target History: 8/12/21 : 89000; 9/15/21 : 95000; 12/3/21 : 97000; 3/18/22 : 95000; 4/28/22 : 85000; 6/10/22 : 80000; 7/5/22 : 75000; 7/22/22 : 70000; 9/17/22 : 68000; 3/21/23 : 70000; 5/30/23 : 90000; 7/7/23 : 95000; 3/22/24 : 97000; 4/16/24 : 101000; 6/6/24 : 105000; 9/15/24 : 76000; 12/18/24 : 65000; 3/19/25 : 70000; 8/1/25 : 86000; 9/21/25 : 97000; 10/8/25 : 111000; 10/23/25 : 120000; 10/30/25 : 139000; 11/5/25 : 144000; 1/8/26 : 170000; 1/30/26 : 210000; 2/24/26 : 248000; 3/18/26 : 251000; 4/19/26 : 362000; 5/6/26 : 381000

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target No Price Target Assigned (NA)
Stock Price (Not Covered by Current Analyst) Stock Price (Covered by Current Analyst)
Stock and Industry Ratings (abbreviations below) appear as ◆ Stock Rating/Industry View
Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)
Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

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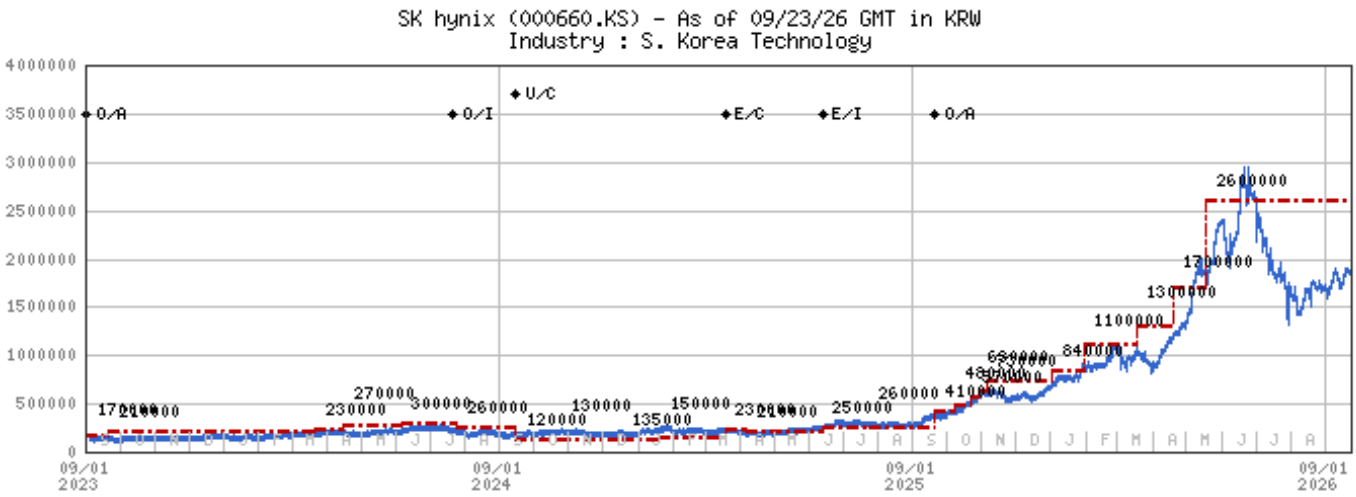
Stock Rating History: 9/1/21 : U/A; 10/26/21 : E/A; 9/1/24 : O/A; 12/18/24 : E/A; 4/3/25 : E/I; 3/27/26 : E/I; 4/28/26 : O/I

Price Target History: 7/27/21 : 587419.81; 10/26/21 : 704903.75; 3/18/22 : 538468.13; 7/11/22 : 548258.5; 10/26/22 : 607000.44; 11/29/22 : 636371.44; 3/10/23 : 724484.44; 10/6/23 : 655952.13; 11/2/23 : 597210.13; 12/21/23 : 558048.81; 9/1/24 : 489516.5; 12/18/24 : 293709.91; 1/20/25 : 274129.25; 4/7/25 : 200701.77; 5/7/25 : 205000; 10/10/25 : 209000; 11/5/25 : 337000; 3/27/26 : 420000; 4/28/26 : 850000; 7/10/26 : 580000; 8/24/26 : 660000; 9/21/26 : 670000

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target No Price Target Assigned (NA)
Stock Price (Not Covered by Current Analyst) Stock Price (Covered by Current Analyst)
Stock and Industry Ratings (abbreviations below) appear as ◆ Stock Rating/Industry View
Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)
Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

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Stock Rating History: 9/1/21 : U/C; 12/3/21 : E/C; 2/11/22 : O/C; 7/22/22 : E/C; 10/4/22 : O/A; 7/21/24 : O/I; 9/15/24 : U/C; 3/19/25 : E/C; 6/13/25 : E/I; 9/21/25 : O/A

Price Target History: 8/12/21 : 80000; 9/15/21 : 88000; 12/3/21 : 110000; 12/23/21 : 125000; 1/24/22 : 130000; 1/28/22 : 136000; 2/11/22 : 155000; 3/18/22 : 150000; 4/27/22 : 130000; 6/10/22 : 120000; 7/5/22 : 110000; 7/22/22 : 105000; 10/4/22 : 130000; 12/7/22 : 120000; 3/21/23 : 110000; 5/30/23 : 140000; 7/7/23 : 170000; 9/21/23 : 210000; 3/22/24 : 230000; 4/16/24 : 270000; 6/6/24 : 300000; 7/25/24 : 260000; 9/15/24 : 120000; 10/24/24 : 130000; 12/18/24 : 135000; 1/20/25 : 150000; 3/19/25 : 230000; 4/7/25 : 210000; 6/13/25 : 250000; 7/24/25 : 260000; 9/21/25 : 410000; 10/8/25 : 480000; 10/23/25 : 570000; 10/29/25 : 630000; 11/5/25 : 730000; 1/2/26 : 840000; 1/30/26 : 1100000; 3/18/26 : 1300000; 4/19/26 : 1700000; 5/18/26 : 2600000

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target No Price Target Assigned (NA)

Stock Price (Not Covered by Current Analyst) Stock Price (Covered by Current Analyst)

Stock and Industry Ratings (abbreviations below) appear as ◆ Stock Rating/Industry View

Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)

Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

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