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Thematics

# Uncovering Alpha in AI's Rate of Change

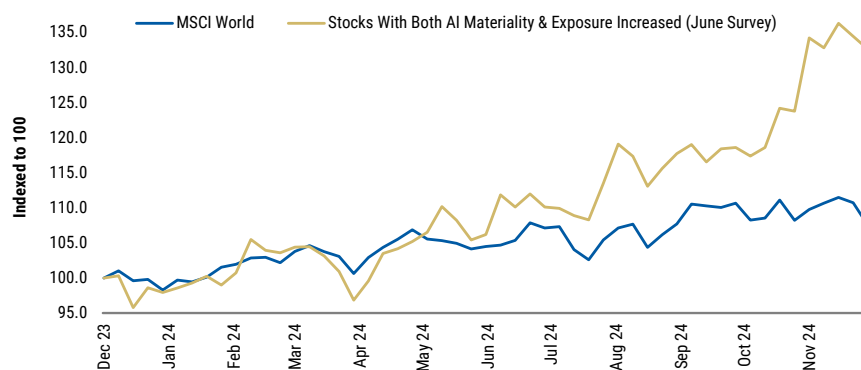
More than two years since ChatGPT's launch, we remain in the early innings of AI's diffusion. This is the third iteration of the most comprehensive AI stock mapping exercise in the market. Rate of change continues to drive outperformance, and we believe 2025 will be the year of Agentic AI.

**AI's Rate of Change Continues to Surprise:** Our first AI Adopter survey was published in [January 2024](#), our second in [June 2024](#). This is our third such analysis. We have been surprised by the continued extent of changes made by our analysts across >3,700 global stocks under coverage. 585 stocks had their AI exposure or materiality changed (\$13trn of market cap). AI model capabilities and costs continue to evolve rapidly and corporate adoption is still low. AI's diffusion is accelerating but decidedly remains in its early innings.

**AI's Rate of Change Has Driven Outperformance:** [Exhibit 1](#) shows the 2H24 outperformance of stocks which [previously](#) saw their exposure *and* materiality increased. Looking forward, overweight rated stocks matching these criteria in this latest survey have [29% upside to price targets](#). We explain how to [access and use our database](#) and sees three opportunities ahead: (1) [Enablers with rising materiality](#); (2) [Adopters with pricing power](#); (3) [Financials with AI 'Rate of Change' tailwinds](#).

**2025 - Agentic AI Adopters:** [As in previous tech cycles](#), the equity markets are poised for Semiconductor leadership to give way to the Software Layer. That process is underway. Simply put, AI Agents give "agency" to software programs. In other words AI Adopter companies can move from the *reactive* "chatbot phase" to the *proactive* "task-fulfillment phase" of AI; entailing broad productivity gains. We believe 2025 will be a year of Agentic AI, robust enterprise adoption, [outperformance of favoured Agentic plays](#), positive surprises in model capabilities, greater breadth of monetisation and thus diminishing focus on ROI debates.

**Exhibit 1:** Stock returns where both materiality and exposure were increased



Source: Eikon, MS Research. Past performance is no guarantee of future results. Results shown do not include transaction costs.

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**Please click here for the full excel database of >3,700 stocks mapped by AI exposure and materiality.**

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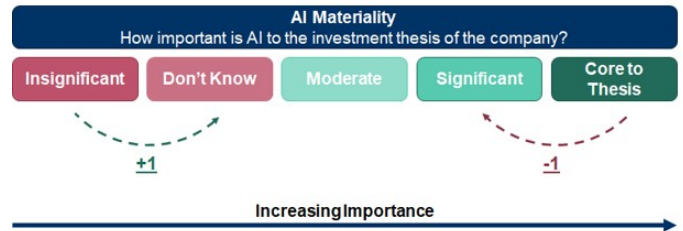
# Mapping AI's Rate of Change in Charts

**Exhibit 2:** Morgan Stanley classification for how AI Rate of Change "Exposure" is scored



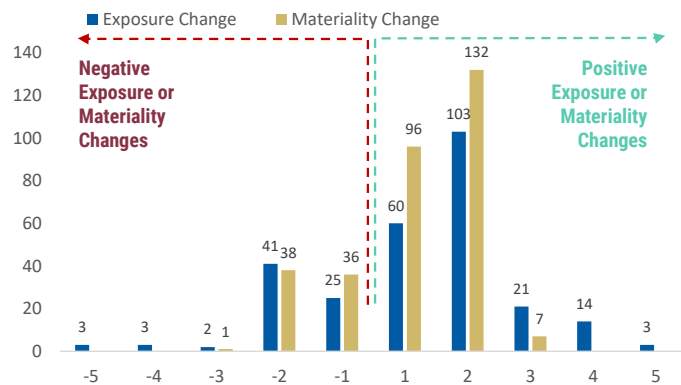
Source: Morgan Stanley Research

**Exhibit 3:** Morgan Stanley classification for how AI Rate of Change "Materiality" is scored



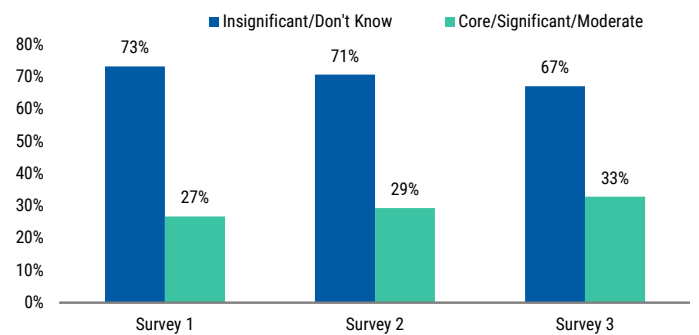
Source: Morgan Stanley Research

**Exhibit 4:** Most analyst reclassifications are by multiple increments to the upside and downside



Source: Morgan Stanley Research; [Please click here for the full excel database of >3,700 stocks mapped by AI exposure and materiality](#)

**Exhibit 5:** Steady progress is being made by companies in conveying their investment and equity story as it relates to AI



Source: Morgan Stanley Research; [Please click here for the full excel database of >3,700 stocks mapped by AI exposure and materiality](#)

**Exhibit 6:**

AI Agent Infrastructure and Vendor plays within the Software layer - stocks in bold represent our favoured equities within the Agentic AI theme

## AI Agent Infrastructure

- **MongoDB** (Vector Database) – Enabler/Adopter, Significant
- **Confluent** (Real Time Data Transport) Enabler, Moderate
- Elastic NV (RAG/LLM Orchestration) – Enabler, Moderate
- UI Path (Agent Builder) – Wildcard, Significant
- Appian (AI Skills) – Wildcard, Significant

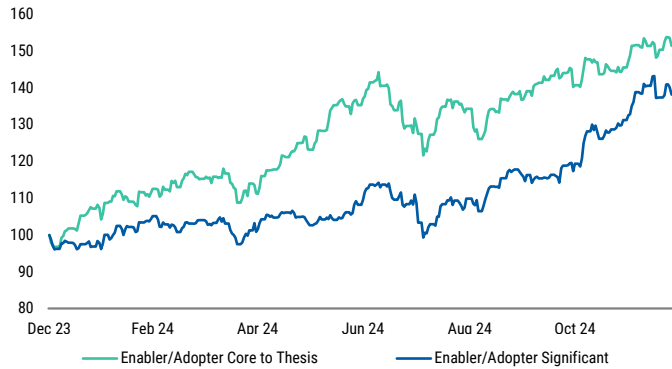
## AI Agent Vendors

- **Salesforce** (Agentforce) – Enabler/Adopter, **Core to Thesis**
- **Microsoft** (Copilot) – Enabler/Adopter, **Core to Thesis**
- **Atlassian** (Intelligence/Rovo) – Enabler/Adopter, Significant
- **Workday** (Illuminate AI) – Enabler/Adopter, Moderate
- **ServiceNow** (NowAssist) – Enabler/Adopter, **Core to Thesis**
- **SAP** (Joule AI) – Enabler/Adopter, Significant
- **RELX** (Protégé) – Enabler/Adopter, **Core to Thesis**
- **Hubspot** (Breeze AI) – Enabler/Adopter, Significant
- **Gitlab** (Gitlab Duo) – Enabler/Adopter, Significant
- **Freshworks** (FreddyAI) – Enabler/Adopter, **Core to Thesis**
- **Asana** (AI Studio) – Enabler/Adopter, Significant
- **Box** (Box Studio) – Enabler/Adopter, Significant

Source: Morgan Stanley Research; Last Price - MDB - \$246, CFLT - \$29, ESTC - \$101, PATH - \$13, APPN - \$33, CRM - \$332, MSFT - \$423, TEAM - \$250, WDAY - \$252, NOW - \$1073, SAP - 235, REL - £37, HUBS - \$702, GTLB - \$59, FRSH - \$16, ASAN - \$20, BOX - \$31

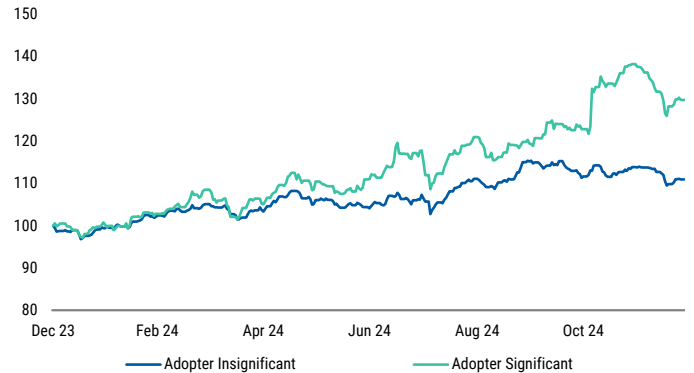
# AI's Rate of Return in Charts

**Exhibit 7:** Enabler/Adopters Core vs Significant



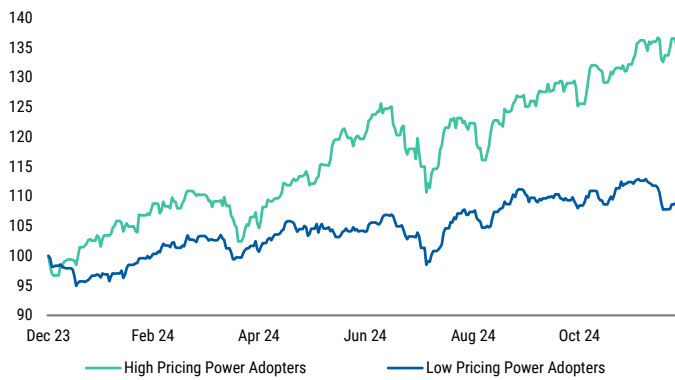
Source: FactSet, Morgan Stanley Research

**Exhibit 8:** Adopters Significant vs Insignificant



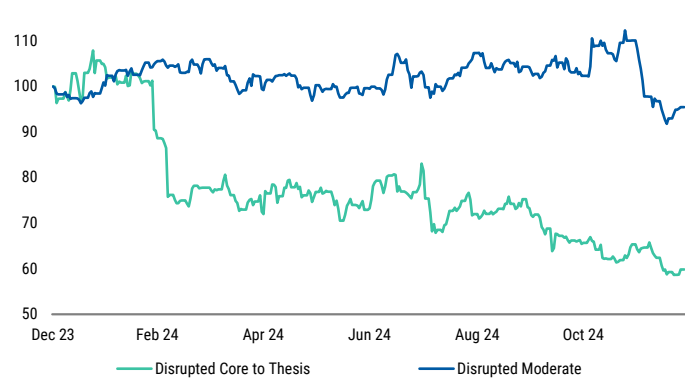
Source: FactSet, Morgan Stanley Research

**Exhibit 9:** Adopters High vs Low Pricing Power



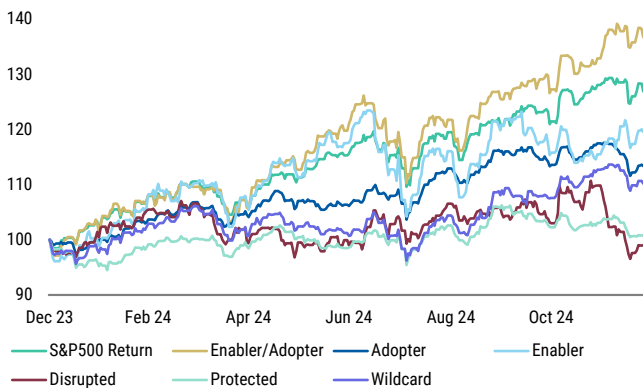
Source: FactSet, Morgan Stanley Research

**Exhibit 10:** Disrupted Core vs Moderate



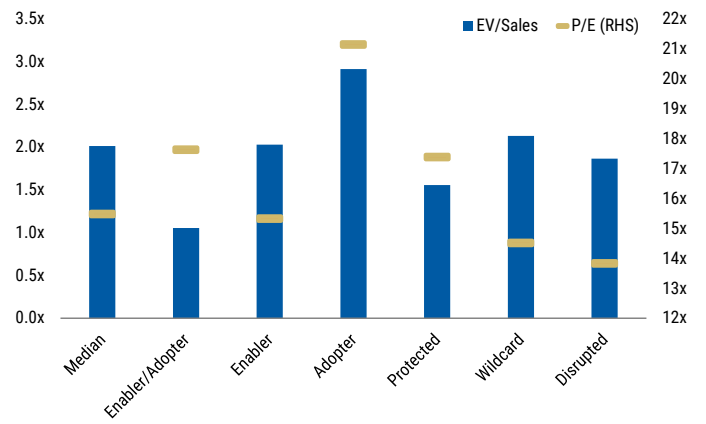
Source: FactSet, Morgan Stanley Research

**Exhibit 11:** Market cap weighted performance by AI Exposure categorisation during 2024



Source: FactSet, Morgan Stanley Research

**Exhibit 12:** Valuation (at year end 2024)



Source: FactSet, Morgan Stanley Research

# Executive Summary



## Tech Diffusion

A Morgan Stanley Research  
Key Theme of 2025

**Please click [here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality.**

This is the third mapping (see [here](#) and [here](#)) of our global coverage as it pertains to the speed of AI adoption. We have again asked Morgan Stanley Research analysts across the firm's global stock coverage three questions:

- **How do you currently classify the company's AI exposure?** 7 categories from Enabler down to Disrupted (see [Exhibit 2](#))
- **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 ([Exhibit 3](#))
- **How do you perceive this company's pricing power** (i.e. ability to retain cost savings vs passing through to customers)? 3 categories of High, Neutral, Low.

### What's New in this analysis - 5 key changes and findings

1. **275 stocks (\$5.7trn of value) have changed exposure and 310 stocks (\$7.8trn of value) have changed materiality. 115 stocks (\$2.2trn of value) have changed both exposure and materiality. 76 have moved up in both, 16 have moved down in both.** Stocks that have changed categories represent ~\$14tr in market cap, \$9tr in revenues .
2. **24 stocks (net) moved from Adopters to Enabler/Adopter;** 7 stocks to Disrupted.
3. **AI is now more material for 17% of Financials coverage;** Financials had the highest net AI Materiality increase across our global coverage. Consumer Staples was at the other end of the spectrum, with net 3% lower importance.
4. **139 Adopters have been designated as having "High Pricing Power"** and have outperformed "Low Pricing Power" Adopters by 30% since ChatGPT was released. Since the last survey, our analysts have added 8 companies to the high pricing power & high AI Materiality Adopters category.
5. **3 upward materiality ratings changes made for every stock that declined in materiality.** This ratio was 1.1 previously; in other words, in the last survey each upward materiality change was matched by a downward change.

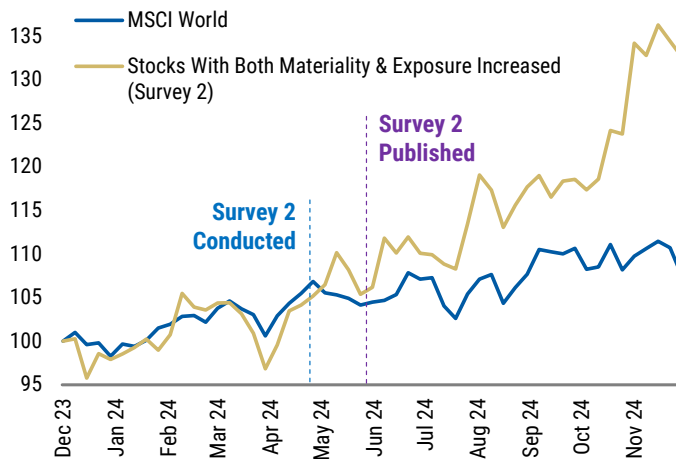
### Rate of Change Has Driven Outperformance

We believe investors predominantly use our survey for three reasons: (1) to understand the rate of change in AI and its corporate adoption; (2) portfolio risk management and (3) stock-picking. We look at the performance of stocks for which our global analysts identified a change in materiality, exposure or both as part of the earlier re-mapping

exercise to assess the relevance of AI's rate of change.

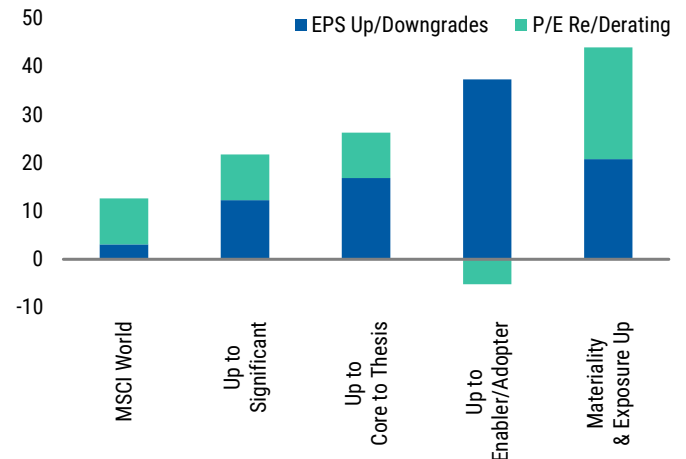
In our second survey, 326 stocks saw a change in AI exposure and 443 stocks saw a change in materiality, as judged by our global analysts. For simplicity, we group these changes into the most common types of re-mapping (i.e. both exposure and materiality up; only materiality increased to Core to Thesis; only exposure increased to Enabler/Adopter). Those stocks that had their exposure **and** materiality increased by our analysts in Survey 2 outperformed the MSCI World by 25% in 2024, with mostly over in 2H (Exhibit 13). Similar upgrades and re-ratings can be seen across other groupings of changes (Exhibit 14). While there are other factors at play, we believe that AI's rate of change in adoption will continue to be a differentiating factor for stocks over the course of 2025.

**Exhibit 13:** Performance of stocks upgraded both in exposure and materiality in Survey 2 vs MSCI World (Market cap weighted)



Source: Eikon, Morgan Stanley Research

**Exhibit 14:** Performance of stocks reclassified in various ways in Survey 2 vs MSCI World (%) - (2H24); average stock return by group



Source: Eikon, Morgan Stanley Research

## Latest Rate of Change in Summary

The changes in our analysts' tagging of stocks has a similar pattern to the last survey. The largest number of stocks to change exposure category were 44 names moving from Adopter to Enabler/Adopters (24 net). This continued to be largely driven by Utilities and Energy stocks being considered to be enabling the build out of the AI infrastructure as well as being beneficiaries of its use. 42 names also moved from "Don't Know" classification to "Adopter" - so too did 33 stocks from the "Protected" category to "Adopter" - as companies continue to craft their message to the market around their involvement in this structural theme. Similar to the last survey, the largest market cap changes were between Adopter to Enabler/Adopter and from Protected to Adopter.

Within these category changes, there has been a far greater concentration in changes in materiality towards (1) Enabler stocks being upgraded in materiality to Core to Thesis and (2) Adopter stocks being upgraded to Moderate materiality by our analysts. In each case 9% of market cap of Enablers and Adopters was increased to Core to Thesis and Moderate, respectively. Collectively >\$6trn of market cap was reclassified in these two ways. As we go on to elaborate, most of this evolution and upgrading of materiality – particularly for the Adopter category – has come from Banks and Financials. This is a vertical we believe will become increasingly important through 2025, just as Utilities was

through 2024.

**Exhibit 15:** Global Coverage Rate of Change, Stocks (upper table) and market cap changed (lower table)

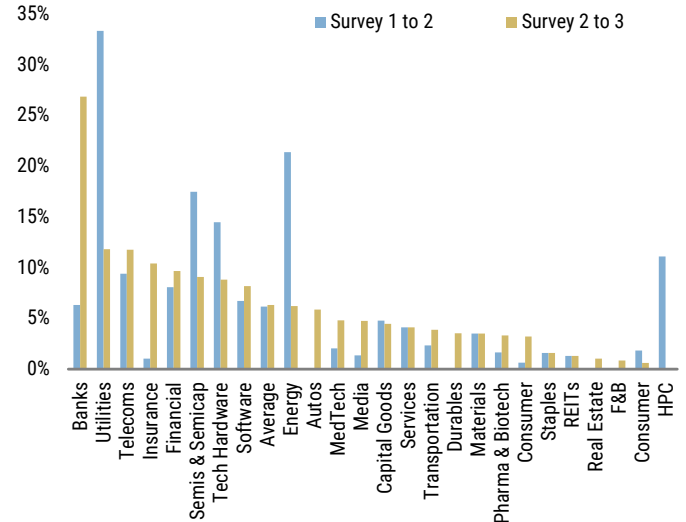
AI Exposure Changes		New AI Exposure							Grand Total
		Enabler/Adopter	Enabler	Adopter	Protected	Don't Know	Wildcard	Disrupted	
Previous AI Exposure	Enabler/Adopter	311	3	20	0	1	3	0	338
	Enabler	4	173	0	1	1	0	0	179
	Adopter	44	13	1169	10	16	1	2	1255
	Protected	2	16	33	786	1	1	0	839
	Don't Know	8	9	42	4	522	5	3	593
	Wildcard	3	5	10	1	3	251	6	279
	Disrupted	0	0	1	0	0	3	34	38
	New Entry	21	16	71	47	33	9	5	202
	Grand Total	393	235	1346	849	577	273	50	3723

AI Exposure Changes (Market Cap Changes \$bn)		New AI Exposure							Grand Total
		Enabler/Adopter	Enabler	Adopter	Protected	Don't Know	Wildcard	Disrupted	
Previous AI Exposure	Enabler/Adopter	23,199	36	426	0	0	10	0	23,672
	Enabler	58	6,799	0	2	3	9	0	6,862
	Adopter	1,475	322	31,912	297	73	9	21	34,109
	Protected	25	158	902	10,875	5	4	0	11,968
	Don't Know	137	174	928	27	5,596	30	0	6,893
	Wildcard	0	0	448	21	15	3,352	15	3,917
	Disrupted	0	0	3	0	0	27	549	579
	New Entry	392	427	647	464	232	43	48	2,253
	Grand Total	31,342	7,945	35,266	11,686	5,925	3,455	634	96,253

Source: FactSet, Morgan Stanley Research

**Exhibit 16:** Materiality increases (% of sector's stocks upgraded) from one survey to the next



Source: Morgan Stanley Research

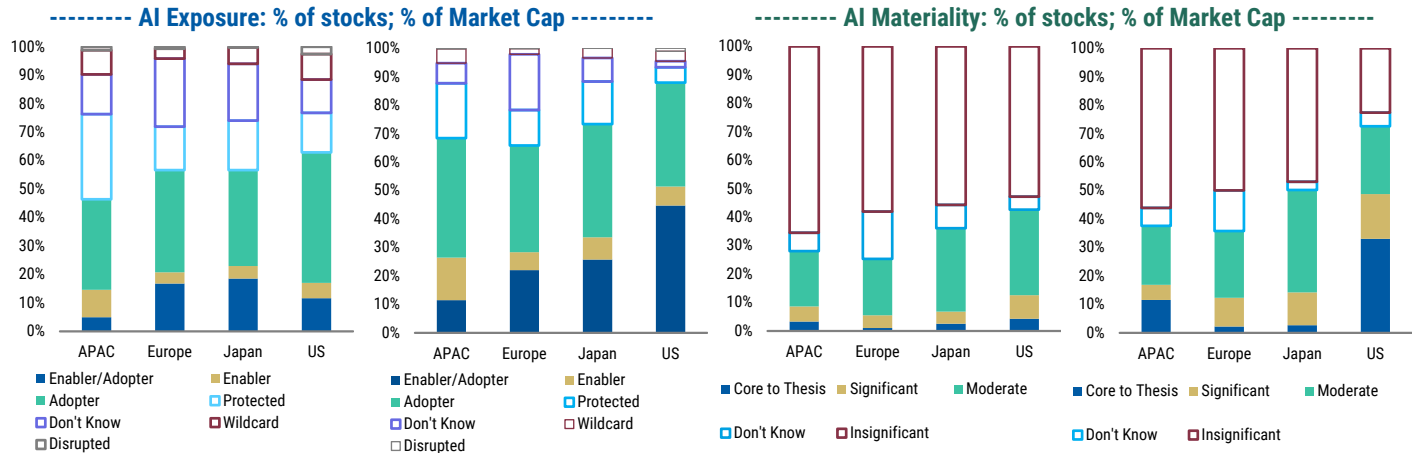
## US Leadership Widens Further

The US has been the global leader in Generative AI from the outset - the transformer technology itself, the competition in foundational model building, the willingness to generate the power needed and the consumer and enterprise adoption needed to reach escape velocity.

- **Exposure:** However, our latest survey of analysts does show a surprising dichotomy. In terms of the three exposures that matter most for stock performance (Enabler/Adopter, Enabler and Adopter), the US is largely on par with Europe and Japan in terms of proportion of stocks labelled as such. In fact, the US even lags behind Europe in the proportion of stocks considered Enabler/Adopters. Yet, in market cap terms, the US has double the weighting in Enabler/Adopters relative to Europe and quadruple that of APAC.
- **Materiality:** In terms of Materiality of AI to the investment case, the variances are starker still. Stocks where AI is considered at least moderately important to the investment case amount to c25% of European and APAC coverage but a meaningfully higher c40% of US coverage. In market cap terms, US stocks where AI is considered at least moderately important to the investment case represent >70% of the US market; double the level in Europe. And for the most important Core to Thesis categorisation, the US has c15x higher weighting than Europe or Japan, for example.

**The Rest of World catch-up argument:** If there is a compelling argument for the gap to close between the US and other regions, we believe it lies in the Moderate Adopter groupings where the weighting of stocks and market value is comparable across the regions. This is also the grouping for which the rate of change argument holds most upside potential, particularly for corporate margins in Europe and Asia.

**Exhibit 17:** Proportion of stocks and market cap in each exposure and materiality category regionally



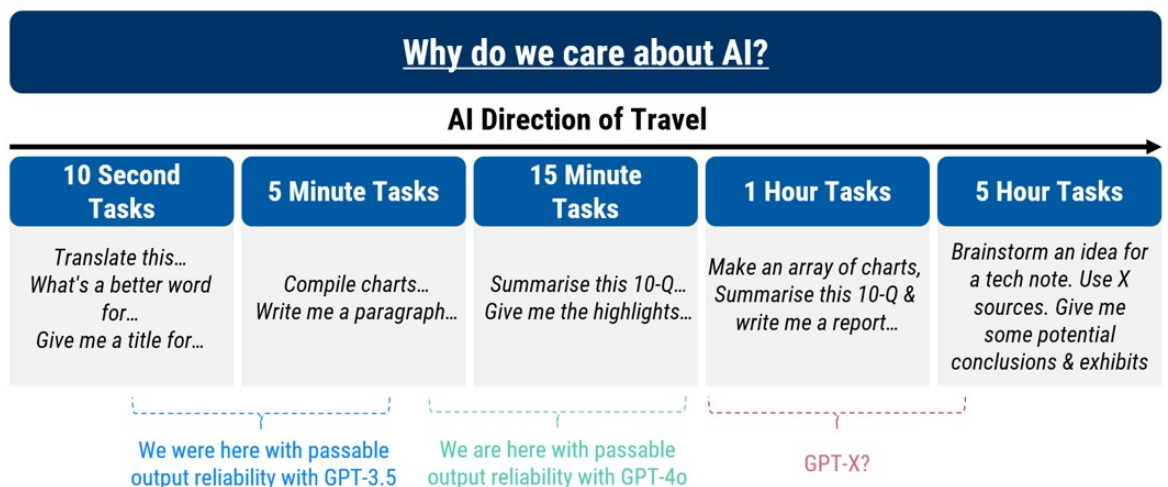
Source: FactSet, Morgan Stanley Research

## Why AI's Rate of Change Will Continue to Matter

This report maps the evolution of companies' exposure to AI, how that evolution is perceived by analysts and how it is priced by the market. The reason we think this exercise is valuable to investors is because of: (1) the accelerating capabilities of foundational AI infrastructure, and (2) the fact that this technology is diffusing faster than any before it and into more industries than any before it (see [here](#), [here](#) and [here](#)).

Over the past 24 months, the speed of change in underlying model capabilities has ratcheted up from reliable output that can displace or supplement 5 second or 5 minute tasks, to models that are providing reliable output (i.e. minimal hallucination) for 15 minute to 1 hour tasks. The latest models focussing on inference-time reasoning (i.e. greater "thought" rather than memory regurgitation) is more compute intensive but progresses us towards the potential for 5 hour and eventually 5 day tasks being automated or streamlined.

**Exhibit 18:** Our Conceptual Roadmap for AI Developments



Source: Morgan Stanley Research

After a year of accelerating global competition in models, the latest major breakthrough was announced by OpenAI in December. The o3 Series supercedes the o1 models released

less than 6 months prior. The company claims to bridge substantially closer to human level cognitive ability in [ARC-AGI's specifically curated tests](#), which cannot be passed through memorisation alone - albeit with markedly higher compute requirements ([Exhibit 19](#)).

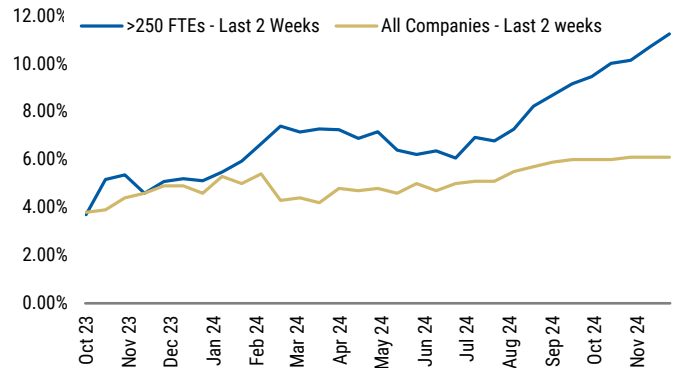
In the context of this speed of evolution in foundational models, we believe corporate adoption and its materiality to global stock markets remains underappreciated ([see below](#)). Our regular CIO survey shows robust spending and AI adoption plans by companies in 2H24 and beyond. For example, the US Census fortnightly survey of 1.2 million businesses also shows still low but rising levels of AI adoption by corporates in the tail of the economy (below the level which is captured by the companies covered by our analysts). This growth in adoption is particularly acute amongst companies with >250 employees, now approaching 12% AI adoption, up from half that level 6 months ago ([Exhibit 20](#)). We remain early in the technology's diffusion through the economy.

**Exhibit 19:** ARC-AGI scoring of OpenAI o1 and recently announced o3 series of models



Source: OpenAI

**Exhibit 20:** AI adoption - US corporate average vs companies >250 employees ("AI used in last 2 weeks")



Source: US Census Survey - AI supplement, Morgan Stanley Research

## 2025: The Year of Agentic AI & Software Catch-Up

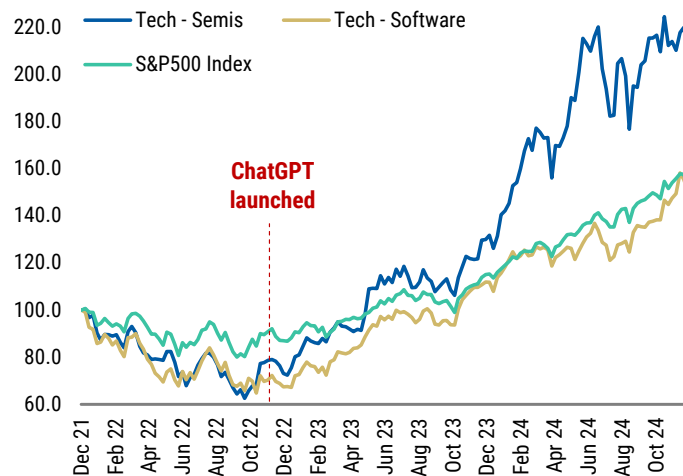
As the name implies, AI Agent technologies give agency to the software program – moving the interaction with the algorithms from reactive (a chatbot responds to a prompt from the user) to proactive (an agent proactively suggests the next step in a workflow). In a similar vein, moving from static systems operating within a well defined set of rules to a dynamic system working to find the best solutions to an evolving set of problems; from the completion of simple workflows to working through more complex workflows with an increasing amount of autonomy. Gartner estimates by 2028, 33% of enterprise software applications will include agentic AI, up from less than 1% in today. The industry analyst group estimates these agents will allow 15% of day-to-day work decisions to be made autonomously.

Our US Software team – led by [Keith Weiss](#) – believes that in 2025, one of the biggest themes in Enterprise Software will likely be the rise of an Agentic layer, which serves as a primary user interface to accessing those capabilities. [As in previous technology cycles](#), the equity markets have been poised for the moment when semiconductor outperformance gives way to the software layer. That has already started as Semis vs Software outperformance since ChatGPT's launch has pulled back from >100% to c70% through December 2024. We believe 2025 will be a year of Agentic AI, clearer monetisation,



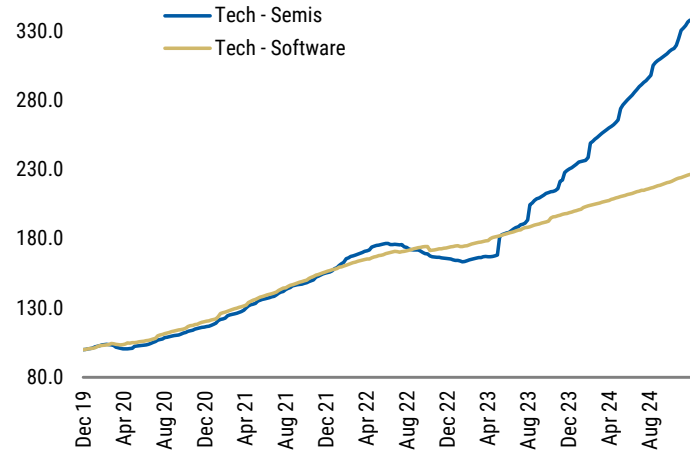
diminishing debates over ROI and accordingly a closing of the gap between Software and Semis.

**Exhibit 21:** Performance of Semiconductors and Software vs S&P500



Source: Eikon, Morgan Stanley Research

**Exhibit 22:** 12m forward consensus rolling sales for Semiconductors and Software



Source: Eikon, Morgan Stanley Research

As Agentic AI becomes a more mainstream investment theme through 2025, our Software team lays out the stocks they believe are best placed to facilitate this enterprise ramp-up. Below are (1) the companies which sell components important to building out Agentic-based solutions within the enterprise and (2) vendors that have already released agent functionality into the marketplace. The stocks should benefit from near-term momentum and numerous catalysts through 2025. That said, within the comprehensive list below, we have a preference for the bolded stocks.

**Exhibit 23:** AI Agent Infrastructure and Vendor plays within the Software layer

AI Agent Infrastructure	AI Agent Vendors
<ul style="list-style-type: none"> <li>• <b>MongoDB</b> (Vector Database) – Enabler/Adopter, Significant</li> <li>• <b>Confluent</b> (Real Time Data Transport) Enabler, Moderate</li> <li>• Elastic NV (RAG/LLM Orchestration) – Enabler, Moderate</li> <li>• UI Path (Agent Builder) – Wildcard, Significant</li> <li>• Appian (AI Skills) – Wildcard, Significant</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Salesforce</b> (Agentforce) – Enabler/Adopter, <b>Core to Thesis</b></li> <li>• <b>Microsoft</b> (Copilot) – Enabler/Adopter, <b>Core to Thesis</b></li> <li>• <b>Atlassian</b> (Intelligence/Rovo) – Enabler/Adopter, Significant</li> <li>• <b>Workday</b> (Illuminate AI) – Enabler/Adopter, Moderate</li> <li>• <b>ServiceNow</b> (NowAssist) – Enabler/Adopter, <b>Core to Thesis</b></li> <li>• <b>SAP</b> (Joule AI) – Enabler/Adopter, Significant</li> <li>• <b>RELX</b> (Protégé) – Enabler/Adopter, <b>Core to Thesis</b></li> <li>• <b>Hubspot</b> (Breeze AI) – Enabler/Adopter, Significant</li> <li>• <b>Gitlab</b> (Gitlab Duo) – Enabler/Adopter, Significant</li> <li>• Freshworks (FreddyAI) – Enabler/Adopter, <b>Core to Thesis</b></li> <li>• Asana (AI Studio) – Enabler/Adopter, Significant</li> <li>• Box (Box Studio) – Enabler/Adopter, Significant</li> </ul>

Source: Morgan Stanley Research

### Three Survey Screens for 2025

We believe that our survey can help investors find underappreciated and more refined ways of playing the AI theme, which continues to evolve rapidly. We conduct three screens of our database which we think could outperform for varying reasons in 2025. [Please click here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality.

**#1: Enabler/Adopters with High Materiality** – Despite two years of outperformance, the Enabler/Adopter tagged stocks should continue to see the greatest opportunity for near-term earnings upside. Although the AI ROI debate remains a consistent overhang for this group, the early returns data for Enabler and Adopter stocks are proving promising. In fact, 2025 should offer early signs of revenue opportunities in the software layer, which we see as likely catalysts for further investor interest in this cohort of companies. Given how much is already discounted in multiples and forward growth expectations for the Core to Thesis stocks in the Enabler and Enabler/Adopter categories ( [Exhibit 24](#) ), we have a rate of change preference for Moderate and Significant materiality stocks in these categories.

**Exhibit 24:** Forward EPS and Sales forecasts (MSe averages) - FY24-FY26e

EPS future 3 year CAGR (2024-2026)				
	Insignificant	Moderate	Significant	Core to Thesis
<b>Enabler/Adopter</b>	8.5%	12.8%	14.1%	16.1%
<b>Enabler</b>	9.4%	11.2%	12.1%	25.5%
<b>Adopter</b>	8.2%	11.6%	14.5%	17.1%
<b>Protected</b>	8.2%	14.5%	24.8%	17.5%
<b>Wildcard</b>	2.2%	9.7%	33.9%	6.3%
<b>Disrupted</b>	1.8%	4.7%	4.0%	1.9%

Sales future 3 year CAGR (2024-2026)				
	Insignificant	Moderate	Significant	Core to Thesis
<b>Enabler/Adopter</b>	4.3%	5.1%	8.3%	6.1%
<b>Enabler</b>	5.6%	4.5%	9.2%	16.4%
<b>Adopter</b>	3.9%	6.0%	7.8%	16.1%
<b>Protected</b>	4.2%	8.3%	12.2%	21.2%
<b>Wildcard</b>	4.0%	5.3%	8.8%	10.3%
<b>Disrupted</b>	-3.4%	1.7%	-0.4%	4.4%

Source: Morgan Stanley Research

**Exhibit 25:** Three key examples of Enabler/Adopters beginning to monetise AI technology

**Enabler/Adopter AI Monetisation – Early Innings**

**Closing >200 Agentforce with 'thousands' more deals in the pipeline** likely sustains excitement around Salesforce's positioning for this expansive opportunity. Using Agents, customers drove a reduction in price per service call from ~\$6/call to ~\$1

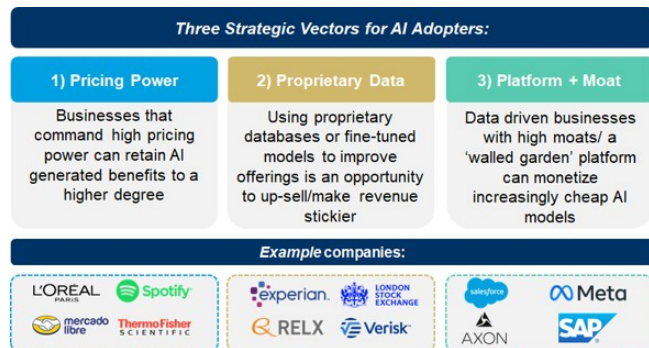
In the legal div., development & rollout of new tools (Lexis+, Lexis+ AI, Protégé - next gen AI assistant), **will continue to drive the transition towards analytics and decision tools, the primary driver of growth for another decade+**

SAP has a **300 million cloud user base to target with AI services**, which could generate hundreds of billions of savings for customers. If SAP can get even a small part of that opportunity, there is big revenue potential

Source: Morgan Stanley Research

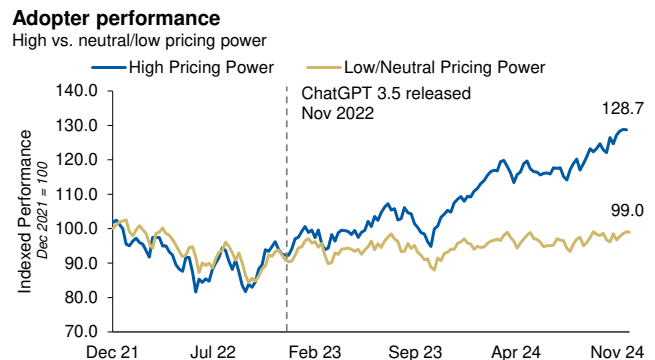
**#2: Adopters with High Pricing Power** - A cornerstone of our framework for finding AI Adopters that will have an outsized benefit from AI has been pricing power. In the [second iteration of our survey](#), we introduced pricing power as a factor for our analysts to gauge across their coverage. Adopters with high pricing power have steadily outperformed those with low or neutral pricing power - as determined by our analysts - as much as c30% since ChatGPT was launched. We expect that, as cost savings manifest in 2025 and beyond, this pricing power overlay to the stocks tagged as Adopters by our analysts will become increasingly important in determining which AI benefits get competed away versus those that provide differentiated earnings power relative to peers in each sector.

**Exhibit 26:** We are looking for three strategic vectors for AI adopters, ideally all three



Source: Morgan Stanley Research

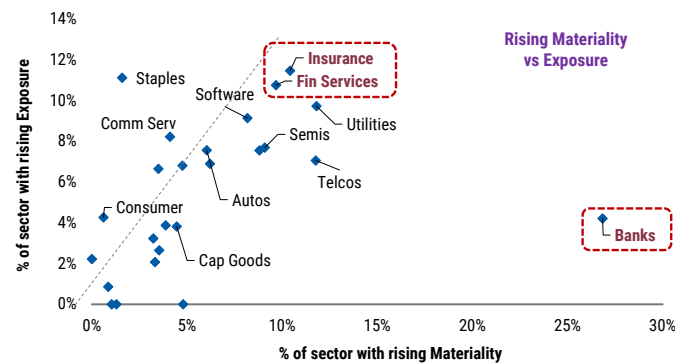
**Exhibit 27:** AI Adopters w/ pricing power have outperformed those with lower pricing power since GPT's launch



Source: FactSet, Morgan Stanley Research

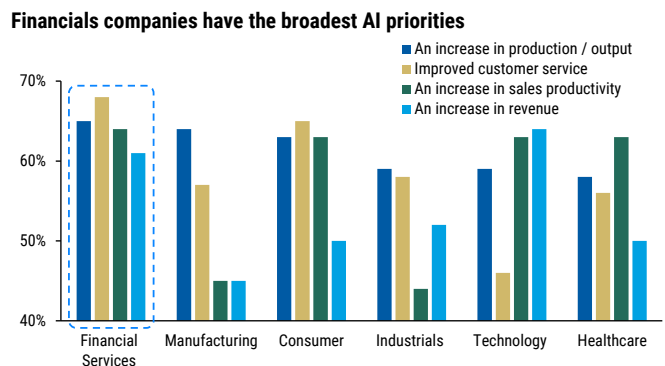
**#3: Financials Dispersion** - Until 6 months ago, banks and financials were largely considered to be "Adopter", "Protected" or "Don't Know" and with largely insignificant materiality of AI to the investment case. This has rapidly changed in the latest survey where Banks - by some distance - are the sector with the highest proportion of stocks seeing greater AI materiality tagged by our analysts. If the past 6 months saw a stock-pickers market for Utilities stocks within the AI power trade, 2025 has the potential for similar dispersion in Financials equities. We remind our readers that in a survey of 400 companies adopting GenAI into their products, Financials companies showed the greatest amount of low-hanging opportunities across both cost and revenue lines (see here and Exhibit 29).

**Exhibit 28:** Companies in the Financials sector had among the highest share of stocks with rising AI importance in our third mapping survey



Source: Morgan Stanley Research

**Exhibit 29:** Among AI priorities over the next two years, financials companies see the most balanced opportunities, with targets both for revenue and efficiency



Source: Alphawise, Morgan Stanley Research

## What's Already Been Priced By Markets?

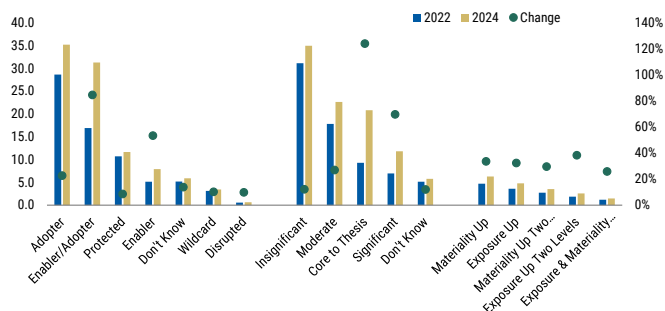
Much has already been priced by markets around this theme. Disaggregating what has been earnings vs valuation driven and how much upside remains in which categories is likely to become increasingly challenging for investors:

- **By exposure:** Since year-end 2022, the Enabler/Adopter stocks have added > \$14trn in market cap; or 85% aggregate share price performance. This is more than

all other categories combined and more than double the \$6.6trn added to the Adopter group of stocks over the same period.

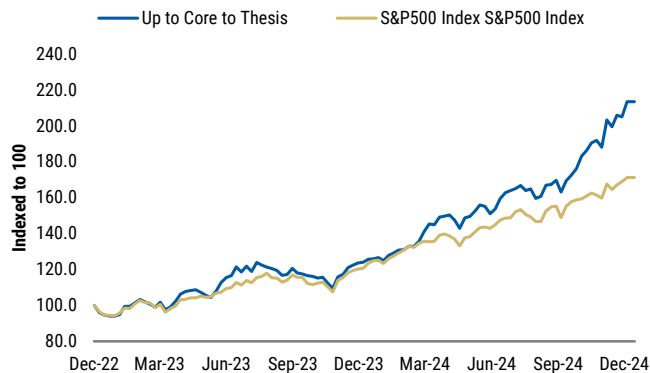
- **By materiality:** Unsurprisingly, the lion's share of uplift to market cap by materiality classification has been in the Core to Thesis grouping since year-end 2022, which has added 124%, or \$11.6trn in absolute terms. Stocks with Significant or Moderate AI exposure each saw a \$4.9trn increase to their market values; a 70% uplift for the Significant bucket over the period but only a 27% gain for the Moderate bucket versus 2022.

**Exhibit 30:** Market cap (\$trn) by exposure and materiality as well as analyst changes in Survey 3; % share price change December 2024 vs December 2022 (RHS)



Source: Eikon, Morgan Stanley Research

**Exhibit 31:** Stocks for which our analysts believe AI has become Core to Thesis steadily outperformed the S&P500 in 2024



Source: Eikon, Morgan Stanley Research

**Where we could be wrong:** This was a qualitative rather than a quantitative assessment by our analysts; we deem it too early to embark on the latter. Our survey questioned the use of machine learning broadly rather than specifically focusing on generative AI within companies. Consequently, these survey results are reliant on – and will evolve with – our analysts’ knowledge of broad-ranging and fast moving AI releases and how they could be being leveraged within their coverage. For further details see [Methodology & Synopsis](#).

# Three Themes for 2025

[Please click here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality.

**Distilling our AI Mapping Survey and global research analyst work, below we summarise our view of three actionable themes for investors for 2025.** For investors looking to stay involved in different aspects of the AI trade, we believe that these three groups offer exposure to promising parts of the AI ecosystem.

**Exhibit 32:** Three ways to play AI in 2025

1	<p><b>Continue with Enabler/Adopters.</b> Despite the success, Enabler/Adopters will continue to play the most important role in advancing AI, which we view as a decade-long theme. Physical infra will continue to be important, but 2025 will show early signs of software layer monetisation, presenting an opportunity.</p>	<p><b>Group stats</b></p> <ul style="list-style-type: none"> <li>• 234 companies w/ high AI Materiality</li> <li>• \$29tn of market cap</li> <li>• \$5tn of LTM revenue</li> </ul>
2	<p><b>For rate-of-change, look to financials.</b> A key reason for us undertaking our AI Survey is to track rate of change over time. We believe companies who are faster to adopt new technologies can gain a structural advantage on competitors. Financials are seeing rising AI importance and are potential early beneficiaries.</p>	<p><b>Group stats</b></p> <ul style="list-style-type: none"> <li>• 212 companies w/ high AI Materiality</li> <li>• \$8tn of market cap</li> <li>• \$4tn of LTM revenue</li> </ul>
3	<p><b>Among Adopters, pricing power is a key advantage.</b> Mass roll out of AI tools brings with it opportunities among AI Adopters. The challenge is filtering down the ~1,300 Adopter names in our survey. We believe high pricing power names are best positioned to retain value from increased efficiency.</p>	<p><b>Group stats</b></p> <ul style="list-style-type: none"> <li>• 72 Companies w/ high AI Materiality</li> <li>• \$2tn of market cap</li> <li>• \$900bn of LTM revenue</li> </ul>

Source: Morgan Stanley Research

# 1) Continue with Enabler/Adopters

**Despite two years of outperformance, the Enabler/Adopter tagged stocks will continue to see the greatest opportunity for earnings delivery soonest, we believe.**

Although the AI ROI debate remains a consistent overhang for this group, the early returns data for Enabler and Adopters stocks are proving to be promising. In fact, 2025 should offer early signs of revenue opportunities in the software layer, which we see as likely catalysts for further investor interest in this cohort of companies.

Given how much is already discounted in multiples and forward growth expectations for the Core to Thesis stocks in the Enabler and Enabler/Adopter categories ( [Exhibit 33](#) ), we have a rate of change preference for Significant materiality stocks in these groups. The justification for this is that consensus may be underestimating the drop-through to earnings from AI-related gains in the years ahead for those stocks with materiality less than Core to Thesis.

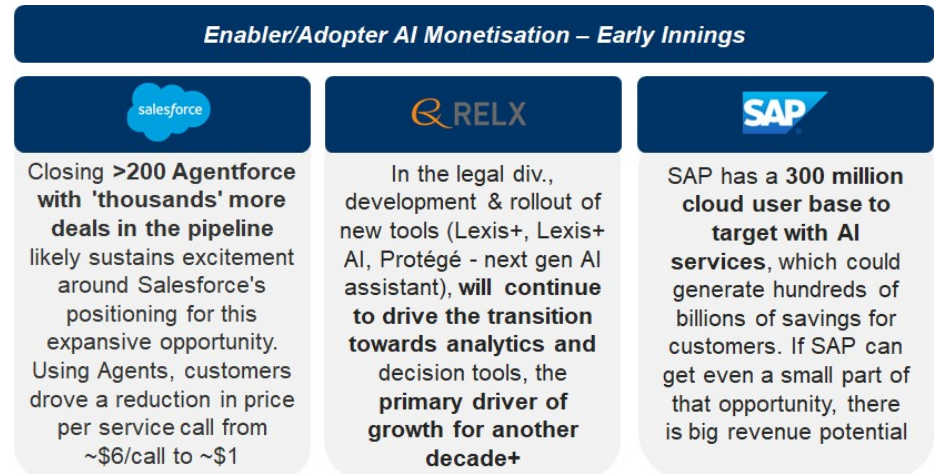
**Exhibit 33:** Forward EPS and Sales forecasts (MSe averages) - FY24-FY26e

EPS future 3 year CAGR (2024-2026)	Insignificant	Moderate	Significant	Core to Thesis
<b>Enabler/Adopter</b>	8.5%	12.8%	14.1%	16.1%
<b>Enabler</b>	9.4%	11.2%	12.1%	25.5%
<b>Adopter</b>	8.2%	11.6%	14.5%	17.1%
<b>Wildcard</b>	2.2%	9.7%	33.9%	6.3%
<b>Disrupted</b>	1.8%	4.7%	4.0%	1.9%
Sales future 3 year CAGR (2024-2026)	Insignificant	Moderate	Significant	Core to Thesis
<b>Enabler/Adopter</b>	4.3%	5.1%	8.3%	6.1%
<b>Enabler</b>	5.6%	4.5%	9.2%	16.4%
<b>Adopter</b>	3.9%	6.0%	7.8%	16.1%
<b>Wildcard</b>	4.0%	5.3%	8.8%	10.3%
<b>Disrupted</b>	-3.4%	1.7%	-0.4%	4.4%

Source: Morgan Stanley Research; [Please click here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality

**1) Early signs of Agent/Copilot monetisation are already enabling the market to begin pricing new Enabler/Adopter revenue streams.** After a market-wide debate in 2H24 regarding a lack of monetisation in the AI theme, we believe this bearish argument will further dissipate during 2025. Early monetisation examples have started to become more widespread and more concrete in their quantification by companies. In our view, more is in store for 2025, with the emphasis on monetisation of AI applications, which lends itself to Enabler/Adopters and specifically the software names therein.






**Exhibit 34:** Three key examples of Enabler/Adopters beginning to monetise AI technology



Source: Morgan Stanley Research

**2) Early reads indicate that enterprises are seeing the ROI they're hoping for on GenAI projects, setting the stage for expanding initiatives in 2025 and beyond.** Our review of surveys from the past six months indicate that most skew positive on GenAI's business impact. [Our own proprietary survey](#), conducted over the summer, found that ~90% of respondents saw ROI on GenAI projects either meet or exceed expectations. Complementing this work, several other surveys of enterprises have found fairly good traction for ROI. In our review of five publicly available surveys, only one raised questions about ROI delivery.

**Exhibit 35:** Various GenAI surveys have brought up the ROI topic

Survey Publisher	Survey			AI ROI Read	AI ROI Conclusion
	Date	Geography	Respondents		
Morgan Stanley	June 2024	Global	~400 \$500mn - \$20bn revs	↗	~50% of companies report ROI meeting expectations. ~40% exceeding expectations.
 Wharton UNIVERSITY OF PENNSYLVANIA	July 2024	United States	~800 1,000+ employees	→	72% say GenAI budgets will increase in the next year. However, 57% anticipate spending increases to slow (+1 - 10%), perhaps still searching for ROI on their initial investment.
 EY	April - May 2024	United States	~500 decision makers	↑	Senior leaders whose organizations are investing in AI are seeing tangible impact across business functions, notably positive ROI in: <ul style="list-style-type: none"> <li>Operational efficiencies (77%)</li> <li>Employee productivity (74%)</li> <li>Customer satisfaction (72%)</li> </ul>
 ETR	October 2024	Global	~1,800 (highly variable by question)	↗	97% of leading GenAI adopters report achieving tangible benefits from deployments. AI ROI slightly out to the right. Respondents expecting ROI in 'more than a year' up to 21% in Oct (15% Jan).
 Google Cloud	Feb - April 2024	Global	~2,500 100+ employees \$10mn+ revs	↑	74% are seeing ROI from Gen AI investments. 84% successfully transform a GenAI use case idea into production within six months.
 NTT	Sep - Oct 2024	Global	~2,300 GenAI decision-makers	↑	Respondents reported high satisfaction with GenAI. 72% of respondents 'Very Satisfied' and 23% 'Fairly Satisfied' – up from the survey a year ago

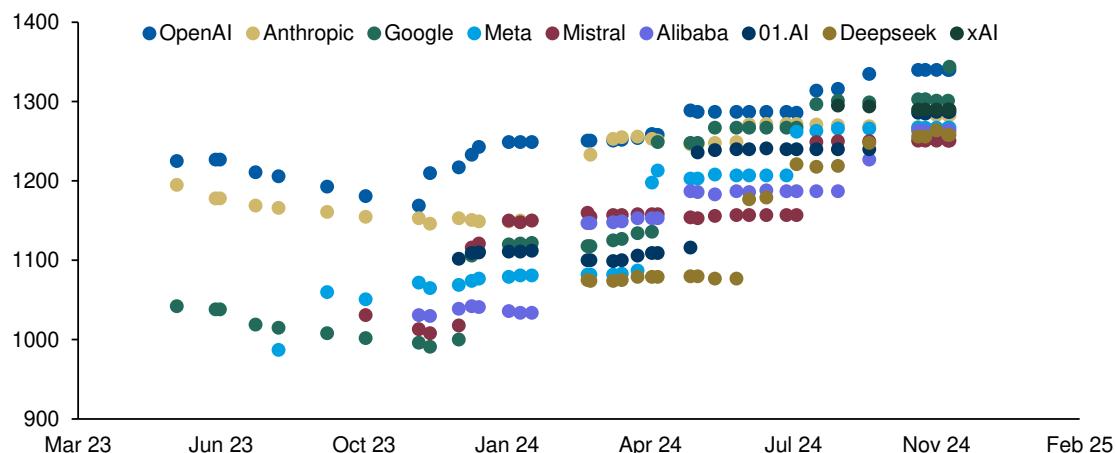
Source: Wharton, EY, ETR, Google, NTT, AlphaWise, Morgan Stanley Research

**3) Even if model progress slowed down, the Enabler/Adopters (and Adopter companies) can benefit from the existing tools for years to come.** For some time model quality has been converging, as measured by multi-shot benchmarking and Elo scores such as those below. Foundational models are becoming better and cheaper to use as measured by the cost of inference per token dropping precipitously in recent months. In our view, models becoming ubiquitous, cheap to use, and inference-time reasoning focussed benefits both the physical infrastructure and application layer of the AI tech stack. For Enabler/Adopter companies the skill will be in layering and combining increasingly commoditised models into unique combinations and agents which can create sustainable advantages versus peers.



**Exhibit 36:** An increasing number of models have established themselves above 1000 points on Imarena's user based scoring system

**AI Model Elo Scores by Company (Lmsys Chatbot Arena)**



Source: Lmarena.ai, Morgan Stanley Research. Note: Foundational model scores from Lmarena Chatbot arena Elo scores

**Who are the Enabler/Adopters?** We have ranked the Enabler/Adopters on their upside to MS price targets above \$10bn. We have included 'Enabler' companies in the list given their continuing role in the AI trade.

**Exhibit 37:** Enabler/Adopters with at least Significant materiality to the investment case and high pricing power

Company	Region	GICS Sector	Analyst	Market Cap (\$bn)	Rating	Last Price (LCY)	New Exposure	New Materiality	Pricing Power
<b>Asia/Pacific</b>									
Foxconn Industrial Internet Co. Ltd.	Asia/Pacific	Information Technology	Shih, Sharon	55.1	Overweight	20.67	Enabler	Core to Thesis	High
CMOC Group Ltd	Asia/Pacific	Materials	Zhang, Rachel	20.4	Overweight	5.47 HKD	Enabler	Significant	Neutral
Hon Hai Precision	Asia/Pacific	Information Technology	Shih, Sharon	79.6	Overweight	184.50	Enabler	Core to Thesis	High
Shenzhen Transsion Holdings Co Ltd	Asia/Pacific	Information Technology	Meng, Andy	14.5	Overweight	86.67	Enabler/Adopter	Significant	Neutral
Zhongji Innolight Co Ltd	Asia/Pacific	Information Technology	Meng, Andy	19.6	Overweight	125.49	Enabler	Core to Thesis	High
Tenaga Nasional	Asia/Pacific	Utilities	Maheshwari, Mayank	17.9	Overweight	14.58	Enabler	Core to Thesis	Neutral
Tencent Holdings Ltd.	Asia/Pacific	Communication Services	Yu, Gary	484.0	Overweight	409.40 HKD	Enabler	Core to Thesis	Neutral
HIKVision Digital Technology	Asia/Pacific	Information Technology	Meng, Andy	39.6	Overweight	28.32	Enabler/Adopter	Significant	Neutral
Quanta Computer Inc.	Asia/Pacific	Information Technology	Kao, Howard	33.9	Overweight	294.00	Enabler	Core to Thesis	Neutral
Eoptolink Technology Inc Ltd	Asia/Pacific	Information Technology	Meng, Andy	12.6	Equal-Weight	117.02	Enabler	Core to Thesis	High
<b>Europe</b>									
RWE AG	Europe	Utilities	Pulleyn, Robert	22.9	Overweight	30.33	Enabler/Adopter	Significant	High
EDP Renovaveis	Europe	Utilities	Sitbon, Arthur	10.5	Overweight	10.23	Enabler/Adopter	Significant	Neutral
Orsted A/S	Europe	Utilities	Pulleyn, Robert	20.6	Overweight	348.50	Enabler/Adopter	Significant	High
Siemens Healthineers AG	Europe	Health Care	Davies, Robert	62.7	Overweight	51.20	Enabler/Adopter	Core to Thesis	High
Legrand	Europe	Industrials	Yates, Max	26.2	Overweight	92.54	Enabler	Significant	High
KBC Group NV	Europe	Financials	Miotto, Giulia Aurora	30.5	Overweight	74.40	Enabler/Adopter	Significant	Neutral
ASM International NV	Europe	Information Technology	Putten, Nigel van	27.2	Overweight	565.60	Enabler	Significant	Neutral
Fortum Oyj	Europe	Utilities	Williams, Harrison	12.7	Overweight	14.12	Enabler/Adopter	Significant	High
BE Semiconductor Industries NV	Europe	Information Technology	Putten, Nigel van	10.3	Overweight	135.60	Enabler	Core to Thesis	High
RELX	Europe	Industrials	Webb, George	89.0	Overweight	3,650.00 Gbp	Enabler/Adopter	Core to Thesis	High
<b>North America</b>									
Adobe Inc.	North America	Information Technology	Weiss, Keith	205.4	Overweight	430.57	Enabler/Adopter	Core to Thesis	High
MongoDB Inc	North America	Information Technology	Singh, Sanjit	19.8	Overweight	246.39	Enabler/Adopter	Significant	Neutral
TransUnion	North America	Industrials	Kaplan, Toni	19.2	Overweight	92.27	Enabler/Adopter	Core to Thesis	Neutral
Microsoft	North America	Information Technology	Weiss, Keith	3,324.6	Overweight	423.35	Enabler/Adopter	Core to Thesis	High
NextEra Energy Inc	North America	Utilities	Arcaro, David	151.3	Overweight	71.99	Enabler/Adopter	Significant	High
Dell Technologies Inc.	North America	Information Technology	Woodring, Erik	83.3	Overweight	119.91	Enabler/Adopter	Core to Thesis	Neutral
Constellation Energy Corporation	North America	Utilities	Arcaro, David	74.8	Overweight	252.40	Enabler/Adopter	Core to Thesis	High
Synopsys Inc.	North America	Information Technology	Simpson, Lee	78.0	Overweight	493.71	Enabler/Adopter	Significant	Neutral
Advanced Micro Devices	North America	Information Technology	Moore, Joseph	207.6	Equal-Weight	125.37	Enabler	Core to Thesis	High
Arm Holdings plc	North America	Information Technology	Simpson, Lee	156.1	Overweight	141.08	Enabler	Core to Thesis	High

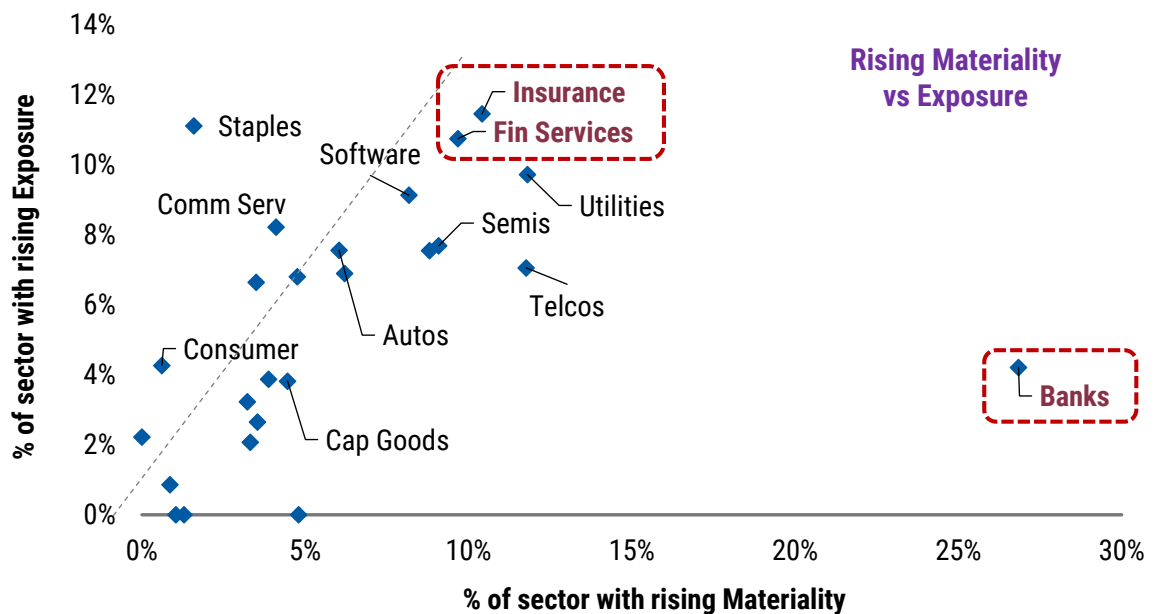
Source: Eikon, Morgan Stanley Research. [Please click here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality

## 2) The New 'Rate of Change' Leader: Financials

**Financials stands head and shoulders above the rest in our updated survey as the sector with greatest AI momentum.** When we plot the change in AI importance (x-axis) vs the change in AI exposure (y-axis), typically stocks and sectors see a somewhat correlated upgrade or downgrade pattern. In other words it is rare to see rising exposure but falling materiality between surveys.

There is typically a faster rate of change in materiality than there is for changes in exposure. This can be seen in the Utilities space in the last 12 months. However, across our global banks coverage there has been a major uplift in AI's materiality to the investment case of those stocks. Over 25% of our global banks coverage saw an increase in materiality in our latest survey, and relatively surprisingly only c4% of the global banks coverage saw concurrent upgrades in their exposure (most remained Adopters between surveys). Ultimately, we know from recent history that this positive rate of change in materiality typically presages re-ratings.

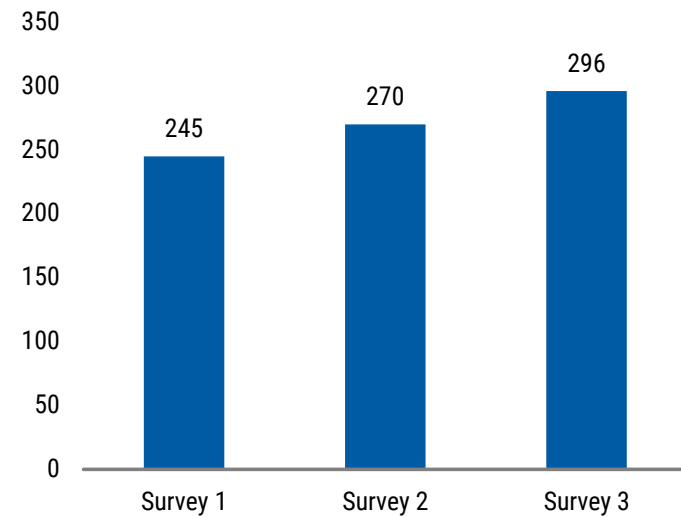
**Exhibit 38:** Companies in the Financials sector had among the highest rising AI importance in our third mapping survey



Source: Morgan Stanley Research

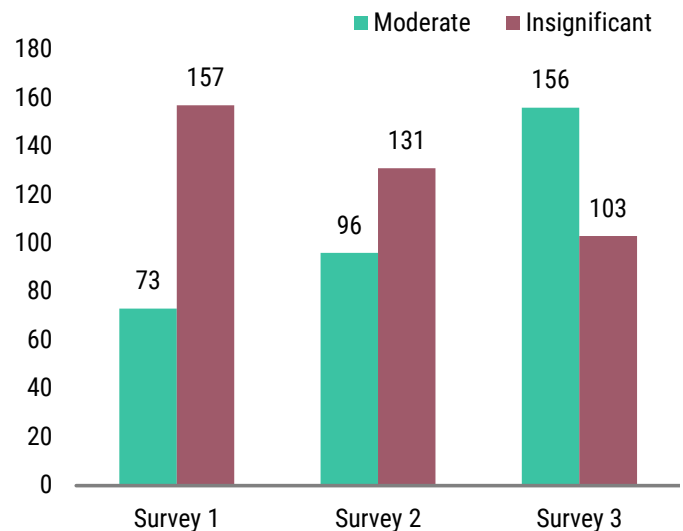
**AI has crept up in importance for Financials companies.** The total number of Adopters among financials has increased from 245 in our first survey to 296 in the latest iteration, despite little change in the overall breadth of coverage. More interestingly though, of those adopters, an increasing portion have shifted from AI being 'insignificant' to the investment case, to the importance increasingly being 'moderate' (Exhibit 40). The impact has, in fact, been so large in the Financials coverage globally that it is a major determinant of Adopter market cap seeing the highest change in materiality upgrades to Moderate across our global stock coverage (see Exhibit 72).

**Exhibit 39:** Financials stocks categorised as Adopters



Source: Morgan Stanley Research

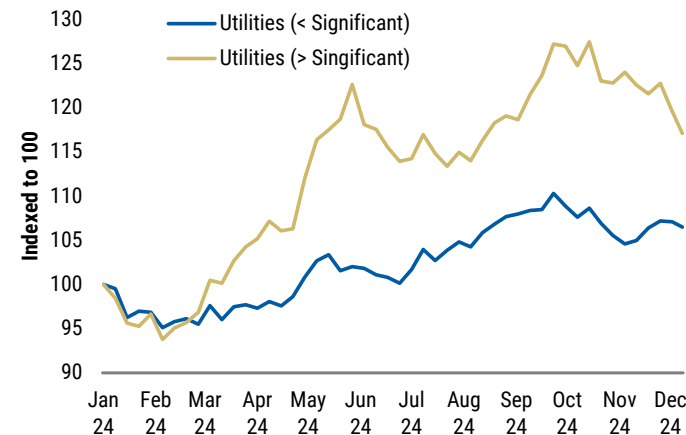
**Exhibit 40:** Financials stocks categorised as AI having Moderate vs Insignificant impact on investment case



Source: Morgan Stanley Research

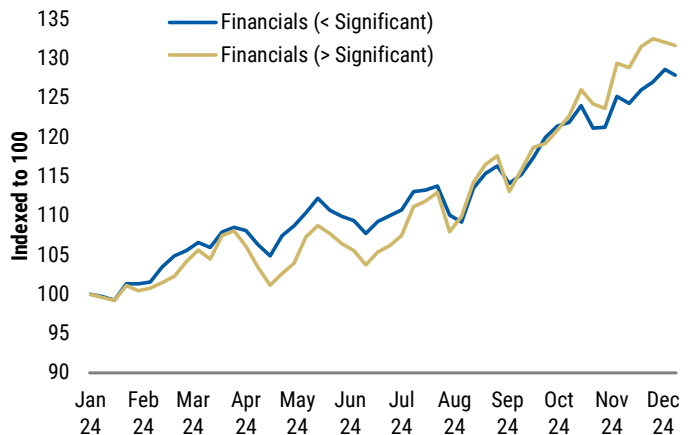
**Why does this matter?:** When looking at the returns for Utilities - a critical Enabler/ Adopter sub-theme of AI in 2024 - there is a material divergence between companies tagged by our analysts as having an AI Materiality score greater than 'significant' vs those below 'significant'. This is yet to manifest among the financials companies, an industry where AI is beginning to be assessed by our analysts as having the potential to meaningfully influence individual companies' investment cases as well as dispersion in returns between peers which are early adopters of AI.

**Exhibit 41:** Higher AI Materiality stocks performed better as Utilities entered the AI trade...



Source: FactSet, Morgan Stanley Research

**Exhibit 42:** ...whereas financials with higher AI Materiality are yet to see any of this, creating a potential opportunity



Source: FactSet, Morgan Stanley Research

Throughout the sequence of the AI surveys we have undertaken, we have seen examples of how narrative can be a powerful initial driver of returns, but typically not a sustainable one. As we showed in our note [10 Lessons From Tech Diffusion](#), early narrative-driven outperformance is rarely sustained in the long run without earnings upgrades attributable to the theme in question. Below, we show two screens of stocks which we believe have the potential to outperform - specifically within this Financials category - over the course

of 2025:

- **The first table** shows Financials and Payment stocks which are rated Overweight by our analysts and have seen at least one incremental rise in the stock's tagged exposure to AI in the most recent survey. Some of these stocks still have low materiality despite a recent upgrade in our survey, but therefore arguably have potential for follow-through in future surveys.
- **The second table** shows Financials and Payment stocks which have seen at least one incremental rise in the stock's tagged materiality to AI in the most recent survey.

**Exhibit 43:** Overweight rated Financials stocks with at least one incremental rise in exposure

Company	Region	GICS Sector	Analyst	Market Cap (\$bn)	Rating	Last Price (LCY)	New Exposure	New Materiality	Pricing Power
Toast, Inc.	North America	Financials	Baer, Josh	21.5	Overweight	37.60	Protected	Insignificant	High
AXA	Europe	Financials	Cohen, Hadley	79.7	Overweight	34.07	Adopter	Insignificant	Neutral
TPG, Inc.	North America	Financials	Cyprys, Michael	24.4	Overweight	65.72	Enabler/Adopter	Moderate	Neutral
Fiserv Inc.	North America	Financials	Faucette, James	115.2	Overweight	208.57	Adopter	Insignificant	High
Global Payments Inc	North America	Financials	Faucette, James	32.1	Overweight	112.58	Adopter	Insignificant	Neutral
Ngern Tid Lor PCL	Asia/Pacific	Financials	Jusman, Selvie	1.4	Overweight	16.30	Don't Know	Don't Know	Neutral
Hannon Armstrong	North America	Financials	Kad, Robert	3.5	Overweight	27.76	Enabler	Significant	Neutral
MSCI Inc.	North America	Financials	Kaplan, Toni	49.1	Overweight	601.48	Enabler/Adopter	Significant	High
Evercore Inc	North America	Financials	Kenny, Ryan	11.2	Overweight	277.69	Enabler/Adopter	Moderate	High
Banco do Brasil	Latin America	Financials	Kuri, Jorge	23.2	Overweight	23.74	Wildcard	Moderate	Neutral
Banco Pan SA	Latin America	Financials	Kuri, Jorge	1.4	Overweight	6.18	Wildcard	Moderate	Neutral
Tokio Marine Holdings	Japan	Financials	Takemura, Atsuro	73.3	Overweight	5,680.00	Adopter	Insignificant	Neutral
Adyen NV	Europe	Financials	Wood, Adam	47.7	Overweight	1,437.00	Adopter	Insignificant	Neutral

Source: Eikon, Morgan Stanley Research. [Please click here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality

**Exhibit 44:** Overweight rated Financials stocks with at least one incremental rise in materiality

Company	Region	GICS Sector	Analyst	Market Cap (\$bn)	Rating	Last Price (LCY)	New Exposure	New Materiality	Pricing Power
Discovery Limited	EEMEA	Financials	Bam, Warwick	7.2	Overweight	19,668.00 ZAc	Adopter	Significant	High
Equitable Holdings Inc	North America	Financials	Huang, Bob Jian	15.0	Overweight	48.55	Adopter	Moderate	Neutral
MetLife Inc.	North America	Financials	Huang, Bob Jian	57.6	Overweight	82.21	Adopter	Moderate	Neutral
Kasikorn Bank Public Company	Asia/Pacific	Financials	Jusman, Selvie	11.0	Overweight	158.00	Adopter	Don't Know	Neutral
Hannon Armstrong	North America	Financials	Kad, Robert	3.5	Overweight	27.76	Enabler	Significant	Neutral
MSCI Inc.	North America	Financials	Kaplan, Toni	49.1	Overweight	601.48	Enabler/Adopter	Significant	High
AU Small Finance Bank Ltd	Asia/Pacific	Financials	Kariwala, Sumeet	4.5	Overweight	560.25	Adopter	Moderate	Low
Axis Bank	Asia/Pacific	Financials	Kariwala, Sumeet	41.8	Overweight	1,063.40	Adopter	Moderate	Low
HDFC Bank	Asia/Pacific	Financials	Kariwala, Sumeet	254.5	Overweight	62.54 USD	Adopter	Moderate	Low
ICICI Bank	Asia/Pacific	Financials	Kariwala, Sumeet	109.6	Overweight	29.40 USD	Adopter	Moderate	Low
Kotak Mahindra Bank	Asia/Pacific	Financials	Kariwala, Sumeet	42.3	Overweight	1,779.65	Adopter	Moderate	Low
dLocal Ltd	Latin America	Financials	Kuri, Jorge	3.5	Overweight	11.47	Adopter	Moderate	Neutral
Deutsche Bank	Europe	Financials	Miotto, Giulia Aurora	37.5	Overweight	16.97	Adopter	Moderate	Neutral
KBC Group NV	Europe	Financials	Miotto, Giulia Aurora	30.5	Overweight	74.40	Enabler/Adopter	Significant	Neutral
Societe Generale	Europe	Financials	Miotto, Giulia Aurora	22.7	Overweight	26.53	Adopter	Moderate	Neutral
UBS Group AG	Europe	Financials	Miotto, Giulia Aurora	101.6	Overweight	28.46 CHF	Adopter	Moderate	Neutral
Resona Holdings	Japan	Financials	Nagasaka, Mia	18.0	Overweight	1,144.00	Adopter	Moderate	Neutral
Sumitomo Mitsui FG	Japan	Financials	Nagasaka, Mia	96.6	Overweight	3,782.00	Adopter	Significant	Neutral
Nordea Bank Abp	Europe	Financials	Saitkulova, Gulnara	39.3	Overweight	10.68	Adopter	Moderate	Neutral
Barclays Bank	Europe	Financials	Serrano, Alvaro	49.5	Overweight	266.45 GBP	Adopter	Moderate	Neutral
Santander	Europe	Financials	Serrano, Alvaro	85.3	Overweight	4.40	Adopter	Moderate	Neutral
Macquarie Group Limited	Asia/Pacific	Financials	Stadnik, Andrei	54.8	Overweight	224.47	Enabler/Adopter	Significant	Low
QBE Insurance Group	Asia/Pacific	Financials	Stadnik, Andrei	18.1	Overweight	19.81 AUD	Adopter	Moderate	Low
Suncorp Group Ltd	Asia/Pacific	Financials	Stadnik, Andrei	15.5	Overweight	19.62	Adopter	Moderate	Low
BAWAG Group AG	Europe	Financials	Zuluaga, Pamela	6.6	Overweight	80.10	Adopter	Moderate	Neutral
Commerzbank	Europe	Financials	Zuluaga, Pamela	18.8	Overweight	15.67	Adopter	Moderate	Neutral
Intesa SanPaolo S.p.A.	Europe	Financials	Zuluaga, Pamela	74.7	Overweight	3.85	Adopter	Moderate	Neutral
Mediobanca Banca di Credito	Europe	Financials	Zuluaga, Pamela	12.5	Overweight	14.07	Adopter	Moderate	Neutral

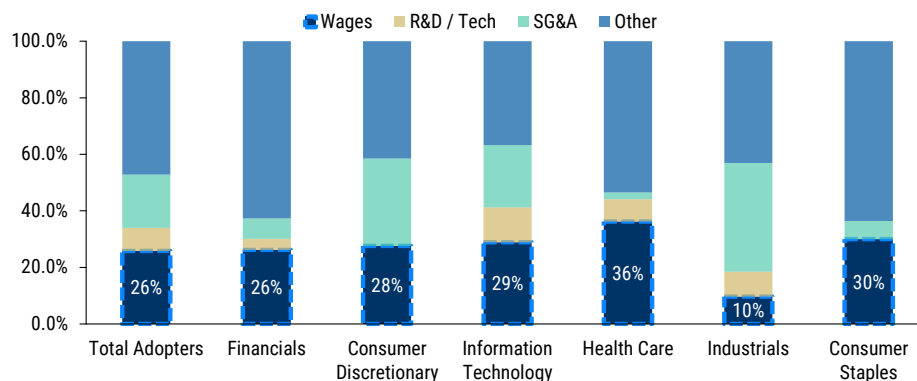
Source: Eikon, Morgan Stanley Research. [Please click here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality

## Financials Have Substantial Low-Hanging AI Opportunity

In our report, [Thematics: GenAI Adoption - 2 Years In](#), we assessed EU Adopters to better understand their cost structure. We found that ~26% of EU financials companies' total costs come in the form of wages. Productivity – a key use case of current GenAI models/applications, can exhibit a greater benefit for companies with higher labour costs.

While Financials are not necessarily an outlier in regard to headcount cost relative to other industries, their call centre functions, for example, tend to be larger than most other industries (both in house and outsourced). Our survey of 400 companies in the aforementioned research report noted that customer service was the second highest priority (after increased production/output) for companies surveyed. In this particular regard of improved and streamlined customer service, we believe the banks have disproportionate and sooner opportunity than other industries.

**Exhibit 45:** Financials companies have ~26% of their total costs in wages

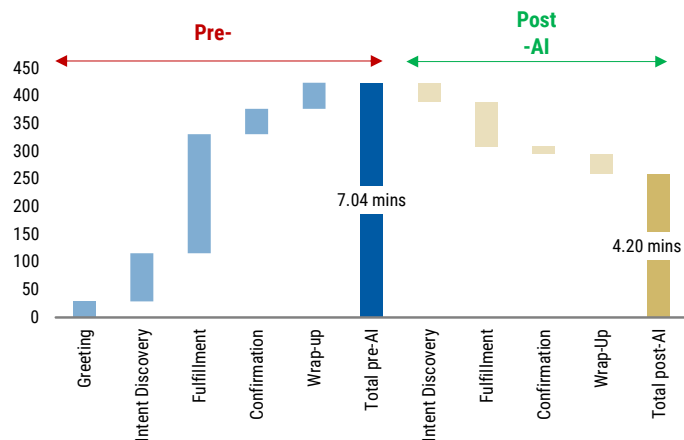


Source: Refinitiv, Morgan Stanley Research. Note: Among European companies categorised as "Adopters" in our AI Survey

A growing body of evidence suggests that GenAI tools are able to have a meaningful impact on existing customer service operations. Calls handling times can be reduced by 4.0% by using basic GenAI applications for language, sentiment and routing. This is even before services like [Agentforce from Salesforce](#) (covered by Keith Weiss) accelerate this process further.

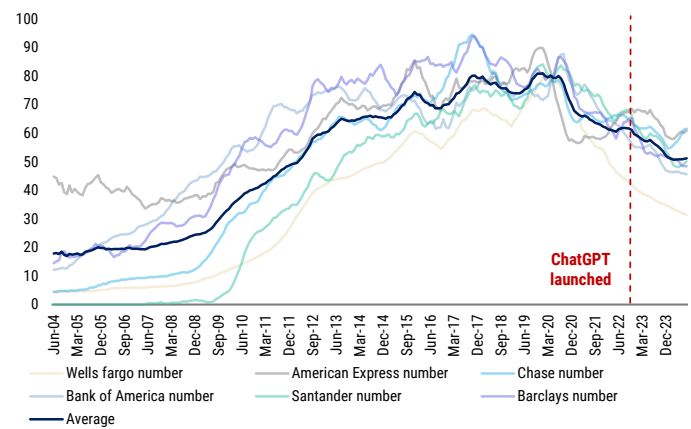
Financials (and indeed any industry's) companies attempting to reduce their inbound customer service volumes is not a new phenomenon. If we look at Google Trends search activity for people searching for various banks phone numbers, these volumes peaked in 2018 as companies subsequently proved increasingly successful at routing and solving problems pre-emptively or via apps before customers needed to try and contact a human in a call centre. So, while GenAI may not be the start of this trend, we believe it is likely to be an accelerant of it. The Financial and Healthcare industries are two of the largest users of inhouse and outsourced customer service vendors (in seats and dollar terms), adding further fuel to our conviction that Financial services earnings dispersion can accelerate in 2025 as early movers embed these tools.

**Exhibit 46:** Seconds spent in a call centre on an average customer service complaint



Source: Teleperformance, Morgan Stanley Research

**Exhibit 47:** Google search interest for various consumer banks customer service phone number

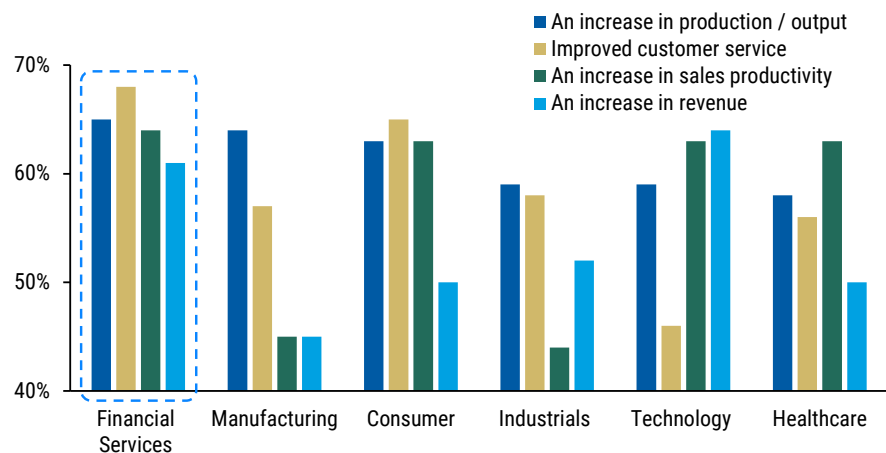


Source: Google Trends, Morgan Stanley Research

Furthermore, in our proprietary AI survey Financials companies saw the broadest scope for GenAI improvements beyond just customer service. When asked what Generative AI results the 400 companies surveyed targeted in the next two years, Financials companies were the most balanced of the sectors in their focus on revenue-up or cost-out. This further speaks to the adopter opportunity at companies in the financial sector, particularly relative to other industry verticals, which tend to have either a revenue or cost bias in their approach to applying GenAI.

**Exhibit 48:** Among AI priorities over the next two years, financials companies are seeing the most balanced opportunities, with targets both for revenue and efficiency

**Financials companies have the broadest AI priorities**

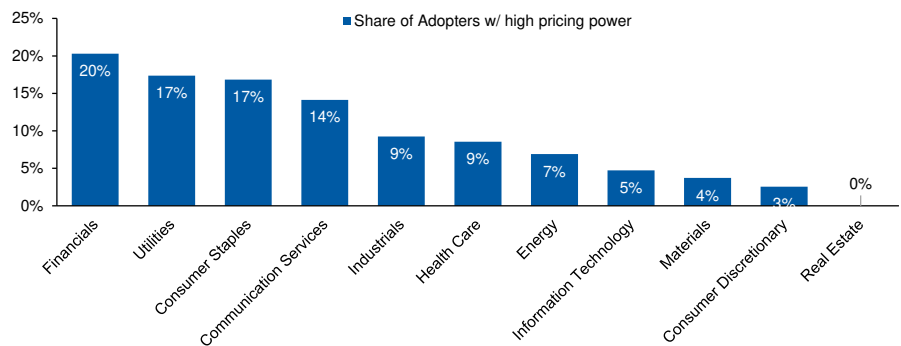


Source: AlphaWise, Morgan Stanley Research

**Pricing power - as discussed in further detail below - is likely to be an increasingly important AI Adopter differentiating characteristic: Financials have the highest proportion of these.** We introduced pricing power as a survey metric in our previous survey to better understand which companies and sectors are best able to retain the value from AI efficiency gains. When we look at the adopter companies in our survey, and the proportion of them with high pricing power, Financials screen as the best positioned.

**Exhibit 49:** Adopters have the highest relative share of adopters with pricing power

**Share of Adopters w/ high pricing power by sector**






Source: Morgan Stanley Research

**Company use cases are showing progress.** Our deep dive into GenAI use cases for financials companies revealed increasing breadth, depth and quantification of GenAI applications.

In our survey, 120 out of 472 Financials stocks had their AI Materiality changed by at least one notch by our global analysts. It is therefore not possible to provide a list of justifications for each of these changes in this work. However, just as we did more broadly for AI Adopters in our recent report, we narrow down to purely financial companies to give readers a glimpse into the rationale for why our analysts made some of the materiality changes that they did.

**Exhibit 50:** Example use-cases for GenAI in different financials companies

			
<b>Overview</b>	Market Cap: \$31.9bn Survey Δ: 'Moderate' → 'Significant'	Market Cap: \$71.5bn Survey Δ: 'Insignificant' → 'Moderate'	Market Cap: \$46.5bn Survey Δ: 'Moderate' → 'Significant'
<b>Business model</b>	KBC operates a diversified financial services business (banking, insurance, and asset mgmt), primarily in Belgium & CCE	BBVA operates a diversified financial services business model, focusing on retail & wholesale banking and asset management	NASDAQ operates as a global exchange/tech company. Services include trading, index, data, reg tech software, anti-fin crime solutions.
<b>Challenge</b>	Consumer facing financial institutions experience material customer service inbounds.	Help a workforce of 125,000 improve efficiency in a wide variety of roles	Investigating suspicious activity requires manually collating all necessary evidence which is highly resource intensive
<b>Solution</b>	Kate – KBC's customer service technology is handling an increasing portion of KBC customer queries	An internal GPT Store—a growing library of around 700 GPTs that are available to all employees	GenAI streamlining the examination process when investigating suspected market manipulation and insider dealing
<b>Impact</b>	Kate can handle ~67 – 69% of customer queries in KBC's biggest revenue geographies	Adoption data shows that 83% of internal users use it weekly for productivity gains	In testing <sup>1)</sup> , analysts estimated a 33% reduction in investigation time + improved outcomes

Source: Company data, Morgan Stanley Research. 1) Testing for proof-of-concept.

**Our global asset and wealth managers team did a deep dive on the topic of AI adoption among financials companies earlier in 2024.** In addition to outlining use-cases, our analysts also devised a framework to find the companies best positioned. Our global survey should therefore be taken in the context of the broader department's sector-

specific research such as this when trying to understand the nuances of AI on individual names.

**Exhibit 51:** Pure-Play Global Asset Managers Coverage: Summary of Morgan Stanley Qualitative Assessment on AI Positioning



Source: Morgan Stanley Research

**Exhibit 52:** AI Leaders / Potential AI Leaders: Our Qualitative Scorecard for Positioning

Morgan Stanley AI Scorecard - Pure Play Asset Managers					
Name	Scale	AI/Data Team	Proprietary Data	Strategic Priority	Overall Assessment
AI Leaders / Potential AI Leaders					
BlackRock	●	◐	●	●	●
Blackstone	●	●	●	●	●
Apollo	◐	◐	●	●	●
EQT AB	◐	●	●	●	●
Franklin Resources	◐	◐	◐	◐	◐
KKR	◐	◐	●	◐	◐
Man Group	◐	●	◐	●	◐
Partners Group	◐	◐	●	◐	◐
Schrodgers	◐	◐	◐	◐	◐
Amundi	●	◐	◐	◐	◐
Macquarie Group Limited	●	◐	●	◐	◐

Source: Company Data, AlphaSense transcripts, Morgan Stanley Research

For an in-depth look at AI in global asset and wealth managers, please see [The AI Tipping Point](#)



### 3) Adopters with Pricing Power

**The third theme we believe investors should be paying attention to in 2025 is AI Adopters, but specifically those with high pricing power.** The GenAI developments of the past two years most obviously cater to efficiency and productivity gains rather than necessarily new revenue upside opportunity. This will be reinforced in 2025 as Agentic AI gains traction. In the previous iteration of our AI survey we introduced the question of pricing power ([Exhibit 53](#)). This was to support our view that high pricing power Adopters will have the greatest chance of not only benefitting from GenAI but also not seeing these gains competed away. This, we argue, should have the best chance of being priced favourably by equity markets relative to peers in the same industry.

**Exhibit 53:** Pricing power question posed to our analysts

**What is the company's pricing power vs sector average (i.e. ability to retain cost savings and investment ROI vs passing through to customers)?**

**A) High Pricing Power**

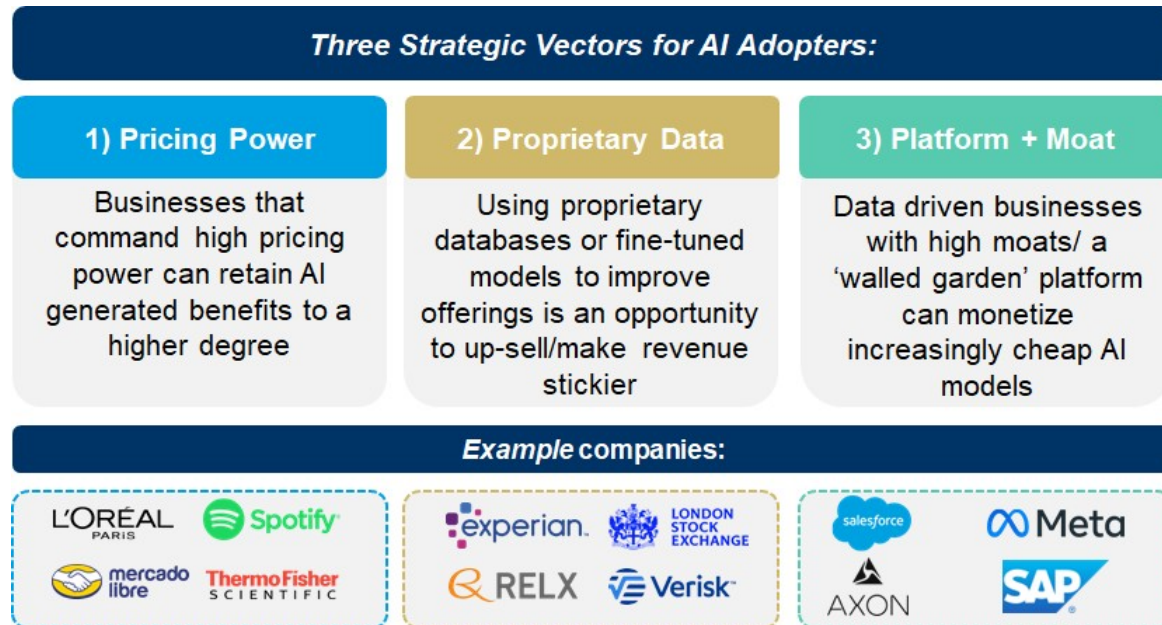
**B) Neutral / Don't Know**

**C) Low Pricing Power**

Source: Morgan Stanley Research

Pricing power is not the only way we can disaggregate an otherwise relatively large and amorphous group of 1,346 global Adopter companies in our latest survey; a figure that has risen 7.2% since the last survey (1,255) and 17.3% from our first survey a year ago (1,147). We also favour those that have large amounts of high quality data (albeit we accept this can be highly subjective) or those with platforms and moats to generate as much scale in the shortest time possible - after all given the rate of change in AI capabilities, speed to market is paramount. However, pricing power is amongst the simplest factors to survey for and it can be triangulated objectively by cross-referencing for companies' margin delivery through the cycle.

**Exhibit 54:** We are looking for three strategic vectors for AI adopters, ideally all three



Source: Morgan Stanley Research

## Pricing Power's Growing Importance

While valuation and earnings momentum for the broad Adopter category is helpful, we believe investors should be choosier on their AI Adopter stocks. Companies that best adopt new technology to scale their businesses while maintaining robust barriers to entry, tend to accrue most value through history ([see here](#)). This final point, we believe, is going to become increasingly important for investors trying to select between the 1,346 stocks that our analysts consider to be Adopters.

As the capabilities of models broaden from language to vision to robotics to healthcare and the cost of inference declines rapidly, pricing power will be of paramount importance. The reason we are so confident in this assertion is best shown with a cross-section of the research, design and manufacturing costs associated with bringing products to market in a pre-generative-AI world. According to our broad spectrum of analysts covering the respective industries involved in bringing these products to market, some examples of the pre-AI costs susceptible to major change in an AI world are as follows:

- **\$2-\$10m** to make an hour of **hollywood-quality video content**
- **\$10,000-\$1m** to **produce a music track**
- **\$60-\$150m** to make a **AAA game**
- **\$500k-\$5m** to make an **Indie game**
- **\$50,000-\$500,000** to make an **enterprise website**
- **\$200k-\$1m** to build **high-end and complex app**
- **\$5-\$100m** to create a blue chip **marketing campaign** for a new product
- **\$65m** direct costs of a **phase 2 clinical trial**
- **\$285m** direct costs of a **phase 3 clinical trial**
- **\$1bn** of **Biotech R&D** needed to filter down candidate drug compounds
- **£30m-\$100m** for a new **MedTech device** to come to market
- **\$2.6bn** to bring a **new drug** to market over 10 years

- **\$125k** average on-shore US software **developer salary**
- **\$40k** average call **centre agent salary** in India
- **\$1-\$2bn** to develop an all **new car design** and production
- **\$3-\$5bn** to develop an all **new car platform**

Adopter companies crudely, therefore, have three options available to them. Pricing power is unlikely to be able to change the fortunes of individual companies in the face of wholesale changes in the cost structures of industries. However, first mover adopters with pricing power should be well positioned for the foreseeable future as GenAI continues to be embedded across the economy.

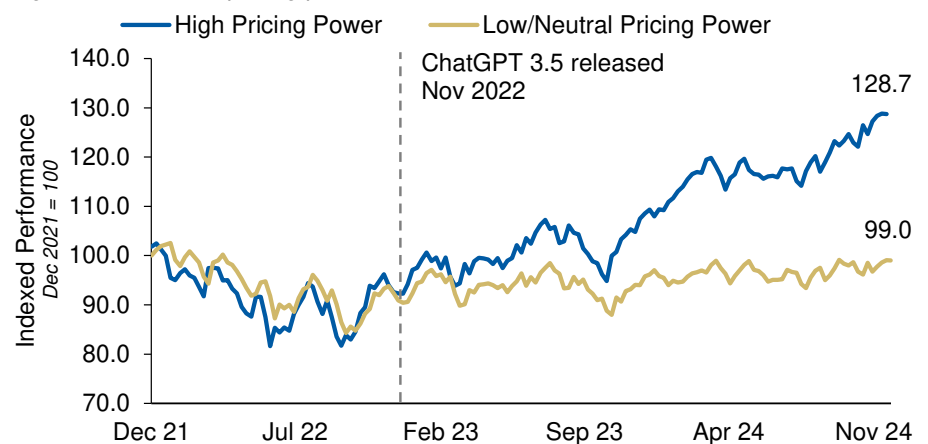
- **First mover Adopter** - Use GenAI as a means of reducing their own cost base to operate on a leaner basis than was historically possible whilst using proprietary data to gain market share and widen the moat to the competition.
- **Move with the pack Adopter** - Use GenAI as a means of reducing their own cost base but risk a race to the bottom as the competition also attempts to do the same thing. Broad spectrum consolidation is necessary as initial gains are competed away in an increasingly deflationary adoption world.
- **Slow starter Adopter** - Protect the incumbent products and processes but eventually become susceptible to more efficient AI-first competition producing at structurally better profitability metrics. This leads to a structurally more challenging market and the necessity for consolidation (i.e. 20th Century Autos companies after the 1913 moving assembly line changed the economics of automobile production).

**So far, high pricing power Adopters have been outperforming their low/neutral pricing power peers.** Since December 2021, high pricing power Adopters have outperformed low/neutral peers by ~30ppt. This gap has widened steadily as AI tools have begun to permeate through the economy. We believe these companies should continue to have a structural advantage in benefitting from the roll out of AI.

**Exhibit 55:** AI Adopters w/ pricing power have been

### Adopter performance

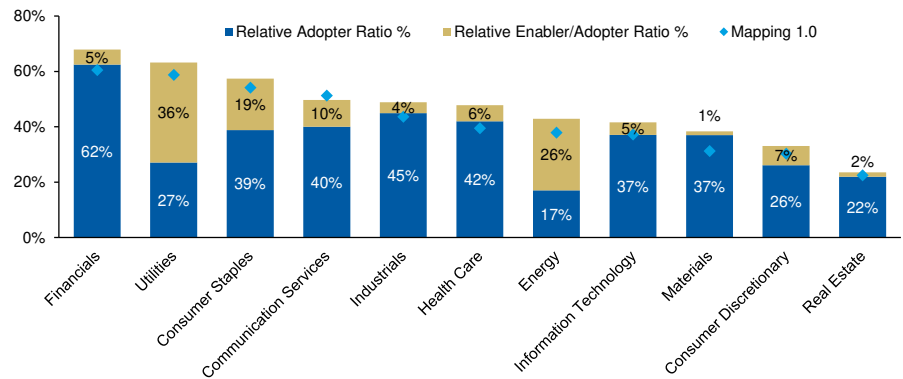
High vs. neutral/low pricing power



Source: FactSet, Morgan Stanley Research

In terms of the industries with the highest proportion of companies with an Adopter element (i.e. either Adopter or Enabler/Adopter), **Financials, Utilities and Consumer Staples have the highest relative share.** With the exception of certain Utilities names, these are companies largely not on investors' radar as potential beneficiaries of the AI trade. Thus, we believe high pricing power names in these (and other) industries will be subject to incremental work from investors as AI impacts continue to broaden out in 2025 and beyond.

**Exhibit 56:** Financials have the largest relative share of companies with an Adopter element (either adopter or Enabler/Adopter)



Source: Morgan Stanley Research

In our database we now have 139 companies categorised as high pricing power adopters. While we are unable to list out all of these companies in this report, we provide the largest companies in this cohort (those over \$20bn of market cap) to give our readers a sense of the breadth of countries and industries represented by this classification.

**Exhibit 57:** Overweight rated Adopter companies with high pricing power and market cap >\$20bn

Company	Region	GICS Sector	Analyst	Market Cap (\$bn)	Rating	Last Price (LCY)	New Exposure	New Materiality	Pricing Power
Deere & Co.	North America	Industrials	Castillo, Angel	120.5	Overweight	422.22	Adopter	Moderate	High
PACCAR Inc	North America	Industrials	Castillo, Angel	59.2	Overweight	104.90	Adopter	Moderate	High
Hilton Worldwide Holdings Inc	North America	Consumer Discretionary	Grambling, Stephen	62.5	Overweight	246.52	Adopter	Moderate	High
Marriott International Inc	North America	Consumer Discretionary	Grambling, Stephen	80.0	Overweight	275.28	Adopter	Moderate	High
Home Depot Inc	North America	Consumer Discretionary	Gutman, Simeon	414.3	Overweight	389.18	Adopter	Moderate	High
Baker Hughes Co	North America	Energy	Kutz, Daniel	41.7	Overweight	42.66	Adopter	Significant	High
Halliburton Co	North America	Energy	Kutz, Daniel	25.2	Overweight	27.68	Adopter	Significant	High
Schlumberger NV	North America	Energy	Kutz, Daniel	56.8	Overweight	38.59	Adopter	Significant	High
Axon Enterprise Inc	North America	Industrials	Marshall, Meta	49.9	Overweight	601.06	Adopter	Core to Thesis	High
Coupage Inc	Asia/Pacific	Consumer Discretionary	Park, Seyon	42.7	Overweight	22.42	Adopter	Moderate	High
Intuitive Surgical Inc.	North America	Health Care	Ranieri, Drew	192.0	Overweight	535.30	Adopter	Moderate	High
Mercadolibre Inc.	Latin America	Consumer Discretionary	Ruben, Andrew	92.3	Overweight	1,834.17	Adopter	Significant	High
Thermo Fisher Scientific Inc.	North America	Health Care	Savant, Tejas	210.5	Overweight	532.02	Adopter	Moderate	High
Delta Airlines, Inc.	North America	Industrials	Shanker, Ravi	39.4	Overweight	59.00	Adopter	Moderate	High
United Airlines Holdings, Inc.	North America	Industrials	Shanker, Ravi	31.4	Overweight	95.67	Adopter	Moderate	High
Johnson Controls International Plc	North America	Industrials	Snyder, Christopher	55.8	Overweight	79.92	Adopter	Significant	High
Spotify Technology SA	North America	Communication Services	Swinburne, Benjamin	95.3	Overweight	466.69 USD	Adopter	Moderate	High
Experian PLC	Europe	Industrials	Vermeulen, Annelies	41.5	Overweight	3,450.00 GBP	Adopter	Significant	High
IDEXX Laboratories, Inc.	North America	Health Care	Wright, Erin	35.2	Overweight	415.53	Adopter	Moderate	High
Shenzhen Inovance Technology	Asia/Pacific	Industrials	Zhong, Sheng	22.3	Overweight	55.76	Adopter	Moderate	High

Source: Morgan Stanley Research. [Please click here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality.

# Three Surveys in Summary

**Please click here for the full excel database of >3,700 stocks mapped by AI exposure and materiality.**

Our first AI Adopter survey was published in [January 2024](#), our second in [June 2024](#). This is our third. Below we discuss the rate of change of our analysts' AI categorisations in the form of "Survey 1 to Survey 2" and "Survey 2 to 3". Survey 1 to Survey 3 (this iteration) in effect therefore tracks progress companies have made on AI earnings and narrative from 4Q23 to 4Q24.

Below we present a simple scoring system to summarise the recategorisations. The range of materiality stretches from 'Insignificant' at one extreme to 'Core to Thesis' at the other. To track the rate of change, we convert each move towards the right as +1 and each move to the left as -1. Hence a move from 'Moderate' to 'Core to Thesis' would be categorised as +2 in the following charts. This quantification on the sliding scale of Materiality helps us to see a number of higher-level changes in the data and structure of the market, such as which geography or sector's market cap is becoming more geared into the AI narrative and how quickly.

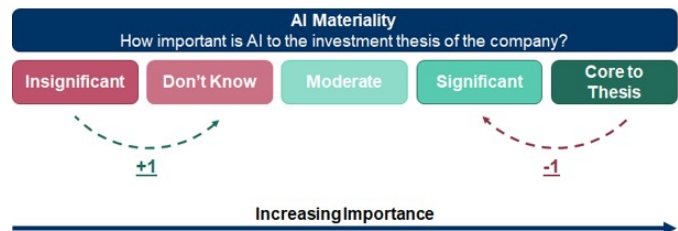
- AI Exposure (Exhibit 58)** - is about determining where companies are positioned within the AI value chain. Since our last survey – [Mapping AI's Rate of Change \(4 Jun 2024\)](#) – 275 stocks, with a total market value of >\$5.7 trillion, have changed AI Exposure category. Of this market cap to change category, 51% was in the US, 16% in Europe and 26% in APAC, with the remainder in Japan and Latam. The companies that changed Exposure had collective revenue of ~\$3.8 trillion in the past 12 months. We have 7 categories of AI exposure to which analysts have mapped their global coverage ([see below for the full methodology description](#))
- AI Materiality (Exhibit 59)** - is about the importance of AI to the 12-24 month investment case. Since our last survey – [Mapping AI's Rate of Change \(4 Jun 2024\)](#) – AI's Materiality to 310 stocks under coverage has changed, according to our analysts, representing a market value of >\$7.8 trillion. Of this market cap value, 44% is in North America, 23% in Europe and 24% in APAC. The companies that changed materiality had collective revenue of >\$5 trillion in the past 12 months.

**Exhibit 58:** Morgan Stanley classification for how AI Rate of Change "Exposure" is scored



Source: Morgan Stanley Research

**Exhibit 59:** Morgan Stanley classification for how AI Rate of Change "Materiality" is scored



Source: Morgan Stanley Research

## Exposure vs Materiality Changes

Readers should be cognisant that the sample size of companies in our global coverage has

continued to grow. In 1H24, 548 companies that were new to Morgan Stanley coverage were added to the survey, predominantly in Japan. In this third survey of our analysts a further 202 companies were added, taking the total to 3,723. A handful of summary takeaways are notable as we look at the evolution of stock mapping across all three surveys:

- **Change in Exposure:** We had expected the number of stocks to see a change in exposure to fall significantly. This did not happen. 201 stocks still saw a change in their exposure to AI (vs 244 previously).
- **Change in Materiality:** We had expected changes to stocks' materiality to stay high in this new survey as companies conveyed and quantified their AI involvement better. We had not expected upward changes to materiality to increase relative to the prior survey (235 vs 229 previously).
- **Change in Both:** The number of companies seeing both materiality and exposure to AI rise simultaneously in the latest survey largely matches the change from last time (76 vs 78 previously).
- **Change in Market Cap:** The changes in this latest survey reflect a lower value of aggregate market cap being re-categorised (vs the survey 1 to 2 difference). Nonetheless, well over \$10 trillion of market cap saw either an exposure change or materiality change or both in this latest survey (vs \$25 trillion previously).
- **Up / Down Ratio:** Not a metric we have tracked in the past but is something - like pricing power - that we feel will become more relevant to the AI debate for Adopter stocks. It is also amongst the starkest changes survey on survey. The ratio of upward vs downward exposure has remained a constant around 3 (i.e. 3 upward revisions for each downward one). For Materiality, by contrast, the ratio has increased from 1.1 to 3.1 between the latest surveys (i.e. previously each upward materiality change was offset by a downward change across our global coverage. Now the upward materiality revisions outnumber downward revisions threefold). This one statistic, in our view, encapsulates the cross-sector, global diffusion of this theme.

**Exhibit 60:** Changes in analyst stock mapping between surveys 1, 2 and 3

Survey:	Stocks		% of Stocks		Market Cap (\$t)	
	1 to 2	2 to 3	1 to 2	2 to 3	1 to 2	2 to 3
Exposure Up	244	201	6.9%	5.4%	10.9	4.8
Exposure Up 2+	160	141	4.5%	3.8%	4.6	3.5
Materiality Up	229	235	6.5%	6.3%	14.3	6.3
Materiality Up 2+	157	139	4.5%	3.7%	9.2	3.6
Both Up	78	76	2.2%	2.0%	3.2	1.5
Exposure Down	82	74	2.3%	2.0%	1.5	0.9
Materiality Down	214	75	6.1%	2.0%	3.3	1.5
Both Down	19	16	0.5%	0.4%	0.2	0.4
Exposure Up/Down Ratio	3.0	2.7				
<b>Materiality Up/Down Ratio</b>	<b>1.1</b>	<b>3.1</b>				
New Stocks	548	202	15.6%	5.4%	2.3	4.2
<b>Total Stocks</b>	<b>3521</b>	<b>3723</b>				

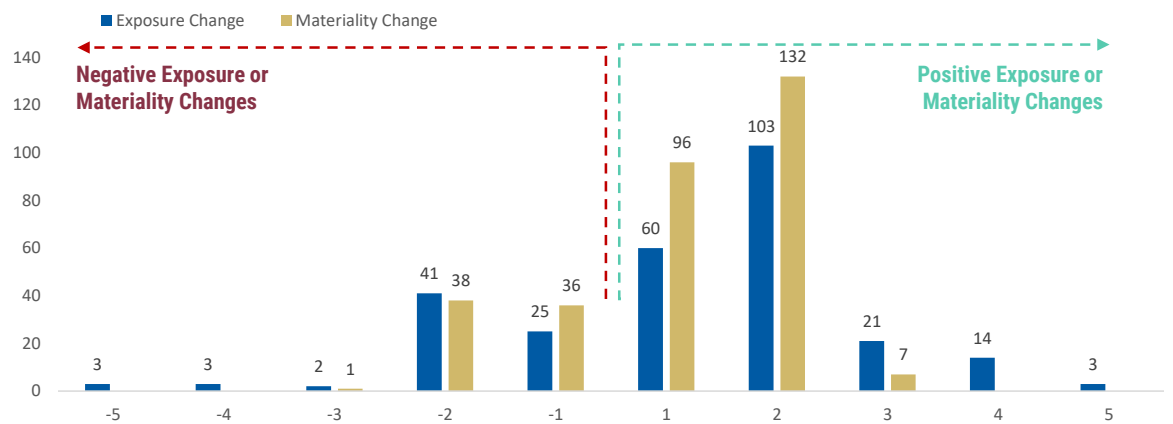
Source: Morgan Stanley Research

One of the consistently surprising findings from our surveys is how much it continues to change. This statement applies to how companies are investing or discussing it just as it does to how our analysts understand its importance and their perception of how it relates to their stock coverage.

Despite this being our third iteration of this survey, the number of stocks moving up or down in exposure or materiality (see above [Exhibit 7](#) and [Exhibit 59](#)) by more than one notch is c4% of global coverage. By this we mean a stock moving from from an AI exposure of "Don't Know" to "Enabler/Adopter", for example. Or in Materiality terms going from "Insignificant" to "Significant".

141 stocks moved up in exposure by at least 2 increments and 139 moved up two increments of materiality between surveys. Put another way, 64% of all stocks that saw any change at all, saw a change of more than 1 increment of either exposure or materiality.

**Exhibit 61:** Stock changes in exposure and materiality by number of increments upgraded or downgraded survey on survey

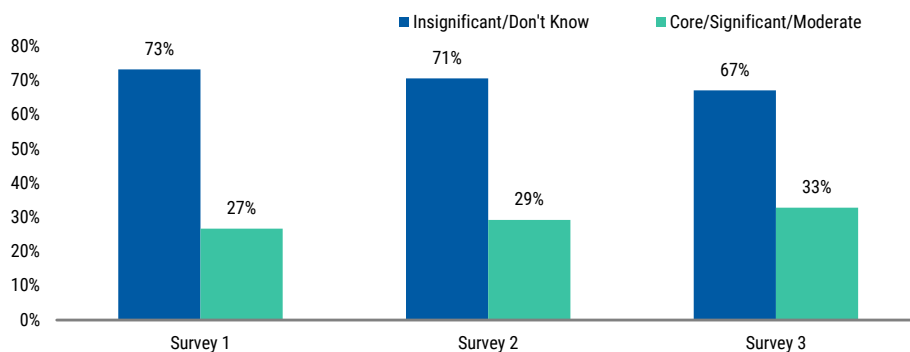


Source: Morgan Stanley Research

## Materiality evolution

Looking one layer beneath the raw upward and downward changes in exposure and materiality, we begin to see a consistent pattern emerging. The proportion of stocks mapped by our analysts to have at least a 'Modest' materiality is increasing steadily (33% now vs 27% in our first survey). This is a pattern that will be familiar to those who track our CIO survey which has shown this rising importance of AI for tech companies for some time. Looking here at a much broader global cross-section of stocks, a similar albeit lagged evolution is occurring. Companies are talking about the benefits more, analysts are becoming aware of the impact it could have even if only moderate, and the equity markets are pricing this in ([as we go on to explain further below](#)).

**Exhibit 62:** Proportion of stocks mapped as moderate or greater materiality (vs the rest) to the investment case



Source: Morgan Stanley Research

## Follow-Throughs & Turnarounds

There are also some fascinating indications of both follow-through and turnaround stories starting to build. By this we mean stocks which saw an increase (decrease) in materiality or exposure in survey 2 and then subsequently were upgraded (downgraded) again in survey 3.

- **Sequential upward revisions of stocks:** Across all geographies 7 stocks saw their exposure increased in subsequent surveys and 30 saw their materiality increase in the sequential surveys. Most of these upward revisions are occurring in Asia and North America.
- **Sequential downward revisions of stocks:** By contrast only 1 stock saw sequential downward revisions in materiality and none for exposure.
- **Positive turnarounds are not uncommon:** 23 stocks saw their exposure downgraded in the second survey only to be re-upped in the third survey. This occurred for 14 stocks in relation to materiality being re-upped after having been downgraded previously.
- **Negative turnarounds are infrequent:** 16 stocks saw their exposure increased in the second survey only to be cut in the third survey. This occurred for 19 stocks in relation to materiality being cut after having been upgraded previously.



**Exhibit 63:** Stocks' upward and downward categorisations across three surveys

		Exposure Change						Materiality Change			
		Survey 2 to 3						Survey 2 to 3			
		New	Down	Same	Up			New	Down	Same	Up
Survey 1 to 2	New		6	320	20	Survey 1 to 2	New		10	310	26
	Down			59	23		Down		1	199	14
	Same		52	2646	151		Same		45	2522	165
	Up		16	221	7		Up		19	180	30
	Total	202	74	3246	201		Total	202	75	3211	235
Survey 1 to 2	APAC		29	1122	67	Survey 1 to 2	APAC		25	1130	63
	EEMEA			78	1		EEMEA			76	3
	Europe		8	504	21		Europe		12	468	53
	Japan		6	451	25		Japan		8	440	34
	LATAM		4	175	3		LATAM		5	167	10
	N.America		27	916	84		N.America		25	930	72
Total	202	74	3246	201	Total	202	75	3211	235		

Source: Morgan Stanley Research

**An honourable mention for one stock in our global coverage:** Only one stock in our global coverage has been upgraded sequentially in both surveys - both in materiality and exposure terms: Wix (covered by Elizabeth Porter). Below she provides a timeline explaining her evolving basis for how a company like Wix navigated this journey from initial market concern to positioning themselves as an AI-enabled leader in her sector.

### Wix's Journey from 'Wildcard & Insignificant' to 'Enabler/Adopter & Significant'

**1st Survey - Wildcard & Insignificant** - Initially, demos in 4Q22/1H23 from ChatGPT showed code generation to build a website leading to the concern that Wix (for website building) could be displaced, but the threat was nonetheless low.

**2nd Survey - Adopter & Moderate** - This evolved into a realisation that many entrepreneurs don't know what to do with GPT generated code. They need Wix to do the back-end / hosting / linking of systems. In other words, ChatGPT is not a direct replacement. Wix started to speak to GenAI helping their pace of R&D

**3rd Survey - Enabler/Adopter & Significant** - Wix launched GenAI in their product suite to pre-build websites and enabled AI-onboarding, which is driving a better conversion rate of customers. Tests in their most recent Self Creator cohort showed a 13% uplift in conversion rate from AI onboarding tool. Today the company is speaking to a re-acceleration in the Self-Creators business (two thirds of revenue) on the back of better macro and AI driving better conversion and products, thus making it significant to the investment thesis.

Wix outperformed the S&P500 by 60% over 2024, and 35% just in 2H24.

## Sector Momentum

One layer deeper still and we can begin to see the evolution of exposure and materiality (both upwards and downwards) across our global sector coverage.

Outside of the core enablers, in the last 6-12 months AI winners could have been

pinpointed in Utilities and Energy as their exposure and materiality was ratcheted upwards in the last survey by our analysts. In the first survey Utilities stocks saw the greatest upgrades in both exposure and materiality (21% and 33% of stocks in those sectors); greater even than the upgrades seen in semis and software stocks.

What we now care about in terms of generating AI-Adopter alpha for investors from here is the figures in the four bolded columns below. Specifically, in which sectors have exposure or – arguably more importantly – materiality accelerated *relative* to the previous survey's change. While Utilities and Energy continue to see incremental upgrades in both exposure and materiality, the fastest growth in momentum has been in Financials - across banks, payments and insurance.

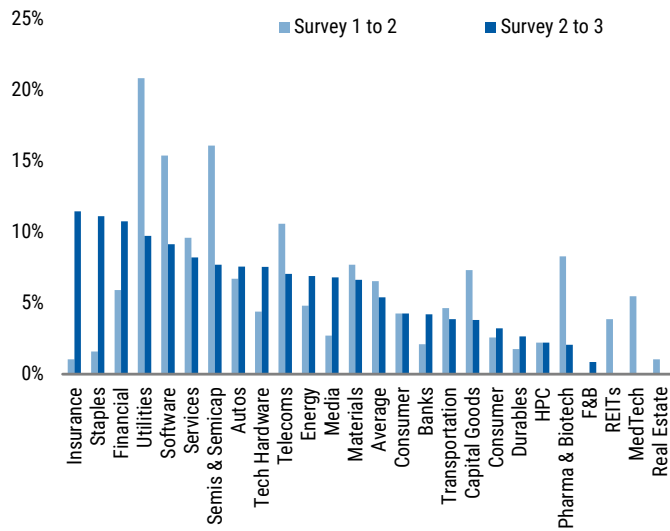
**Exhibit 64:** Proportion of stocks by GICS code seeing upgraded or downgraded Exposure and Materiality between each survey

	Exposure		Materiality		Both	Pricing	Exposure		Materiality		Both	Pricing
	Survey 1	Survey 2	Survey 1	Survey 2	Survey 2	Survey 2	Survey 1	Survey 2	Survey 1	Survey 2	Survey 2	Survey 2
	to 2	to 3	to 2	to 3	to 3	to 3	to 2	to 3	to 2	to 3	to 3	to 3
	Up	Up	Up	Up	Up	Up	Down	Down	Down	Down	Down	Down
Automobiles & Components	7%	<b>8%</b>	0%	<b>6%</b>	0%	2%	6%	<b>1%</b>	9%	<b>3%</b>	0%	1%
Banks	2%	<b>4%</b>	6%	<b>27%</b>	3%	2%	1%	<b>1%</b>	4%	<b>0%</b>	0%	1%
Capital Goods	7%	<b>4%</b>	5%	<b>4%</b>	1%	4%	1%	<b>2%</b>	3%	<b>2%</b>	1%	1%
Commercial & Professional Services	10%	<b>8%</b>	4%	<b>4%</b>	3%	5%	1%	<b>1%</b>	4%	<b>1%</b>	0%	3%
Consumer Discretionary	3%	<b>3%</b>	1%	<b>3%</b>	1%	2%	1%	<b>2%</b>	3%	<b>1%</b>	0%	3%
Consumer Durables & Apparel	2%	<b>3%</b>	0%	<b>4%</b>	2%	8%	2%	<b>2%</b>	5%	<b>0%</b>	0%	3%
Consumer Services	4%	<b>4%</b>	2%	<b>1%</b>	1%	1%	2%	<b>3%</b>	4%	<b>4%</b>	1%	4%
Consumer Staples Distribution & Retail	2%	<b>11%</b>	2%	<b>2%</b>	0%	0%	3%	<b>3%</b>	3%	<b>13%</b>	2%	5%
Energy	5%	<b>7%</b>	<b>21%</b>	<b>6%</b>	6%	10%	2%	<b>0%</b>	6%	<b>0%</b>	0%	3%
REITs	4%	<b>0%</b>	1%	<b>1%</b>	0%	0%	0%	<b>0%</b>	14%	<b>0%</b>	0%	0%
Financial Services	6%	<b>11%</b>	8%	<b>10%</b>	3%	5%	2%	<b>5%</b>	7%	<b>1%</b>	1%	2%
Food Beverage & Tobacco	0%	<b>1%</b>	0%	<b>1%</b>	1%	1%	3%	<b>4%</b>	1%	<b>0%</b>	0%	3%
Health Care Equipment & Services	5%	<b>0%</b>	2%	<b>5%</b>	0%	3%	1%	<b>1%</b>	3%	<b>1%</b>	1%	2%
Household & Personal Products	2%	<b>2%</b>	11%	<b>0%</b>	0%	7%	0%	<b>0%</b>	0%	<b>0%</b>	0%	2%
Insurance	1%	<b>11%</b>	1%	<b>10%</b>	5%	1%	1%	<b>7%</b>	28%	<b>4%</b>	4%	6%
Materials	8%	<b>7%</b>	3%	<b>3%</b>	1%	3%	0%	<b>0%</b>	4%	<b>1%</b>	0%	6%
Media & Entertainment	3%	<b>7%</b>	1%	<b>5%</b>	1%	5%	4%	<b>3%</b>	7%	<b>4%</b>	0%	6%
Pharmaceuticals Biotechnology	8%	<b>2%</b>	2%	<b>3%</b>	0%	1%	2%	<b>0%</b>	6%	<b>1%</b>	0%	0%
Real Estate Management & Development	1%	<b>0%</b>	0%	<b>1%</b>	0%	0%	0%	<b>0%</b>	7%	<b>0%</b>	0%	0%
Semiconductors & Semicap	16%	<b>8%</b>	17%	<b>9%</b>	3%	3%	9%	<b>3%</b>	6%	<b>3%</b>	1%	3%
Software & Services	15%	<b>9%</b>	7%	<b>8%</b>	4%	2%	5%	<b>3%</b>	3%	<b>4%</b>	0%	4%
Technology Hardware & Equipment	4%	<b>8%</b>	14%	<b>9%</b>	4%	2%	6%	<b>1%</b>	3%	<b>6%</b>	1%	4%
Telecommunication Services	11%	<b>7%</b>	9%	<b>12%</b>	4%	0%	2%	<b>0%</b>	24%	<b>0%</b>	0%	0%
Transportation	5%	<b>4%</b>	2%	<b>4%</b>	2%	12%	0%	<b>7%</b>	3%	<b>1%</b>	1%	0%
Utilities	21%	<b>10%</b>	33%	<b>12%</b>	8%	8%	1%	<b>1%</b>	1%	<b>4%</b>	1%	0%
Grand Total	7%	<b>5%</b>	6%	<b>6%</b>	2%	3%	2%	<b>2%</b>	6%	<b>2%</b>	0%	2%

Source: Morgan Stanley Research; [Please click here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality

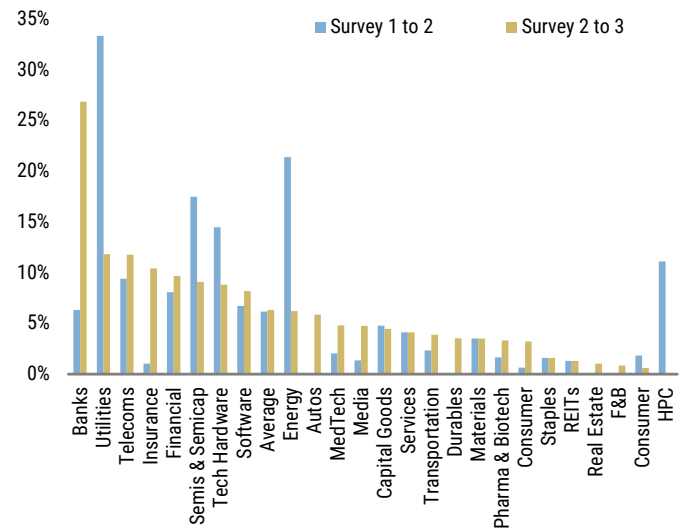
Taking this data chart format, the momentum in exposure and materiality starts to become more self-evident. Insurance and Staples have seen the largest survey-on-survey increase in exposure momentum, whereas Banks have seen the largest survey-on-survey materiality increase. Utilities on the other hand have seen the greatest sequential fading of momentum in materiality increase.

**Exhibit 65:** Exposure increases by sector between surveys



Source: Morgan Stanley Research

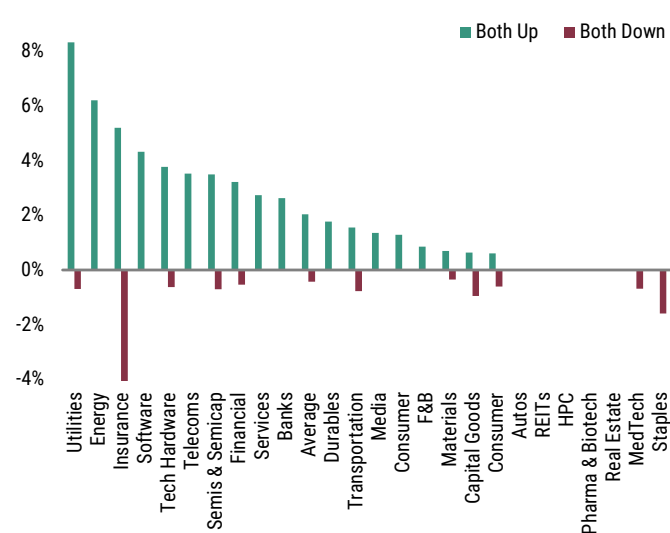
**Exhibit 66:** Materiality increases by sector between surveys



Source: Morgan Stanley Research

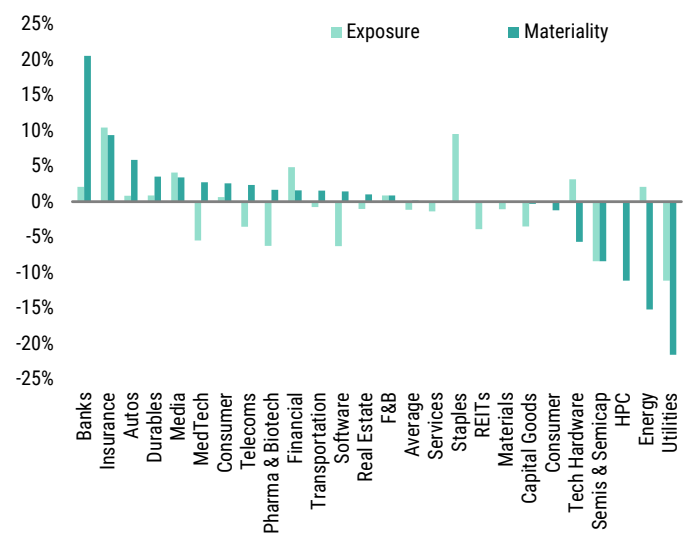
For those investors looking for both exposure and materiality upgrades concurrently, then Utilities and Energy still lead on the sector front with c6-8% of stocks in these verticals seeing both exposure and materiality increase between surveys. However, we would still argue that with a rate of change perspective for AI adopter stocks less well discounted by the market at this point, Financials hold more alpha generating opportunity over the coming 12 months. [We analyse this in greater detail below.](#)

**Exhibit 67:** Both materiality and exposure increased or decreased in latest survey



Source: Morgan Stanley Research

**Exhibit 68:** Exposure and materiality increase momentum between surveys by sector



Source: Morgan Stanley Research

### Change in Adopters Between Surveys

As we have argued since our original survey mapping Morgan Stanley's global equity coverage, we believed 2024 would be the year of the Adopter stocks. While this has taken longer than anticipated to start being priced by equity markets, it is being appreciated by our analysts across all sectors.

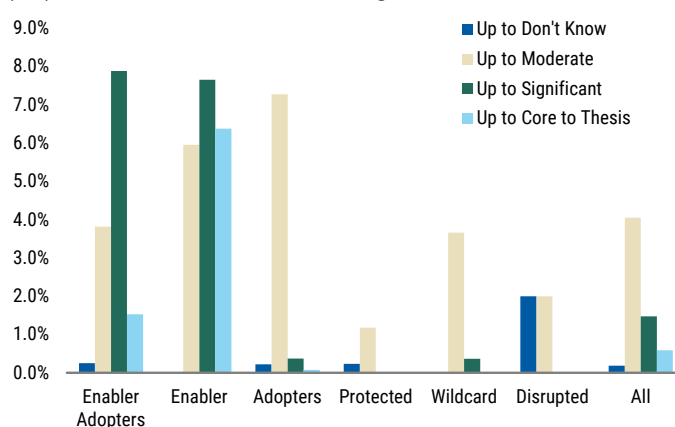
It is true to say that in terms of the proportion of stocks seeing upgrades to AI materiality beyond Significant, this is still an Enabler and Enabler/Adopter phenomenon, while for Adopter stocks – which were predominantly slower to move and are second order beneficiaries – the materiality increases are starting to come through. The Adopter group of companies saw the greatest uplift to Moderate materiality of any exposure grouping. Looking forward, this then also means this group has the greatest future potential to see further upgrades in materiality to Significant or Core-to-Thesis.

**Exhibit 69:** Materiality Changes by AI exposure as a proportion of all stocks in that categorisation

	Enabler Adopters	Enabler	Adopters	Protected	Wildcard	Disrupted	All
<b>Up to Don't Know</b>	0.3%	0.0%	0.2%	0.2%	0.0%	2.0%	0.2%
<b>Up to Moderate</b>	3.8%	6.0%	7.3%	1.2%	3.7%	2.0%	4.1%
<b>Up to Significant</b>	7.9%	7.7%	0.4%	0.0%	0.4%	0.0%	1.5%
<b>Up to Core to Thesis</b>	1.5%	6.4%	0.1%	0.0%	0.0%	0.0%	0.6%
<b>Down to Significant</b>	-0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%
<b>Down to Moderate</b>	-1.5%	-1.7%	-0.2%	0.0%	-0.4%	0.0%	-0.4%
<b>Down to Don't Know</b>	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Down to Insignificant</b>	-1.5%	-1.3%	-2.4%	-0.9%	-2.2%	-2.0%	-1.6%

Source: Morgan Stanley Research

**Exhibit 70:** Upward materiality Changes by AI exposure as a proportion of all stocks in that categorisation



Source: Morgan Stanley Research

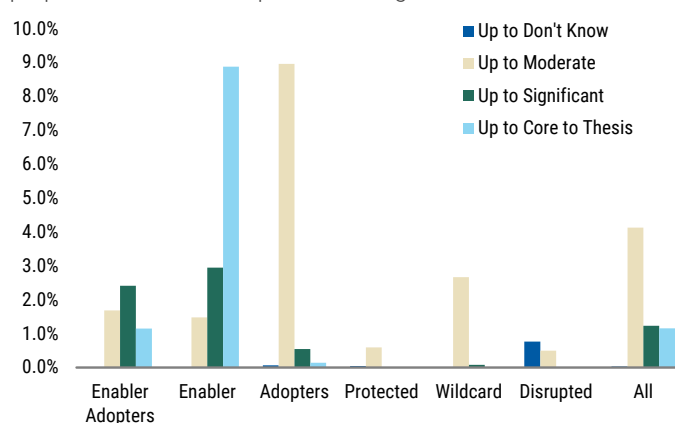
When we re-cut the data for proportion of market cap impacted by these recategorisations, the concentration becomes further evident. Large amounts of Enabler market cap are seeing shifts up to Significant and Core to Thesis materiality. However, the largest uplift in market cap across the entire latest mapping effort is in the Adopter group moving up to Moderate. This again would imply that from a market-moving potential in 2025, as this group progresses further towards Significant from Moderate, it has the potential to generate substantial outperformance for investors. [We go on to explain exactly how we see this playing out below.](#)

**Exhibit 71:** Materiality Changes by AI exposure as a proportion of market cap in that categorisation

	Enabler Adopters	Enabler	Adopters	Protected	Wildcard	Disrupted	All
<b>Up to Don't Know</b>	0.0%	0.0%	0.1%	0.0%	0.0%	0.8%	0.0%
<b>Up to Moderate</b>	1.7%	1.5%	9.0%	0.6%	2.7%	0.5%	4.1%
<b>Up to Significant</b>	2.4%	2.9%	0.5%	0.0%	0.1%	0.0%	1.2%
<b>Up to Core to Thesis</b>	1.2%	8.9%	0.1%	0.0%	0.0%	0.0%	1.2%
<b>Down to Significant</b>	-0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%
<b>Down to Moderate</b>	-0.9%	0.3%	-0.2%	0.0%	-3.8%	0.0%	-0.5%
<b>Down to Don't Know</b>	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Down to Insignificant</b>	-0.2%	0.4%	-1.6%	-2.0%	-0.7%	-2.5%	-1.0%

Source: Morgan Stanley Research

**Exhibit 72:** Upward materiality Changes by AI exposure as a proportion of market cap in that categorisation



Source: Morgan Stanley Research

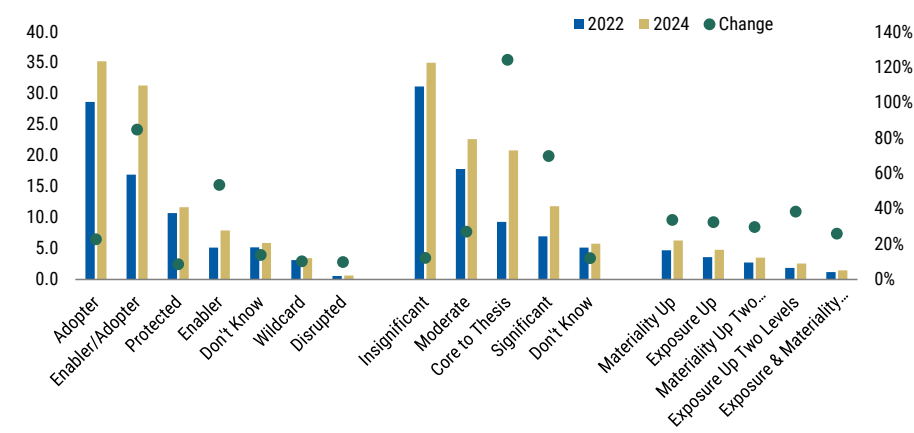
# Impact on Equities

[Please click here for the full excel database of >3,700 stocks mapped by AI exposure and materiality.](#)

In this section we evaluate (1) what has already been discounted by markets; (2) to what extent stock mapping work is a driver of outperformance relative to the market; (3) where remaining opportunities may be that have not already been discounted by markets.

- **By exposure:** Since year-end 2022, the Enabler/Adopter stocks have added > \$14trn in market cap; or 85%. This is more than all other categories combined and more than double the \$6.6trn added to the Adopter group of stocks over the same period.
- **By materiality:** Over the same period, and unsurprisingly, the lion's share of uplift to market cap by materiality classification has been in the Core to Thesis grouping, which has added 124%, or \$11.6trn in absolute terms. The Significant and Moderate AI exposed buckets each saw a \$4.9trn increase to their market values. However in the case of Significant stocks this represented a 70% uplift over the period while for Moderate stocks it was only a 27% gain by comparison since 2022.

**Exhibit 73:** Market cap (\$trn) by exposure and materiality as well as analyst changes in Survey 3; % changes December 2024 vs December 2022 (RHS)

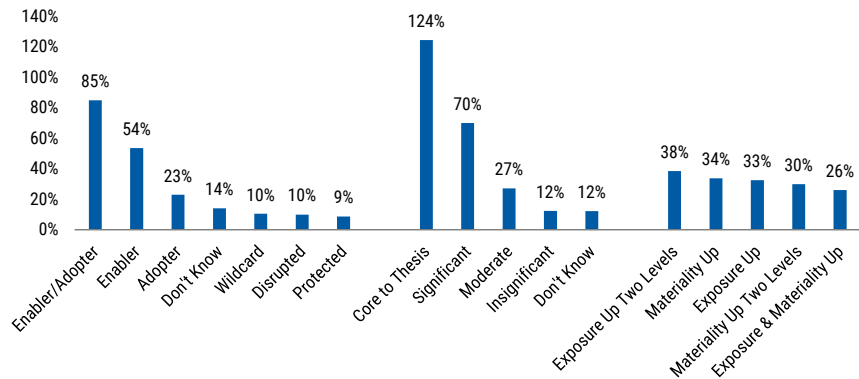


Source: Eikon, Morgan Stanley Research

When we rank the 2024 vs 2022 uplift in market value by category, we can see this relative performance more clearly. What we can also see is how alternative strategies for playing AI upside have fared. While we think there is still upside in a number of the high materiality Enabler and Adopter stocks – discussed in detail below – at this stage of the theme's diffusion we think investors will need to think more laterally.

As we have been arguing for some time, we believe that the rate of change will be a major driver of market performance and stock dispersion over 2025. If we look at any stocks that have seen either their materiality or exposure increased by at least one level between surveys, the return has been over 30% since 2022.

**Exhibit 74:** Relative changes December 2024 vs December 2022



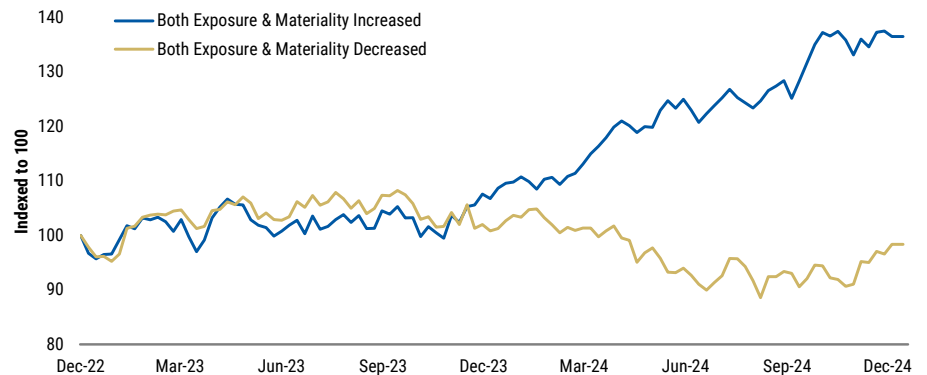
Source: Eikon, Morgan Stanley Research

## What's Priced?: Exposure And Materiality Change

The above charts do not tell the whole story as they only show a return between December 2022 and December 2024. When we look at some of the above categories in our mapping as a time series it tells a different picture. Our AI rate of change argument has not been consistently priced since ChatGPT's release in 2022. In fact, we would argue AI's rate of change has really only started to be priced in a discerning way by markets through 2024.

Below we take stocks where our analysts upgraded both materiality and exposure in our survey. Further, we take stocks where our analysts decreased their categorisation of exposure and materiality. While there is little to no differentiation between these groups from 2020-2024, there has been a major divergence since then. Much of this was driven by the performance of Utilities stocks which saw both exposure and materiality upgrades at the start of 2024. The "Both Down" leg is also emblematic of sectors – such as Education Technology – where the risk of AI disruption is becoming clearer to our analysts both from a narrative and prospective earnings outlook.

**Exhibit 75:** Performance of stocks where both materiality and exposure were increased (and decreased)



Source: Eikon, Morgan Stanley Research

**Exhibit 76:** Overweight rated stocks where both materiality and exposure increased

Company	Region	GICS Sector	Analyst	Market Cap (\$bn)	Rating	Last Price (LCY)	New Exposure	New Materiality	Pricing Power
American Electric Power Co	North America	Utilities	Arcaro, David	49.4	Overweight	92.05	Enabler/Adopter	Significant	Neutral
PPL Corp	North America	Utilities	Arcaro, David	23.8	Overweight	32.27	Enabler/Adopter	Significant	Neutral
Sempra	North America	Utilities	Arcaro, David	56.5	Overweight	87.67	Enabler/Adopter	Significant	Neutral
Fujiibo Holdings	Japan	Consumer Discretionary	Hasegawa, Yoshihito	0.4	Overweight	5,330.00	Enabler	Significant	Neutral
CGN Mining Co Ltd	Asia/Pacific	Energy	Jiang, Chris	1.6	Overweight	1.78	Enabler	Significant	Neutral
Clearway Energy Inc	North America	Utilities	Kad, Robert	3.2	Overweight	26.58	Enabler	Significant	Neutral
Hannon Armstrong	North America	Financials	Kad, Robert	3.5	Overweight	27.76	Enabler	Significant	Neutral
MSCI Inc.	North America	Financials	Kaplan, Toni	49.1	Overweight	601.48	Enabler/Adopter	Significant	High
GDS Holdings Ltd	Asia/Pacific	Information Technology	Liu, Yang	3.9	Overweight	24.05 USD	Enabler	Significant	Neutral
RWE AG	Europe	Utilities	Pulleyn, Robert	22.9	Overweight	30.33	Enabler/Adopter	Significant	High
Foxconn Technology	Asia/Pacific	Information Technology	Shih, Sharon	3.5	Overweight	77.70	Enabler	Significant	Neutral
CMOC Group Ltd	Asia/Pacific	Materials	Zhang, Rachel	20.4	Overweight	5.42 HKD	Enabler	Significant	Neutral

Source: Eikon, Morgan Stanley Research. [Please click here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality

**Exhibit 77:** Stocks where both materiality and exposure decreased

Company	Region	GICS Sector	Analyst	Market Cap (\$bn)	Rating	Last Price (LCY)	New Exposure	New Materiality	Pricing Power
Coles Group Limited	Asia/Pacific	Consumer Staples	Baxter, Melinda	15.9	Equal-Weight	19.03	Disrupted	Insignificant	Low
Hapvida	Latin America	Health Care	Cepeda, Mauricio	3.3	Overweight	2.10	Protected	Insignificant	Neutral
Laureate Education Inc	Latin America	Consumer Discretionary	Cepeda, Mauricio	3.0	Equal-Weight	18.34	Protected	Insignificant	Neutral
S&P Global Inc	North America	Financials	Kaplan, Toni	157.4	Overweight	499.57	Adopter	Insignificant	Neutral
Gotion High Tech Co Ltd	Asia/Pacific	Industrials	Lu, Jack	5.4	Equal-Weight	20.16	Wildcard	Insignificant	Neutral
Beijing Easpring Material Technology	Asia/Pacific	Industrials	Lu, Jack	3.0	Equal-Weight	37.61	Wildcard	Insignificant	Neutral
Altus Power Inc	North America	Utilities	Percoco, Andrew	0.6	Equal-Weight	4.47	Adopter	Insignificant	Neutral
Sunrun Inc	North America	Industrials	Percoco, Andrew	2.3	Overweight	10.71	Adopter	Insignificant	Neutral
Solaredge Technologies Inc	North America	Information Technology	Percoco, Andrew	0.8	Underweight	15.28	Adopter	Insignificant	Low
Rumo SA	Latin America	Industrials	Rizzo, Julia	5.8	Overweight	17.59	Protected	Insignificant	Neutral
Sunresin New Materials Co Ltd	Asia/Pacific	Materials	Xu, Kaylee	3.6	Equal-Weight	46.54	Wildcard	Insignificant	Neutral
Maxell	Japan	Information Technology	Yamazaki, Mie	0.5	Overweight	1,832.00	Don't Know	Don't Know	Neutral
China Life Insurance Co Ltd	Asia/Pacific	Financials	Zhao, Rick	134.9	Overweight	14.04 HKD	Protected	Insignificant	Neutral
China Pacific Insurance Group Co Ltd	Asia/Pacific	Financials	Zhao, Rick	41.1	Overweight	23.00 HKD	Protected	Insignificant	Neutral
PICC Group	Asia/Pacific	Financials	Zhao, Rick	40.6	Overweight	3.68 HKD	Protected	Insignificant	Neutral
ZhongAn Online P & C Insurance Co	Asia/Pacific	Financials	Zhao, Rick	2.3	Overweight	10.98 HKD	Protected	Insignificant	Neutral

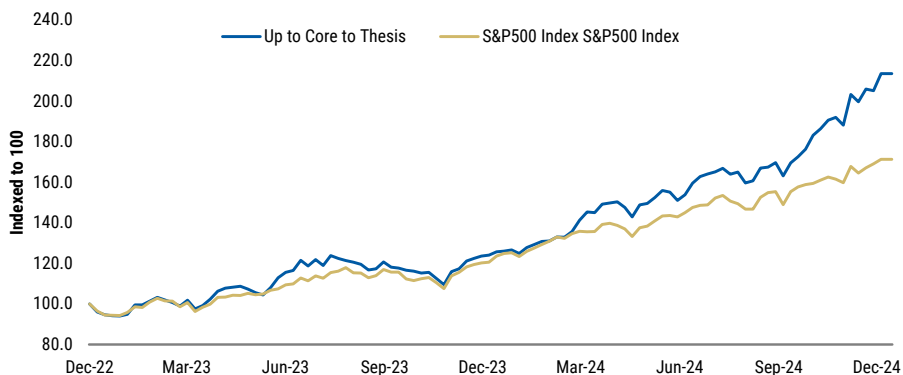
Source: Eikon, Morgan Stanley Research. [Please click here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality

## What's Priced?: Core to Thesis Uplift

As we have shown above, the majority of market cap added since 2022 has been in Core to Thesis Enabler/Adopters such as Nvidia and the other Magnificent 7 stocks. However, for the most part, those companies have not seen a change in their mapping since our original survey. Far less market cap, to-date, has been added by Core to Thesis stocks which have graduated over time into this materiality classification. When we look at these stocks which have had to earn their upgrade to Core to Thesis materiality, performance has again been a 2024 story.

Since ChatGPT's launch at the end of 2022, these stocks (largely "Significant" materiality in the original mapping work) performed in line with the S&P500 throughout 2023. However, and again, 2024 has been a year of greater dispersion. Those which saw their materiality lifted to Core to Thesis in the latest survey outperformed the S&P500 by >30% over the course of the last year.

**Exhibit 78:** Performance of stocks upgraded to Core to Thesis vs S&P500



Source: Eikon, Morgan Stanley Research

**Exhibit 79:** Stocks where materiality was upgraded to Core to Thesis

Company	Region	GICS Sector	Analyst	Market Cap (\$bn)	Rating	Last Price (LCY)	New Exposure	New Materiality	Pricing Power
Public Service Enterprise Group Inc	North America	Utilities	Arcaro, David	43.4	Overweight	86.25	Enabler/Adopter	Core to Thesis	Neutral
ASE Technology Holding Co. Ltd.	Asia/Pacific	Information Technology	Chan, Charlie	37.0	Overweight	166.00	Enabler	Core to Thesis	Neutral
Siemens Healthineers AG	Europe	Health Care	Davies, Robert	62.7	Overweight	51.20	Enabler/Adopter	Core to Thesis	High
DT Midstream, Inc.	North America	Energy	Kad, Robert	9.9	Underweight	103.58	Enabler	Core to Thesis	High
Enbridge	North America	Energy	Kad, Robert	89.7	Equal-Weight	62.25	Enabler	Core to Thesis	High
Energy Transfer LP	North America	Energy	Kad, Robert	64.6	Overweight	19.64	Enabler	Core to Thesis	High
Kinder Morgan Inc.	North America	Energy	Kad, Robert	59.7	Equal-Weight	28.27	Enabler	Core to Thesis	High
TC Energy Corp	North America	Energy	Kad, Robert	48.2	Overweight	68.56	Enabler	Core to Thesis	High
Williams Companies Inc	North America	Energy	Kad, Robert	66.5	Overweight	56.60	Enabler	Core to Thesis	High
TransUnion	North America	Industrials	Kaplan, Toni	19.2	Overweight	92.27	Enabler/Adopter	Core to Thesis	Neutral
Axon Enterprise Inc	North America	Industrials	Marshall, Meta	49.9	Overweight	601.06	Adopter	Core to Thesis	High
Corning Inc	North America	Information Technology	Marshall, Meta	41.1	Equal-Weight	47.50	Enabler	Core to Thesis	Low
Pure Storage Inc	North America	Information Technology	Marshall, Meta	21.2	Equal-Weight	64.23	Enabler	Core to Thesis	Low
Suzhou TFC Optical Communication	Asia/Pacific	Information Technology	Meng, Andy	8.0	Equal-Weight	88.67	Enabler	Core to Thesis	High
Eoptolink Technology Inc Ltd	Asia/Pacific	Information Technology	Meng, Andy	12.6	Equal-Weight	117.02	Enabler	Core to Thesis	High
Marvell Technology Group Ltd	North America	Information Technology	Moore, Joseph	104.6	Equal-Weight	118.18	Enabler	Core to Thesis	High
Freshworks Inc	North America	Information Technology	Porter, Elizabeth	5.0	Equal-Weight	16.07	Enabler/Adopter	Core to Thesis	Neutral
Hon Hai Precision	Asia/Pacific	Information Technology	Shih, Sharon	79.6	Overweight	184.50	Enabler	Core to Thesis	High
Asia Vital Components Co. Ltd.	Asia/Pacific	Information Technology	Shih, Sharon	7.9	Overweight	627.00	Enabler	Core to Thesis	Neutral
Foxconn Industrial Internet Co. Ltd.	Asia/Pacific	Information Technology	Shih, Sharon	55.1	Overweight	20.67	Enabler	Core to Thesis	High
ServiceNow Inc	North America	Information Technology	Weiss, Keith	230.9	Equal-Weight	1,073.77	Enabler/Adopter	Core to Thesis	High
Palantir Technologies Inc.	North America	Information Technology	Weiss, Keith	169.4	Underweight	79.9	Enabler/Adopter	Core to Thesis	High

Source: Eikon, Morgan Stanley Research. [Please click here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality

## What's Priced?: Multiple Notch Upgrades

As we have already discussed, we continue to be surprised not only by the amount of change which our analysts report in the survey, but also by the size of the changes still being made. The majority of stocks seeing changes to their exposure or materiality classifications are not seeing one-notch changes but rather changes of multiple increments in one go (see [Exhibit 61](#)). Below we show two such groupings of companies seeing multiple step changes in classifications and how this has been priced by the market in 2024:

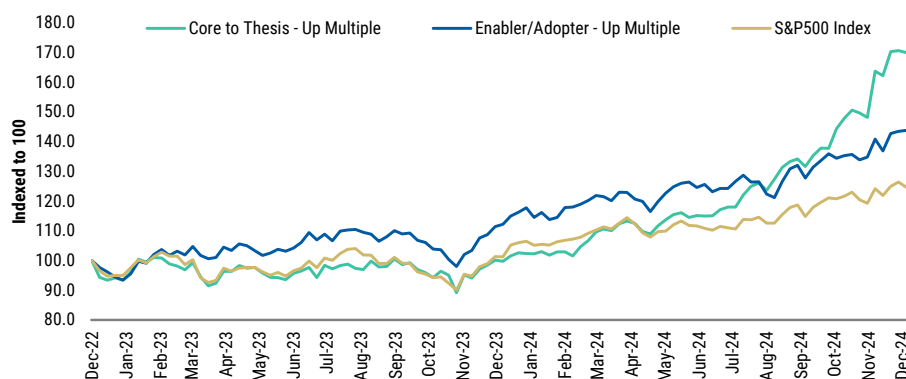
- Enabler/Adopters Up Multiple Exposures:** As a reminder, Enabler/Adopter is the highest exposure category that a stock can be classified as. 24 months after ChatGPT's initial launch it is both surprising and telling that companies can jump from "Protected" or "Don't Know" into this apex Enabler/Adopter category. Nonetheless, it continues to happen and has led to relatively steady outperformance versus the S&P500 since ChatGPT's launch. We would stress to investors, therefore, that simply being two years into this thematic trade does not mean the market has found nor efficiently priced some of the most critical companies sitting at the foundation of this structural multi-year theme. We expect



future surveys will reveal more multi-notch exposure upgrades.

- Core to Thesis Up Multiple Materialities:** Similarly, on the materiality front, Core to Thesis is the highest categorisation available to our analysts in our survey. We are less surprised by stocks reclassified as Core to Thesis than for stocks reclassified as Enabler/Adopter, but it continues to happen as companies become better at telling their AI story to the market. As can be seen below, for companies that are able to articulate their AI involvement and have it considered by analysts as core to the investment thesis – particularly for those stocks not in the technology sector – the outperformance versus the market is self-evident; 45% since ChatGPT's launch.

**Exhibit 80:** Stock performance of those raised multiple levels to Enabler/Adopter or raised multiple materialities to Core to Thesis vs S&P500 returns



Source: Eikon, Morgan Stanley Research

**Exhibit 81:** Stocks where materiality was upgraded multiple notches to Core to Thesis

Company	Region	GICS Sector	Analyst	Market Cap (\$bn)	Rating	Last Price (LCY)	New Exposure	New Materiality	Pricing Power
DT Midstream, Inc.	North America	Energy	Kad, Robert	9.9	Underweight	103.58	Enabler	Core to Thesis	High
Enbridge	North America	Energy	Kad, Robert	89.7	Equal-Weight	62.25	Enabler	Core to Thesis	High
Energy Transfer LP	North America	Energy	Kad, Robert	64.6	Overweight	19.64	Enabler	Core to Thesis	High
Kinder Morgan Inc.	North America	Energy	Kad, Robert	59.7	Equal-Weight	28.27	Enabler	Core to Thesis	High
TC Energy Corp	North America	Energy	Kad, Robert	48.2	Overweight	68.56	Enabler	Core to Thesis	High
Williams Companies Inc	North America	Energy	Kad, Robert	66.5	Overweight	56.60	Enabler	Core to Thesis	High
TransUnion	North America	Industrials	Kaplan, Toni	19.2	Overweight	92.27	Enabler/Adopter	Core to Thesis	Neutral
Axon Enterprise Inc	North America	Industrials	Marshall, Meta	49.9	Overweight	601.06	Adopter	Core to Thesis	High
Corning Inc	North America	Information Technology	Marshall, Meta	41.1	Equal-Weight	47.50	Enabler	Core to Thesis	Low

Source: Eikon, Morgan Stanley Research. [Please click here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality

**Exhibit 82:** Overweight stocks where exposure was upgraded multiple notches to Enabler/Adopter

Company	Region	GICS Sector	Analyst	Market Cap (\$bn)	Rating	Last Price (LCY)	New Exposure	New Materiality	Pricing Power
American Electric Power Co	North America	Utilities	Arcaro, David	49.4	Overweight	92.05	Enabler/Adopter	Significant	Neutral
Public Service Enterprise Group Inc	North America	Utilities	Arcaro, David	43.4	Overweight	86.25	Enabler/Adopter	Core to Thesis	Neutral
PPL Corp	North America	Utilities	Arcaro, David	23.8	Overweight	32.27	Enabler/Adopter	Significant	Neutral
Sempra	North America	Utilities	Arcaro, David	56.5	Overweight	87.67	Enabler/Adopter	Significant	Neutral
TPG, Inc.	North America	Financials	Cyprys, Michael	24.4	Overweight	65.72	Enabler/Adopter	Moderate	Neutral
Palo Alto Networks Inc	North America	Information Technology	Fodderwala, Hamza	128.0	Overweight	183.25	Enabler/Adopter	Moderate	Neutral
Tri Chemical Laboratories	Japan	Information Technology	Hasegawa, Yoshihito	0.6	Overweight	2,825.00	Enabler/Adopter	Moderate	Neutral
MSCI Inc.	North America	Financials	Kaplan, Toni	49.1	Overweight	601.48	Enabler/Adopter	Significant	High
TransUnion	North America	Industrials	Kaplan, Toni	19.2	Overweight	92.27	Enabler/Adopter	Core to Thesis	Neutral
Evercore Inc	North America	Financials	Kenny, Ryan	11.2	Overweight	277.69	Enabler/Adopter	Moderate	High
Reddit Inc	North America	Communication Services	Nowak, Brian	30.1	Overweight	177.74	Enabler/Adopter	Moderate	Neutral
SK Telecom Co Ltd	Asia/Pacific	Communication Services	Park, Seyon	8.5	Overweight	55,600.00	Enabler/Adopter	Significant	Neutral
RWE AG	Europe	Utilities	Pulleyn, Robert	22.9	Overweight	30.33	Enabler/Adopter	Significant	High
Hyundai Motor	Asia/Pacific	Consumer Discretionary	Shin, Young Suk	30.6	Overweight	211,500.00	Enabler/Adopter	Moderate	Neutral
Kia Corp.	Asia/Pacific	Consumer Discretionary	Shin, Young Suk	27.1	Overweight	100,500.00	Enabler/Adopter	Moderate	Neutral
LG Chem	Asia/Pacific	Materials	Shin, Young Suk	12.9	Overweight	256,500.00	Enabler/Adopter	Moderate	Low
LG Energy Solution	Asia/Pacific	Industrials	Shin, Young Suk	65.3	Overweight	361,500.00	Enabler/Adopter	Moderate	Low
KDDI	Japan	Communication Services	Tsusaka, Tetsuro	71.0	Overweight	4,894.00	Enabler/Adopter	Moderate	Neutral
Ningbo Tuopu Group Co Ltd	Asia/Pacific	Consumer Discretionary	Wang, Shelley	11.6	Overweight	46.53	Enabler/Adopter	Moderate	Neutral

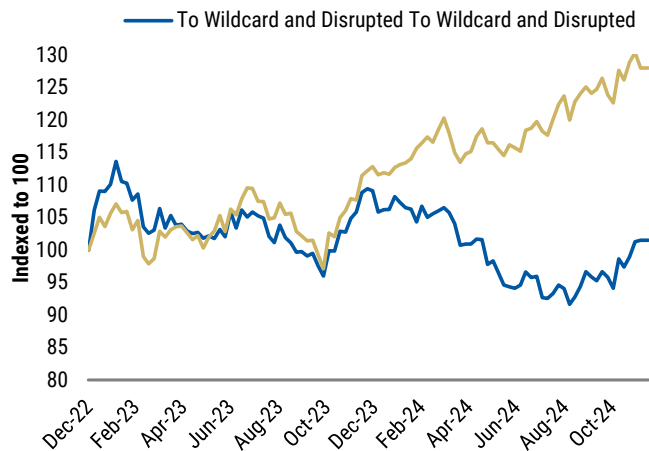
Source: Eikon, Morgan Stanley Research. [Please click here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality

## What's Priced?: Downgraded to Wildcard & Disrupted

The final category of note in 2024 has been those stocks whose categorisation has been moved to Disrupted or Wildcard by our analysts. These stocks are fewer in number and smaller in size than most other exposure categories; we have shown above the relative importance of this group in market cap terms in [Exhibit 73](#).

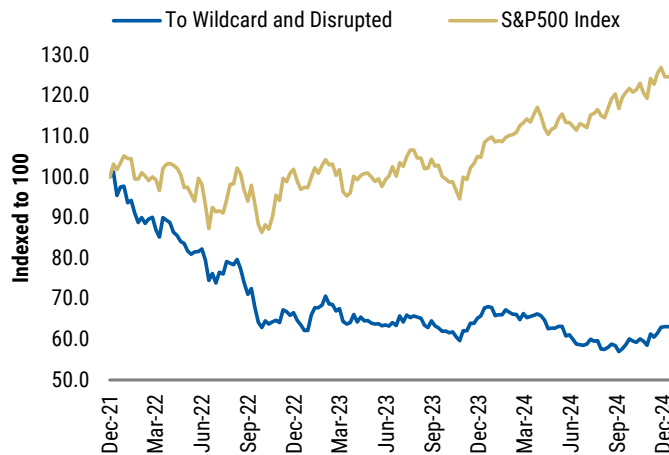
Unlike the performance examples given above, here we use the median S&P500 stock performance relative to this groupings' average stock, due to a smaller number of equities and more volatile underlying movements. On this basis one can see the underperformance in 2024 has widened. However, when one considers a slightly longer term time series, this structural underperformance versus S&P500 is not a new phenomenon. These names classified as Disrupted or Wildcard, one could plausibly argue, are not underperforming simply because of the emergence of GenerativeAI but rather that AI presents another challenge to businesses already being determined by the market to have structural challenges long before the advent of ChatGPT.

**Exhibit 83:** Changed classification to Wildcard and Disrupted vs S&P500 (since GPT released)



Source: Eikon, Morgan Stanley Research

**Exhibit 84:** Changed classification to Wildcard and Disrupted vs S&P500 (since 2021)



Source: Eikon, Morgan Stanley Research

## Exhibit 85:

Stocks where exposure was changed to either Wildcard or Disrupted

Company	Region	GICS Sector	Analyst	Market Cap (\$bn)	Rating	Last Price (LCY)	New Exposure	New Materiality	Pricing Power
SharkNinja	North America	Consumer Discretionary	Alexander Clapp, Megan	14.0	Equal-Weight	98.56	Wildcard	Insignificant	Low
Yeti Holdings Inc.	North America	Consumer Discretionary	Alexander Clapp, Megan	3.8	Equal-Weight	38.12	Wildcard	Insignificant	Neutral
Alfa SAB de CV	Latin America	Industrials	Alves, Ricardo	3.7	Overweight	14.87 MXN	Wildcard	Moderate	Neutral
Bellsystem24 Holdings	Japan	Industrials	Arai, Katsumi	0.6	Equal-Weight	1,277.00	Disrupted	Moderate	Neutral
Coursera, Inc.	North America	Consumer Discretionary	Baer, Josh	1.3	Overweight	8.53	Wildcard	Significant	Low
Udemy Inc	North America	Consumer Discretionary	Baer, Josh	1.2	Underweight	8.48	Wildcard	Significant	Low
Coles Group Limited	Asia/Pacific	Consumer Staples	Baxter, Melinda	15.9	Equal-Weight	19.03	Disrupted	Insignificant	Low
Endeavour Group Ltd	Asia/Pacific	Consumer Staples	Baxter, Melinda	4.9	Overweight	4.11	Disrupted	Don't Know	Low
Qualys Inc	North America	Information Technology	Fodderwala, Hamza	5.4	Underweight	142.25	Disrupted	Insignificant	Neutral
Rapid7 Inc	North America	Information Technology	Fodderwala, Hamza	2.5	Equal-Weight	39.62	Disrupted	Insignificant	Neutral
Tenable Holdings Inc	North America	Information Technology	Fodderwala, Hamza	5.0	Equal-Weight	39.08	Disrupted	Insignificant	Neutral
Banco do Brasil	Latin America	Financials	Kuri, Jorge	23.2	Overweight	23.74	Wildcard	Moderate	Neutral
Banco Pan SA	Latin America	Financials	Kuri, Jorge	1.4	Overweight	6.18	Wildcard	Moderate	Neutral
Gotion High Tech Co Ltd	Asia/Pacific	Industrials	Lu, Jack	5.4	Equal-Weight	20.16	Wildcard	Insignificant	Neutral
Beijing Easpring Material Technology	Asia/Pacific	Industrials	Lu, Jack	3.0	Equal-Weight	37.61	Wildcard	Insignificant	Neutral
Airtasker Ltd	Asia/Pacific	Communication Services	McLeod, Andrew	0.1	Underweight	0.46	Disrupted	Insignificant	Neutral
ARN Media Limited	Asia/Pacific	Communication Services	McLeod, Andrew	0.1	Underweight	0.71	Disrupted	Insignificant	Neutral
Southern Cross Media Group Limited	Asia/Pacific	Communication Services	McLeod, Andrew	0.1	Underweight	0.60	Disrupted	Insignificant	Neutral
Domo Inc	North America	Information Technology	Singh, Sanjit	0.3	Equal-Weight	7.11	Disrupted	Significant	Low
UiPath Inc	North America	Information Technology	Singh, Sanjit	7.7	Equal-Weight	13.28	Wildcard	Significant	Neutral
STO Express Co Ltd	Asia/Pacific	Industrials	Song, Tenny	2.1	Equal-Weight	9.83	Wildcard	Moderate	Low
Sunresin New Materials Co Ltd	Asia/Pacific	Materials	Xu, Kaylee	3.6	Equal-Weight	46.54	Wildcard	Insignificant	Neutral
New York Times Co	North America	Communication Services	Yeh, Thomas	9.1	Equal-Weight	52.89	Wildcard	Insignificant	Neutral

Source: Eikon, Morgan Stanley Research. [Please click here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality

# Are Companies Delivering on AI?

[Please click here](#) for the full excel database of >3,700 stocks mapped by AI exposure and materiality.

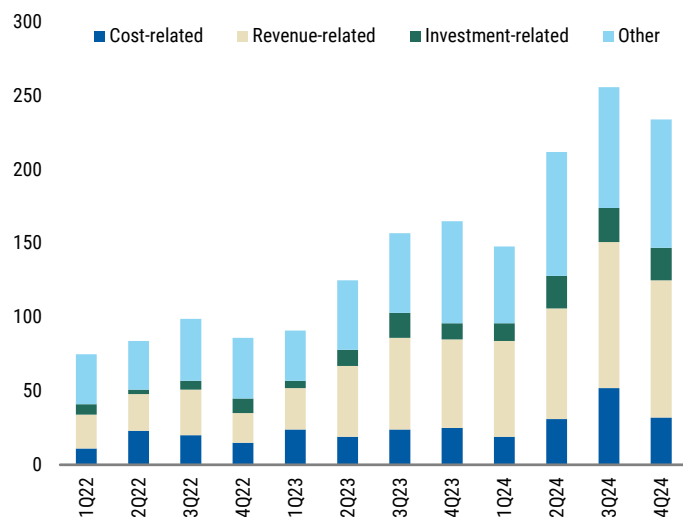
Our surveys provide a clear segmentation of the market but also a regular cadence of how the theme is evolving as it relates to the perception of AI's importance to companies' investment cases as judged by our analysts.

However, we always try to triangulate these findings with external and reinforcing data points. In this section we present findings from our Quantitative Research team, led by Qingyi Huang. Their work uses a large language model to prompt S&P500 companies earnings call transcripts. What we are specifically interested in, in this case, is prompting the model to determine the proportion of companies that are not only talking about AI as it relates to their business, but actually providing quantification of AI's impact on their business.

It comes as no surprise that the number of companies talking about AI has been rising for the last two years. However, particularly using their model to screen for companies providing quantification of AI's impact on the business (rather than just high level claims or comments), there has been a 2.5x uplift in these types of statements by companies since 2022 (Exhibit 86).

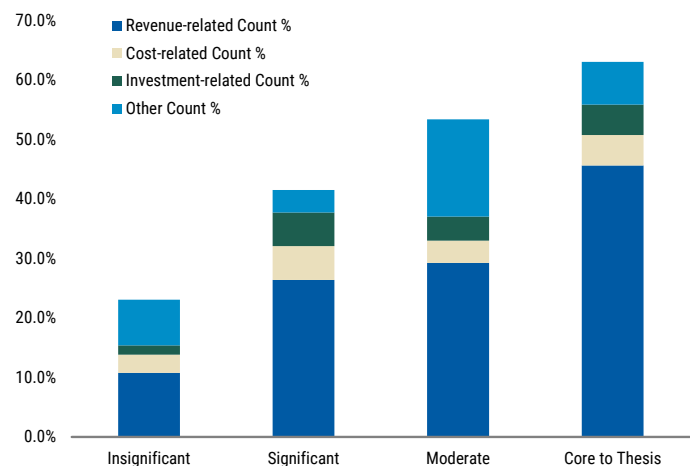
When we further cut their data with our AI mapping database, one can further see the importance of our materiality scoring system. With greater quantification of AI's impact on the business - particularly revenue upside opportunities - our analysts in turn ratchet up their materiality classification for stocks and ultimately the market prices these stocks accordingly.

**Exhibit 86:** Statements over time by companies about quantified AI claims



Source: FactSet, Morgan Stanley Research

**Exhibit 87:** Enablers' stated goals by tagged materiality of the stock



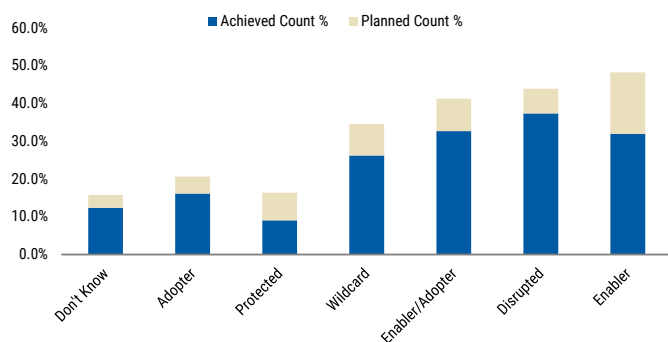
Source: FactSet, Morgan Stanley Research

We are not necessarily surprised to see that, when prompted, our model for analysing these transcripts shows that irrespective of the AI exposure category most companies are

claiming to have achieved what they had planned initially.

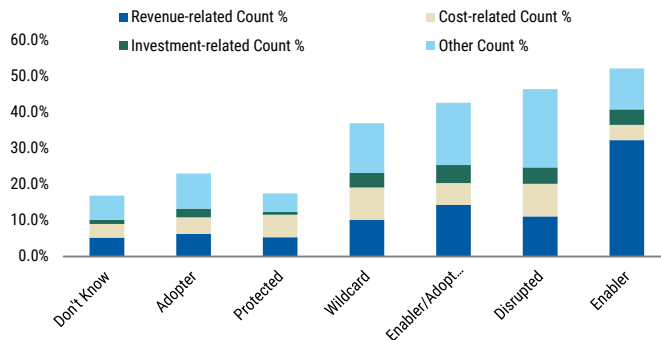
However, we were surprised to see that after Enabler, the categories with the highest proportion of stocks talking about using AI to take out cost or increase revenue opportunities have not been Adopter companies. In fact, Disrupted and Wildcard categorised companies have - perhaps as a defensive tool in part - been amongst the earliest advocates and adopters of AI themselves.

**Exhibit 88:** Stated goals by mapping exposure



Source: FactSet, Morgan Stanley Research

**Exhibit 89:** Stated goals by mapping exposure

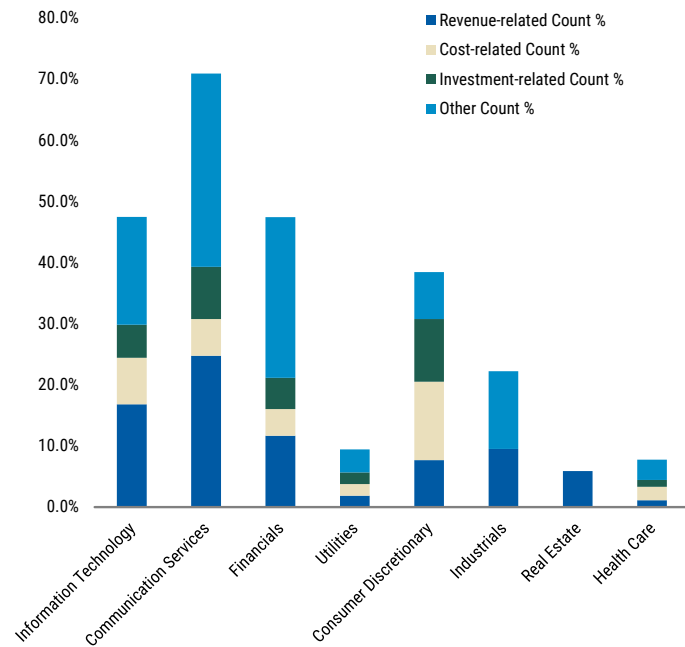


Source: FactSet, Morgan Stanley Research

Finally, we take the data and look at the skew of opportunities that Enabler and Adopter companies respectively are claiming to generate when segmented by industry vertical.

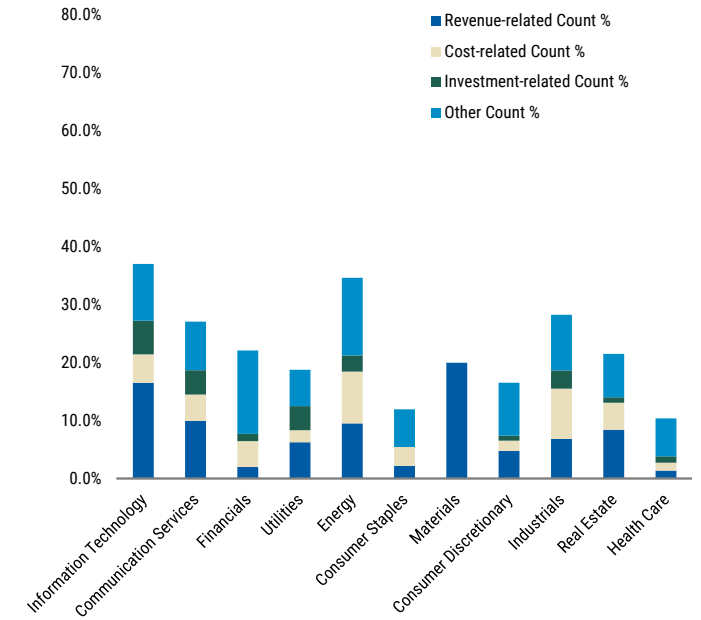
- **Take the Materials sector**, for example, where the companies quantifying the uplift are entirely focussed on the revenue opportunity as they provide the physical infrastructure underlying the AI boom - they are not yet discussing any cost saving opportunity for their own businesses.
- **By contrast, Consumer Discretionary** is a good example of a sector where there may be revenue or investment opportunities but they are predominantly focussed on cost saving opportunities, and this corroborates the analysis in our survey of over 400 companies which showed Consumer companies largely and initially focussed on cost saving and customer service reductions.

**Exhibit 90:** Enablers' stated goals by industry vertical



Source: FactSet, Morgan Stanley Research

**Exhibit 91:** Adopters' stated goals by industry vertical



Source: FactSet, Morgan Stanley Research

# Adopters Are Still Adopting

## 1) Consumer & Enterprise Adoption Remain Strong

We have published these data on various occasions already ([here](#) and [here](#)). Each time the market has had concerns – data availability, growing seasonality, poor retention rates, ROIC of hyperscaler spend and most recently the dependability of model scaling – a variety of data points have provided reassurance on enterprise and consumer use cases and adoption.

Exhibit 92: AI Adoption (Consumer and Enterprise) since ChatGPT launch vs Market Cap Performance

Source Metric of Adoption		Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	
Market	Market Cap of Enablers (\$trn)	5.5	5.2	5.1	5.6	6.0	6.0	6.5	6.7	6.3	6.6	7.0	6.6	6.8	7.0	6.7	
	Market Cap of Enablers / Adopters (\$trn)	20.9	19.6	19.6	21.5	22.2	22.7	24.1	24.4	23.5	24.9	26.8	25.9	26.7	27.5	27.8	
	Eikon																
	Enablers gain since GPT (\$trn)	1.4	1.2	1.0	1.6	2.0	1.9	2.3	2.6	2.3	2.8	3.2	2.8	3.0	3.2	2.9	
	Enabler / Adopter gain since GPT (\$trn)	4.8	3.5	3.2	5.3	6.0	6.3	7.6	8.0	7.0	10.1	12.0	11.1	11.9	12.7	13.0	
	Magnificent 7 forward P/E avg	34x	32x	31x	33x	33x	30x	34x	34x	33x	34x	37x	36x	35x	37x	36x	
	Enabler(& /Adopters) % Global MCap	33%	32%	33%	33%	34%	34%	35%	35%	34%	35%	37%	36%	36%	36%	37%	
MS AI Mapping	Adopters (Rebased Return)	119	116	111	112	121	119	122	126	121	128	123	126	121	123	134	
	Adopters (High Pricing Power) (Rebased Return)	135	133	125	126	138	139	144	150	142	149	143	146	141	142	152	
	Adopters (Low Pricing Power) (Rebased Return)	122	116	106	108	125	123	125	129	121	127	118	121	111	112	117	
Consumer	SimilarWeb / Google Trends																
	Web visits - ChatGPT (bn)	1.5	1.7	1.7	1.6	1.7	1.7	1.9	1.9	2.2	2.4	2.4	2.4	2.6	3.1	3.5	
	Web visits - ChatGPT (YoY)	-	-	-	-	-	54%	-8%	-6%	10%	44%	59%	57%	72%	79%	101%	
	Google Trends - ChatGPT (100 Index)	36	44	51	54	48	49	53	57	55	61	57	49	61	85	100	
	Google Trends - ChatGPT (YoY)	-	-	-	-	-	-	43%	39%	17%	27%	33%	40%	69%	93%	96%	
Google Trends - ChatGPT (MoM)	3%	22%	16%	6%	-11%	2%	8%	8%	-4%	11%	-7%	-14%	24%	39%	18%		
BBG	"AI" News Mentions (YoY)	407%	338%	333%	603%	352%	223%	112%	84%	38%	41%	36%	42%	55%	39%	49%	
Enterprise	Hugging Face																
	Open Source Models (k)	313	354	425	454	491	510	534	577	630	695	745	804	895	1026	1089	
	Top 10 Model Downloads (m)	191	222	280	338	385	291	350	513	541	689	767	780	504	445	1065	
	Open Source Model Downloads (YoY)	69%	60%	100%	259%	183%	162%	105%	135%	117%	192%	260%	292%	163%	101%	280%	
	Open Source Model Downloads (MoM)	-4%	16%	26%	21%	14%	-24%	20%	46%	5%	27%	11%	2%	-35%	-12%	139%	
	Open Source Datasets Downloads (m)	26.1	25.9	21.8	20.6	22.9	24.7	32.9	35.7	35.2	29.6	34.6	45.5	62.1	46.1	11.3	
	Open Source Datasets Downloads (YoY)	-	-	-	-	-	-	-	544%	457%	257%	468%	682%	138%	78%	-48%	
	AlphaSense																
	Transcripts (US)	1398	968	684	1630	485	633	1356	1279	814	1912	949	805	1333	1053	910	
	Transcripts (Europe)	197	147	184	337	94	101	349	299	238	348	166	278	198	210	221	
	Transcripts (Asia)	89	10	45	90	21	44	93	49	56	103	32	54	78	21	48	
	Transcripts (Total)	1602	1044	807	1810	521	702	1556	1413	932	2174	1022	952	1551	1168	1070	
	Transcripts Total (YoY)	-	-	-	85%	60%	92%	78%	37%	86%	25%	7%	37%	-3%	12%	33%	
	MS CIO Survey																
	CIO Survey Net AI Prioritisation	-	10%	-	-	13%	-	-	14%	-	-	16%	-	-	14%	-	
Expect to be in production after 2025	-	11%	-	-	19%	-	-	19%	-	-	26%	-	-	29%	-		
No plans to use AI	-	31%	-	-	32%	-	-	11%	-	-	6%	-	-	3%	-		
LinkUp AI Map																	
New AI Jobs - US Total (in 000's)	118	130	109	101	86	102	131	139	135	157	148	150	206	173	189		
AI-to-IT Jobs Intensity - US Total	12%	13%	12%	12%	12%	12%	14%	14%	14%	16%	17%	17%	19%	16%	18%		
Active AI Jobs - US Total (in 000's)	296	303	294	290	278	302	335	366	367	382	386	398	457	474	466		
Duration of AI Jobs Postings - US Total (in days)	45.2	39.9	44.4	45.2	50.4	56.3	50.8	47.3	47.4	46.6	45.2	46.4	44.0	42.2	43.1		
Gen AI Jobs as a share of all US Job Postings	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%		
AI jobs as a share of all US job postings	1.7%	1.7%	1.8%	1.8%	1.9%	1.9%	2.0%	1.9%	1.9%	2.0%	2.1%	2.1%	2.2%	2.1%	2.1%		
GPUs																	
NVIDIA Cloud GPU Sales (\$bn Jul-24 = e)	-	-	11.5	-	-	14.8	-	-	19.1	-	-	22.2	-	-	24.1		
H100 Per GPU per Hour	-	-	-	-	-	\$8.7	\$8.6	\$8.7	\$6.2	\$5.4	\$5.7	\$4.8	\$5.1	\$4.8	\$4.3		
A100 Per GPU per Hour	-	-	-	-	-	\$0.4	\$0.5	\$1.1	\$1.1	\$1.2	\$1.2	\$1.5	\$1.9	\$2.1			
Accenture GenAI Bookings	200	-	-	500	-	600	-	900	-	1000	-	-	-	-			
TSMC Monthly Sales (\$bn)	-	-	243	206	176	216	182	195	236	230	208	257	251	252	265		
Semis Consensus Sales pre GPT (\$bn)	-	11.0	-	-	11.5	-	-	12.2	-	-	13.0	-	-	13.5	-		
Semis Consensus Sales current (\$bn)	-	23.7	-	-	28.3	-	-	32.0	-	-	35.5	-	-	40.1	-		
MS Cloud Capex Tracker (\$bn)	-	42.8	-	-	50.1	-	-	53.3	-	-	61.8	-	-	68.5	-		
Weighted avg Capex YoY	-	-2%	-	-	12%	-	-	46%	-	-	56%	-	-	51%	-		
Weighted avg Capex QoQ	-	9%	-	-	17%	-	-	8%	-	-	13%	-	-	6%	-		
Cloud Revenue (\$bn)	-	83.7	-	-	93.8	-	-	91.3	-	-	97.6	-	-	101.5	-		
Cloud Revenue (YoY)	-	19%	-	-	22%	-	-	24%	-	-	22%	-	-	21%	-		
OpenAI Revenue (ARR) - \$bn	-	-	1.3	-	2.0	-	-	-	-	-	3.4	-	-	3.7	-		
Power	US Backlog																
	Co-Location Backlog (GW)	8.7	8.8	8.6	-	8.5	8.5	-	8.5	-	8.7	9.9	9.3	9.9	9.9	-	
	Standalone Site Backlog (GW)	33.8	30.7	30.7	-	30.7	30.8	-	32.3	-	32.8	33.7	38.5	42.6	47.0	-	
Total Large Load Queue (GW)	42.5	39.5	39.3	-	39.2	39.3	-	40.8	-	41.5	43.6	47.8	52.5	56.9	-		
VC	Pitchbook																
	Gen AI Deal Count (Rebased)	143	189	167	156	144	354	140	189	203	176	141	133	132	146	106	
	Gen AI Capital Invested (Rebased)	171	227	664	496	187	489	630	1384	282	527	412	216	445	1918	2050	
	AI Deal Count (Rebased)	87	115	104	98	92	183	82	101	110	96	89	92	70	92	77	
AI Capital Invested (Rebased)	90	100	152	133	90	149	108	182	109	160	122	139	141	268	359		

Source: Eikon, SimilarWeb, Google Trends, Bloomberg, HuggingFace, AlphaSense, AlphaWise, US Census Bureau, Amazon, Microsoft, Nvidia, Meta, Alphabet, Tesla, Baidu, Tencent, Alibaba, Oracle, The Information, ercot, Pitchbook, Morgan Stanley Research; priced at August 5, 2024

AI Adoption & ROI is the key question for the AI theme. Over recent months, a number of studies – including our own – have approached this from different perspectives. We combine them below into a meta analysis of the current state of AI adoption and success








stories.

## 2) The majority of GenAI surveys skew positive on GenAI ROI.

Our review of surveys from the past six months indicate that most skew positive on GenAI's business impact. Our own proprietary survey, conducted over the summer, found that ~90% of respondents saw ROI on GenAI projects either meet or exceed expectations. Concurrent with this, several other surveys of enterprises have found fairly good traction for ROI. In our review of five publicly available surveys, only one raised slight questions about ROI.

**Exhibit 93:** Various GenAI surveys have brought up the ROI topic

Survey Publisher	Survey			AI ROI Read	AI ROI Conclusion
	Date	Geography	Respondents		
Morgan Stanley	June 2024	Global	~400 \$500mn - \$20bn revs	↗	~50% of companies report ROI meeting expectations. ~40% exceeding expectations.
 Wharton UNIVERSITY OF PENNSYLVANIA	July 2024	United States	~800 1,000+ employees	→	72% say GenAI budgets will increase in the next year. However, 57% anticipate spending increases to slow (+1 - 10%), perhaps still searching for ROI on their initial investment.
 EY	April - May 2024	United States	~500 decision makers	↑	Senior leaders whose organizations are investing in AI are seeing tangible impact across business functions, notably positive ROI in: <ul style="list-style-type: none"> <li>Operational efficiencies (77%)</li> <li>Employee productivity (74%)</li> <li>Customer satisfaction (72%)</li> </ul>
 ETR	October 2024	Global	~1,800 (highly variable by question)	↗	97% of leading GenAI adopters report achieving tangible benefits from deployments. AI ROI slightly out to the right. Respondents expecting ROI in 'more than a year' up to 21% in Oct (15% Jan).
 Google Cloud	Feb - April 2024	Global	~2,500 100+ employees \$10mn+ revs	↑	74% are seeing ROI from Gen AI investments. 84% successfully transform a GenAI use case idea into production within six months.
 NTT	Sep - Oct 2024	Global	~2,300 GenAI decision-makers	↑	Respondents reported high satisfaction with GenAI. 72% of respondents 'Very Satisfied' and 23% 'Fairly Satisfied' – up from the survey a year ago







Source: Wharton, EY, ETR, Google, NTT, AlphaWise, Morgan Stanley Research

## 3) Company Use Cases Increasingly Quantified

To help investors better understand what products GenAI adoption is turning into we have done case studies on six diverse examples, which aim to go beyond the general 'text

summaries' or 'image generation' examples widely available. In our conversations with clients following our note, Axon Enterprises' (covered by Meta Marshall) use of AI tools has stood out to many investors as a great example of a company leveraging its software platform + GenAI to generate efficiency gains for end users, and build a quickly growing GenAI revenue pipeline. *For the full case study, please see [Thematics: GenAI Adoption - 2 Years In](#) & [Public Safety: AXON & MSI Q3 Preview: Safety in AI](#).*

**Exhibit 94:** Case Studies - 3 Enabler/Adopters & 3 Adopters using GenAI

----- Enabler / Adopter AI Solutions -----			
			
<b>Overview</b>	Market Cap: \$76bn / Industry: Semiconductor Design	Market Cap: \$273bn / Industry: Software	Market Cap: \$1.5tn / Industry: Internet Services
<b>Solution</b>	Synopsys.ai - AI productivity tool kit, introduced in 2020. Now augmented with a GenAI Copilot.	Agentforce – allows customers to automate workflows very quickly.	Advantage+ - Meta's advertising tool helping businesses personalise ads.
<b>Impact</b>	Customers opting in to DSO.ai on avg sign 20% greater contract sizes YoY <sup>1</sup> .	Using Agents, customers drove a reduction in price per service call from ~\$6/call to ~\$1.	22% higher return on Ad spend using Advantage+; 1m advertisers using GenAI features.
----- Adopter AI Solutions -----			
			
<b>Overview</b>	Market Cap: \$641bn / Industry: Food Retail	Market Cap: \$231bn / Industry: Consumer Staples	Market Cap: \$32bn / Industry: Telecom & Networking
<b>Solution</b>	GenAI powered catalogue update. Cleaner data helps associates find products quicker.	Skin Genius – AI powered skin diagnosis. Analyses customer skin and rank orders relevant products.	Draft one – Axon's LLM powered report writing tool which plugs into officer bodycams.
<b>Impact</b>	Updated an 850mn piece data catalogue, ~100x faster than if done manually.	At the counter conversion rates are ~10%. Using an AI diagnosis tool, this goes up to ~70-73%.	Axon has generated ~\$100mn of pipeline from Draft One, fastest in company history.

Source: Company data, Morgan Stanley Research. Note: 1) YoY in 4Q23.

# Methodology & Synopsis

Between 15th November 2024 and 9th December 2024, our global Morgan Stanley Research analysts completed a simple survey of just two questions for each of their stocks under coverage. This was a broad survey, based on the analyst's view of AI's impact on their stocks over the next 12 to 24 months. Our analysts tagged their coverage stocks on three distinct criteria:

**First:** The company's role in, or impact from, AI (categories shown below in [Exhibit 95](#)); and

**Second:** The speed of expected diffusion of disruption from AI to the investment debate on the stock ([Exhibit 96](#)).

**Exhibit 95:** Survey Question 1, Company's Key Role in the Context of AI

In the context of AI, the company's key role is \_\_\_\_\_:

A) **Enabler** – Company is *Enabling* AI for other businesses

B) **Adopter** – Company is actively *Adopting* AI to improve operations

C) **Both** – The company is both an *Enabler and Adopter*

D) **Protected** – Company's business model is protected from AI disruption

E) **Wildcard** – Company could be both an *Enabler/Adopter* or *Disrupted*

F) **Disrupted** – The company's business model is disrupted by AI

G) **Don't Know** – Too early to assess/know impact of AI

Source: Morgan Stanley Research

**Exhibit 96:** Survey Question 2, the Importance of AI to the Stock's Investment Debate

How important is AI to the key investment debate on the stock over the next 12 – 24 months?

A) **Core to Thesis** – AI is core to the investment debate and outcome

B) **Significant** – AI is among the most important significant topics in the debate

C) **Moderate** – AI is one of many key debates on the stock

D) **Insignificant** – AI does not play an important role in the stock debate

E) **Don't Know** – Not sure how the market views the importance of AI

Source: Morgan Stanley Research

**Third:** In addition to our key questions around companies' AI Exposure and AI's importance to the investment case we have added a question to understand **pricing power** in our global coverage. Our sector analysts tagged their relevant companies and their pricing power vs the sector average.

**Exhibit 97:** Pricing Power Question posed to our analysts

What is the company's pricing power vs sector average (i.e. ability to retain cost savings and investment ROIC vs passing through to customers)?

A) **High Pricing Power**

B) **Neutral / Don't Know**

C) **Low Pricing Power**

Source: Morgan Stanley Research

In doing so, we have been able to identify:

- Companies and sectors where our analysts take a **differing view on the salience and speed of AI to the investment case compared to the prevailing wisdom** in the market.
- Stocks where our analysts believe the **diffusion of AI into non-tech sectors is yet**

- to be priced efficiently into company valuations/narratives.
- **Differentiate between companies Adopting AI** and where the benefits are likely to become commoditised versus those which could lead to lasting revenue or profitability gains.
- How the global investor should think of the AI impact on **sectors and regions** across relevant markets.

## Stock Mapping Considerations & Learnings

Our latest AI stock mapping survey of our analysts will have some of the same inherent caveats for investors to consider as with other similar surveys, as well as some different ones:

- **Qualitative not quantitative assessment:** In the first instance we have not asked our analysts for revenue, profit nor capex exposure. This is because we considered the AI theme too early or insignificant for most analysts to estimate these figures credibly in the absence of disclosure from companies.
- **Broad ML rather than narrow Generative AI:** Many analysts – particularly those with more knowledge of the subject – asked the question: "Is this just about Generative AI, or is this about Machine Learning more broadly, which many companies have been doing for years?". The answer is that we encouraged analysts to answer with the latter in mind.
- **Company disclosure:** Similar to the difficulty of analysts being asked for revenue exposure estimates to the climate change theme, being asked for exposure to AI presents challenges. Companies – even those closely exposed to a theme - tend to avoid quantification, which leave analysts to best guess exposure levels.
- **Analyst knowledge:** Many analysts – particularly in adjacent sectors to the theme (i.e. Airlines for AI) – are estimating their coverage's exposure relative to their own perceptions of AI. Most analysts however may not be up to date on the latest developments and therefore may underestimate the scope or speed of diffusion into their sectors, both to the upside and downside. Consequently, and not entirely unexpectedly, the use of *Don't know* and *Insignificant* makes up nearly three quarters of all stock responses.
- **Wider use of Beneficiary Enabler than expected:** Beneficiary *Enabler* we had expected to be used primarily for semis, semicap, hyperscalers as well as builders of foundational Large Language Models (such as GPT-4 from OpenAI/Microsoft, Gemini from Alphabet or Llama from Meta). What we found was a broader tagging of data centre construction companies, heat exchangers, medium-voltage cabling and mining companies required for critical metals in the supply chain, for example.
- **Narrower use of Disrupted than expected:** Disrupted will be an important category as we focus on the 'Rate of Change', which we will monitor through periodic updates to this analysis over the coming years. Currently the number of companies tagged as Disrupted by our analysts is lower than we would have expected when we embarked on this project. However, where they are tagged as Disrupted, the analysts' conviction in AI's materiality to the investment case (i.e. core to thesis rather than don't know) tends to skew towards the more material end of the spectrum.

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Within the last 12 months, Morgan Stanley has provided or is providing investment banking services to, or has an investment banking client relationship with, the following company: Adobe Inc., Advanced Micro Devices, Adyen NV, Alfa SAB de CV, Altus Power Inc, Amazon.com Inc, American Electric Power Co, Appian Corp, Apple, Inc., Arm Holdings plc, Asana Inc, ASE Technology Holding Co. Ltd., Asia Vital Components Co. Ltd., ASM International NV, Atlassian Corporation PLC, AU Small Finance Bank Ltd, AXA, Axis Bank, Axon Enterprise Inc, Baker Hughes Co, Banco do Brasil, Barclays Bank, BAWAG Group AG, BE Semiconductor Industries NV, Box Inc, China Life Insurance Co Ltd, China Pacific Insurance Group Co Ltd, Clearway Energy Inc, CMOC Group Ltd, Coles Group Limited, Confluent, Inc., Constellation Energy Corporation, Corning Inc, Coupang Inc, Coursera, Inc., Deere & Co., Dell Technologies Inc., Delta Airlines, Inc., Deutsche Bank, Discovery Limited, dLocal Ltd, DT Midstream, Inc., EDP Renovaveis, Elastic NV, Enbridge, Endeavour Group Ltd, Energy Transfer LP, Equitable Holdings Inc, Evercore Inc, Experian PLC, Fiserv Inc., Fortum Oyj, Freshworks Inc, GDS Holdings Ltd, GitLab Inc, Global Payments Inc, Halliburton Co, Hannon Armstrong, Hapvida, HDFC Bank, Hilton Worldwide Holdings Inc, Home Depot Inc, Hon Hai Precision, HubSpot, Inc., Hyundai Motor, ICICI Bank, IDEXX Laboratories, Inc., Infineon Technologies AG, Intesa SanPaolo S.p.A., Intuitive Surgical Inc., Johnson Controls International Plc, Kasikorn Bank Public Company, KBC Group NV, KDDI, Kia Corp., Kinder Morgan Inc., Kotak Mahindra Bank, Laureate Education Inc, Legrand, LG Chem, LG Energy Solution, Macquarie Group Limited, Marriott International Inc, MediaTek, Mediobanca Banca di Credito Finanziario, Mercadolibre Inc., MetLife Inc., Microsoft, MongoDB Inc, MSCI Inc., New York Times Co, NextEra Energy

Inc, Ngern Tid Lor PCL, Nordea Bank Abp, NVIDIA Corp., Orsted A/S, PACCAR Inc, Palantir Technologies Inc., Palo Alto Networks Inc, PICC Group, PPL Corp, Public Service Enterprise Group Inc, Pure Storage Inc, QBE Insurance Group, Qualys Inc, Quanta Computer Inc., Rapid7 Inc, Reddit Inc, RELX, Resona Holdings, Rumo SA, RWE AG, S&P Global Inc, Salesforce, Inc., Santander, SAP SE, Schlumberger NV, Sempra, ServiceNow Inc, SharkNinja, Shenzhen Inovance Technology, Shenzhen Transsion Holdings Co Ltd, Siemens Healthineers AG, SK hynix, SK Telecom Co Ltd, Societe Generale, Solaredge Technologies Inc, Spotify Technology SA, Sumitomo Mitsui FG, Suncorp Group Ltd, Sunrun Inc, Synopsys Inc., TC Energy Corp, Tenable Holdings Inc, Tenaga Nasional, Tencent Holdings Ltd., Thermo Fisher Scientific Inc., Toast, Inc., Tokio Marine Holdings, TPG, Inc., TransUnion, TSMC, UBS Group AG, Udemy Inc, UiPath Inc, United Airlines Holdings, Inc., Williams Companies Inc, Workday Inc, Yeti Holdings Inc., ZhongAn Online P & C Insurance Co Ltd, Zhongji Innolight Co Ltd.

Within the last 12 months, Morgan Stanley has either provided or is providing non-investment banking, securities-related services to and/or in the past has entered into an agreement to provide services or has a client relationship with the following company: Adobe Inc., Advanced Micro Devices, Adyen NV, Alfa SAB de CV, Altus Power Inc, Amazon.com Inc, American Electric Power Co, Apple, Inc., Asana Inc, ASE Technology Holding Co. Ltd., ASM International NV, Atlassian Corporation PLC, AXA, Axis Bank, Axon Enterprise Inc, Baker Hughes Co, Banco do Brasil, Barclays Bank, BAWAG Group AG, BE Semiconductor Industries NV, Box Inc, China Life Insurance Co Ltd, China Pacific Insurance Group Co Ltd, CMOC Group Ltd, Confluent, Inc., Constellation Energy Corporation, Corning Inc, Deere & Co., Dell Technologies Inc., Delta Airlines, Inc., Deutsche Bank, dLocal Ltd, DT Midstream, Inc., EDP Renovaveis, Enbridge, Energy Transfer LP, Eoptolink Technology Inc Ltd, Equitable Holdings Inc, Evercore Inc, Experian PLC, Fiserv Inc., Fortum Oyj, Foxconn Technology, Freshworks Inc, Global Payments Inc, Halliburton Co, Hannon Armstrong, HDFC Bank, Hilton Worldwide Holdings Inc, Home Depot Inc, Hon Hai Precision, HubSpot, Inc., Hyundai Motor, ICICI Bank, Infineon Technologies AG, Intesa SanPaolo S.p.A., Johnson Controls International Plc, Kasikorn Bank Public Company, KBC Group NV, Kinder Morgan Inc., Kotak Mahindra Bank, Laureate Education Inc, Legrand, LG Chem, Macquarie Group Limited, Marriott International Inc, Marvell Technology Group Ltd, MediaTek, Mediobanca Banca di Credito Finanziario, Mercadolibre Inc., MetLife Inc., Microsoft, MongoDB Inc, MSCI Inc., New York Times Co, NextEra Energy Inc, Ngern Tid Lor PCL, Nordea Bank Abp, NVIDIA Corp., Orsted A/S, Palantir Technologies Inc., Palo Alto Networks Inc, PICC Group, PPL Corp, Public Service Enterprise Group Inc, Pure Storage Inc, QBE Insurance Group, Qualys Inc, Quanta Computer Inc., Reddit Inc, RELX, Resona Holdings, Rumo SA, RWE AG, S&P Global Inc, Salesforce, Inc., Santander, SAP SE, Schlumberger NV, Sempra, ServiceNow Inc, SharkNinja, Siemens Healthineers AG, Societe Generale, Solaredge Technologies Inc, Spotify Technology SA, Sumitomo Mitsui FG, Suncorp Group Ltd, Sunrun Inc, Synopsys Inc., TC Energy Corp, Tenable Holdings Inc, Tencent Holdings Ltd., Thermo Fisher Scientific Inc., Toast, Inc., Tokio Marine Holdings, TPG, Inc., TransUnion, TSMC, UBS Group AG, Udemy Inc, UiPath Inc, United Airlines Holdings, Inc., Williams Companies Inc, Workday Inc, Yeti Holdings Inc., ZhongAn Online P & C Insurance Co Ltd.

An employee, director or consultant of Morgan Stanley is a director of Elastic NV, MetLife Inc., Tenable Holdings Inc, Tokio Marine Holdings. This person is not a research analyst or a member of a research analyst's household.

Morgan Stanley & Co. LLC makes a market in the securities of Adobe Inc., Advanced Micro Devices, Altus Power Inc, Amazon.com Inc, American Electric Power Co, Appian Corp, Apple, Inc., Asana Inc, ASE Technology Holding Co. Ltd., Atlassian Corporation PLC, Axon Enterprise Inc, Baker Hughes Co, Barclays Bank, Box Inc, Clearway Energy Inc, Confluent, Inc., Corning Inc, Coursera, Inc., Deere & Co., Delta Airlines, Inc., Deutsche Bank, dLocal Ltd, Domo Inc, DT Midstream, Inc., Elastic NV, Enbridge, Energy Transfer LP, Evercore Inc, Fiserv Inc., Freshworks Inc, GDS Holdings Ltd, Global Payments Inc, Halliburton Co, Hannon Armstrong, HDFC Bank, Hilton Worldwide Holdings Inc, Home Depot Inc, ICICI Bank, IDEXX Laboratories, Inc., Intuitive Surgical Inc., Johnson Controls International Plc, Kinder Morgan Inc., Laureate Education Inc, Marriott International Inc, Marvell Technology Group Ltd, Mercadolibre Inc., MetLife Inc., Microsoft, MSCI Inc., New York Times Co, NextEra Energy Inc, NVIDIA Corp., PACCAR Inc, Palo Alto Networks Inc, PPL Corp, Public Service Enterprise Group Inc, Pure Storage Inc, Qualys Inc, Rapid7 Inc, S&P Global Inc, Salesforce, Inc., SAP SE, Schlumberger NV, Sempra, ServiceNow Inc, SK Telecom Co Ltd, Solaredge Technologies Inc, Sumitomo Mitsui FG, Sunrun Inc, Synopsys Inc., TC Energy Corp, Tenable Holdings Inc, Thermo Fisher Scientific Inc., TPG, Inc., TransUnion, TSMC, UBS Group AG, Udemy Inc, United Airlines Holdings, Inc., Williams Companies Inc, Workday Inc, Yeti Holdings Inc..

The equity research analysts or strategists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors, firm revenues and overall investment banking revenues. Equity Research analysts' or strategists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

Morgan Stanley and its affiliates do business that relates to companies/instruments covered in Morgan Stanley Research, including market making, providing liquidity, fund management, commercial banking, extension of credit, investment services and investment banking. Morgan Stanley sells to and buys from customers the securities/instruments of companies covered in Morgan Stanley Research on a principal basis. Morgan Stanley may have a position in the debt of the Company or instruments discussed in this report. Morgan Stanley trades or may trade as principal in the debt securities (or in related derivatives) that are the subject of the debt research report.

Certain disclosures listed above are also for compliance with applicable regulations in non-US jurisdictions.

## STOCK RATINGS

Morgan Stanley uses a relative rating system using terms such as Overweight, Equal-weight, Not-Rated or Underweight (see definitions below). 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. Investors should carefully read the definitions of all ratings used in Morgan Stanley Research. In addition, since Morgan Stanley Research contains more complete information concerning the analyst's views, investors should carefully read Morgan Stanley Research, in its entirety, and not infer the contents from the rating alone. In any case, ratings (or research) should not be used or relied upon as investment advice. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations.

### Global Stock Ratings Distribution

(as of December 31, 2024)

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.

Stock Rating Category	Coverage Universe		Investment Banking Clients (IBC)			Other Material Investment Services Clients (MISC)	
	Count	% of Total	Count	% of Total IBC	% of Rating Category	Count	% of Total Other MISC
Overweight/Buy	1463	39%	363	45%	25%	669	39%
Equal-weight/Hold	1703	45%	369	46%	22%	810	48%
Not-Rated/Hold	5	0%	0	0%	0%	2	0%
Underweight/Sell	596	16%	74	9%	12%	222	13%
Total	3,767		806			1703	

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.

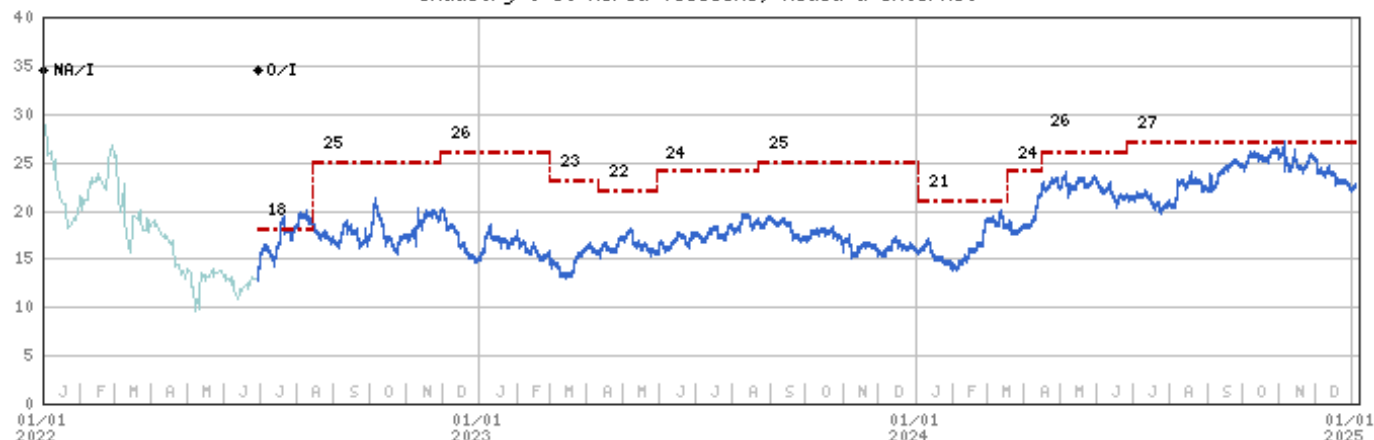
Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

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)



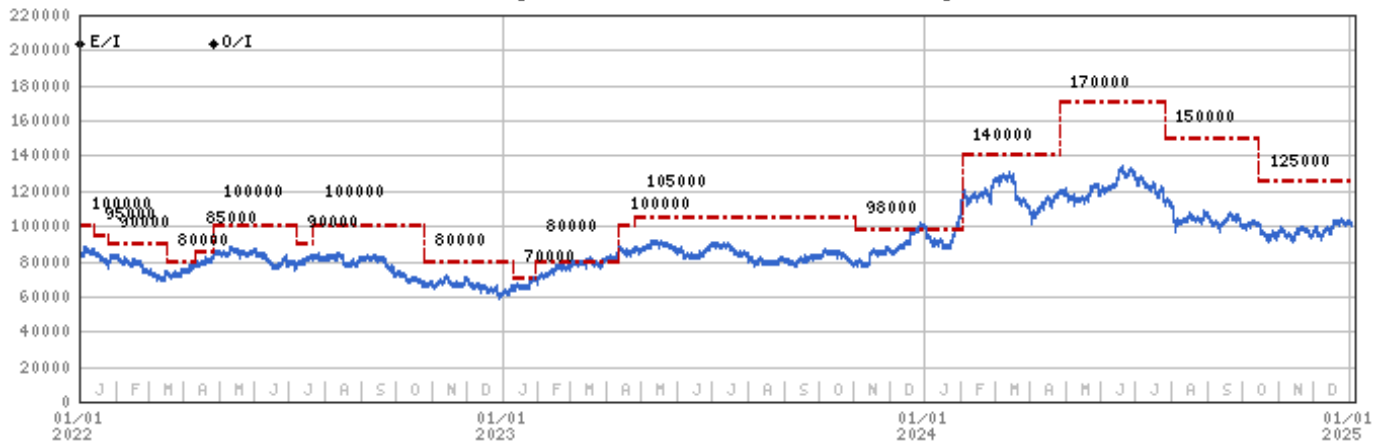
Coupage Inc (CPNG.N) - As of 01/06/25 GMT in USD  
 Industry : S. Korea Telecoms, Media & Internet



Hyundai Motor (005380.KS) - As of 01/06/25 GMT in KRW  
 Industry : S. Korea Autos & Shared Mobility



Kia Corp. (000270.KS) - As of 01/06/25 GMT in KRW  
 Industry : S. Korea Autos & Shared Mobility



Stock Rating History: 1/1/20 : E/I; 1/9/20 : U/I; 3/26/20 : E/I; 6/2/20 : O/I; 1/28/21 : E/I; 4/26/22 : O/I

Price Target History: 10/24/19 : 45000; 1/9/20 : 34000; 3/9/20 : 32000; 3/26/20 : 29000; 4/8/20 : 28000; 6/2/20 : 40000;  
 7/24/20 : 45000; 8/24/20 : 52000; 9/14/20 : 64000; 10/27/20 : 85000; 1/12/21 : 80000; 1/28/21 : 90000; 6/18/21 : 100000;  
 9/7/21 : 95000; 10/28/21 : 100000; 1/14/22 : 95000; 1/26/22 : 90000; 3/17/22 : 80000; 4/11/22 : 85000; 4/26/22 : 100000;  
 7/8/22 : 90000; 7/22/22 : 100000; 10/25/22 : 80000; 1/10/23 : 70000; 1/30/23 : 80000; 4/12/23 : 100000; 4/26/23 : 105000;  
 11/2/23 : 98000; 2/2/24 : 140000; 4/26/24 : 170000; 7/26/24 : 150000; 10/15/24 : 125000

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.

LG Chem (051910.KS) - As of 01/06/25 GMT in KRW  
Industry : S. Korea Energy & Materials



Stock Rating History: 1/1/20 : O/R; 8/14/20 : E/R; 9/23/20 : O/R; 5/1/21 : NA/R; 6/6/21 : NA/R; 3/10/22 : O/R; 2/1/23 : E/R; 9/1/24 : O/R

Price Target History: 10/3/19 : 370000; 1/17/20 : 420000; 2/19/20 : 520000; 3/18/20 : 420000; 4/7/20 : 390000; 4/28/20 : 420000; 6/9/20 : 530000; 7/8/20 : 600000; 7/31/20 : 660000; 8/14/20 : 750000; 9/23/20 : 800000; 11/24/20 : 1000000; 1/11/21 : 1300000; 4/28/21 : 1500000; 5/1/21 : NA; 6/6/21 : NA; 3/10/22 : 720000; 4/4/22 : 810000; 4/27/22 : 720000; 7/6/22 : 660000; 7/27/22 : 730000; 8/9/22 : 790000; 11/24/22 : 900000; 1/3/23 : 770000; 2/1/23 : 750000; 3/29/23 : 780000; 4/27/23 : 810000; 6/13/23 : 800000; 7/6/23 : 770000; 8/25/23 : 620000; 10/4/23 : 530000; 10/30/23 : 490000; 1/5/24 : 460000; 2/20/24 : 520000; 4/5/24 : 440000; 5/3/24 : 450000; 7/4/24 : 400000; 7/29/24 : 350000; 9/1/24 : 450000; 10/11/24 : 470000; 11/6/24 : 460000

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.

LG Energy Solution (373220.KS) - As of 01/06/25 GMT in KRW  
 Industry : S. Korea Autos & Shared Mobility



Stock Rating History: 1/1/20 : NA/I; 3/10/22 : E/I; 9/1/24 : O/I

Price Target History: 3/10/22 : 360000; 4/4/22 : 400000; 4/27/22 : 440000; 6/16/22 : 410000; 9/2/22 : 530000; 10/26/22 : 570000; 1/3/23 : 480000; 1/30/23 : 490000; 3/10/23 : 610000; 4/26/23 : 630000; 8/25/23 : 570000; 10/4/23 : 500000; 10/25/23 : 440000; 1/5/24 : 380000; 1/29/24 : 350000; 4/5/24 : 360000; 7/4/24 : 350000; 7/29/24 : 330000; 9/1/24 : 550000; 11/6/24 : 540000

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

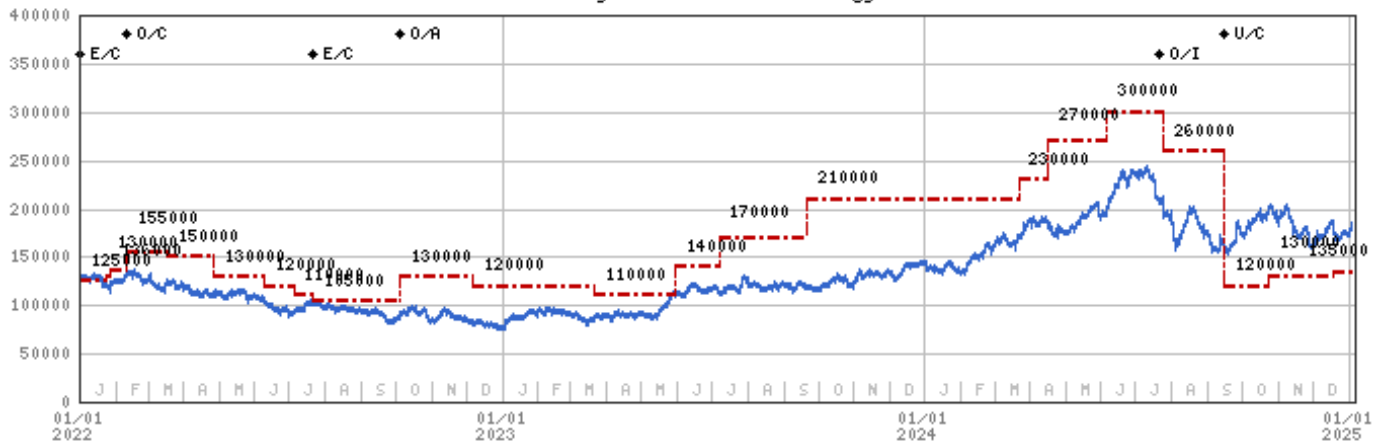
Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)

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.

SK hynix (000660.KS) - As of 01/06/25 GMT in KRW  
 Industry : S. Korea Technology



Stock Rating History: 1/1/20 : O/A; 7/19/21 : O/I; 8/12/21 : 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

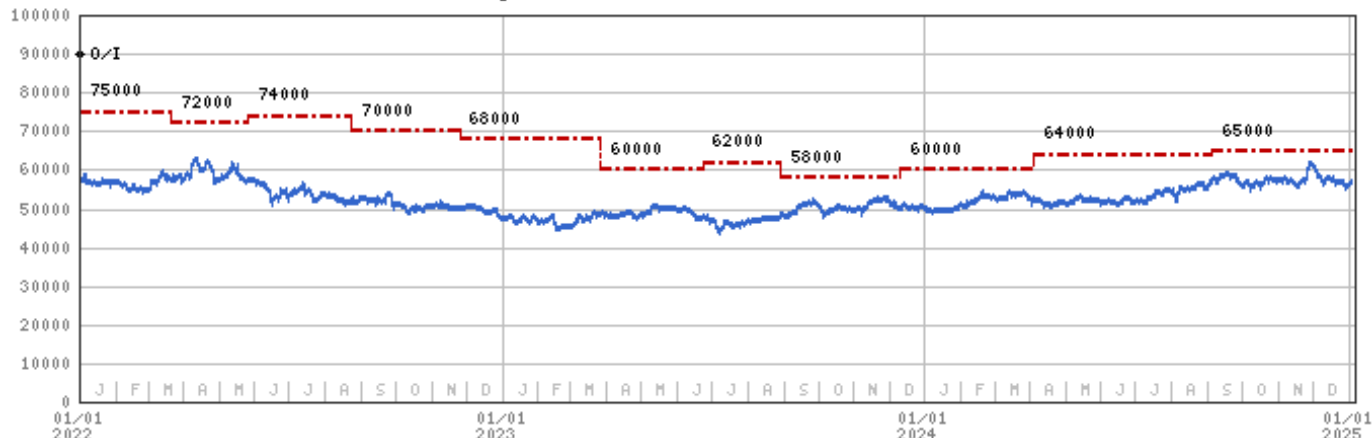
Price Target History: 11/18/19 : 95000; 1/14/20 : 115000; 2/26/20 : 120000; 3/19/20 : 110000; 8/21/20 : 93000; 10/23/20 : 100000; 12/2/20 : 160000; 1/12/21 : 170000; 2/25/21 : 174000; 5/18/21 : 146000; 6/8/21 : 156000; 8/12/21 : 80000; 9/15/21 : 88000; 12/3/21 : 110000; 12/23/21 : 125000; 1/24/22 : 130000; 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

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.

SK Telecom Co Ltd (017670.KS) - As of 01/06/25 GMT in KRW  
Industry : S. Korea Telecoms, Media & Internet



Stock Rating History: 1/1/20 : 0/I

Price Target History: 12/4/19 : 98787.78; 4/9/20 : 82323.15; 6/5/20 : 88909.01; 8/25/20 : 92201.93; 11/27/20 : 98787.78; 4/5/21 : 108666.56; 4/21/21 : 118545.34; 8/20/21 : 115252.41; 9/14/21 : 118545.34; 11/29/21 : 75000; 3/21/22 : 72000; 5/26/22 : 74000; 8/24/22 : 70000; 11/25/22 : 68000; 3/27/23 : 60000; 6/23/23 : 62000; 8/29/23 : 58000; 12/11/23 : 60000; 4/4/24 : 64000; 9/5/24 : 65000

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.

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