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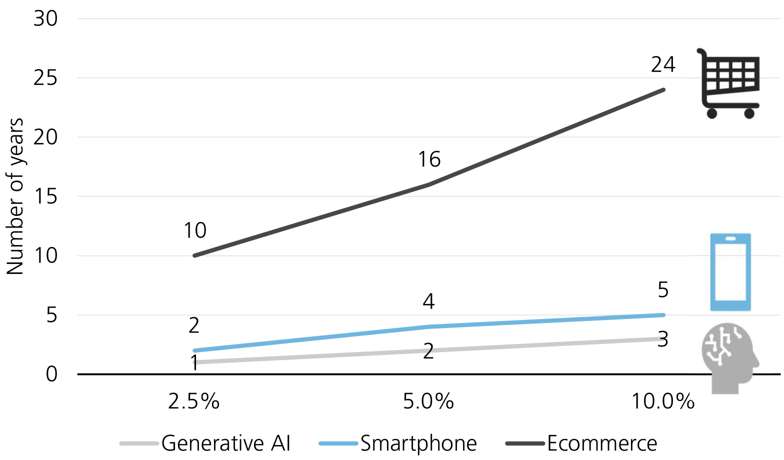
Is AI set to enter the exponential adoption phase?

Blog

Sundeep Gantori, CFA, CAIA, CIO Equity Strategist, UBS AG Singapore Branch
Kevin Dennean, CFA, CIO Equity Strategist, US Technology & Telecom, UBS Financial Services Inc. (UBS FS)
Delwin Kurnia Limas, CFA, Equity Strategist, UBS AG Singapore Branch
Achille Monnet, CIO Equity Sector Strategist, UBS Switzerland AG

AI adoption improved from 9.2% in the US in 2Q25 to 9.7% in 3Q25, continuing the steady growth trend. We expect the AI industry to reach the key milestone of a 10% adoption rate by end-2025. In this blog, we compare the generative AI adoption cycle with the previous e-commerce and smartphone tech cycles. We conclude that there is a high likelihood that the AI industry will soon enter an exponential adoption phase which should disproportionately benefit companies exposed to the intelligence and application layers. Hence, we continue to maintain a balanced positioning across semiconductors, software, and internet industries with a bias towards AI laggards.

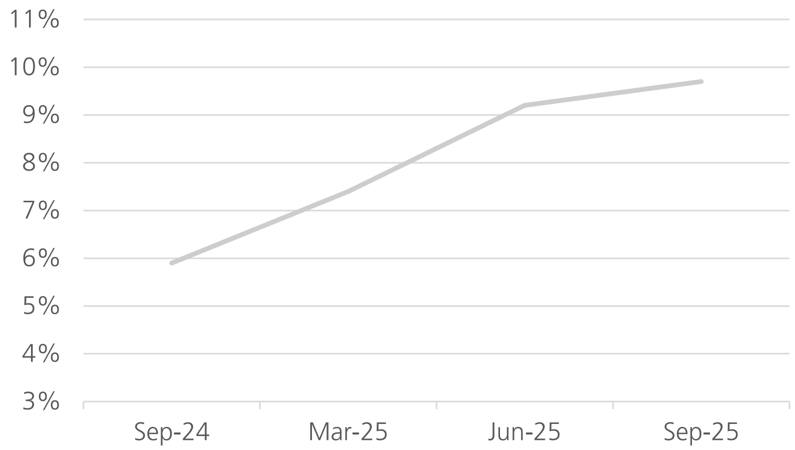
Fig. 1: Generative AI is among the fastest adopting technologies
Adoption rate on X-axis and number of years on Y-axis



Source: US Census Bureau, World Bank, Company reports, UBS as of September 2025

The recent quarterly report from the US Census Bureau on the results of its Business Trends and Outlook Survey, which tracks AI adoption across more than a million firms in the US, showed steady sequential improvement in the AI adoption rate. As seen in Fig. 2, AI adoption in the US improved from 9.2% to 9.7%. Looking ahead, we expect AI to reach the key milestone of a 10% adoption rate by the end of the year. Fig. 2 shows the top eight industries with leading AI adoption rates in the US.

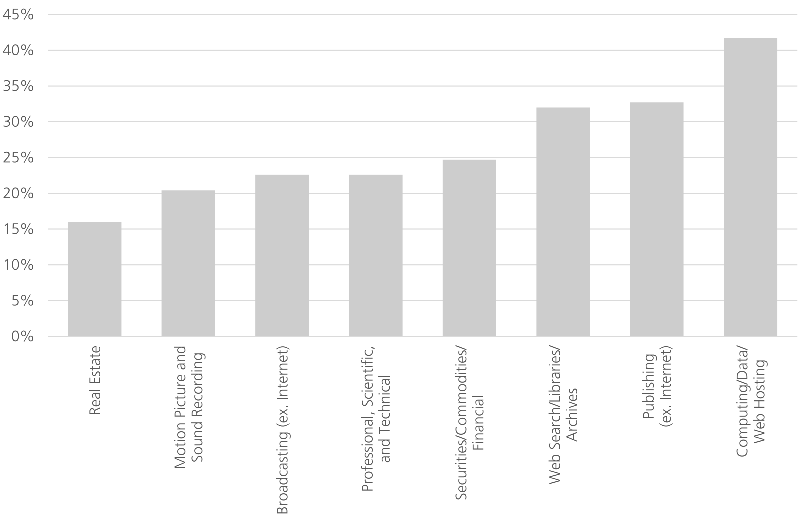
Fig. 2: Steady growth in AI adoption continues in the US



Source: Business Trends and Outlook Survey (BTOS), US Census Bureau, UBS as of September 2025

To understand what's next for AI adoption rates, we studied adoption trends in the US for other technologies like e-commerce and smartphones. The good news is that AI is clearly among the fastest adopting technologies, as seen in Fig. 1. This is based on our view that generative AI should take only three years to reach the first 10% adoption rate in the US, versus five years for smartphones and 24 years for e-commerce.

Fig. 3: Top 8 industries with highest AI adoption in the US in 3Q25



Source: Business Trends and Outlook Survey (BTOS), US Census Bureau, UBS as of September 2025

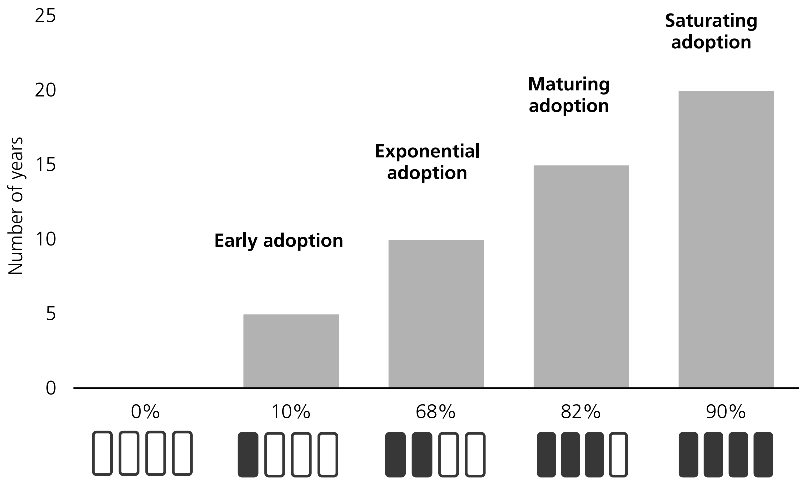
While the growth trends in AI adoption so far have been impressive, the question is what the path will be going forward. While we believe innovation around AI models and cost reductions play a big role in driving the next wave of adoption, we believe recent progress around reasoning models, commitments from enterprises (both large companies and SMEs), and the robustness of the AI ecosystem thanks to solid funding trends, give us the confidence that we are likely to enter into the second phase of exponential adoption phase very soon.

Lessons from the smartphone penetration cycle in the US (as seen in Fig. 4) support our view as it took five years for smartphones to reach the first 10% adoption rate. Meanwhile, the emergence of a robust smartphone ecosystem from year five to year 10 in the form of app stores, large form factors, and the availability of cheaper alternatives (e.g., Android) led to accelerated smartphone adoption with penetration rates jumping from 10% to 68% during the next five years, or the second exponential adoption phase.

Against this backdrop, with the AI industry more likely to follow the smartphone adoption trend than e-commerce in our view, we believe we are still in the early stages of the AI adoption cycle. Investors should thus prepare for a potential pivot from the early adoption to the exponential adoption phase.

Fig. 4: Lessons from smartphone adoption in the US suggest we are potentially entering the exponential growth phase for generative AI soon

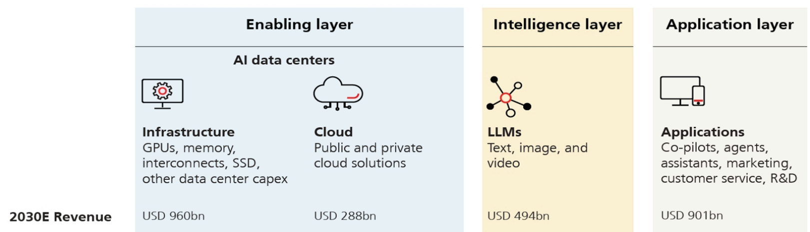
Smartphone adoption rate on X-axis and number of years on Y-axis



Source: US Census Bureau, World Bank, Company reports, UBS as of September 2025

During the early adoption phase, companies in the enabling layer performed very well, benefiting industries like semiconductors given the strong emphasis on investments. Conversely, during the potential exponential adoption phase, we believe companies exposed to both intelligence and application layers should disproportionately benefit from improving monetization.

Fig. 5: Our estimated 2030 revenue for each AI layer



Source: Company reports, UBS as of 2025

Accordingly, we have started to diversify our "AI" portfolio, where we now have 40-50% exposure to the enabling layer (versus 50-60% last year), 15-20% in the intelligence layer (unchanged from last year), and 30-40% in the application layer (versus 20-30% last year. As a result, we continue to recommend a balanced positioning across semiconductors, software, and internet industries with a bias towards AI laggards, a strategy that has continued to reward investors well during 3Q25 so far.

Appendix

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