CIO Letter | AI boom or bust?

Introduction

After the steep rise of AI-related names in autumn and the sharp reversal in November, more clients have been asking us if we think AI-stocks are in a bubble, and if so, whether it will burst anytime soon. These are difficult questions and there are no simple or straight answers, as bubbles and how to navigate them are multi-faceted issues.

On the following pages we will explore the clues we can take from prior occasions and how we approach dealing with the potential bubble in AI across our different investment concepts. If one thing is clear, there is no free lunch here and, thus, different strategies should approach it differently in order to uphold the integrity investment goals of each strategy.

About bubbles

What are bubbles and how they are formed

Bubbles are a phenomenon where prices for assets such as stocks, real estate, or commodities surge to levels significantly above what can be justified by the asset's underlying fundamentals, such as its earning potential or intrinsic value.

Bubbles can be divided into six types: stock market, infrastructure (the two most frequent), real estate, commodities, credit/debt and collectibles/alternative assets (e.g. crypto currencies). In our view, AI belongs to the infrastructure category.

Bubbles form neither out of thin air nor overnight. They tend to form over time as expectations for their benefits grow ever higher and more investors/players enter the fray, creating an environment where investing in this new theme or technology is seen not just as prudent but as imperative.

Lessons from past bubbles

Bubbles are difficult to deal with because the euphoria that drives them can arise from many different sources, which makes bubbles difficult to identify. The factors that eventually end them are equally diverse. Sometimes bubbles can be driven simply by overly optimistic investor assumptions, speculation, or a self-reinforcing cycle where rising prices/return expectations attract more buyers/investors based on their fear of missing out or pure greed. Or they result from a convergence of factors such as a revolutionary technology, abundant capital, new economic theories and intense fear of disruption.

Consequently, bubbles will often burst either when the imaginations are relegated to dreamland or when elevated expectations cannot be met. Large scale investments then turn sour as companies with overstretched balance sheets are forced to reckon with deteriorating economic/financing conditions.

When looking back at history, there are many similarities of AI with the dot-com bubble, but also some important differences that deserve attention.

Like today, the late 1990s witnessed an unprecedented surge in IT capital investments. This period of extraordinary technological optimism and capital deployment was driven by a confluence of technological, economic, and psychological factors that created a self-reinforcing cycle of investment and, eventually, speculation.

The commercialization of the internet posed both an existential opportunity and threat at the same time. The proliferation of consumer internet access, which grew from approximately 16 million users in 1995 to over 360 million by 2000, created an entirely new business environment and establishing an online presence was no longer optional but was perceived as essential for survival.

The current surge in artificial intelligence capital investments stems, as was the case in the late 1990s, from a confluence of technological breakthroughs, competitive dynamics, and fundamental shifts in how businesses operate

and create value. The primary catalyst for today's investment boom in AI-infrastructure is the tech-leaders fears of being left behind while the improvements of Large Language Models (LLMs) capabilities add to the urge to invest.

The stock market embraced the advent of the internet enthusiastically from the mid-1990s. The NASDAQ Composite Index rose from under 1,000 points in 1995 to over 5,000 by March 2000, with technology stocks leading the charge. The prevailing "New Economy" narrative justified large investments without a clear idea of the return on investment they would yield (if any at all). The disconnect between investment levels and immediate revenue generation opportunities ultimately proved unsustainable, setting the stage for the painful market correction that followed in the early 2000s.

The parallels to the late 1990s are striking, yet the differences are significant. This raises the critical question: Are we in a bubble? And if so, how late in the cycle are we? To answer this, we've developed a comprehensive framework to assess the current state of the AI investment boom.

So where do we stand today: A look at the AI Bubble Indicator

While some AI-leaders have risen a lot since the launch of ChatGPT pushed AI into the mainstream, advances have been much more measured so far when compared to other bubbles, particularly the dot-com bubble. Apart from occasional bursts of euphoria, there is still a healthy portion of skepticism.

In fact, fears of an AI bubble about to pop have been making the rounds amongst investors recently and were the likely culprits behind AI-stocks' pullback in November. While the rally in the prior months may have pushed stocks a little bit ahead of their economic reality, a look at our **AI Bubble Indicator** (details see appendix) suggests that the typical signs of a speculative peak are missing.

Valuations today are well below 1999 levels

Valuations of the top 7 tech companies may be above average, but they are nowhere near the lofty levels seen by the top 7 tech companies during the dot-com bubble at the end of 1999.

Earnings: Unlike in the 1990s, AI is driven by highly profitable players

During the dot-com bubble, the vast majority of internet companies had little to no earnings. They were burning cash while chasing a "land grab" strategy, hoping to achieve profitability sometime in the distant future. They were valued at billions despite never turning a profit and then largely disappeared, barely remembered now. In contrast, today's AI leaders are generating substantial earnings and cash flows. Nvidia, Microsoft, and Broadcom are highly profitable businesses with strong margins and growing revenues.

The earnings outlooks remain strong

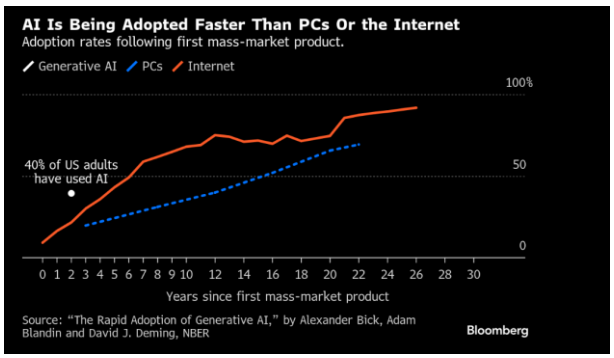
What's more, the robust earnings and strong outlooks offered by the leading AI-players, particularly Nvidia, Broadcom and Microsoft, stand in sharp contrast to the downgrades of the leaders of the dot-com bubble in the 2nd half of 2000 that eventually brought the market down. In fact, Nvidia delivered its 12th straight earnings beat on both the top and bottom lines, and analysts have revised estimates higher through at least 2028. Also, Broadcom reported strong results and analysts upgraded their outlooks.

Rapid adoption a clear positive

A deeper look at AI Bubble Indicator even reveals a fairly positive mid-term outlook. Most notably, adoption amongst consumers and businesses is much faster than for the internet at the time.

While consumers led the initial wave of adoption with Chat GPT reaching 700mn users worldwide in record time, businesses are now increasingly implementing AI solutions for complex tasks. Anthropic reported in their Economic Index Report of September 2025 that in the US alone, 40% of employees report using AI at work, up from 20% in 2023.

US penetration of ChatGPT vs. internet and Pcs



Source: Bloomberg as of 01/31/2025

As importantly, 77% of API transcripts show automation patterns (especially full task delegation) reflecting the rapidly growing capabilities of their LLM and the growing comfort of businesses to integrate AI into their systems.

While AI-related revenues may still be low compared to the enormous investments in AI, when looking at the above research they are likely to ramp up pretty fast.

Finally, the biggest risk is if investors think there is no risk. This is clearly not the case today.

Risks to watch: overbuilding, debt, and circle economy

All this said, risks are rising and we want to watch them carefully. Our main concerns are rising debt financing of AI investments, the circular economy that is forming, and the risk of overbuilding infrastructure that echoes the late 1990s.

While the early investments were largely made from cash balances or cash flow of deep-pocketed tech leaders, debt has played an increasing role recently. While still limited, this is a trend that investors need to watch.

The circular economy regarding AI-infrastructure investments, where the various players finance each other's investments, is a further risk-factor to watch. If one domino stone of that circle economy falls it may top-over the others too. OpenAI signed a $300 billion contract with Oracle to increase their data center capacity over 5 years. OpenAI will bring in only 13bn in 2025, which means they will need to rapidly monetize their LLMs. Nvidia invested USD 100bn in OpenAI, which will use that money to buy Nvidia chips. OpenAI itself invested in AMD and will be buying AMD chips.

OpenAI is the connecting link in a chain of neatly stacked dominoes. It needs to generate hundreds of billions in annual revenue within a few years to pay for all those contract obligations. Timing becomes critical—the difference between OpenAI achieving profitability in five years versus three could be catastrophic.

Perhaps the most important risk is building too much infrastructure too fast (overbuilding), leading to overcapacity and eventually pricing pressures. In the late 1990s, fiber optic companies like Level 3 and Qwest were correct about exponential bandwidth demand growth—but wrong about timing and revenue potential. Technology improved faster than expected, and excess capacity led to pricing pressure. Ironically, those companies and their investors lost money on infrastructure investments that still benefit society today. Hence, the key questions today are how much AI infrastructure will be needed and whether it will become a commodity.

These are difficult questions, and we think few players have good answers today, but they invest anyway to maintain their relevance. To limit risks, we focus on players that can leverage their investments also for other uses respectively for their existing businesses. Microsoft is a good example. While they are increasing their capital investments massively, they are, at the same time, integrating AI-features into their Office Products, which allows them to charge higher prices for those products and naturally creates additional demand for their Azure cloud services.

Our approach

The challenge for the average investor will be to identify the ultimate winners, avoid overpaying for them and, last but not least, be able to hold on to them during the inevitable sharp corrections along the way.

Identifying the long-term winners is always very difficult. While the early winners of the AI-revolution were infrastructure providers, it may well be that the ultimate winners will be AI-applications or new business models that will only emerge as the new technology becomes more capable. Some of the most important winners of the advent of the internet were established well after the dot-com bubble burst.

This said, some of the early winners may be the long-term winners if they are able to adapt and leverage their installed user base as well as knowledge and experiences from being an early adopter. Amazon, Microsoft and Oracle are good examples of incumbents where we see signs of them leveraging existing businesses.

Our guide: AI Road Map

We believe we can significantly improve our chances of identifying the long-term winners through strict focus on bottom-up research as well as by placing our "chips" strategically.

To do that we have developed an AI Road Map that outlines all the critical elements needed for the new technology to function, who the key players are, their market positions, the moats protecting their business, and where we see long-term revenue potential.

Placing our chips strategically

The AI-supply chain is a good example: While AI requires massive investments in infrastructure such as data centers, networks, AI-related enterprise software, and cybersecurity products, the companies making those investments run the risk of overinvesting resulting in poor returns. However, the exponential growth in computing power and the move of businesses to the cloud will continue, irrespective of the returns of these particular AI investments.

This is going to drive long-term growth for providers of the picks and shovels of the AI revolution such as chip manufacturers, providers of cooling systems, high-bandwidth networking or renewable energy sources for power-hungry data centers. The scarcity of these resources and the fact that they are not only mission critical for AI, but many other parts of the global economy and the ongoing digitalization trend should support solid growth for them in the years to come, irrespective of who wins the AI arms race.

Ability to hold on to winners

Identifying the supposed winners is not enough. Investors need also to be able to hold on to them for long enough. While Amazon is a winner from the dot-com bubble and truly changed the world, if you'd bought the stock at the end of 1999, you would have suffered a decline or more than 90% in the following two years and it took ten years to get back to even. However, by holding on through years of losses, you'd be up 60-fold today as the company went from a USD 720mn loss in 1999 to net earnings forecast for 2025 of USD 93.7bn.

Unfortunately, human psychology makes taking such a long-term view and holding on through years of losses very hard. Having a deep understanding of the business, how critical it is for new technology and its long-term earnings power will not only help tremendously to hold on to them, but it will also help to judge their strategic decisions along the way as the companies evolve.

What does this mean? While Amazon was a big winner from the internet-boom, the Amazon of today is not the same company anymore like the Amazon of 1999. In fact, while it built a unique basis in the late 1990s the business activities that are driving their growth and profitability today (the AWS-Cloud Business and the advertising business) were only established much later. Therefore, investing in disruptive technologies and the disruptors driving them requires constant monitoring and active management.

Valuation matters

In the end, the relevant question for investors is, how much these companies will earn in the future versus what investors are paying for them. But the answer to that question will potentially only be given many years later. Therefore, we prefer to focus on companies that are already profitable, that have a moat and where we have a certain visibility of their future earnings power. Therefore, we acquired Amazon stock only in 2014 at a split adjusted price of USD 25.

Strategy implications

Because major innovations like AI are so disruptive and tend to have a widespread impact on the global economy and society, it makes forecasts very difficult for all parties involved - companies, investors and governments. As such, bubbles are part of innovation cycles, and they can hardly be avoided as people seeking to exploit those large long-term opportunities make large investments for which the returns on investment can easily be misjudged.

Bubbles will burst at some point when euphoria pushes valuations way above their fair value, monetization doesn't happen fast enough, or a debt overhang brings down some key players, just to name a few possible triggers. This makes it so hard to anticipate their ultimate collapse. The AI Bubble Indicator helps us to scan the market systematically for those signals. However, we may still miss the exit.

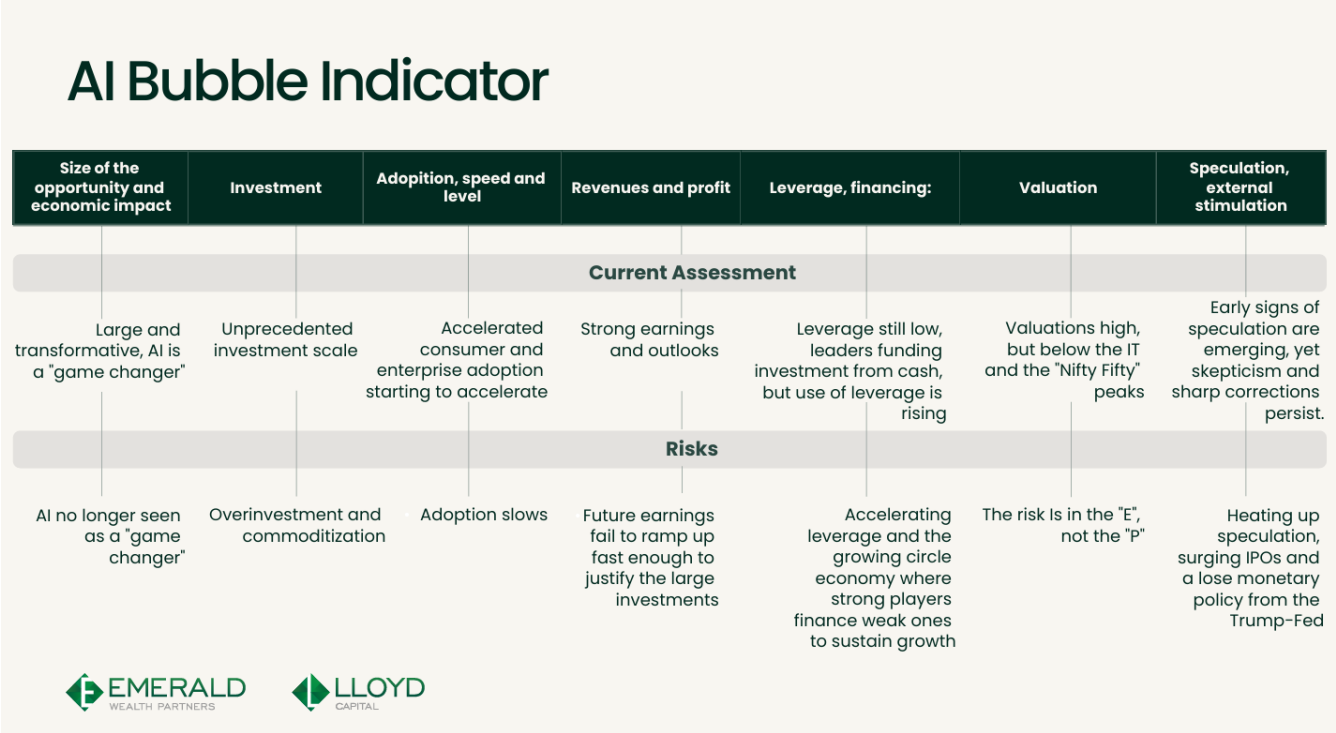
Our second line of defense will be the strength of the underlying AI businesses. With the AI Road Map, we want to make sure we focus on the names that have a business that is mission critical to the functioning of AI, enjoys a strong and defendable moat, whose stock trades at reasonable levels and that has strong financials that will allow them to get over any bumps in the road ahead.

Therefore, we will focus even more on bottom-up research and refining our AI-road map to 1) identify the companies with the strongest and most defendable moats, and 2) on potential disruptors (also disruptors of the disruptors) that could introduce new use cases or that could challenge current AI leaders.

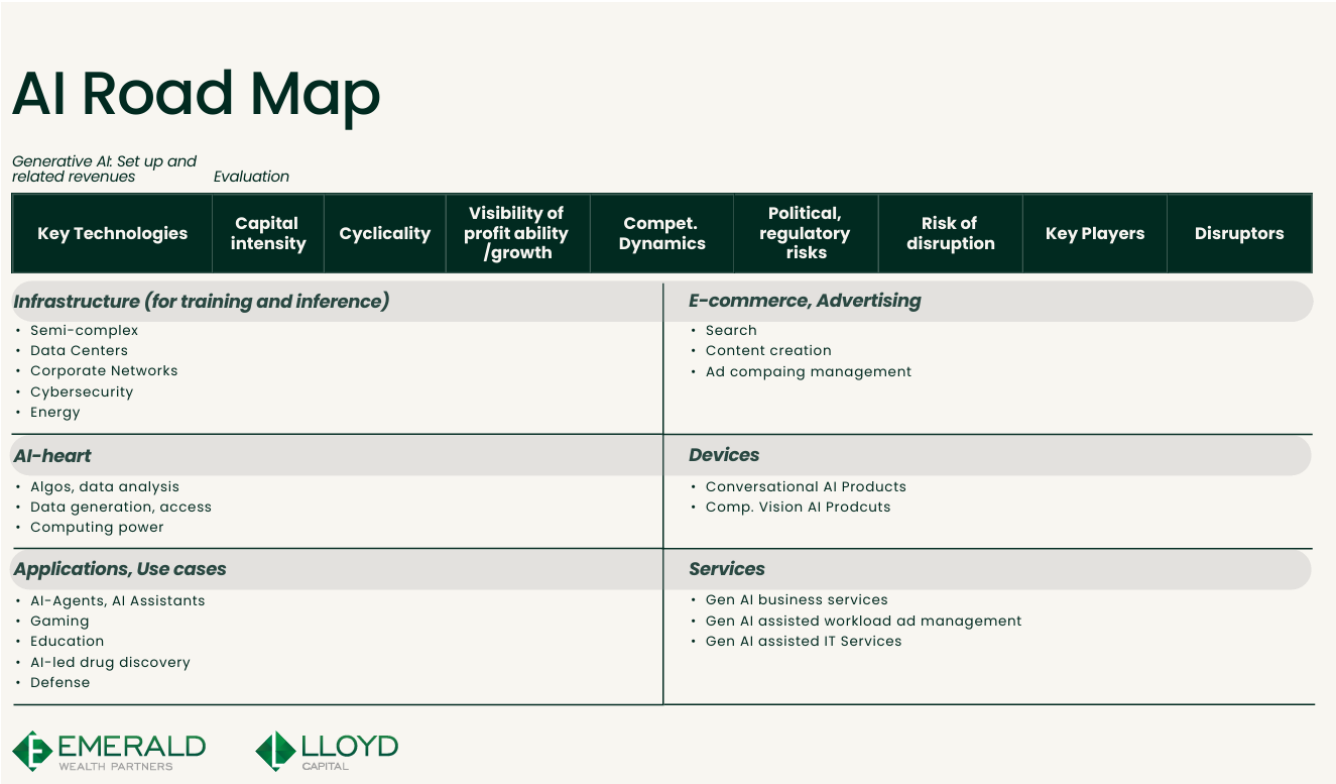
All this said, the fact that bubbles are so difficult to deal with also means that different strategies and investment concepts should approach the AI innovation differently in order to uphold the integrity of the strategy and to reach the investment goals. There is no free lunch here and investors need to decide how much risk they are willing to take, as well as how much pain they are willing to accept on the road to their destination, always assuming we are unable to correctly anticipate the bursting of the bubble early enough.

Clearly, the AI opportunity is large and growing, but risks are rising as well. In an environment like this the challenge for investors is to balance the opportunities with the rising risks which will allow them to capitalize on the long-term opportunities without "betting the ranch." Therefore, we at the Lloyd, offer different investment programs that will approach AI differently.

Appendix:



AI Road Map (for illustrative purposes):



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