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DeepSeek: The AI shake-up

The US tech market has had a rough week. DeepSeek, a Chinese Artificial Intelligence (AI) company, has shown it is possible to develop an AI language model equal to (or even superior) to US models using only a fraction of the resources. This announcement challenges the valuations of US tech companies, particularly those dependent on AI investments. The opacity surrounding DeepSeek's infrastructure raises questions and more information is needed to draw definitive conclusions. It is, however, clear that any disruption will create both winners and losers, and the advancement of Chinese technology should not be underestimated. Many are calling this a "Sputnik moment" for AI, a trigger for larger investments to ensure China versus US supremacy. However, we see it more like the "Jevon's paradox": fewer chips may be needed initially, but as costs lower, demand will rise, potentially requiring even more chips.

A recent announcement from China over the last weekend of January has put part of the American tech market under pressure. DeepSeek, a Chinese AI company based in Hangzhou, Zhejiang, seems to have demonstrated that it is possible to develop an AI language model equal to or even superior to those developed by US companies using only a fraction of the resources. This announcement challenges the valuations of US tech companies, which partly depend on investments in AI (semiconductors, data centres, semiconductor equipment manufacturers, companies involved in electrification).

An undeniable advance, although uncertainties remain

The methodology used by DeepSeek marks a clear technological advancement in the AI race as it potentially paves the way for a drastic reduction in costs to both develop and run these language models.

However, several questions remain to this day. **Was it a DeepFake?** Did DeepSeek use OpenAI code blocks to run its model (in which case the Chinese company would be accused of intellectual property theft)? What type of Nvidia[1]-developed semiconductors are actually used by DeepSeek? In other words, are they older and less powerful semiconductors as suggested by the Chinese company, or the latest H100 chips that may have circumvented export restrictions on sensitive American technology to China? What are the actual "hidden" costs of development, training the model, and access to data that DeepSeek has not disclosed?

If it is proven that a company can create and run AI models roughly similar to those developed by American companies (or even more performant) with fewer resources (which is the definition of productivity gains), this will have significant economic and financial repercussions.

For Nvidia, last weekend's announcement raises questions about massive purchases by American cloud service providers (Amazon, Alphabet, Microsoft, Meta) of Nvidia's cutting-edge chips and potential past overinvestment. If the stock of computing power accumulated by these companies can be optimised to further develop AI models, this poses a risk to future semiconductor demand.

[1] Nvidia is the almost sole manufacturer of the graphics processing units (GPUs) used in AI applications.

On the other hand, the shares of companies that spend the most on AI infrastructure (such as Meta, Alphabet, Amazon, Microsoft) have performed well following DeepSeek's announcement. **These technological advancements potentially mean lower investment spending for these companies.** That said, the earnings season is in full swing in the United States, and early comments from Meta and Microsoft (two important Nvidia customers) do not currently suggest a slowdown in AI investment spending.

From micro to macro: technological advancements should benefit the rest of the American market

A decrease in the production costs of language models should benefit companies in most sectors. Indeed, companies could access AI at a lower cost, which could lead to optimised production costs and therefore help improve their profitability.

While many analysts have been talking about DeepSeek as the "Sputnik Moment" for AI, i.e. a trigger to create even larger investments in order to ensure US versus China supremacy. We resonate more with the parallel drawn by Microsoft CEO Satya Nadella to the "Jevon's Paradox". This phenomenon occurs when technological advancements enhance the efficiency of a resource, ultimately reducing the amount required for a single application. However, because the cost of using the resource drops, overall demand increases to the point where total resource consumption actually rises, rather than falls. Maybe it takes fewer chips, but as the cost lowers, demand will increase and we will need even more chips… Consequently, **this technological advancement could even accelerate AI adoption**, which ultimately should not necessarily negatively impact overall semiconductor demand and data centres.

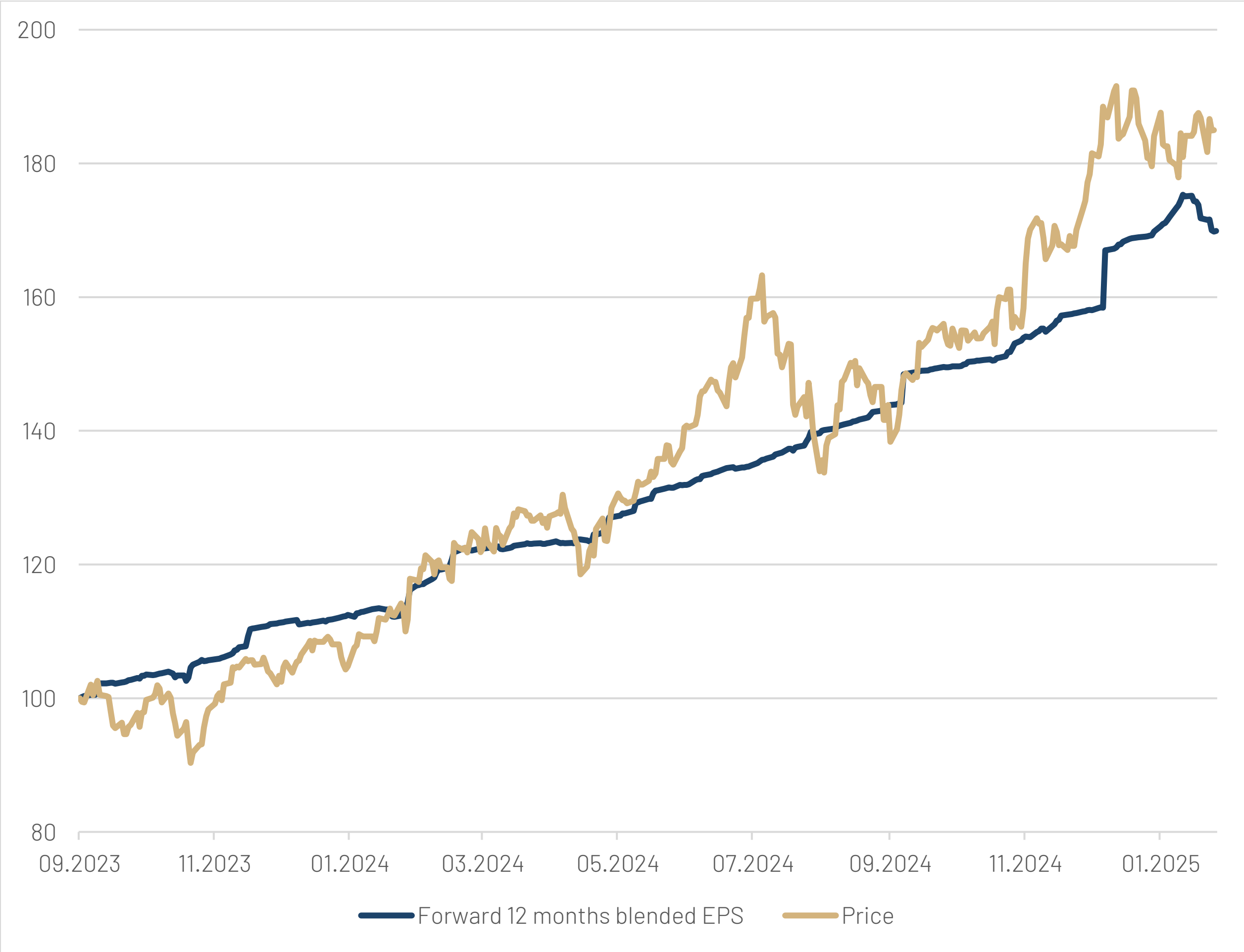
DeepSeek: what impact on US equities?

The US market had become very concentrated: at the beginning of the year, the 10 largest stocks in the S&P 500 Index represented 38% of the index. The market's reaction is therefore not entirely a surprise. **We have been calling for some time to follow an investment strategy that – without neglecting the valuable tech stocks – places more weight on diversifying to other sectors of the American economy** (see our publication: CIO Perspectives : **January insights for the year ahead**).

We continue to remain positive on US equities, while broadening our investment horizon to small and mid-cap American companies, which are historically undervalued compared to larger-cap companies. These smaller, more local companies should benefit from a solid American economy and the reindustrialization agenda proposed by President Trump.

See also our LinkedIn post

Chart 1: The "Magnificent 7" drove the performance of US stocks this year thanks to robust earnings growth (100=09.2023)



Source: Bloomberg, Indosuez Wealth Management.

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With contribution from DPAM

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