

## What Is DeepSeek and Why Should You Care?

In October 1957, the former Soviet Union caught the USA flat-footed when they launched the first man-made satellite, Sputnik 1, into orbit. This became known as the “Sputnik Moment” for NASA as we had assumed that we were leading the space race.

This weekend’s revelation about a new Chinese artificial intelligence program called “DeepSeek” is another “Sputnik moment” for the entire US tech industry and for the US economy as a whole. It may be painful in the short term when we see our darling equities like Nvidia get monkey-hammered by the markets, but could create unprecedented opportunities in previously unthought of stocks and market sectors as it commoditizes and democratizes the AI landscape.

If this truly is a sea change for artificial intelligence technology, it may prove to be an example of Jevons Paradox.

The [Jevons Paradox](#) occurs when technological advancements increase the efficiency of using certain resources, leading to a reduction in the amount of said resource needed for any single use. However, this increased efficiency lowers the cost of using the resource, which in turn raises demand (remember Econ 101?) to the extent that overall resource consumption **increases** rather than decreases (i.e. a shift in the demand curve). The paradox was first observed by English economist William Stanley Jevons in his 1865 book, *The Coal Question*. Jevons noted that improvements in the efficiency of coal use, such as those brought about by James Watt's steam engine, led to an increase in coal consumption across various industries. This was contrary to the expectation that technological progress would reduce fuel consumption. We may be on the verge of experiencing the same phenomenon with artificial intelligence.

### Brief introduction of DeepSeek

DeepSeek gained global attention last week after it released its open-source AI model, DeepSeek-R1. It rivals industry giants like Microsoft-backed OpenAI/Chat-GPT and has already presented a sizeable challenge to costlier American AI models from companies that have spent billions of dollars on the technology. DeepSeek's first open-source AI reportedly took less than \$6M to build, did not require the latest and greatest microchips, and only needed two months of programming. This affordability of AI can democratize access to innovative AI and, unlike most AI models, DeepSeek-R1 is an open-source program for reuse under an MIT license, allowing researchers to study, modify, and expand the model.

### Implications of DeepSeek?

The DeepSeek development calls into question the significant need for increased electric demand and production in the US. AI is projected to use about 75% of overall US power demand through 2035. A significant decline in energy demand brought about by the onset of DeepSeek could hurt the electric utility sector of the market, which has already rallied this year in anticipation for data center energy needs ramping up because of AI demand.

Bloomberg reported that the combined losses in share prices between the Nasdaq 100 and Europe's Stoxx 600 technology indices are somewhere around \$1.2 trillion dollars of lost market cap. The biggest loser was Nvidia, which only last week was the world's most valuable company. Its fall marked the largest one-day loss in market value for any public company ever, a plunge of almost \$600 billion in Nvidia's market cap, which only last week was the world's most valuable company. Other chip stocks suffered a similar albeit not as painful fates, with ASML (ASML) falling -6.2%, Broadcom (AVGO) -12%, Qualcomm (QCOM) -1.4%, and Advanced Micro Devices (AMD) -4.5%.

DeepSeek's success while using only limited financial resources suggests that the "Magnificent Seven" tech companies may have to reconsider their massive AI spending. This could potentially reduce Nvidia's bargaining power and long-term demand for their most expensive microchips. The market's volatility in response to DeepSeek indicates uncertainty in valuing Nvidia, suggesting its current high valuation may be at risk while highlighting potential weaknesses in Nvidia's business model and valuation assumptions going forward.

The previously popular narrative of "there is no alternative" (TINA) to explain the impressive performance of US equities and tech stocks over the past few years may, be coming to an end. Nvidia has benefited from this narrative in the sense that investors associate bullish developments in the AI sector with more demand for Nvidia chips and every investor needed to own [NVDA](#). DeepSeek's current surge (even if it fails long-run) creates doubts about Nvidia's "TINA" aura. Once people shift their focus from just building more and bigger data centers to also thinking about how to use this capacity more efficiently, then it becomes more likely someone will produce better ways that effectively reduce long-term Nvidia chip demand. This may break the linkage between AI and Nvidia as investors have associated AI with Nvidia directly in the past, but in the future what is good for AI might only be tangentially related to Nvidia (if at all). This may result in permanently lower Price-to-Earnings multiples for Nvidia stock valuations and other tech names even if the AI theme overall recovers from the DeepSeek "Sputnik moment."

A democratization of AI should help all companies going forward, especially the other 493 names in the S&P 500 that have been overshadowed by the Magnificent Seven for years. That is where I will be looking for opportunities going forward.