

2025 WHITE PAPER

DEEPSEEK

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The recent news around DeepSeek has understandably garnered many questions about the path forward for AI and, as it relates to real estate, what it implies for the feverish demand for data centers. While there is still much to understand about the DeepSeek reports and how various participants are interpreting this, we wanted to offer a few preliminary observations.

- We must first take the claims as reported with a large grain of salt. Many hyperscalers have teams investigating what exactly has been produced and how, with some reports showing significantly more cost was involved and relied upon in creating its R1 model.¹ Industry experts also share that the release of this information is likely politically timed as a response to the Stargate announcement. We will wait for these analyses to be completed before jumping to premature conclusions.
- That said, if the claims are even partially true, this is not unexpected. AI is still in its infancy and great leaps are being made weekly – especially as models train upon existing models. It was expected that AI would be delivered more efficiently over time, and in fact required if it is to be economically viable long term. In fact, DeepSeek is not even the most advanced on this front currently and industry experts suggest others are well ahead but have not released their models publicly.
- This advancement in efficiency is a tremendous positive for AI adoption and ultimately the AI business model. Whereas Nvidia has helped improve compute performance 10x annually, this type of efficiency could allow that number to potentially increase to 100x annually. The resulting data that can be mined, processed, delivered and stored from such AI products would far eclipse the exponential data growth, and subsequent power need, that we have been observing.
- According to early feedback from the hyperscalers and Nvidia, the demand for data and compute is still enormous, and if anything, this advancement will serve to democratize the space, increase competition, and develop useful products faster, that will necessarily require more physical space for the data that is manipulated, generated and stored.
- We should not over index the market's reaction to R1. The Nasdaq fell 3% on one day and recovered much of it the following day. The equities markets saw significant runup in companies around this space, reflective of the aggressive pricing around tech companies that are often not in line with actual revenues. It is not surprising that such news would cause sell offs as a result, but is likely an overreaction and not reflective of actual industry fundamentals. In short, the public markets will need some time to “relax” and synthesize this news in a new industry that most only partially understand.



¹SemiAnalysis (a chip consultancy firm) has estimated that DeepSeek and its sister company, the hedge fund High-Flyer, have access to tens of thousands of Nvidia GPUs, which were used to train R1's predecessors. SemiAnalysis estimates that DeepSeek has spent over \$500M on GPUs over the history of the company and while their training run was very efficient, it required significant experimentation and testing to work - the \$5.6M training cost was only for the final training run, not the complete cycle, and excluded “the costs associated with prior research and experiments on architectures, algorithms, or data.”

AS TO HOW THIS AFFECTS THE DATA CENTER DEVELOPMENT BUSINESS

- While some have expressed concern that such advancements would decrease the demand for data center space, this would be contrary to historical reality. Moore's Law, the concept that transistors on a microchip double as the cost decreases proportionally, only served to radically increase the demand for data and compute power, not decrease it as many once thought. This is known as Jevons Paradox – the idea that as technology creates better efficiency, it serves to increase the consumption rather than decrease because the cost is lower, has downstream uses that further bolster demand, and in turn creates newer technologies that we cannot currently anticipate which will only require more compute and more storage.
- As an example, with improvement in the efficiency of the AI training models, it will require more processing power (which is done in data centers) to move to the next developmental phase of AI, known as "inference."² While Nvidia is best known for providing the chips that are used to "train" or build a new AI system, it has said that it now generates just as much revenue from chips for "inference" or processing user requests using a finished model. In a recent podcast, the Nvidia CEO argued that demand for inference "is about to go up by a billion times" due to new AI models that "reason" or take time to plan and deliver an answer to a complex query. All of this supports the continued demand for powered compute in centralized locations.
- Our data center strategy has been to access the limited power needed in key markets to drive this technology and develop best-in-class facilities with proprietary designs that are built to adapt to the anticipated changing demands over time. The tenants take the risk of the server technology within the building, and we do not take development risk until the tenant has committed to a long-term lease – that strategy remains viable and an excellent risk mitigant.
- Further, our conviction around data centers pre-existed the "AI revolution," and was based on the massive growing demand for cloud computing. That trend continues very strongly independent of the AI "supercharge" for demand, and hyperscalers remain significantly behind the supply curve for the foreseeable future with access to limited power still driving aggressive pre-leasing.
- To the extent the DeepSeek approach reduces the entry costs to AI, we expect to see increased tenant diversification and that such competition will be good for lease terms.
- Given that DeepSeek's roots are in China, we expect that whatever the veracity of the claims being made, this could potentially prompt the incoming administration to view this as a new "Space Race" and put significant focus on capitalizing the components needed to win that race. The administration previously established an "AI Czar" and announced its Stargate program in addition to other executive orders promoting AI "dominance," so there is already momentum in prioritizing further investment into this space, which we believe bodes well for development programs.
- We have often said we do not want to be the gold miners in this rush, we want to sell the Levi's, and events like this support our approach. We took this same strategic view in our e-commerce business by supplying logistics companies with the real estate and infrastructure they required. This is yet another reminder that a focused, world-class real estate development company is what our customers need to be successful in their ever-changing landscape of technological opportunity.

² "Inference" is where the user really meets the AI to get questions answered and tasks completed. Indeed, Nvidia has said that DeepSeek is an excellent AI advancement and a perfect example of "Test Time Scaling" where a model dynamically adjusts its computational behavior during inference (i.e., when making predictions on new data) to improve performance on a specific task, without requiring additional training, by allocating more compute power as needed based on the input complexity at the moment of prediction. This causes the AI system to consume more computing resources after a user poses a question or sets a task by "reasoning" or taking multiple linked steps to respond.

SUMMARY

There is still much to learn and verify about the DeepSeek reports, and we will continue to gain insights from our clients and industry experts, but generally their initial reaction is unphased if not bullish on the growth and opportunity ahead.

The ability to train AI faster and cheaper is an outstanding outcome for business, the economy, and the AI industry. We continue to have a strong desire in supplying the real estate and infrastructure required to power these enormously useful tools that are mission critical to the digital economy and will continue to take our risk-off approach of identifying top sites with power and developing them as the hyperscale tenants need them.

Affinius strives to be a leader at the intersection of real estate and technology to deliver to our clients world-class buildings that support the backbone of this digital revolution.



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