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The Capital Cycle Theory

Fiber in the 90s, Data Centers today.

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History rhymes or repeats, who cares? The capital cycle theory is simplistic and just wonderful. It is also common sense. Created by Marathon Asset Management, it simply explains a cycle. Where there is an asset that is underinvested, leading to successful investment and corresponding successful returns. Then the world finds out, and the asset becomes overinvested, and returns fall, and so the asset becomes unattractive. And so the cycle repeats.

Today's hyper-investment in data centers for "AI," which means many things, is led by the major tech firms (Google, Microsoft, Amazon, Meta, etc). Here are the numbers -

Annual AI Infrastructure Investment (Market/Analysts Estimates)

2025 \$430B 

2026 \$765B 

2027 \$1.10T 



Now observe investment spend during the 90s, in fiber-optic cable, for the internet -



When comparing spend size, it makes sense to look at spend as a % of GDP. Roughly both total to around 2.2%. Yet we do not know how much longer the current investment cycle will last. Similar to how in the early 90s, companies such as MFS and Nortel generated excess returns and laid the groundwork, then major investment funded by debt from companies such as WorldCom led to overcapacity and the asset bubble, and the returns fell.

Similarly, the early success of AWS has proved data centers as a great asset, which has brought great returns for the likes of Amazon and Microsoft. Now we see many more players building for AI specifically, although the underlying idea of a data center is largely the same. And if the capital cycle theory proves correct, then the overcapacity should be realized and returns fall.

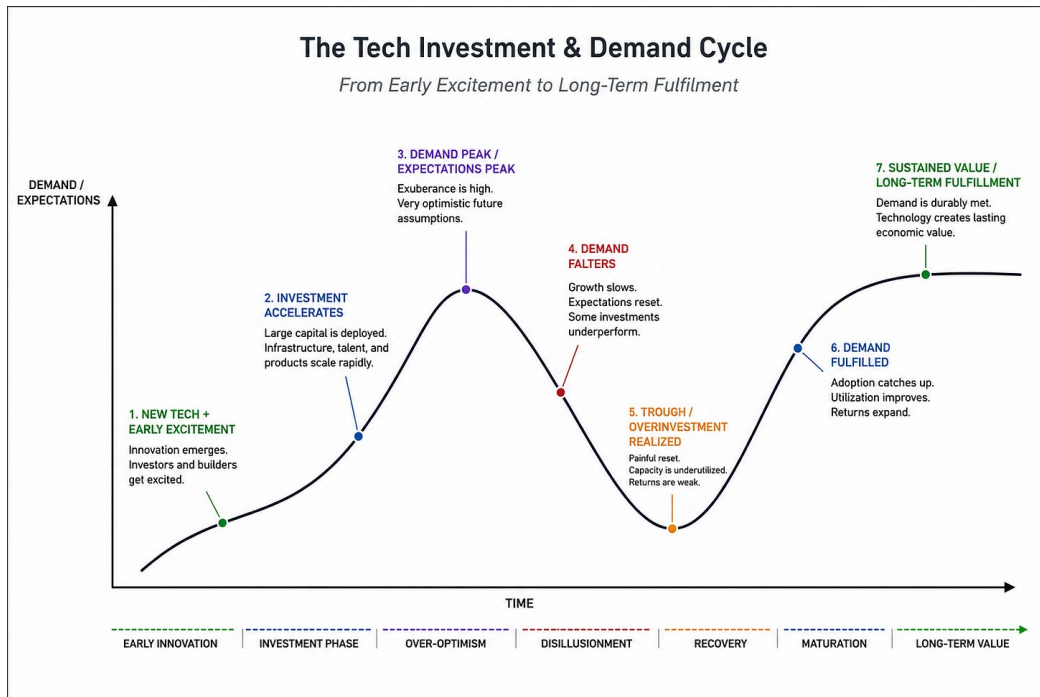
A common counterargument is the revenue backlog for these companies. The same argument was made during the fiber optic bubble; similar massive backlogs existed, and then they did not. Once there is clear overproduction, the entire value chain collapses, and along with it, so do the backlog commitments. This overlaps with the idea that low price-to-earnings ratios for equities are a sign of an asset bubble, since at the height, earnings are inflated, yet unsustainable nonetheless.

Similarly, the same problem exists in venture capital with the capital cycle theory. Once a certain industry produces great exits and high DPI events, more venture firms decide to invest; some create industry-specific funds, driving up prices across every series of funding. This hurts more in growth equity, while early-stage investing can deal with a price increase because they invest so early; their returns are still high at an exit. Growth equity often pays too high a price, and eventually the company faces a down round, and fund managers have to mark down valuations. Thus the industry becomes unattractive, and returns are found elsewhere.

So, if the capital cycle theory is correct, this spending on AI infrastructure should be overbuilt; then there won't be enough demand to justify the cost of this infrastructure, asset prices fall, and we return to reality.

Doing some rough math, what kind of returns would these tech companies need? Likely what their current ROIC is or more; anything less is value-destructive. The blended ROIC of Meta, Google, Amazon, and Microsoft is around 22%. They are spending a combined near 700 billion in capex, and would need close to 160 billion in operating profit to maintain the current ROIC. So is there enough enterprise demand to meet this, especially when models are clearly a commodity business as I describe here?

So based on the capital cycle theory, while long-term profits can surely hit the rough estimates, in the short term firms will overbuild based on early profits and see asset prices fall. Around this low is the prime time to invest, considering lower valuations and consolidation should lead to outsized returns.



Sources -

<https://www.goldmansachs.com/insights/articles/tracking-trillions-the-assumptions-shaping-scale-of-the-ai-build-out>

← No. 010 All studies No. 008 →

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