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AMERICAS TECHNOLOGY: SOFTWARE

What we learned this week: AI Supply/Demand, Infrastructure & Financing

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In the last two weeks, our conversations in the AI ecosystem have focused on two big picture questions:

1. What is the next leg of AI demand in the enterprise post coding tools, and how do those tokens get distributed between frontier, frontier n-1, and open source/open weights?
2. What is the quantum of financing that still needs to be raised to support the datacenter build out, and is the credit market deep enough to support it?

The volatility reminds us of the Software volatility in late Jan / early February: there are bear cases that are hard to disprove, and it takes time for investors to do the work to separate out nuances in specific stocks and businesses. **We view the last 4 trading days as a good starting point for new information to help the market refine its assumptions, as our work over the last few weeks suggests that:**

- The amount of financing needed may be less than what investors expect, in part because of levers to financing like BYO-hardware or vendor prepayments, in part because the installed base will generate cash as it matures, and in part because of non-traditional sources like the $19 tr private markets, across all strategies (which includes $4.5 tr of capacity to be put to work, per Preqin) or Nvidia's $500bn financing pool.
- The market is still deep enough to support new issuance from IG-issuers. Our Credit Strategy Team benchmarks additional hypothetical hyperscaler issuance to the largest issuers in the USD IG bond market today (i.e., US banks), to estimate another $500bn of IG issuance could be supported. That said, they have noted that the scale and scope of AI-related gross debt extends well beyond the hyperscaler universe, which underscores the importance of managing exposure concentration as the multi-year issuance cycle extends.
- Enterprise token demand may take another step up in 2027. Microsoft underlined that the enterprise breadth motion is beginning, as customers move AI into production systems and agents begin to unlock business funded consumption tied to the value of work performed. We are early enough in the cycle that multiple things may be true at once: scaling laws holding at the

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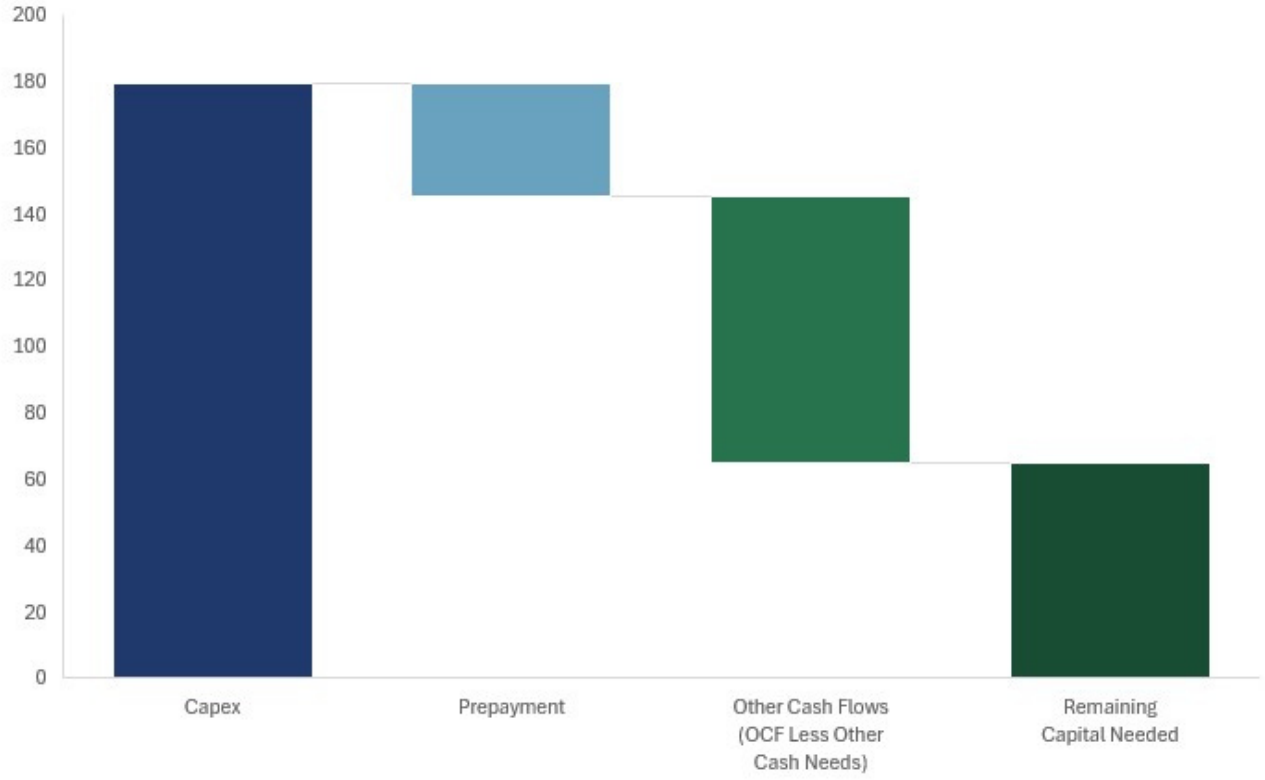
frontier, and new value accruing in capturing the area of the curve under the frontier with diffusion, and in model orchestration with dynamic routing and proprietary training on customer traces.



Oracle:

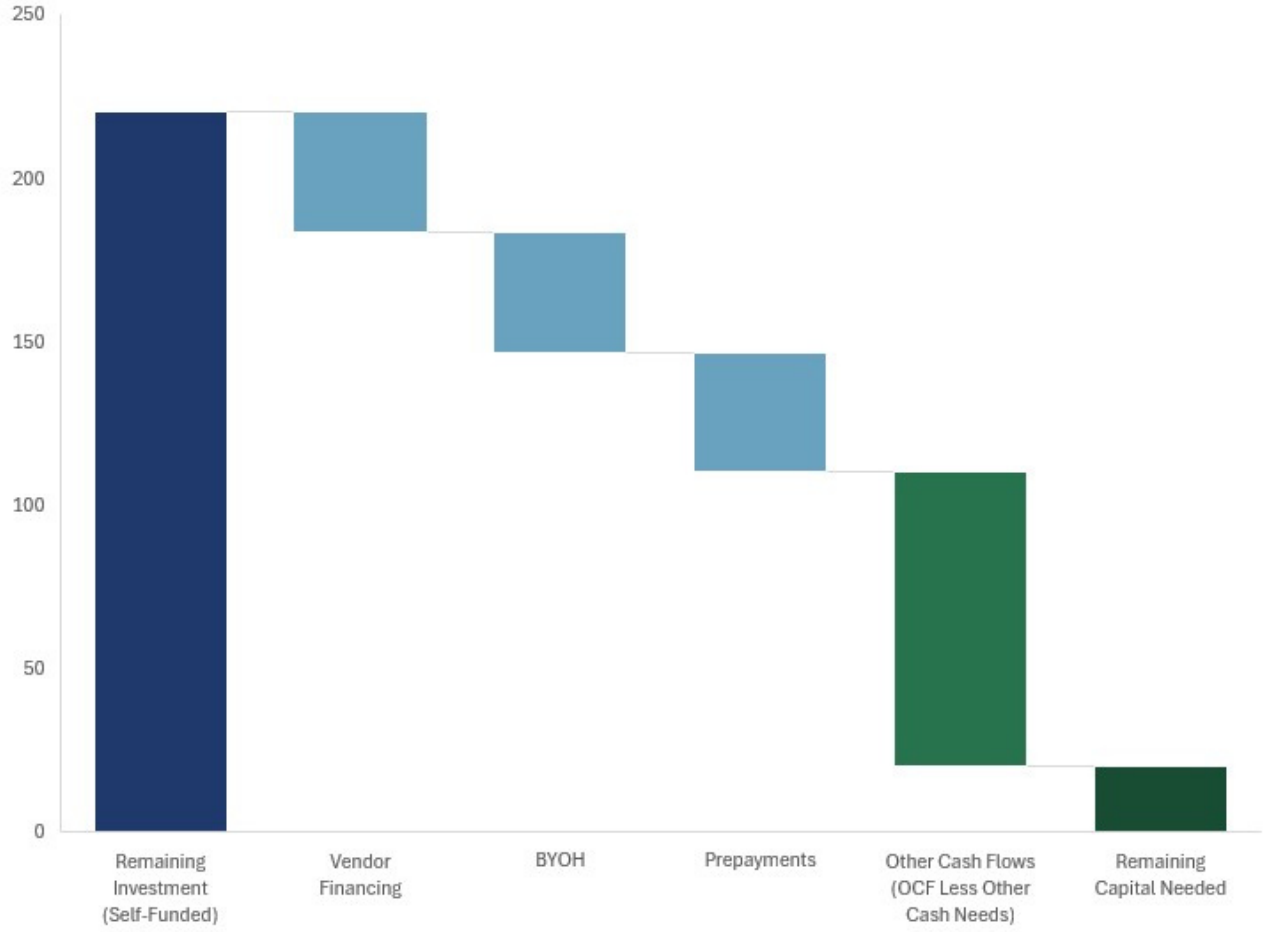
- **Oracle committed to raising only $20bn of additional capital through 2030.** This will be $10bn of debt and $10bn of equity. Our data center build previously suggested ~$65bn of additional capital through 2030 (please reach out for our worksheet). The Street estimated ~$40bn.
- Oracle maintained its capacity targets of adding 6GW of data center capacity through FY28. **Oracle expects total capex of ~$220bn, which is higher than GSe/Street at $180bn/$170bn– but is reducing their own capital burden by 50%** via i) vendor financing of the GPUs; ii) bring your own hardware (with customers plugging in their own chips to Oracle's data center leases); and iii) customer prepayments.
- **Capex will be down in FY29** (ends May 2029). Oracle expects to turn FCF+ during 2H28 and $30bn+ in FY29 (vs. GS/Street (FactSet) at $3bn/-$1bn for FY29).
- **Oracle's illustrative 1GW framework provides a clearer view of project economics:** a representative 1GW deployment requires ~$37bn of capex, generates ~$16bn of annualized revenue at full utilization, and carries ~35% gross margins and ~34% project level operating margins, supporting returns in the high 20% range. Management indicated effectively all large AI infrastructure contracts use cost-plus or similar structures, meaning changes in hardware and other input costs can affect reported revenue and capex but should largely preserve project margins and returns.
  - Infrastructure mix creates WholeCo margin pressure, and management expects operating margins to trough around FY28/FY29 but remain not significantly below 40%, before reaching 40%+ in FY30. While AI infrastructure carries lower gross margins, lower opex intensity helps mitigate the impact on consolidated operating margins.
- **The opportunity is broader than the headline gigawatt campuses**: of the 10GW of FY28 capacity, the five flagship Stargate facilities will account for less than half (with ~5GW of capacity coming online across all facilities between FY26 and mid FY29). In 1QFY26, Oracle delivered 850MW across ~38 projects in 11 countries in 1QFY27; this 850MW delivery only consisted of 1 flagship GW-level facility (Abilene), suggesting a more diversified pipeline of data center developments across the U.S. and internationally and reducing reliance on any single campus. Smaller 50MW to 200MW deployments should become increasingly important for geographically distributed inference.

Exhibit 1: We had estimated ~$65bn of financing needs throguh FY28 to support ~$180bn of capex (offset by ~$35bn of prepayments and $80bn of OCF)



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 2: vs. Oracle's ~$20bn of capital needed, with $220bn of capex offset by ~$110bn of vendor financing, BYOH, and prepayments



Source: Company data

Microsoft:

- Microsoft launched a USD IG bond offering on Oct 29, which Bloomberg suggests could be at least $25 billion. Earnings comments focused on flexibility in financing (including via leases), reiterating guidance for FCF positive in FY27 (June 2027), and the returns profile of new capex dollars.
- Capex will accelerate in 2HFY (March/June 2027), in part due to a ~$5bn push out of 2QFY from 3P capacity delays into 2HFY.

On LLM strategy: We found three comments this week particularly interesting:

- The first was Microsoft's comment that it can now launch capabilities comparable to leading frontier models within 3-6 months of their respective release at a fraction of the training cost.
- The second was that Azure saw a tailwind from higher token pricing intraquarter, in turn a function of the ebb and flow of model releases driving a ARPU mix shift toward the high end.
- The third was from Google on the power of the frontier, and more specifically, the release of Carbon at #1 on the Artificial Intelligence Index and Google's view that the next 12 months will see continued acceleration in training and launch velocity because of recursive self improvement.

These comments in aggregate suggest to us that we are early enough in the cycle that multiple things can be true at once: scaling laws holding at the frontier, and new value accruing in capturing the area of the curve under the frontier, and in model orchestration with dynamic routing and proprietary training on customer traces.

On demand broadly: we think the number 1 enterprise priority in 2027 will be scaling the impact of AI beyond developers in a way that amplifies an enterprise's unique datasets and value proposition. To this end, Microsoft indicated that its Foundry platform (for building and governing AI apps and agents across 11K models) is up 300% yoy (albeit from an undisclosed base). We think this product cycle will be key not just for Microsoft but as a broader indicator of enterprise progress with AI transformation into 2027.

CoreWeave

We expect CoreWeave to comment on its future financing needs in its 11/11 earnings report. Our funding math suggests ~$20bn in new debt issuance in order to serve existing backlog and ~$40bn to scale to 4.2GW from 2Q's 1.5GW– but more importantly, that CoreWeave does not need to raise any more unsecured debt or equity to ramp its 4.2GW in secured capacity.

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