

7 Topics for Discussion at IEDM 2023. Mark Webb, MKW Ventures Consulting LLC

1 HBM memory: It is the fastest memory and it powers the AI compute industry.

- a. How much does it really cost and how much capacity is needed and what will the supply chain be in 3 years?
- b. Why is only 10% of the DRAM memory in Nvidia Servers actually HBM.
- c. How do we think about “super near”, “really near”, ”sorta near”, “pretty far”, “very far” memory in Servers today and in the future? 2LM is now 5LM. Do emerging memories change this?

2 The Memory market is recovering exactly as we predicted in March 2023 (check our presentations and predictions). We also gave details to the memory market cycle at FMS 2023 and how it has nothing to do with Pandemics, recessions, AI, inflation, supply chain issues. It has to do with natural human response (or AI response) to inventory and fears in the market.

- a. What will happen in 2024? How profitable will memory be in 2024?
- b. Why is NAND so much worse than DRAM?
- c. Why will the market fall again in 2026 (and yes, everyone will be surprised)
- d. How can we prevent this cycle IF we choose to (we haven't chosen to yet, but we could)?
- e. How can you predict the next downturn and recovery?

3 The last FINFET technologies are ramping now. How long will they last and how fast will GAA technologies ramp in 2025? Why will FINFETS dominate volume into 2028?

4 Intel is currently not a top 10 foundry today. They want to be the 2nd largest foundry in 5+ years.

- a. What do they need to do to break into the top 5 foundries?
- b. How are customers working with Intel today and when will we see success?
- c. How do we track Intel success or challenges?
- d. How will TSMC and Samsung respond

5 Speaking of Intel.... Intel has to correct its cash flow and business model quickly

- a. How to pay for new fabs (what is ACTUALLY happening on NET capex vs gross Capex)
- b. Will Intel really have 5 nodes in 4 years Or is it really 3 nodes in 6 years? We tell you what will happen so you are not surprised when you see the news in 2024, 2025

6 Trade wars, Export bans, a foundry in every country. What will Fab world look like in 2030?

7 AI servers are the cool thing. But, by far, most servers being built today are classic standard servers. What does this mean for the datacenter market. How to see if this changes in the next 3 years?

We have the info so that you can correctly predict the market as well. Contact us for an in person or zoom meeting. We will be at IEDM Next week and can set up a Zoom call

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