

AMD, INTC, NVDA: All Solid But Intel Cheaper Due to Prior Non-Execution

Companies: AMD, CDNS, INTC, NVDA, SNPS, TSEM, TSM, VMW

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Key Findings

- Intel Corp.'s (INTC) has more goodies inside the box and at a lower valuation than its competitors. The Mobileye IPO should release cash for Intel since it is not debt-free.
- Advanced Micro Devices Inc. (AMD) is ideally positioned. It is not overextended and is still able to make some purchases to round out its portfolio. The XLNX approval was a pleasant surprise.
- Nvidia Corp. (NVDA) is not a one trick pony; it is a one trick racehorse, and now has money to buy assets since the ARM purchase fell through.

Intel vs. AMD vs. NVDA – Intel is Cheap and Has All the Parts

- Intel is many companies in one. AMD is many companies in one. So is Nvidia. But Intel is the one that is cheaper and de-risked and comes with a whole lot of attractive buds ready to flower.
- Intel contains the manufacturing which could euphemistically be called the foundry arm, strengthened by Tower Semiconductor Ltd. (TSEM) (specialty process technologies, including analog, SiGe, BiCMOS, SOI, mixed-signal and RFCMOS, CMOS image sensors, and non-volatile memory as well as MEMS capabilities) when the acquisition is approved next year.
- Intel contains the Altera arm, the FPGA company which AMD countered with its Xilinx purchase. It contains an ethernet arm, which Nvidia countered with its Mellanox purchase. Intel has the datacenter and the microprocessor-related processor arms. It also is a design company, as good as Synopsys Inc. (SNPS) or Cadence Design Systems Inc. (CDNS) when it comes to microprocessors. Intel is a reasonable power in Silicon photonics, not as good as Inphi that Nvidia acquired, but good enough to compete on price. Intel is making its Altera chips and graphics chips at Taiwan Semiconductor (TSM), the same as AMD and Nvidia, though Intel has yet to catch up on standalone graphics either for computing or for consoles.
- Basically, all the silos are there for Intel. Then there is the IPO of Mobileye which Intel bought for \$15.3B and which it wants to majority own with an IPO we estimate to be in the neighborhood of \$50B.
- A lot of stuff at a reasonable price, provided Intel HR allows management to drive technology development without getting bogged down with internal struggles and hopeless mandates.
- Intel either needs to spin off its foundry arm or catch up to TSMC, or both. Intel has promised a one-node-per-year trajectory, so we will be watching. Given Pat Gelsinger's prior stint as CEO of VMware Inc. (VMW), we wonder if he is eyeing his former company, though it might be too expensive at the moment.
- Intel is trading at 18.66x forward earnings. Intel has cash of \$28.41B and debt of \$38.64B with a total share count of 4.07B.
- AMD is a first-rate power in microprocessors, gaining share from Intel with manufacturing being done at TSMC. It is a second-rate power in datacenter chips where the buyers are more conservative and prefer Intel. It has augmented its portfolio with Xilinx and already is a second-place power in graphics chips dominating game consoles. AMD is entering silicon photonics. It is trading at 22.84x forward earnings and has a cash hoard of \$3.62B and debt of \$0.73B at 1.63B shares.
- Nvidia is a super-power in graphics chips and a super-power in data center connections but missed integrating ARM as time ran out on the approval of the acquisition. It is trading at 32.0x forward earnings. It has cash of \$21.21B and debt of \$11.69B with total shares of 2.4B.
- Facts are on the table. Intel appears cheap if it executes.

Background

Srini's Chip Watch

Srini Sundararajan, Ph.D., is a Senior analyst at Blueshift Research covering semiconductor equipment, semiconductors, LED, OLED, and solar. He worked on his doctorate on silicon oxide substrates at the University of New Mexico/ Sandia National Lab / Los Alamos National Lab and did a post-doctoral stint at the University of California-Berkeley/Lawrence Berkeley National Labs. Subsequently he was employed by Novellus (won Intel business for Silicon nitride film, now part of Lam Research), KLA-Tencor, Schlumberger, Applied Materials, and HMI (now part of ASML). On Wall Street, he was the associate of II#1 and II#2 analysts at Citi and at Lehman/Barclays before being a full analyst at Oppenheimer and Summit Research, a firm he co-founded. This was followed by a stint as Asia VP ex-China for Daramic (lead-acid battery separator #1 manufacturer), a part of Asahi Kasei, followed by a stint at Starlight Investments as a Technology analyst (materials and pharma). To get back into the latest technology trends, he was in Operations at Intel Vietnam.

Given both the technology and finance background, Srini is ideally placed to comment on semiconductor trends in addition to the contacts in the industry which help him capture early trends ahead of the rest of the street.

Report Coverage Areas and Companies

Blueshift Research's Srini's Chip Watch covers the semiconductor space with a broad look at the industry and an overview of the important topics in various categories. Reports also dig specifically into each story and focus on individual companies. We cover these topics and public companies:

- Automobile-related chip makers (ALGM, AOSL, MCHP, MRVL, ON, STM, TSEM)
- Memory chip makers (MU)
- Electronic Design Automation Companies (CDN, SNPS)
- Foundry (TSM, UMC, Global Foundries (private))
- Logic, Processor and Graphics Chip Makers (AMD, INTC, NVDA, XLNX)

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Disclaimer: The analyst has positions in the following securities: LRCX, INTC, AMD

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