Tokeneke Research LLC **Chip Shots**
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Micron Cost Changes at Inotera Won't Matter Much

Micron *(MU, $7.83 +0.27, Buy, Target $15, FY13: ($0.74) on $7,887M, FY14: $0.67 on $9,175M)*

No Impact from JV Renegotiation: I had a chance to speak with management at some length last week regarding changes to the Inotera joint-venture agreement negotiated with partner Nanya reported by Micron on January 17. ***The really short version is that the cost changes are highly unlikely to be noticed by investors amid the current rally in DRAM market prices as well as the expected closure of the proposed acquisition of Elpida.*** The current changes in DRAM market prices will make it very difficult to differentiate costs from the JV before and after the renegotiation, and by the time we get a quarter or two of experience under the new plan in order to compare it to the old plan we will be wrestling with even bigger changes associated with the closure of the Elpida acquisition.

Gory Details: Recall that Micron renegotiated the Inotera Memories joint-venture agreement with partner Nanya last month. Micron and Nanya are keeping their respective ownership positions at around 40% and 25%, respectively; Nanya is giving up its right to half of Inotera's output; Micron will no longer be sharing technology development costs with Nanya; Nanya keeps its technology license, but continues to be obligated to royalty payments; and the Micron purchase agreement for product from Inotera will now be market price-based instead of manufacturing margin-based. Also recall that Nanya is financially backed by Formosa Plastics.

The good news for MU is that it now gets all of Inotera's output instead of half. Inotera manufactures pretty close to all of Micron's PC DRAMs. Last quarter DRAMs accounted for 39% of Micron's total sales, and PC DRAMs/Inotera accounted for 47% of total DRAMs. So Micron gets another 20% upside in total sales capacity.

Less obvious good news for MU is that it is no longer obligated to any capital expenditures at Inotera. My understanding is that Formosa/Nanya is expected to raise its equity stake to approximate MU's 40% from their current 25%, and that such a capital influx could easily be put to cap ex use by Inotera.

The bad news is that MU will no longer be sharing development costs with Nanya who has been subsidizing MU's R&D to the tune of $20-30M per quarter (which is lower than the $170M in savings that Nanya recently claimed in a DigiTimes piece). While net R&D at MU will likely increase, I understand that it will certainly not be reflected at that full value and may well stay within the noise level of guidance for two reasons: first, because Micron has many different avenues and facilities for development that can be shared in different ways; and second, because Nanya's royalty obligations to MU on existing technology in production will largely offset much of any incremental costs. Inotera will soon convert virtually all of its manufacturing to 30nm process technology, and Nanya will NOT get access to any future 20/25nm technology.

The wild-card for MU is the Inotera purchase price agreement change to market-price based from manufacturing-margin based. While management would not share the discount to market price it would be paying, it characterized the change as dependent on market prices and the net impact to MU to be one of less volatility in costs. It seems that MU has collared the agreement in some way such that Inotera gets the down-side and up-side exposure associated with extreme market price moves, while MU benefits by having more predictable and stable costs. However, recall that MU has 40% ownership so it will share at least partial exposure to these Inotera extremes. Also, management characterized the cost structure as a discount to market price less the cost of back-end manufacturing. While the mechanics of this will require some accounting diligence, in my opinion, the implication is that MU will NOT be subject to any manufacturing yield risk from Inotera in terms of purchase price: i.e. Micron is guaranteed to only be purchasing parts that work. Originally I assumed that MU's cost would rise under this change, especially given the recent rise in DRAM market prices. However, this is not necessarily the case. First of all, the previous manufacturing-margin based cost structure occurred over an extended period of time when DRAM market prices oscillated very closely around manufacturing costs—and we don't know how much of a discount MU was getting. Also, we don't know what the amount the discount to market price is under the new agreement—and it could be significant even with the benefit of lack of exposure to yield. Frankly, as someone who has to try and model this crazy business I'm willing to take the 'less volatility in cost' characterization as a win.

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