

Inside Micron: major goals, and last quarter's progress.

Jun. 28, 2019

Micron remains somewhere in the middle of the current memory downcycle, or possibly toward its end. It posted a revenue decline of 18% from last quarter, but since this was a smaller decline (with higher earnings) than expected, the market reacted positively and shares jumped 13%, as Outlook noted yesterday. We'll break this Inside report into two categories: what's going on in the memory market, and what's going on at Micron.

Memory Market

Micron has been operating in a very tough market environment this whole year, as weak demand from customers who built up too much inventory before the downturn coupled with an extra supply of memory products, particularly those of previous generation technology. This is a normal part of the memory market's cycles. Recently a Texas Instruments executive, talking about those cycles, observed that sensible business behavior inevitably creates up and down inventory and price cycles, because the way customers respond to rising prices (buying extra volumes, to avoid higher prices later) and the way producers respond to supply shortages (ramping up production, to meet customer demand) must always create falling prices and supply surpluses, and vice versa.

The only thing unusual about this slowdown in demand, and downcycle in prices, has been the trade war tariffs and Huawei ban. As far as trade war worries go, Micron has found ways to offset or eliminate 90% of its tariff costs so far, and doesn't think a new round of tariffs would cause much additional pain for the company. Regarding Huawei, after halting all sales to Huawei when the ban was announced, Micron has started to ship a small portion of products to them that, after careful legal review, are not on the banned list. Despite the ban and the tariffs, having quarterly revenue fall in line with Micron's forecast and generate strong earnings was both good news and unexpected by the market.

Micron Actions

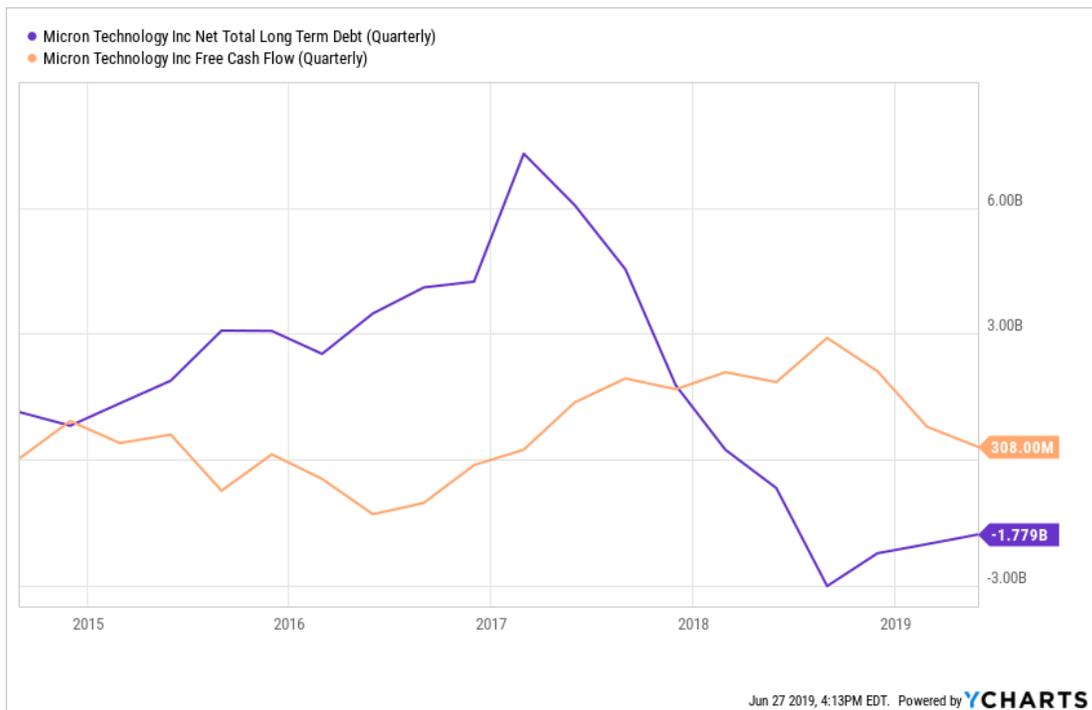
Though Micron is probably nearing the bottom of the cycle, we shouldn't expect to see increasing revenues for a couple more quarters. However, Micron's results during the last quarter show a strong company ready to weather any storm. Cycles are as certain as death and taxes in the memory industry, but it's how a company reacts to those cycles that matters for us shareholders. Micron's reactions:

1. Continuation of cost reduction: Cost reduction has been arguably Micron's top priority since Mehrotra took over in 2016. Since then, Micron has improved its profit margin (one measure of cost improvement) by 20% compared to competitors. This quarter, it brought even more of its "back-end" packaging processing in house so that it now packages over ½ of its products itself. This leads to improved costs in many ways: better quality control, more responsive to shifts in demand, lower costs, higher customization levels.
2. Continued technology improvements: For DRAM memory, Micron broke ground on a new cleanroom in Taiwan this quarter and announced another cleanroom in Japan, earmarked for technology transitions in DRAM. In NAND, it is progressing on its next generation "replacement gate" technology set for release next year. Staying on top of technology transitions even in a

downturn is extremely important for maintaining market share and satisfying customers, once the cycle turns.

3. Maintain a healthy balance sheet: This is the 3rd quarter in a row during the downturn that Micron has still produced positive free cash flow of \$500 million, something it hasn't done the past 2 downturns. It repurchased another 3 million shares and redeemed a convertible note that effectively took an additional 9 million shares out of the pool. Micron has cut its shares outstanding by 8% in the past year—a direct benefit to long-term investors.

The chart below shows just how much better off Micron is today than it was during the last memory downturn in 2015/2016. Instead of negative free cash flow and positive net debt, Micron now has positive free cash flow and negative net debt (meaning excess cash).



As each quarter rolls by in this downturn, Micron's management shows how capable and effective they are at handling adversity. Despite the inevitable cycles, the memory market will show explosive growth over the next 10 years. Micron is setting itself up for a record "upcycle". We only have to be patient.

Theresa Kroll
Outlook Capital Management, LLC
theresa@outlookcapitalmanagement.com