



China Semiconductors

Localizing the next generation of long-term winners

After two decades of infrastructure build in plants, automation and logistics, China has entered another stage of technology migration – upstream semiconductors. As Chinese companies localize their supply chains, new leaders across China's semiconductor ecosystem are being cultivated. Our deep dive reveals that while technology development is still in the early stages, revenue opportunities in entry-to-mid level segments are compelling. We initiate with Buy ratings on 11 companies averaging a 2020-25E EPS CAGR of 67% as they capture a rising share of a growing pie.

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CR Micro (688396.SS): A domestic major in MOSFETs, expanding into IGBTs and power ICs

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Initiate at Buy with a 12-month TP of Rmb88: CR Micro is the leading power-semiconductor integrated device manufacturer (IDM) in China, with 2%/8% market share in the global/China MOSFET market as of 2019. MOSFETs are used for switching (power on/off) in low-voltage applications such as consumer electronics, power tools, automotives, etc. The company is expanding its MOSFET product offerings from consumer electronics to auto/industrial applications, and expanding into IGBT and power ICs.

As a MOSFET IDM (c.30% of 2020E revs), with foundry and OSAT capabilities (c.50% of revs), we like the company for its improving margin outlook as it ramps up contribution from higher-margin products in the IDM segment and for its strength versus domestic peers in revenue scale (2020E MOSFET rev. Rm1.7bn vs. domestic No. 2 Silan at Rmb0.8bn) as it looks to catch up with global peers in technology and product offerings (expanding into industrial and automotive applications). We expect CR Micro to reach 26% market share in China's MOSFET market by 2025E (vs. 9% in 2020E and current share of 3% for Silan).

We forecast a solid revenue/net profit CAGR of 27%/55% in 2020-25E, and are 26% higher than consensus for 2021E. We expect revenue growth to be mainly driven by MOSFET for automotive/industrial control and power ICs, and forecast these segments to grow at a 43%/54% CAGR in 2020-25E. Meanwhile, we model revenue contribution from IGBTs, power ICs, smart sensors to increase from 10% in 2020E to 29% in 2025E. These products also carry higher GM at 32-43% in 2020E (vs. overall IDM segment GM at 30% in 2020E), driving margin expansion in the coming years.

Valuation and risks: To capture its long-term growth potential, we derive our 12-month Rmb88TP (57% upside) on a discounted PE (33x 2025E EPS based on sector P/E-EPS YoY correlation; discounted back to 2022E at a COE of 9%). Our target price implies 80x 2022E P/E (vs. a trading P/E of 51x) which we view as reasonable considering its strong earnings growth at a +64% CAGR in 2020-23E (vs. peer avg. 33%). Risks include weaker-than-expected: MOSFET market growth, new design-wins, share gains, and new product (IGBT and power IC) development progress.