



9 June 2005

# MEMC Electronic Materials

Reuters: **WFR.N** Bloomberg: **WFR UN** Exchange: **NYSE** Ticker: **WFR.N**

## Factors converging positively, raising estimates and target

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### Reiterate Buy, raising price target to \$19

Although we believe WFR could pull back after substantial gains, noting longer term potential we do not believe the stock's recent performance is overdone. We believe improving wafer starts, a continuing mix shift, the polysilicon demand environment, and incremental share gains are converging to brighten the longer term picture for the company and the stock. Consequently we are raising our EPS and revenue estimates and increasing our price target to \$19.

### Several factors increase our confidence

We believe (1) 2Q (Jun) wafer starts improvement from the foundries could drive near term upside; (2) a mix shift could add incremental upside over the next several quarters; (3) poly silicon demand from solar panel manufacturers could drive upside to revenue and comparative cost advantages for MEMC (we believe that solar panel manufacturers could be consuming upwards of a third of polysilicon production now, with a significant demand ramp anticipated); and (4) incremental share gains could drive upside to estimates.

### Where is the risk?

We believe (1) the continued inventory correction could instigate pockets of weakness through 2Q; (2) 300mm wafer production capacity increases could drive periodic overcapacity situations leading to ASP pressures; however, with present and planned capacity (wafers and polysilicon) we believe that incremental pricing power would likely return later in the year; and (3) potential polysilicon production capacity increases could dampen MEMC's comparative advantage as a captive manufacturer, although we believe such increases are at least 4 to 8 quarters out.

### Valuation

Although we anticipate continued volatility noting recent gains in the stock, we are increasingly confident in the longer term outlook of the company and believe several factors are converging positively. Consequently we are raising our 2006 EPS estimate to \$1.26 from \$1.14, and our price target to \$19 or 15x our 2006 EPS estimate. We note that WFR trades at a discount to peers (P/E of 12.8x vs 19.0x); as a "commodity" supplier we believe some discount could be justified, but we expect that the present gap should close somewhat.

#### Forecasts and ratios

Year End Dec 31	2004A	2005E	2006E
1Q EPS (USD)	0.16	<b>0.23</b>	0.28
2Q EPS (USD)	0.20	<b>0.25</b>	0.30
3Q EPS (USD)	0.27	<b>0.28</b>	0.33
4Q EPS (USD)	0.25	<b>0.31</b>	0.35
FY EPS (USD)	0.89	<b>1.08</b>	1.26
% Change	0.0%	<b>5.8%</b>	11.1%
P/E (x)	10.6	<b>15.0</b>	12.8
Revenue (USDm)	1,028.0	<b>1,114.1</b>	1,275.7

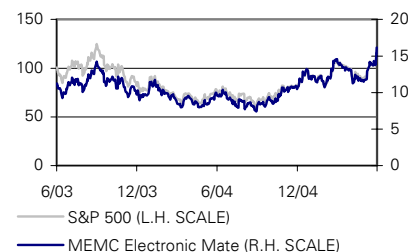
Source: Deutsche Bank

### Channel Check

#### Buy

Price at 9 Jun 2005 (USD)	<b>16.16</b>
Price target	<b>19.00</b>
52-week range	<b>15.36-7.39</b>

#### Price/price relative



Performance(%)	1m	3m	12m
Absolute	38.4	11.4	66.4
S&P 500	1.3	-1.0	5.6

#### Stock data

Market Cap (USDm)	<b>3,381.8</b>
Shares outstanding (m)	<b>209.3</b>
Volume	<b>5,068,000</b>
S&P 500	<b>1,194.67</b>

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**Raising estimates**

To reflect an improving overall business environment for MEMC we are raising our 2005 and 2006 EPS estimates to \$1.08 and \$1.26 respectively, from \$1.02 and \$1.14, and our 2005 and 2006 revenue estimates to \$1,114M and \$1,276M, from \$1,079M and \$1,184M.

**Mix shift**

We believe the dominant factor in ASP projections is the continued shift to 300mm wafers. We note that ASPs increased through 2004 and dropped modestly in 1Q05; we anticipate a potential modest drop in 2Q as per company guidance, but note that the continued shift to 300mm wafers and potential polysilicon shortages later in 2005 or in 2006 should help bolster ASPs. Furthermore, we believe that advanced technology (i.e. 90nm) yield issue resolution at the foundries could help shift the mix more toward prime from monitor wafers in the near term (i.e. 2Q and 3Q). We believe that incremental increases in epitaxial wafers could also help the mix, but that SOI wafers are still likely a 2006 and beyond event.

**Polysilicon shortages...**

Present polysilicon production increase forecasts of ~4% to 8% per year over the next couple years tracks well below aggregate demand forecasts for wafers and solar panel (greater than 40% per year) needs. Although we anticipate that actual polysilicon production capacity will increase beyond present forecasts, we expect that shortages could well result, driving both pricing power and comparative cost advantages for MEMC. We believe that MEMC retains >10% of total polysilicon production, and could increase capacity by over a third over the next couple years. Other major polysilicon suppliers are (listed in order of size) Hemlock (JV between Dow, Shin-Etsu, and Mitsubishi), Tokuyama, AsiMi (a division of Komatsu), and Wacker Chemie. While forecasted demand is substantial, we note that increasing capacity is a careful exercise in meeting market demand while maintaining pricing power. We believe MEMC's demonstrated operational execution and measured responses to market demand over the past couple years, combined with polysilicon demand forecasts, give us confidence that the risk of overbuilding is low.

- **Current polysilicon capacity:** we believe polysilicon capacity at the end of 2004 was roughly 30,000 metric tons per year, with approximately 55% used for wafers and 45% used for solar panels. We note that forecasts for demand from solar panel production are significantly higher at upwards of 40% per year.
- **What is sold to solar panel manufacturers?** We believe MEMC predominantly sells polysilicon raw material to solar panel manufactures, and only recently began selling ingots. Ingots represent a higher value added product and offer a means to improve the company's business segment performance. We believe MEMC's goal would be to sell wafers for solar panel applications, a product representing higher value to MEMC, and consistent with the company's mission as a wafer supplier.
- **Wafers for ICs versus solar panels:** should solar panel driven demand precipitate more acute polysilicon shortages we believe MEMC would be in a strong position to drive silicon wafer pricing power within the IC industry as well as incremental share gains among chip manufacturers. We believe MEMC's positioning within the wafer industry and as a captive polysilicon producer could enable the company to take advantage of potential wafer supply shortages from some competitors. Consequently, we believe the company may be reluctant to enter into longer-term polysilicon supply agreements with solar panel manufacturers as it could jeopardize share gain potential as a silicon wafer supplier to the IC industry. We would speculate that should longer-term supply agreements with solar panel manufacturers concretely materialize MEMC would likely be predisposed to more aggressively expand polysilicon production capacity.
- **Putting things into perspective:** we believe polysilicon material, ingots and wafers for the solar power industry represents a healthy business opportunity for MEMC that should grow to become a more meaningful (presently >10% of revenue) percentage of

revenue within the next few years. We note that MEMC does not aspire to be a polysilicon supplier, but remains committed to its mission as a wafer supplier, and we would anticipate that the company's goal is to migrate toward the supply of wafers for solar panel applications rather than simply the raw material. Furthermore, we believe that polysilicon prices have roughly doubled over the past year to well over \$50 per kilogram.

**Risks**

Risks include (1) a high degree of industry cyclicalities, (2) end market demand shifts, (3) rapid technology changes and product cycles, (4) operational execution missteps, (5) competitive pressures and market share shifts, and (6) general economic risk.

# Appendix 1

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Additional information available upon request

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MEMC Electronic Materials	WFR.N	16.16 (USD)	7,9,13

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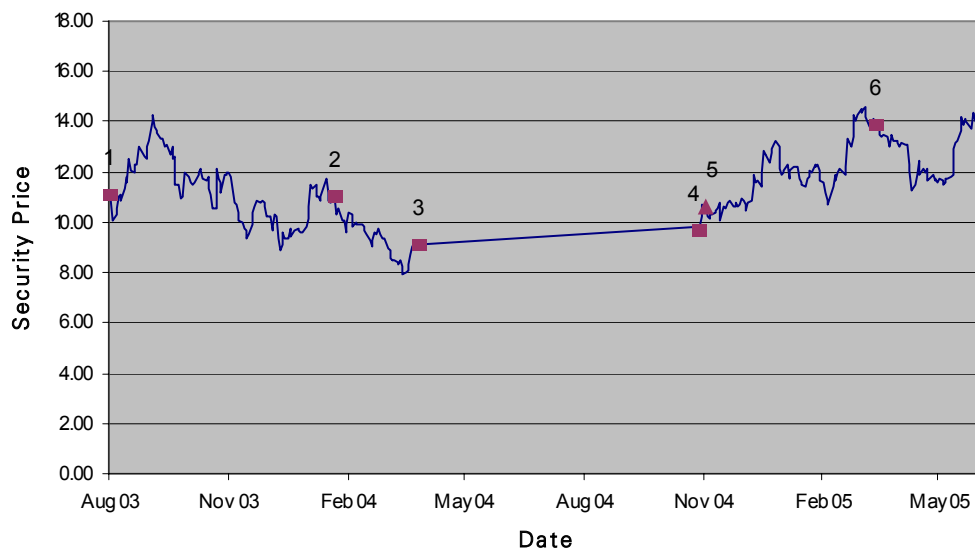
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**Historical recommendations and target price: MEMC Electronic Materials (WFR.N)**

(as of 6/9/2005)

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Strong Buy  
Buy  
Market Perform  
Underperform  
Not Rated  
Suspended Rating

Current Recommendations

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| 1. 8/6/2003: Rating Initiated Buy, Target Price Change USD15.00 | 4. 11/2/2004: Rating Initiated Hold, Target Price Change USD10.00 |
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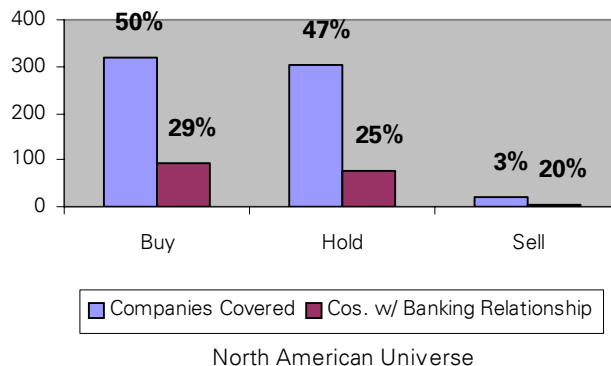
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