

Company Flash

6 February 2009 | 11 pages

MediaTek (2454.TW)

 Target price change
 Estimate change

Buy: Our Best Play in Semi Trough for Least Operating Leverage

- Top Buy while peers report losses** — Although Mediatek is not immune to the global demand downturn, we reiterate our Buy/Low Risk rating and raise our target price to NT\$305 from NT\$270. Given that it has no fab to affect its gross margin when sales decline 8-16% qoq, as guided, MediaTek's 1H09E profits could be among the best in the sector.
- Results, guidance and highlights** — 1) MediaTek has reported worse 4Q08 EPS of NT\$2.68 (vs. our NT\$2.98) on a better op margin of 23% (vs. our 21%) but a much higher impairment loss of NT\$1.26bn; 2) It guided to a 1Q09 sales decline of 8-16% qoq (vs. our -24% qoq) and a flattish gross margin; 3) 1.77 months (vs. 3-year average of 2.65) of inventory was much lower than market expectation of over 3 months; 4) It confirmed cutting op expenses (excluding employee bonus) to NT\$4.5-4.7bn in 1Q09 and likely in 2Q from NT\$5.66bn in 4Q08; 5) It said the handset IC business was stronger than average.
- Few to remain profitable in 1H09E** — As foundries, OSATs and TFT-LCDs enter trough utilization in 1Q09E, we expect MediaTek to maintain a flat gross margin QoQ (low factory depreciation cost) and op margin contraction of only 3-4ppt vs. TSMC's 35.6ppt and OSATs' 20-30ppt. We thus believe MediaTek will be one of very few to report strong profits in 1H09E on an op margin of 19-20%.
- Adjusting EPS estimates** — Because of stronger 1Q guidance, a better gross margin and lower op expenses, we are increasing our 1Q09E EPS by 45% to NT\$2.35 and 09E EPS by 0.3% to NT\$15.2. Accordingly, we are also raising our target price.

Buy/Low Risk	1L
Price (06 Feb 09)	NT\$255.50
Target price	NT\$305.00
	<i>from NT\$270.00</i>
Expected share price return	19.4%
Expected dividend yield	4.5%
Expected total return	23.9%
Market Cap	NT\$274,190M
	US\$8,150M

Price Performance (RIC: 2454.TW, BB: 2454 TT)

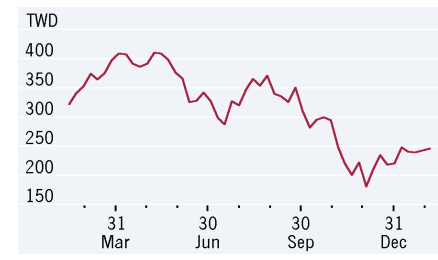


Figure 1. MediaTek — Statistical Abstract

Year to	EPS	EPS	P/E	Bonus adj	EPS	Bonus adj	P/B	ROE	Bimg	% diff
31-Dec	(NT\$)	YoY	(x)	EPS (NT\$)	YoY	P/E (x)	(x)	(%)	(NT\$)	
2006A	21.98	21%	14.2	9.25	-26%	34.0	5.1	33%		
2007A	31.95	45%	8.0	25.42	175%	10.1	3.1	39%		
2008E*	17.88	-44%	14.3	17.88	-30%	14.3	3.2	23%	18.59	-4%
2009E*	15.20	-15%	16.8	15.20	-15%	16.8	2.7	16%	16.13	-6%
2010E*	23.60	55%	10.8	23.60	55%	10.8	2.2	20%	21.42	10%

Source: Company Reports and Citi Investment Research estimates *Bonus-adjusted EPS

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See Appendix A-1 for Analyst Certification and important disclosures.

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¹Citigroup Global Markets Taiwan Securities Co. Limited

Fiscal year end 31-Dec	2006	2007	2008E	2009E	2010E
Valuation Ratios					
P/E adjusted (x)	11.6	8.0	14.3	16.8	10.8
EV/EBITDA adjusted (x)	8.7	6.2	8.6	10.3	6.5
P/BV (x)	3.9	3.1	3.2	2.7	2.2
Dividend yield (%)	5.5	7.4	4.5	3.9	6.0
Per Share Data (NT\$)					
EPS adjusted	21.98	31.95	17.88	15.20	23.60
EPS reported	21.98	31.95	17.88	15.20	23.60
BVPS	65.76	81.87	79.08	94.28	117.88
DPS	13.95	19.00	11.62	9.88	15.34
Profit & Loss (NT\$M)					
Net sales	52,942	80,672	90,402	84,053	105,644
Operating expenses	-29,126	-48,783	-68,093	-66,318	-79,864
EBIT	23,816	31,889	22,308	17,735	25,780
Net interest expense	638	1,490	1,298	920	2,050
Non-operating/exceptionals	-87	1,473	-2,499	-500	0
Pre-tax profit	24,366	34,852	21,107	18,155	27,830
Tax	-1,794	-1,260	-1,924	-1,841	-2,505
Extraord./Min.Int./Pref.div.	0	0	0	0	0
Reported net income	22,572	33,593	19,183	16,314	25,325
Adjusted earnings	22,572	33,593	19,183	16,314	25,325
Adjusted EBITDA	25,288	33,995	24,366	19,831	28,126
Growth Rates (%)					
Sales	13.9	52.4	12.1	-7.0	25.7
EBIT adjusted	38.0	33.9	-30.0	-20.5	45.4
EBITDA adjusted	38.9	34.4	-28.3	-18.6	41.8
EPS adjusted	21.2	45.4	-44.1	-15.0	55.2
Cash Flow (NT\$M)					
Operating cash flow	23,110	27,793	25,654	15,414	26,170
Depreciation/amortization	1,473	2,106	2,058	2,096	2,345
Net working capital	-934	-7,905	4,414	-2,995	-1,500
Investing cash flow	-8,588	8,517	-12,204	130	-370
Capital expenditure	-1,327	-1,754	-1,761	-2,500	-3,000
Acquisitions/disposals	-6,792	13,662	-1,323	0	0
Financing cash flow	-7,787	-15,001	-20,415	2	2
Borrowings	0	41	0	0	0
Dividends paid	-10,478	-13,512	-19,776	0	0
Change in cash	6,735	21,309	-6,966	15,546	25,802
Balance Sheet (NT\$M)					
Total assets	76,666	98,867	95,646	114,370	143,316
Cash & cash equivalent	39,359	60,510	53,545	69,091	94,894
Accounts receivable	3,857	7,082	5,429	6,448	8,104
Net fixed assets	4,815	5,922	6,825	8,229	9,884
Total liabilities	9,141	12,797	10,782	13,193	16,812
Accounts payable	4,281	7,537	4,927	7,741	9,980
Total Debt	0	41	41	41	41
Shareholders' funds	67,526	86,069	84,862	101,176	126,501
Profitability/Solvency Ratios (%)					
EBITDA margin adjusted	47.8	42.1	27.0	23.6	26.6
ROE adjusted	37.5	43.7	22.4	17.5	22.2
ROIC adjusted	nm	nm	100.8	69.7	101.4
Net debt to equity	-58.3	-70.3	-63.0	-68.2	-75.0
Total debt to capital	0.0	0.0	0.0	0.0	0.0

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4Q08 highlights

MediaTek reported worse 4Q08 EPS of NT\$2.68 (vs. our NT\$2.98), but gross margin was higher at 54.5% (vs. our 52.5%) and op margin was 23% (vs. our 21%). But an unexpected one-off impairment loss of NT\$1.26bn due to a valuation loss from fixed income securities investment and a goodwill impairment charge resulted in a worse 4Q08 EPS.

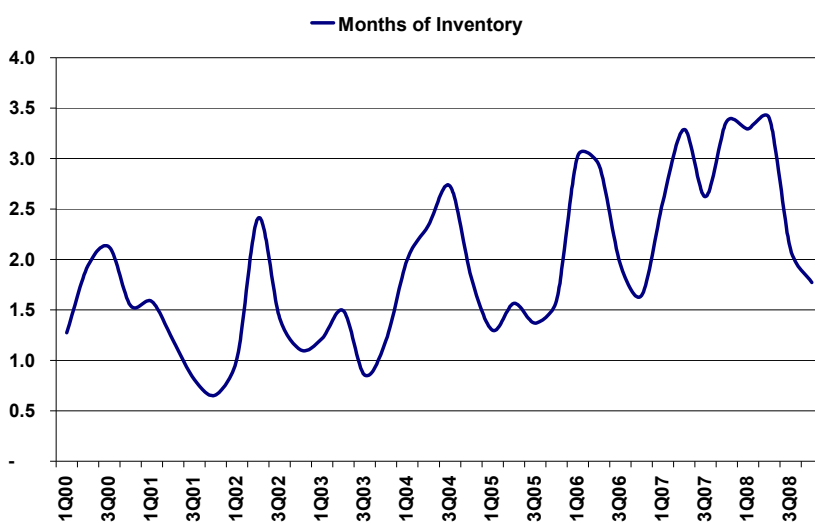
Although 4Q sales declined 26% qoq, MediaTek said handset ICs would account for 60-65% of its sales, up from the previous quarter. Optical drive ICs formed 15-20% of total sales, and DVD players and TV ICs 5% and 10% respectively. With a mix shift benefiting the ASP, the gross margin increased slightly from the 3Q level.

While the market expected months of inventory to exceed 3 months, Mediatek reported just 1.77 months, against 2.1 months in the previous quarter (vs. the 3-year average of 2.65). However, we are hearing of some wafer push-out into 1Q09E.

1H09 guidance and outlook

- **8-16% qoq decline seems optimistic?** Although we take it as positive that MediaTek guided to an 8-16% qoq decline in 1Q09 sales, better than recent market talk of a 10-20% qoq decline, we see risks to its guidance as the company has only 1-2 weeks of firm visibility. As the company has a track record of missing its guidance, we factor in a more conservative 20% qoq sales decline in our model, up from a 24% qoq decline modeled earlier.
- **Gross margin flattish and op margin down slightly:** Benefiting from the US\$ appreciation and several cost reductions, MediaTek guided to a flattish gross margin of 54% (vs. our 51%). MediaTek also expects 1Q09 and 2Q09 non-GAAP op expenses of NT\$4.5bn-4.7bn (excluding employee bonus), respectively, cut from NT\$5.66bn in 4Q08. As a result, MediaTek should be able to deliver an op margin of 19-20% for 1Q09E, much better than our earlier estimate of 14%.
- **Least operating leverage in trough:** With a 19-20% op margin in 1Q09E, MediaTek sees op margin contraction of 3-4ppts from 4Q08 or 2.5-3ppts op margin drop per 10% qoq sales decline. This is much better than several semi leaders' operating performance on 10% qoq sales declines (TSMC's 7.4ppts, SPIL's 5.3ppts, ASE's 6-7ppts, and Kinsus' 4.8ppts op margin contraction per 10% qoq sales decline). This is because MediaTek has little depreciation cost.
- **Breakdown and growth:** MediaTek commented that handset ICs would be stronger in 1Q09 and account for 65-70% of sales, up from 60-65% in the prior quarter. MediaTek commented that WCDMA IC (using 65nm tech) ramp-up would start in 2H09, focusing on the China market with China Unicom's platform first instead of overseas clients as we expected earlier. Lastly, MediaTek still expects handset ICs to grow in 09 (up 47% yoy in 08 to nearly 220m units), better than our estimate of a 5% yoy decline in shipments for 09E.
- **Healthy months of inventory:** MediaTek expects to increase its months of inventory to 70-80 days but still below 3 months, up from 54 days in 4Q08. This was consistent with our earlier check on rush orders to TSMC.

Figure 2. MediaTek — Months of Inventory



Source: Company Reports and Citi Investment Research estimates

Figure 3. Asia Pac Semis Operating Leverage Comparison

Co.	Sector	Type	Sales guidance or exp.	Op% guidance or exp.	Op% ppts change qoq	Impact per 10% sales down
TSMC	Foundry	Guidance	down 46-50% qoq	-15 to -19%	33.6 to 37.6 ppts	7.4 ppts down
UMC	Foundry	Estimates	down 46-50% qoq	-52%	44 ppts	9.2 ppts down
Chartered	Foundry	Guidance	down 30-33% qoq	-55%	38 ppts	11.5 ppts down
Vanguard	Foundry	Guidance	down 51-55% qoq	-65 to -69%	55 to 59 ppts	10.8 ppts down
SMIC	Foundry	Guidance	down 50% qoq	-150%	100 ppts	20 ppts down
SPIL	Packaging	Estimates	down 41-42% qoq	-14%	22 ppts	5.3 ppts down
ASE	OSAT	Estimates	down 41-42% qoq	-23%	24 ppts	5.8 ppts down
Ardentec	Probing	Estimates	down 40-45% qoq	-16%	33 ppts	8.2 ppts down
Nanya PCB	Substrate	Estimates	down 42% qoq	-4 to 0%	13 to 15 ppts	3.8 ppts down
Kinsus	Substrate	Estimates	down 42% qoq	-6%	20 ppts	4.8 ppts down
Shinko Japan	Substrate	Estimates	down 50% qoq	-57%	46 ppts	9.2 ppts down
NGK Japan	Substrate	Estimates	down 28% qoq	-23%	21 ppts	7.5 ppts down
Ibiden Japan	Substrate	Estimates	down 21% qoq	-22%	23 ppts	11.0 ppts down
MediaTek	Fabless	Guidance	down 8-16% qoq	20%	3 ppts	2.5 ppts down

Source: Company Reports and Citi Investment Research estimates

Figure 4. MediaTek — Quarterly Earnings Adjustment

	1Q08A	2Q08A	3Q08A	4Q08A	1Q09E	2Q09E	3Q09E	4Q09E
Old CIR forecast								
Net sales in NT\$ bn	19.4	22.3	28.1	20.5	15.6	18.5	25.3	25.8
Gross profits in NT\$ bn	10.1	12.0	15.2	10.8	7.9	9.5	13.3	13.3
Gross margin (%)	52%	54%	54%	53%	51%	52%	53%	52%
Op profits	4.1	5.8	7.6	4.3	2.1	3.2	6.1	5.8
Op margin (%)	21%	26%	27%	21%	14%	18%	24%	22%
Net profits	4.0	5.1	7.2	3.2	1.7	3.1	5.8	5.6
Net margin (%)	21%	23%	26%	16%	11%	17%	23%	22%
EPS in NT\$	3.75	4.75	6.69	2.98	1.62	2.91	5.44	5.18
Full year EPS in NT\$				18.17				15.15
Blmg EPS in NT\$				3.67	2.84	3.43	4.20	4.99
New CIR forecast								
Net sales in NT\$ bn	19.4	22.3	28.1	20.7	16.4	17.9	25.3	24.4
Gross profits in NT\$ bn	10.1	12.0	15.2	11.3	8.6	9.2	13.3	12.6
Gross margin (%)	52%	54%	54%	54%	53%	52%	53%	51%
Op profits	4.1	5.8	7.6	4.7	3.1	3.4	6.1	5.2
Op margin (%)	21.2%	26.1%	27%	23%	19%	19%	24%	21%
Net profits	4.0	5.1	7.2	2.9	2.5	3.1	5.8	4.9
Net margin (%)	21%	23%	26%	14%	15%	17%	23%	20%
EPS in NT\$	3.75	4.75	6.69	2.68	2.35	2.87	5.40	4.58
Full year EPS in NT\$				17.88				15.20
Blmg EPS in NT\$				3.67	2.84	3.43	4.20	4.99
Revision (%)								
Net sales in NT\$ bn	0%	0%	0%	1%	6%	-3%	0%	-5%
Gross profits	0%	0%	0%	5%	9%	-3%	0%	-6%
Op profits	0%	0%	0%	11%	45%	4%	1%	-11%
Net EPS	0%	0%	0%	-10%	45%	-1%	-1%	-12%
Yearly EPS				-2%				0.3%
Citi vs. Blmg EPS				-27%	-17%	-16%	29%	-8%

Source: Company Reports and Citi Investment Research estimates

Figure 5. MediaTek — Annual Estimates Revisions

Year to	Net Income (NT\$ Billions)		Diluted EPS (NT\$)		
	Old	New	Old	New	% Chg
31-Dec					
2009E	16.26	16.31	15.15	15.20	0.3%
2010E	25.33	25.33	23.60	23.60	0.0%

Source: Citi Investment Research estimates

Figure 6. MediaTek – Quarterly Income Statement (2007-10E, NT Dollars in Billions)

2/6/2009	2007A					2008A					2009E					2010E				
(NT\$ bn)	1QA	2QA	3QA	4QA	FYE '07	1QA	2QA	3QA	4QA	FYE '08	1Q	2Q	3Q	4Q	FYE '09	1Q	2Q	3Q	4Q	FYE '10
NET REVENUES	14.9	18.4	26.7	20.6	80.7	19.4	22.3	28.1	20.7	90.4	16.4	17.9	25.3	24.4	84.1	21.6	23.4	30.8	29.8	105.6
Total cost of good sold	(6.4)	(8.1)	(11.5)	(9.4)	(35.3)	(9.3)	(10.3)	(12.8)	(9.4)	(41.8)	(7.8)	(8.7)	(12.0)	(11.9)	(40.4)	(11.0)	(11.5)	(14.8)	(14.7)	(52.0)
GROSS PROFIT	8.6	10.3	15.2	11.3	45.3	10.1	12.0	15.2	11.252	48.6	8.6	9.2	13.3	12.6	43.7	10.6	11.9	16.0	15.2	53.6
Operating expenses	(2.4)	(2.8)	(3.3)	(4.9)	(13.4)	(6.0)	(6.2)	(7.6)	(6.5)	(26.3)	(5.6)	(5.8)	(7.1)	(7.4)	(26.0)	(6.1)	(6.4)	(7.5)	(7.8)	(27.8)
OPERATING INCOME	6.2	7.5	11.9	6.4	31.9	4.1	5.8	7.6	4.732	22.3	3.1	3.4	6.1	5.2	17.7	4.5	5.5	8.4	7.3	25.8
Int&other inc/(exp)	1.6	0.9	0.2	0.2	3.0	0.2	0.3	(0.1)	(1.6)	(1.2)	(0.3)	0.2	0.2	0.2	0.4	0.5	0.5	0.5	0.5	2.0
PRETAX INCOME	7.8	8.4	12.1	6.6	34.9	4.3	6.2	7.6	3.1	21.1	2.8	3.6	6.4	5.4	18.2	5.0	6.0	9.0	7.8	27.8
Taxes or tax credit	0.0	(0.8)	(0.3)	(0.2)	(1.3)	(0.3)	(1.1)	(0.4)	(0.2)	(1.9)	(0.3)	(0.5)	(0.6)	(0.5)	(1.8)	(0.5)	(0.5)	(0.8)	(0.7)	(2.5)
NET INCOME	7.8	7.6	11.8	6.3	33.6	4.0	5.1	7.2	2.881	19.2	2.5	3.1	5.8	4.9	16.3	4.6	5.5	8.1	7.1	25.3
PRETAX EPS IN NT\$	7.41	7.96	11.55	6.23	33.15	3.99	5.74	7.05	2.89	19.67	2.61	3.34	5.94	5.03	16.92	4.68	5.62	8.34	7.29	25.93
NET EPS IN NT\$	7.45	7.23	11.27	6.00	31.95	3.75	4.75	6.69	2.68	17.88	2.35	2.87	5.40	4.58	15.20	4.26	5.11	7.59	6.63	23.60
Fully diluted shares (bn)	1.05	1.05	1.05	1.05	1.05	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Gross margins	57%	56%	57%	55%	56%	52%	54%	54.3%	54.5%	54%	53%	52%	53%	51%	52%	49%	51%	52%	51%	51%
Operating margin	41%	41%	45%	31%	40%	21%	26%	27%	23%	25%	19%	19%	24%	21%	21%	21%	24%	27%	25%	24%
Pre-tax margin	52%	45%	45%	32%	43%	22%	28%	27%	15%	23%	17%	20%	25%	22%	22%	23%	26%	29%	26%	26%
Tax rate	1%	-9%	-2%	-4%	-4%	-6%	-17%	-5%	-7%	-9%	-10%	-14%	-9%	-9%	-10%	-9%	-9%	-9%	-9%	-9%
Net margin	52%	41%	44%	31%	42%	21%	23%	26%	14%	21%	15%	17%	23%	20%	19%	21%	23%	26%	24%	24%
Year-to-Year %																				
Net revenues	35%	57%	77%	37%	52%	30%	21%	5%	0%	12%	-15%	-20%	-10%	18%	-7%	32%	31%	22%	22%	26%
Gross profit	32%	52%	75%	30%	48%	18%	17%	0%	0%	7%	-15%	-23%	-13%	12%	-10%	23%	29%	20%	21%	23%
Operating income	21%	41%	75%	-4%	34%	-33%	-22%	-36%	-26%	-30%	-25%	-42%	-20%	9%	-21%	47%	64%	37%	41%	45%
Pretax income	55%	51%	72%	-3%	43%	-45%	-26%	-38%	-53%	-39%	-35%	-42%	-16%	74%	-14%	79%	68%	41%	45%	53%
Net income	52%	79%	82%	-6%	49%	-49%	-33%	-39%	-54%	-43%	-37%	-40%	-19%	71%	-15%	81%	78%	41%	45%	55%
Fully diluted EPS	49%	75%	78%	-8%	45%	-50%	-34%	-41%	-55%	-44%	-37%	-40%	-19%	71%	-15%	81%	78%	41%	45%	55%
Qtr-to-Qtr %																				
Net revenues	-1%	23%	45%	-23%		-6%	15%	26%	-26%		-20%	9%	42%	-3%		-11%	8%	32%	-3%	
Gross profit	-1%	20%	48%	-26%		-10%	19%	27%	-26%		-23%	7%	45%	-5%		-16%	12%	34%	-5%	
Operating income	-7%	21%	59%	-47%		-35%	42%	31%	-38%		-35%	9%	83%	-16%		-13%	22%	53%	-13%	
Net income	17%	-3%	56%	-47%		-36%	27%	41%	-60%		-13%	22%	88%	-15%		-7%	20%	49%	-13%	
Fully diluted EPS	14%	-3%	56%	-47%		-38%	27%	41%	-60%		-13%	22%	88%	-15%		-7%	20%	49%	-13%	

Source: Company and Citi Investment Research estimates

MediaTek

Company description

MediaTek is a fabless IC company and designs products for compact disk players (DVD-RW, CD-RW, CD-ROM, DVD-ROM), DVD players, mobile handsets and digital televisions. It sells its products in Taiwan and exports to Asian countries.

Investment strategy

We rate MediaTek shares Buy/Low Risk. It is one of our top buys in our Asia Pac semi portfolio (includes MediaTek, Samsung, SPIL, and TSMC) based on the following long-term competitiveness factors: 1) Mediatek's continuous gains in handset IC production in China and export markets; 2) It is likely to penetrate one of the top 5 global handset OEM customers by 2H09E with its TD-SCDMA and WCDMA solutions; 3) New products like TDSCDMA, WCDMA, CMMB handset TV IC, 5 megapixels DSC handset, smart phone, blue-ray DVD, and DSC roll-out schedules are intact ; 4) Superior to global peers on ROE and operating margin, with attractive valuations; 5) As foundries, OSATs and TFT-LCDs enter a trough utilization phase in 1Q09E, we expect MediaTek's op margin to decline only 3-4 ppts to 19-20% (no factory depreciation cost and strong bargaining power to lower foundry and IC packaging/testing costs) vs. TSMC's 35.6ppt, other foundries' 40-60ppt and OSATs' 20-30ppt contractions.

Valuation

Given MediaTek's trough earnings and better-than-expected guidance, we are raising our P/E to growth multiple to 0.85x from 0.75x and target price to NT\$305 from NT\$270. We set our target price using a P/E to growth (PEG) multiple of 0.85x, factoring in a 15-17% earnings CAGR. Our PEG ratio of 0.85x translates to 13-15x 2010E bonus-adjusted EPS. PEG takes into account both earnings and growth, while other approaches (P/BV, P/Sales, etc.) do not adequately reflect growth prospects, in our view. We use a PEG ratio for all fabless stocks to be consistent with long-term EPS growth. If we see full recovery in MediaTek and the fabless sector, we cannot rule out a return to a P/E to growth multiple of 1x as the historical long-term range.

Risks

We rate MediaTek shares Low Risk based on our quantitative risk-rating system, which tracks 260-day historical share-price volatility. Key downside risks that could prevent the stock from reaching our target price include: 1) 1H09 global handset IC demand is still uncertain; 2) the fabless sector de-rating might continue into 1H09 due to an employee bonus impact and negative YoY sales momentum; and 3) the acquisition of ADI's baseband and TD-SCDMA 3G IC design team could lower return on investment and boost operating expenses for the next few quarters until consolidation is completed; 4) likely inventory write-off on an account rule change to SFAS 10 starting 1Q09E.

Appendix A-1

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MediaTek (2454.TW) Ratings and Target Price History Fundamental Research

Analyst: Andrew Lu

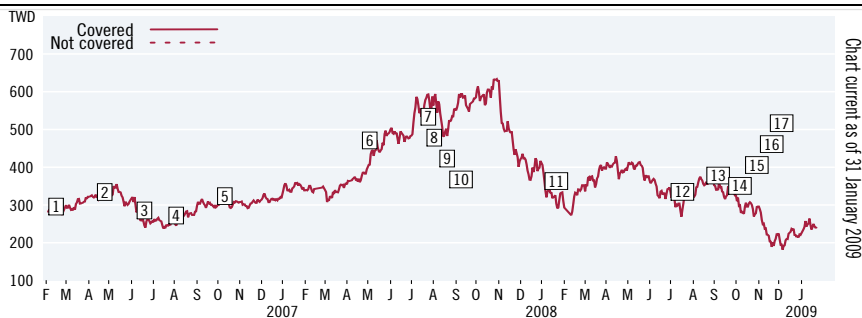


Chart current as of 31 January 2009

Date	Rating	Target Price	Closing Price
1 15-Feb-06	*2L	*300.03	294.89
2 25-Apr-06	2L	*342.89	330.89
3 20-Jun-06	*1L	342.89	245.17
4 3-Aug-06	1L	*342.89	245.17
5 11-Oct-06	*2L	*353.61	323.43
6 3-May-07	2L	*452.62	406.88

Date	Rating	Target Price	Closing Price
7 25-Jul-07	2L	*475.25	593.07
8 2-Aug-07	*3L	*594.06	584.16
9 21-Aug-07	*1L	*584.16	482.67
10 10-Sep-07	1L	*668.32	594.06
11 22-Jan-08	1L	*554.46	302.97
12 17-Jul-08	1L	*525.00	287.50

Date	Rating	Target Price	Closing Price
13 5-Sep-08	1L	*510.00	341.00
14 7-Oct-08	1L	*475.00	299.00
15 30-Oct-08	1L	*450.00	295.00
16 20-Nov-08	1L	*290.00	189.00
17 4-Dec-08	1L	*270.00	195.00

* Indicates change

Rating/target price changes above reflect Eastern Standard Time

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