

TAIWAN

Chunghwa Telecom

15 October 2008

2412 TT **Neutral**

Stock price as of 14 Oct 08	NT\$	67.60
12-month target	NT\$	66.90
Upside/downside	%	-1.0
Valuation	NT\$	87.00
- DCF		

GICS sector	telecommunication services	
Market cap	NT\$m	646,106
30-day avg turnover	NT\$m	2,212.6
Market cap	US\$m	19,914
Foreign ownership	%	45.5
Number shares on issue	m	9,558

Investment fundamentals

Year end 31 Dec		2007A	2008E	2009E	2010E
Total revenue	bn	186.3	186.2	186.3	186.5
EBITDA	bn	100.6	98.7	99.9	99.0
EBITDA growth	%	2.4	-1.8	1.2	-0.9
Reported profit	bn	48.2	47.4	47.7	48.5
Profit bonus exp	bn	46.5	47.4	47.7	48.5
Bon exp/rep prof	%	3.7	0.0	0.0	0.0
EPS rep	NT\$	4.56	4.96	4.99	5.08
EPS rep growth	%	-0.4	8.8	0.6	1.6
EPS bonus exp	NT\$	4.39	4.96	4.99	5.08
EPS bonus growth %		-4.1	13.0	0.6	1.6
PE rep	x	14.8	13.6	13.5	13.3
PE bonus exp	x	15.4	13.6	13.5	13.3
Total DPS	NT\$	4.26	4.47	4.49	4.57
Total div yield	%	6.3	6.6	6.6	6.8
ROA	%	13.2	12.6	12.7	13.0
ROE	%	12.1	11.9	11.8	11.9
EV/EBITDA	x	6.2	5.6	5.5	5.6
Net debt/equity	%	-18.9	-22.9	-22.6	-23.8
Price/book	x	1.8	1.6	1.6	1.6

2412 TT rel Taiex performance, & rec history



Source: Datastream, Macquarie Research, October 2008
(all figures in NT\$ unless noted)

Analyst

Tim Smart
852 2823 3565 tim.smart@macquarie.com
Joseph Quinn
886 2 2734 7519 joseph.quinn@macquarie.com

After defying gravity...coming down to earth

Event

- Chunghwa Telecom (CHT) is up 3% this year, outperforming MSCI AsiaPac telcos (-37%) and the MSCI Taiwan index (-42%). Even so, we downgrade CHT from Outperform to Neutral and reduce our TP from NT\$88.1 to NT\$66.9 as we change our target-price methodology from DCF to PER-based. Changes to forecasts and valuation are driven by increased concerns about marketing costs, handset subsidies and a weaker economy in 2009. Changes to our TP methodology are a function of the extreme relative premium at which CHT is now trading after its strong performance this year. The relative premium itself diminishes the "defensive" appeal.

Impact

- 3Q preliminary results suggest increasing opex.** CHT released sparse preliminary numbers as normal, but within these, a 14% decline YoY in operating profits stood out. CHT's 3Q conference call is over two weeks away, but from what we understand at present, the main reasons for this drop are higher handset subsidies and handset costs relating to smartphones.
- Taiwan GDP growth of -2% in 2009.** Bill Belchere, our regional economist, has just reduced his 2009 GDP growth forecast for Taiwan from 4% to -2%. In a marginally more-competitive environment, we are revising our top-line growth forecast from 2% to 0% for FY09, and our overall EPS growth estimate for FY09 is now 0.6%.
- Forex contract to be unwound.** After reporting 3Q preliminary results, CHT's board authorised management to unwind its ten-year foreign-exchange-derivate contract. Losses as of 3Q08 were down to NT\$1.1bn as the New Taiwan dollar depreciated. We regard the unwinding of the forex contract as a minor positive.

Earnings revision

- We reduced our 2008 and 2009 EPS forecasts by 6% and 5%, respectively, due to increased marketing costs and a weaker economic outlook.

Price catalyst

- 12-month price target: NT\$66.90 based on a PER methodology.
- Catalyst: Growth in revenue from data services (data cards, MOD, fibre).

Action and recommendation

- Our positive thesis on CHT and its top Asia-pick status were premised on its low-risk, stable cashflow and attractive yield. Recent results suggest a marginally more-competitive market than was previously assumed. More important, after the strong de-rating of the rest of the sector, CHT no longer seems as low risk due to its substantial relative valuation premium. Our change in TP methodology reflects our assessment that comparable peer multiples are likely to have a greater influence on stock price than our long-term DCF valuation (which is NT\$87). In Taiwan, we advocate a switch to Far EasTone, and regionally, we recommend a switch to the recently upgraded China Mobile and PT Telkom.

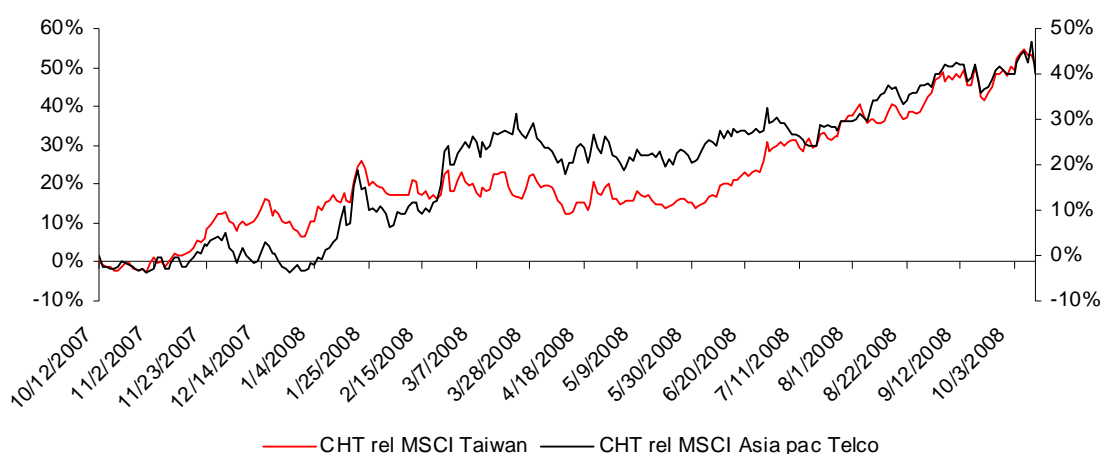
Please refer to the important disclosures and analyst certification on inside back cover of this document. or on our website www.macquarie.com.au/research/disclosures.

Analysis

Relative valuation

- Chunghwa Telecom is up 3% this year, strongly outperforming MSCI AsiaPac telcos (-37%) and the MSCI Taiwan index (-42%). As a result, we have downgraded Chunghwa Telecom from Outperform to Neutral and are reducing our target price from NT\$88.1 to NT\$66.9 as we change our target price methodology from DCF to PER-based.
- Our revised forecasts for 2008 and 2009 EPS are now 6.5% and 8.1% below the respective Bloomberg consensus numbers. We believe the Street has yet to build-in a more-challenging economic environment for 2009, with the consensus EPS forecast growth of 5.3% vs our 0.6% growth estimate.

Fig 1 CHT relative performance to MSCI Taiwan and MSCI AsiaPac telcos



Source: Macquarie Research, October 2008

- Changes to our forecasts and valuation are driven by increased concerns about marketing costs, handset subsidies and a weaker economy in 2009 given our recently revised GDP growth outlook of -2%. Although sales for both Chunghwa Telecom and Far EasTone declined by 2% YoY (Taiwan Mobile's were flat YoY), Chunghwa's operating line had a much-larger decline than the other two incumbents.
- We have also changed our target price methodology as a function of the extreme relative premium at which Chunghwa is now trading after its strong performance this year. Chunghwa is currently trading at a 2009E PER of 13.5x vs 11.0x for Asia-ex integrated telcos and 8.7x for Macquarie's universe in Taiwan. We believe that peer comparative multiples are likely to have a greater influence on stock price than a long-term DCF valuation (which is NT\$87), and, hence, this relative premium diminishes the "defensive" appeal, in our view.

Fig 2 Implied valuations at current price, target price and DCF valuation

	2008E	2009E
At current price		
PER (x)	13.6	13.5
EV/EBITDA (x)	5.6	5.5
At target price		
PER (x)	13.5	13.4
EV/EBITDA (x)	5.5	5.5
At DCF valuation		
PER (x)	17.5	17.4
EV/EBITDA (x)	7.5	7.4

Source: Macquarie Research, August 2008

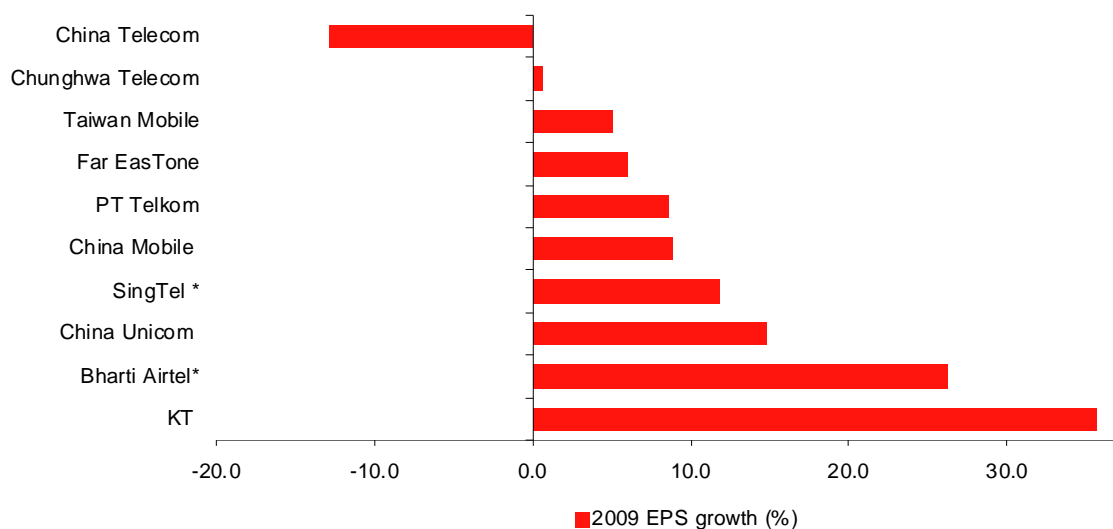
- Our positive thesis and top Asia-pick status were premised on CHT's low-risk, stable cashflow and attractive yield, but recent results suggest a marginally more-competitive market than previously assumed.
- In Taiwan, we advocate a switch to Far EastTone (4904 TT, NT\$38.5, Outperform, TP: NT\$55), while regionally, we recommend a switch into recently upgraded China Mobile (941 HK, HK\$74.8, Outperform, TP: HK\$89.0) and PT Telkom (TLKM IJ, Rp6,600, OP, TP: Rp9,000).

Fig 3 PER comparison of Chunghwa Telecom with regional peers

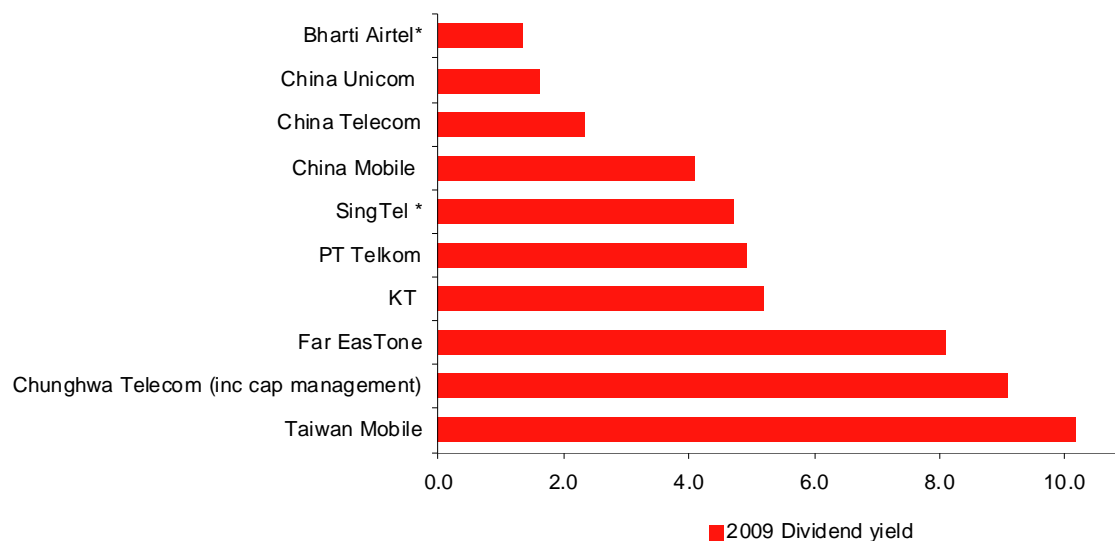
	2008E	2009E	2010E
Chunghwa Telecom	14.8	13.6	13.5
Far EastTone	13.1	11.9	11.1
Taiwan Mobile	11.6	9.0	8.5
China Mobile	11.6	10.7	10.2
China Unicom	16.1	14.0	14.2
China Telecom	9.2	10.5	10.5
KT	15.8	11.6	10.6
Bharti Airtel*	15.4	12.2	10.6
PT Telkom	10.1	9.3	8.5
SingTel *	11.9	10.6	10.1

*SingTel/Japan/India stocks Yr-end 31 March 2008 shown in 2007. Source: Macquarie Research, October 2008

Fig 4 2009 EPS growth comparison (%)



Source: Macquarie Research, October 2008

Fig 5 2009 Dividend yield comparison

Source: Macquarie Research, October 2008

3Q preliminary results heighten concerns

- Chunghwa released sparse preliminary 3Q numbers as normal, but within these, a 14% YoY decline in operating profits stood out. Chunghwa's 3Q08 conference call is over two weeks away, but from what we understand at present, the main reasons for this drop are higher handset subsidies and handset costs, mostly relating to smartphones. On top of this, we believe MOD and its related costs remain a concern due to a lack of a meaningful revenue contribution.
- Chunghwa's MOD service may face more pressure as a bearish economic environment persists into 2009. The result of this may be a trend of set-top-boxes (STBs) being returned and people cancelling their service, because, at present, there is very little to keep consumers tuned in and it pales in comparison to cable offerings. Based on users that we have talked to, the general consensus is that CHT's MOD service gets little use and is only kept because of the virtually free nature of the product through combined discount offers with an upgraded broadband package.
- Although the telco sector in Taiwan is less prone overall to a macro slowdown, it is not immune. We believe that the sharply deteriorating macro environment may already be playing out in Chunghwa's weaker 3Q08 numbers.

Fig 6 CHT 3Q08 preliminary results

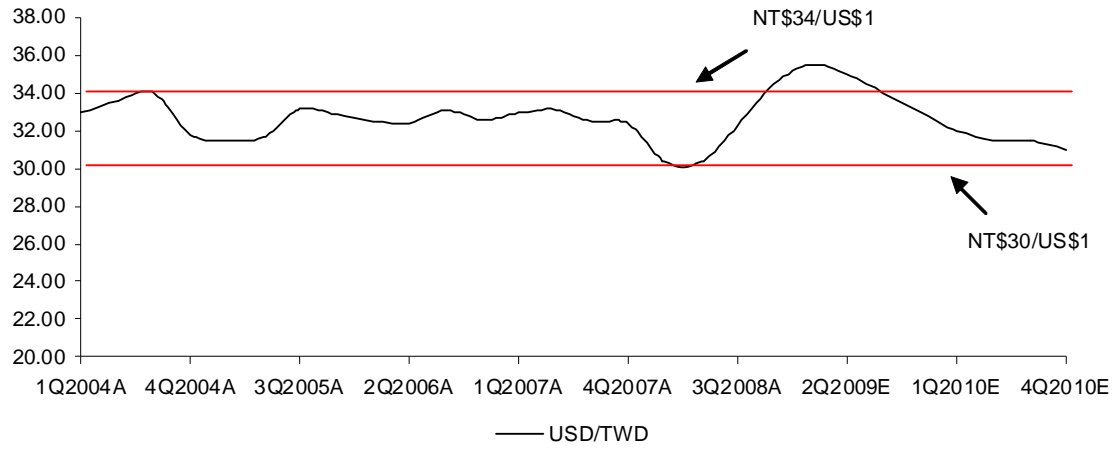
NT\$bn	3Q08	QoQ	YoY	MacQ forecast	difference
Sales	46.7	0%	-2%	47.7	-2%
Operating profit	14.6	-6%	-14%	16.8	-13%
Net Income	13.6	6%	-3%	13.2	3%

Source: Macquarie Research, October 2008

Forex contract to be unwound

- After reporting its 3Q preliminary results, CHT's board authorised management to unwind its ten-year foreign-exchange-derivate contract. We have consistently flagged this forex contract as a concern for management, and although we are positive on its commitment to unwind this product, we believe it will do little to boost the share price in the current environment.
- Also, based on our estimates, we believe that NT\$2bn+ in losses related to this contract have already been written back in 3Q08. Going forward, if the NT\$ reaches NT\$32.7 or higher, this foreign exchange derivate contract will automatically expire. Our house forecast is (see chart below) for the NT\$ to reach NT\$34.5 vs the US\$ by year-end; thus, in this case, the forex contract would expire and Chunghwa would be able to write back all losses associated with the contract.

Fig 7 Forex rate forecast for the US\$/TW\$ (4Q08–4Q10E)



Source: Macquarie Research, October 2008

Changes to our estimates

- The most-significant changes to our estimates were lowering our blended mobile ARPU assumptions from NT\$697 and NT\$701 per month to NT\$689 and NT\$692 for 2009 and 2010, respectively. At the same time, we have increased our estimate of the costs associated with handset subsidies and marketing, because we are taking a more-prudent view of these items going forward.

Fig 8 Chunghwa Telecom – New estimates vs old

	New Estimates			Old Estimates			% Difference		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Financials (TWD m)									
Mobile Revenue	72,624	72,806	73,399	73,146	73,675	74,275	-0.7%	-1.2%	-1.2%
Fixed-line Rev (local, DLD, IDD)	57,935	55,915	54,064	58,191	56,324	54,663	-0.4%	-0.7%	-1.1%
Data Revenue (Internet, ADSL, FTTB)	40,822	42,484	43,744	41,852	43,376	44,348	-2.5%	-2.1%	-1.4%
Other Revenue (Satellite, Leased line, paging, sales, others)	14,838	15,049	15,265	14,898	18,839	18,968	-0.4%	-20.1%	-19.5%
Total operating revenue	186,220	186,254	186,472	188,086	192,214	192,253	-1.0%	-3.1%	-3.0%
EBITDA	98,725	99,918	98,972	101,168	103,964	102,275	-2.4%	-3.9%	-3.2%
Margin	53.0%	53.6%	53.1%	53.8%	54.1%	53.2%	-0.8%	-0.4%	-0.1%
Depreciation	39,385	39,572	37,623	39,385	39,572	37,677	0.0%	0.0%	-0.1%
Operating profit	59,340	60,346	61,349	61,783	64,392	64,597	-4.0%	-6.3%	-5.0%
Interest income	1,589	1,490	1,492	1,604	1,538	1,538	-0.9%	-3.1%	-3.0%
Interest expense	0	0	0	0	0	0			
Investment loss	0	0	0	0	0	0			
Other	-267	-650	-650	-2,915	-650	-650	-90.9%	0.0%	0.0%
Non-operating net income	1,322	840	842	-1,311	888	888	-200.8%	-5.4%	-5.2%
Pre-tax profit	60,662	61,186	62,191	60,472	65,280	65,485	0.3%	-6.3%	-5.0%
Taxation	13,228	13,461	13,682	13,188	14,361	14,407	0.3%	-6.3%	-5.0%
Net profit attr to s/h	47,429	47,720	48,504	47,279	50,913	51,073	0.3%	-6.3%	-5.0%
Margin	25.5%	25.6%	26.0%	25.1%	26.5%	26.6%	0.3%	-0.9%	-0.6%
EPS	4.96	4.99	5.07	4.95	5.33	5.34	0.3%	-6.3%	-5.0%
Operating metrics									
Mobile									
Total mobile subs (m)							0.0%	0.0%	0.0%
Mobile ARPU (TWD)	8,786	8,830	8,839	8,786	8,830	8,839	-0.7%	-1.2%	-1.2%
Fixed line	693	689	692	698	697	701			
Total lines (k)							0.0%	0.0%	0.0%
Blended ARPU (TWD)	229	222	218	228	223	219	0.2%	-0.5%	-0.5%
Broadband									
Total broadband subs (k)							0.0%	0.0%	0.0%
Blended ARPU (TWD)	4,366	4,475	4,565	4,366	4,475	4,565			
Capex (TWD m)	779	791	799	799	808	810	-2.5%	-2.1%	-1.4%
Capex (TWD m)	34,000	34,000	31,700	34,000	34,000	32,683	0.0%	0.0%	-3.0%

Source: Macquarie Research, October 2008

Updated target price and DCF valuation

- Our target price of NT\$66.9 reflects a PER-based target of 13.4x 2009E EPS. We derived this from the average PER target price for integrated telcos across the region.
- Our DCF valuation of NT\$87.0 derives from NT\$86.9 for the core telephony business plus an additional NT\$2.40/sh for the company's property-development subsidiary and NT\$1.90/sh for the book value of investments, minus NT\$4.26 for its 2007 dividend to be paid on 11 November (stock will go ex-dividend on 17 October). We use a WACC of 7.6% and a terminal-growth rate of 0.0%.
- These DCF assumptions incorporate a CAGR in revenue for FY07–14E of -0.4%, EBITDA of -1.2% and FCFF of -3.1%. We estimate that the EBITDA margin will decline over time from 53.0% in FY08 to 50.9% in FY14 and that capex intensity will stabilise at 14.5% of revenue by FY14 from 13.4% in FY07.

Fig 9 Chunghwa Telecom: DCF details

NT\$m	FY07A	FY08E	FY09E	FY10E	FY11E	FY12E	FY13E	FY14E																																																																																																	
Revenue	186,329	186,220	186,254	186,472	184,842	182,987	181,901	180,938																																																																																																	
Growth	100,569	98,725	99,918	98,972	96,903	94,076	92,549	92,115																																																																																																	
EBITDA	2.4%	-1.8%	1.2%	-0.9%	-2.1%	-2.9%	-1.6%	-0.5%																																																																																																	
Growth	21%	22%	22%	22%	22%	22%	22%	22%																																																																																																	
Margin	21,147	21,527	21,982	21,774	21,319	20,697	20,361	20,265																																																																																																	
Tax	39,658	39,385	39,572	37,623	35,166	32,958	31,794	31,681																																																																																																	
Tax shield on depreciation	8,339	8,588	8,706	8,277	7,737	7,251	6,995	6,970																																																																																																	
(Increase)/Decrease in WC	2,870	8,348	-1,501	63	214	70	40	37																																																																																																	
Capex	24,910	34,000	34,000	31,700	28,650	27,448	26,376	26,236																																																																																																	
Capex/revenue	13.4%	18.3%	18.3%	17.0%	15.5%	15.0%	14.5%	14.5%																																																																																																	
FCFF	65,721	60,133	51,141	53,838	54,885	53,251	52,847	52,620																																																																																																	
Growth	43%	-9%	-15%	5%	2%	-3%	-1%	0%																																																																																																	
PV(FCFF)	64,695	59,194	46,767	45,738	43,316	39,042	35,994	33,295																																																																																																	
Sum 2008-2015 PV(FCFF)	334,277	<table border="1"> <thead> <tr> <th colspan="8">Sensitivity of equity value per share to WACC and terminal growth</th> </tr> <tr> <th></th> <th colspan="7">WACC</th> </tr> <tr> <th></th> <th></th> <th>5.0%</th> <th>6.0%</th> <th>7.0%</th> <th>8.0%</th> <th>9.0%</th> <th>10.0%</th> </tr> </thead> <tbody> <tr> <td>Enterprise Value</td> <td>-1.0%</td> <td>117.2</td> <td>102.0</td> <td>90.6</td> <td>81.8</td> <td>74.7</td> <td>69.0</td> </tr> <tr> <td>Net Debt (Net cash)</td> <td>-0.5%</td> <td>120.8</td> <td>104.2</td> <td>92.0</td> <td>82.7</td> <td>75.4</td> <td>69.5</td> </tr> <tr> <td>Equity value</td> <td>0.0%</td> <td>125.1</td> <td>106.8</td> <td>93.6</td> <td>83.8</td> <td>76.1</td> <td>70.0</td> </tr> <tr> <td>No. of shs outstdg (m)</td> <td>0.5%</td> <td>130.4</td> <td>109.8</td> <td>95.5</td> <td>85.0</td> <td>76.9</td> <td>70.6</td> </tr> <tr> <td>Equity value per share (NT\$)</td> <td>Terminal growth</td> <td>1.0%</td> <td>137.0</td> <td>113.5</td> <td>97.7</td> <td>86.4</td> <td>77.9</td> <td>71.2</td> </tr> <tr> <td>Contribution from property</td> <td>1.5%</td> <td>145.5</td> <td>118.0</td> <td>100.3</td> <td>88.0</td> <td>78.9</td> <td>71.9</td> </tr> <tr> <td>1Q08 BVPS of investments @ 30% disc</td> <td>2.0%</td> <td>156.8</td> <td>123.6</td> <td>103.5</td> <td>89.9</td> <td>80.1</td> <td>72.7</td> </tr> <tr> <td>Deduct 2007 Dividend (NT\$)</td> <td>2.5%</td> <td>172.7</td> <td>130.8</td> <td>107.3</td> <td>92.1</td> <td>81.5</td> <td>73.6</td> </tr> <tr> <td>Target price (NT\$)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>87.0</td> </tr> </tbody> </table>							Sensitivity of equity value per share to WACC and terminal growth									WACC									5.0%	6.0%	7.0%	8.0%	9.0%	10.0%	Enterprise Value	-1.0%	117.2	102.0	90.6	81.8	74.7	69.0	Net Debt (Net cash)	-0.5%	120.8	104.2	92.0	82.7	75.4	69.5	Equity value	0.0%	125.1	106.8	93.6	83.8	76.1	70.0	No. of shs outstdg (m)	0.5%	130.4	109.8	95.5	85.0	76.9	70.6	Equity value per share (NT\$)	Terminal growth	1.0%	137.0	113.5	97.7	86.4	77.9	71.2	Contribution from property	1.5%	145.5	118.0	100.3	88.0	78.9	71.9	1Q08 BVPS of investments @ 30% disc	2.0%	156.8	123.6	103.5	89.9	80.1	72.7	Deduct 2007 Dividend (NT\$)	2.5%	172.7	130.8	107.3	92.1	81.5	73.6	Target price (NT\$)							87.0
Sensitivity of equity value per share to WACC and terminal growth																																																																																																									
	WACC																																																																																																								
									5.0%	6.0%	7.0%	8.0%	9.0%	10.0%																																																																																											
Enterprise Value	-1.0%								117.2	102.0	90.6	81.8	74.7	69.0																																																																																											
Net Debt (Net cash)	-0.5%								120.8	104.2	92.0	82.7	75.4	69.5																																																																																											
Equity value	0.0%								125.1	106.8	93.6	83.8	76.1	70.0																																																																																											
No. of shs outstdg (m)	0.5%								130.4	109.8	95.5	85.0	76.9	70.6																																																																																											
Equity value per share (NT\$)	Terminal growth								1.0%	137.0	113.5	97.7	86.4	77.9	71.2																																																																																										
Contribution from property	1.5%								145.5	118.0	100.3	88.0	78.9	71.9																																																																																											
1Q08 BVPS of investments @ 30% disc	2.0%								156.8	123.6	103.5	89.9	80.1	72.7																																																																																											
Deduct 2007 Dividend (NT\$)	2.5%								172.7	130.8	107.3	92.1	81.5	73.6																																																																																											
Target price (NT\$)														87.0																																																																																											
Sum 2015-2026 PV(FCFF)	224,678																																																																																																								
Terminal Value (2026)	688,387																																																																																																								
PV (Terminal Value 2026)	179,962																																																																																																								
Enterprise Value	738,916																																																																																																								
Net Debt (Net cash)	-92,029																																																																																																								
Equity value	830,945																																																																																																								
No. of shs outstdg (m)	9,558																																																																																																								
Equity value per share (NT\$)	86.9																																																																																																								
Contribution from property	2.4																																																																																																								
1Q08 BVPS of investments @ 30% disc	1.9																																																																																																								
Deduct 2007 Dividend (NT\$)	4.26																																																																																																								
Target price (NT\$)	87.0																																																																																																								

Source: Company data, Macquarie Research, October 2008

Fig 10 Our WACC assumptions for Chunghwa Telecom

Risk Free Rate	3.4%
Market Risk Premium	7.0%
Equity Beta	0.68
Cost of Equity	8.2%
Cost of Debt (Pretax)	4.0%
Cost of Debt (After-tax)	3.0%
Target Debt weight	10%
Target Equity weight	90%
Tax rate (statutory)	25%
WACC	7.6%
Terminal growth rate	0.0%

Source: Macquarie Research, October 2008

Fig 11 Taiwan telcos: Comp sheet

	Chunghwa (2412 TT, NT\$67.6, OP, TP: NT\$66.9)			Taiwan Mobile (3045 TT, NT\$47.6, OP, TP: NT\$64.5)			Far EasTone (4904 TT, NT\$38.5, OP, TP: NT\$55.0)		
	2007	2008E	2009E	2007	2008E	2009E	2007	2008E	2009E
Financials									
Revenues (NT\$m)	186,329	186,220	186,254	66,095	70,517	72,143	64,037	63,465	64,625
- growth	1%	0%	0%	12%	7%	2%	-5%	-1%	2%
EBITDA (NT\$m)	100,569	98,725	99,918	30,153	30,796	31,469	27,060	26,404	26,022
- growth	2%	-2%	1%	11%	2%	2%	-7%	-2%	-1%
EBITDA margins	54%	53%	54%	46%	44%	44%	42%	42%	40%
Net profit (reported, NT\$m)	48,249	47,434	47,725	6,771	15,935	16,730	11,422	10,579	11,281
Net Profit Adjusted (NT\$m)	48,649	47,836	47,725	16,075	15,935	16,730	11,619	10,648	11,281
- growth	8%	-2%	0%	-1%	-1%	5%	-12%	-8%	6%
EPS (adj, NT\$)	4.60	5.00	4.99	4.09	5.30	5.56	3.00	3.27	3.46
- growth	-1%	9%	0%	25%	29%	5%	-12%	9%	6%
EPS (reported, NT\$)	4.56	4.96	4.99	1.68	5.29	5.56	2.95	3.25	3.46
- growth	-1%	9%	1%	-49%	214%	5%	-12%	10%	7%
DPS (NT\$)	4.26	4.47	4.49	2.00	4.76	5.01	3.10	2.94	3.12
- growth	19%	5%	1%	-23%	138%	5%	0%	-5%	6%
Capital return (NT\$)	0.00	0.91	1.65	0.00	2.40	0.00	0.00	2.00	0.00
Ratios									
ROE	12%	12%	12%	5%	19%	16%	15%	14%	15%
ROA	10%	10%	10%	4%	10%	10%	12%	11%	12%
FCF yield	9%	9%	8%	16%	8%	10%	20%	7%	11%
Net debt/EBITDA	- 0.93 -	1.12 -	1.11	0.75	0.47	0.37	-	0.20 -	0.52
							0.33		
Net debt/(debt+equity)	-24%	-28%	-27%	69%	28%	21%	-11%	-7%	-17%
Payout ratio	84%	90%	90%	0%	0%	0%	90%	90%	90%
Capex to sales	13%	18%	18%	11%	11%	12%	0	0	0
Valuation metrics									
At current prices	67.6			47.6			38.5		
PER (x) - adjusted	14.7	13.5	13.5	11.6	9.0	8.5	12.8	11.8	11.1
PER (x) - reported	14.8	13.6	13.5	28.2	9.0	8.5	13.1	11.9	11.1
EV/EBITDA (x)	5.5	5.6	5.5	5.3	5.2	5.1	4.3	4.4	4.5
EV/unlevered free cash flow	8.8	10.7	10.5	9.0	9.3	9.4	6.5	8.2	8.1
P/FCF	15.5	9.8	10.7	10.6	7.9	8.2	8.4	7.4	7.1
Dividend yield	6.3%	6.6%	6.6%	4.2%	10.0%	10.5%	8.1%	7.6%	8.1%
Yield (incl cap return)	7.6%	9.0%	6.6%	9.3%	10.0%	10.5%	13.2%	7.6%	8.1%
At target prices (DCF)	66.9	PE based		64.5	DCF		55.09	DCF	
PER (x) - adjusted	14.5	13.4	13.4	15.8	12.2	11.6	18.3	16.8	15.9
PER (x) - reported	14.7	13.5	13.4	38.3	12.2	11.6	18.6	16.9	15.9
EV/EBITDA (x)	5.4	5.5	5.5	7.0	6.9	6.7	6.6	6.8	6.9
EV/unlevered free cash flow	8.7	10.6	10.4	11.8	12.2	12.4	9.4	12.0	11.8
P/FCF	15.4	9.7	10.6	14.4	10.7	11.1	12.1	10.6	10.2
Dividend yield	6.4%	6.7%	6.7%	3.1%	7.4%	7.8%	5.6%	5.4%	5.7%
Yield (incl cap return)	7.7%	9.1%	6.7%	6.8%	7.4%	7.8%	9.3%	5.4%	5.7%
Operating metrics									
Mobile subscribers (k)	8,699	8,786	8,830	6,235	6,260	6,320	6,216	6,320	6,400
- growth	2%	1%	1%	1%	0%	1%	4%	2%	1%
- market share	36%	36%	36%	26%	26%	25%	26%	26%	26%
% 3G of total subs	26%	40%	56%	20%	38%	56%	0	0	1
ARPU (NT\$)	714	693	689	792	788	799	800	770	773
- growth	-2%	-3%	-1%	-1%	-1%	1%	-4%	-4%	0%
Mobile MOUs	196	191	193	193	196	197	232	226	229
Fixed line subs (k)	12,952	12,823	12,694	-	-	-	na	na	na
Fixed lines ARPU (NT\$)	230	229	222	8,225	10,165	10,669	na	na	na
Broadband subs (k)	4,252	4,366	4,475	4024	4279	4431	na	na	na
- growth	5%	3%	2%	9%	6%	4%	na	na	na
Broadband ARPU (NT\$)	802	779	791	na	na	na	na	na	na
FTTx Subs (k)	537	1,000	1,600	na	na	na	na	na	na
- growth	190%	86%	60%	na	na	na	na	na	na
Cable Subs (k)	na	na	na	-	-	-	na	na	na
Cable ARPU (NT\$)	na	na	na	517	539	556	na	na	na

Source: Company data, Macquarie Research, October 2008

Fig 12 Chunghwa Telecom: Summary

	2006	2007	2008E	2009E	2010E	2011E	2012E	2013E	2014E	07-14 CAGR
Operational summary										
Mobile										
2G subs (k)	7544.0	6407.8	5265.6	3883.8	2590.4	1619.2	1036.1	647.5	647.1	-27.9%
% growth	-4.0%	-15.1%	-17.8%	-26.2%	-33.3%	-37.5%	-36.0%	-37.5%	-0.1%	
3G subs (k)	943.0	2291.2	3520.3	4946.1	6248.4	7131.4	7627.0	7972.2	7929.8	19.4%
% growth	218.6%	143.0%	53.6%	40.5%	26.3%	14.1%	6.9%	4.5%	-0.5%	
Total mobile subs (k)	8487.0	8699.0	8786.0	8829.9	8838.8	8750.6	8663.1	8619.7	8576.9	-0.2%
% growth	4.0%	2.5%	1.0%	0.5%	0.1%	-1.0%	-1.0%	-0.5%	-0.5%	
2G net adds (k)	-318.0	-1136.2	-1142.1	-1381.8	-1293.4	-971.2	-583.1	-388.6	-0.4	
3G net adds (k)	647.0	1348.2	1229.1	1425.8	1302.3	883.0	495.6	345.2	-42.4	
Total net adds (k)	329.0	212.0	87.0	43.9	8.9	-88.2	-87.5	-43.4	-42.8	
2G subs monthly run rate (k)	-26.50	-94.68	-95.18	-115.15	-107.78	-80.94	-48.59	-32.38	-0.04	
3G subs monthly run rate (k)	53.92	112.35	102.43	118.82	108.52	73.59	41.30	28.76	-3.53	
Total subs monthly run rate (k)	27.42	17.67	7.25	3.66	0.74	-7.35	-7.29	-3.62	-3.57	
Total Taiwan subs (k)	23,249	24,302	24,545	24,790	25,038	25,289	25,542	25,797	26,055	1.0%
Penetration	102%	106%	107%	108%	108%	109%	110%	111%	112%	
Chunghwa Telecom Market share	36.5%	35.8%	35.8%	35.6%	35.3%	34.6%	33.9%	33.4%	32.9%	
Total Taiwan net adds (k)	1078.6	1052.7	243.0	245.4	247.9	250.4	252.9	255.4	258.0	
CHT mkt share of net adds	30.5%	20%	35.8%	17.9%	3.6%	-35.2%	-34.6%	-17.0%	-16.6%	
Blended ARPU (NT\$)	731	714	693	689	692	685	678	672	665	-1.0%
% growth	-1.5%	-2.3%	-3.0%	-0.6%	0.5%	-1.0%	-1.0%	-1.0%	-1.0%	
MOU (min/user/month)	197	196	191	193	194	197	201	205	208	0.8%
% growth		-0.3%	-3%	1%	1%	1%	2%	2%	2%	
Total minutes (m)	19,631	20,199	20,002	20,402	20,606	20,812	21,020	21,231	21,443	0.9%
% growth		2.9%	-1%	2%	1%	1%	1%	1%	1%	
Avg rev per min (NT\$)	3.7	3.6	3.6	3.6	3.6	3.5	3.4	3.3	3.2	-1.9%
% growth		-1.9%	0%	-2%	0%	-3%	-3%	-3%	-2%	
Mobile capex (NT\$m)	9,404	5,158	7,140	7,820	6,657	5,157	4,666	4,484	4,460	-2.1%
% of mobile sales	12.9%	7.0%	9.8%	10.7%	9.1%	7.1%	6.6%	6.4%	6.5%	
per min (NT\$)	0.000	0.255	0.357	0.383	0.323	0.248	0.222	0.211	0.208	-2.9%
per sub (NT\$)	1.1	0.6	0.8	0.9	0.8	0.6	0.5	0.5	0.5	-2.1%
per incr min (NT\$)		0.009	-0.036	0.020	0.033	0.025	0.022	0.021	0.021	12.7%
per incr sub (NT\$)	29	24	82	178	748	-58	-53	-103	-104	-223.1%
Fixed line										
No of residential lines (k)	9822	9691	9594	9498	9403	9309	9216	9124	9033	-1.0%
No of business lines (k)	3300	3261	3229	3196	3164	3133	3101	3070	3040	-1.0%
Total lines (k)	13122	12952	12823	12694	12568	12442	12317	12194	12072	-1.0%
Total net adds (k)	-139.0	-169.8	-129.5	-128.2	-126.9	-125.7	-124.4	-123.2	-121.9	-4.6%
Total subs monthly run rate (k)	-11.6	-14.1	-10.8	-10.7	-10.6	-10.5	-10.4	-10.3	-10.2	-4.6%
Total Local line revenue	37,364	35,780	35,191	33,866	32,857	31,907	31,014	30,592	30,183	-2.4%
Blended ARPU (NT\$)	237	230	229	222	218	214	210	209	208	-1.4%
Broadband										
ADSL subs (access only, k)	793	803	825	835	860	880	900	920	940	2.3%
ADSL subs (access + ISP, k)	3058	2912	2541	2040	1505	1131	757	783	810	-16.7%
FTTB (k)	185	537	1000	1600	2200	2600	3000	3000	3000	27.9%
Total broadband subs (k)	4036	4252	4366	4475	4565	4611	4657	4703	4750	1.6%
Total net adds (k)	382.0	216.1	114.1	109.2	89.5	45.6	46.1	46.6	47.0	-19.6%
Total subs monthly run rate (k)	31.8	18.0	9.5	9.1	7.5	3.8	3.8	3.9	3.9	-19.6%
Blended ARPU (NT\$)	793	802	779	791	799	804	806	806	804	0.0%
CHT broadband mkt share	86%	79%								
Taiwan Broadband penetration rate	63%	72%								
Total Capex (NT\$m)	27,676	24,910	34,000	34,000	31,700	28,650	27,448	26,376	26,236	0.7%
% of total sales	15.0%	13.4%	18.3%	18.3%	17.0%	15.5%	15.0%	14.5%	14.5%	
Working capital	16,448	13,578	5,230	3,729	3,792	4,006	4,076	4,115	4,152	-15.6%
% of sales	9%	7%	3%	2%	2%	2%	2%	2%	2%	
Accounts receivable days	35	30	34	34	34	34	34	34	34	1.6%
Accounts payable days	39	43	39	38	38	38	38	38	38	-1.6%
Inventory days	8	11	11	11	11	11	11	11	11	0.2%

Fig 12 Chunghwa Telecom: Summary

	2006	2007	2008E	2009E	2010E	2011E	2012E	2013E	2014E	07-14 CAGR
Financial Summary										
NT\$m	2006	2007	2008E	2009E	2010E	2011E	2012E	2013E	2014E	07-14 CAGR
Mobile Revenue	72977	73644	72624	72806	73399	72239	70802	69611	68571	
Fixed-line Rev (local, DLD, IDD)	61166	59143	57935	55915	54064	52573	51232	50488	49762	
Data Revenue (Internet, ADSL, FTTB)	38417	40920	40822	42484	43744	44471	45024	45467	45825	
Other Revenue (Satellite, Leased line, paging, sales, others)	11827	12622	14838	15049	15265	15559	15930	16336	16780	
Total Operating Revenue	184,387	186,329	186,220	186,254	186,472	184,842	182,987	181,901	180,938	-0.4%
Operating Expenses (ex dep)	-86,157	-85,760	-87,494	-86,336	-87,500	-87,939	-88,912	-89,352	-88,823	-1.2%
EBITDA	98,230	100,569	98,725	99,918	98,972	96,903	94,076	92,549	92,115	-1.2%
Operating Profit	57,220	60,912	59,340	60,346	61,349	61,737	61,118	60,755	60,433	
Profit attributable to s/h	44,891	48,249	47,434	47,725	48,509	48,801	48,307	48,017	47,760	-0.1%
Diluted EPS (NT\$)	4.63	4.56	4.96	4.99	5.08	5.11	5.05	5.02	5.00	
Total DPS (NT\$)	3.58	4.26	4.47	4.49	4.57	4.60	4.55	4.52	4.50	
Other capital return (NT\$)			0.91	1.65						
Net Profit (adjusted for forex)	44,891	48,649	47,836	47,725	48,509	48,801	48,307	48,017	47,760	
EPS (adjusted for forex)	4.63	4.60	5.00	4.99	5.08	5.11	5.05	5.02	5.00	
Growth										
Mobile Revenue	0%	1%	-1%	0%	1%	-2%	-2%	-2%	-1%	
Fixed-line Rev (local, DLD, IDD)	-6%	-3%	-2%	-3%	-3%	-3%	-3%	-1%	-1%	
Data Revenue (Internet, ADSL, FTTB)	13%	7%	0%	4%	3%	2%	1%	1%	1%	
Other Revenue (Satellite, Leased line, paging, sales, others)	5%	7%	18%	1%	1%	2%	2%	3%	3%	
Total Operating Revenue	0.5%	1.1%	-0.1%	0.0%	0.1%	-0.9%	-1.0%	-0.6%	-0.5%	
EBITDA	-1.9%	2.4%	-1.8%	1.2%	-0.9%	-2.1%	-2.9%	-1.6%	-0.5%	
Operating Profit	-2.3%	6.5%	-2.6%	1.7%	1.7%	0.6%	-1.0%	-0.6%	-0.5%	
Profit attributable to s/h	-5.8%	7.5%	-1.7%	0.6%	1.6%	0.6%	-1.0%	-0.6%	-0.5%	
Diluted EPS (NT\$)	-6.3%	-1.4%	8.8%	0.6%	1.6%	0.6%	-1.0%	-0.6%	-0.5%	
Total DPS (NT\$)	-16.8%	19.1%	4.8%	0.6%	1.6%	0.6%	-1.0%	-0.6%	-0.5%	
EBITDA 3-yr CAGR	0.6%	-0.5%	-0.6%	-2.0%	-2.2%	-1.7%				
Diluted EPS 3-yr CAGR	2.6%	3.6%	1.0%	0.4%	-0.3%	-0.7%				
Profitability										
EBITDA margin	53.3%	54.0%	53.0%	53.6%	53.1%	52.4%	51.4%	50.9%	50.9%	
Operating margin	31.0%	32.7%	31.9%	32.4%	32.9%	33.4%	33.4%	33.4%	33.4%	
Profit attributable to s/h margin	24.3%	25.9%	25.5%	25.6%	26.0%	26.4%	26.4%	26.4%	26.4%	
ROE	11.2%	12.2%	11.8%	11.7%	11.8%	11.7%	11.5%	11.3%	11.1%	
ROA	9.7%	10.4%	10.0%	10.1%	10.3%	10.2%	10.0%	9.9%	9.8%	
Debt										
Net Debt (Cash)	(77,349)	(93,341)	(111,034)	(111,034)	(117,257)	(129,135)	(139,105)	(149,106)	(159,136)	
Net Debt (Cash)/Equity	-19%	-24%	-28%	-27%	-28%	-31%	-33%	-35%	-37%	
Valuation Summary										
PER	14.6	14.8	13.6	13.5	13.3	13.2	13.4	13.5	13.5	
PER (adjusted for forex)	14.6	14.7	13.5	13.5	13.3	13.2	13.4	13.5	13.5	
EV/EBITDA	5.6	5.5	5.6	5.5	5.6	5.7	5.9	6.0	6.0	
EV/unlevered free cash flow	9.6	8.8	10.7	10.5	10.3	10.1	10.4	10.5	10.5	
Earnings Yield	6.8%	6.7%	7.3%	7.4%	7.5%	7.6%	7.5%	7.4%	7.4%	
Dividend Yield	5.3%	6.3%	6.6%	6.6%	6.8%	6.8%	6.7%	6.7%	6.7%	
Yield (incl capital returns)	5.3%	7.6%	9.0%	6.6%	6.8%	6.8%	6.7%	6.7%	6.7%	
FCFE Yield	7.0%	9.1%	9.3%	7.9%	8.3%	8.5%	8.2%	8.2%	8.1%	
FCFF	46,042	65,721	60,133	51,141	53,838	54,885	53,251	52,847	52,620	
FCFE	45,839	65,420	60,133	51,141	53,838	54,885	53,251	52,847	52,620	
Period end no. shares	9,704	10,578	9,558	9,558	9,558	9,558	9,558	9,558	9,558	
Current market price	67.60	67.60	67.60	67.60	67.60	67.60	67.60	67.60	67.60	

Source: Company data, Macquarie Research, October 2008

Fig 13 Chunghwa Telecom: Profit and loss statement

NT\$m	2006	2007	2008E	2009E	2010E	2011E	2012E	2013E	2014E
Mobile Revenue	72,977	73,644	72,624	72,806	73,399	72,239	70,802	69,611	68,571
% growth YoY	0.3%	0.9%	-1.4%	0.3%	0.8%	-1.6%	-2.0%	-1.7%	-1.5%
Fixed-line Rev (local, DLD, IDD)	61,166	59,143	57,935	55,915	54,064	52,573	51,232	50,488	49,762
% growth YoY	-6.1%	-3.3%	-2.0%	-3.5%	-3.3%	-2.8%	-2.6%	-1.5%	-1.4%
Data Revenue (Internet, ADSL, FTTB)	38,417	40,920	40,822	42,484	43,744	44,471	45,024	45,467	45,825
% growth YoY	12.5%	6.5%	-0.2%	4.1%	3.0%	1.7%	1.2%	1.0%	0.8%
Other Revenue (Satellite, Leased line, paging, sales, others)	11,827	12,622	14,838	15,049	15,265	15,559	15,930	16,336	16,780
% growth YoY	4.6%	6.7%	17.6%	1.4%	1.4%	1.9%	2.4%	2.5%	2.7%
Operating revenue	184,387	186,329	186,220	186,254	186,472	184,842	182,987	181,901	180,938
% growth YoY	0.5%	1.1%	-0.1%	0.0%	0.1%	-0.9%	-1.0%	-0.6%	-0.5%
Cost of goods sold	94,269	94,316	93,487	92,754	92,863	92,421	91,494	90,951	90,469
% growth YoY	0.3%	0.1%	-0.9%	-0.8%	0.1%	-0.5%	-1.0%	-0.6%	-0.5%
Gross profit	90,118	92,013	92,732	93,499	93,609	92,421	91,494	90,951	90,469
% margin	48.9%	49.4%	49.8%	50.2%	50.2%	50.0%	50.0%	50.0%	50.0%
Marketing expenses	26,396	24,953	27,163	27,007	26,106	24,584	24,337	24,193	24,065
% of sales	14%	13%	15%	15%	14%	13%	13%	13%	13%
General & Admin expenses	3,196	3,090	3,271	3,166	3,170	3,142	3,111	3,092	3,076
% of sales	2%	2%	2%	2%	2%	2%	2%	2%	2%
R&D Expenses	3,307	3,059	2,959	2,980	2,984	2,957	2,928	2,910	2,895
% of sales	2%	2%	2%	2%	2%	2%	2%	2%	2%
Total operating expenses	32,898	31,101	33,392	33,153	32,260	30,684	30,376	30,196	30,036
Operating profit	57,220	60,912	59,340	60,346	61,349	61,737	61,118	60,755	60,433
% growth YoY	-2.3%	6.5%	-2.6%	1.7%	1.7%	0.6%	-1.0%	-0.6%	-0.5%
% margin	31.0%	32.7%	31.9%	32.4%	32.9%	33.4%	33.4%	33.4%	33.4%
Depreciation	41,010	39,658	39,385	39,572	37,623	35,166	32,958	31,794	31,681
% growth YoY	-1.4%	-3.3%	-0.7%	0.5%	-4.9%	-6.5%	-6.3%	-3.5%	-0.4%
Amortization	-	-	-	-	-	-	-	-	-
% growth YoY	na	na	na	na	na	na	na	na	na
(Dep + Amor) % of operating revenue	22%	21%	21%	21%	20%	19%	18%	17%	18%
EBITDA	98,230	100,569	98,725	99,918	98,972	96,903	94,076	92,549	92,115
% growth YoY	-1.9%	2.4%	-1.8%	1.2%	-0.9%	-2.1%	-2.9%	-1.6%	-0.5%
% margin	53.3%	54.0%	53.0%	53.6%	53.1%	52.4%	51.4%	50.9%	50.9%
Interest income	804	1,445	1,589	1,490	1,492	1,479	1,464	1,455	1,448
Investment income	60	218	-213	-	-	-	-	-	-
Forex gains	-	-	-	-	-	-	-	-	-
Others	3,670	2,434	2,500	2,500	2,500	2,500	2,500	2,500	2,500
Total non-op income	4,533	4,097	3,875	3,990	3,992	3,979	3,964	3,955	3,948
Interest expenses	4	1	0	-	-	-	-	-	-
Provision for losses on unused properties	267	152	150	150	150	150	150	150	150
Investment loss	-	-	-	-	-	-	-	-	-
Forex loss	165	58	730	-	-	-	-	-	-
Other	3,674	3,702	1,673	3,000	3,000	3,000	3,000	3,000	3,000
Total non-op expenses	4,110	3,912	2,554	3,150	3,150	3,150	3,150	3,150	3,150
Net non-operating income	423	185	1,322	840	842	829	814	805	798
Pre-tax profit	57,643	61,096	60,662	61,186	62,191	62,566	61,932	61,560	61,231
% growth YoY	-3.3%	6.0%	-0.7%	0.9%	1.6%	0.6%	-1.0%	-0.6%	-0.5%
% margin	31.3%	32.8%	32.6%	32.9%	33.4%	33.8%	33.8%	33.8%	33.8%
Taxation	12,752	12,847	13,228	13,461	13,682	13,765	13,625	13,543	13,471
% effective tax rate	22%	21%	22%	22%	22%	22%	22%	22%	22%
Net profit	44,891	48,249	47,434	47,725	48,509	48,801	48,307	48,017	47,760
% growth YoY	-5.8%	7.5%	-1.7%	0.6%	1.6%	0.6%	-1.0%	-0.6%	-0.5%
% margin	24.3%	25.9%	25.5%	25.6%	26.0%	26.4%	26.4%	26.4%	26.4%
Net profit attributable to s/h	44,887	48,245	47,429	47,720	48,504	48,796	48,302	48,012	47,755
% growth YoY									
% margin	24.3%	25.9%	25.5%	25.6%	26.0%	26.4%	26.4%	26.4%	26.4%
Basic EPS	4.63	4.56	4.96	4.99	5.07	5.11	5.05	5.02	5.00
% growth YoY	-6.3%	-1.4%	8.8%	0.6%	1.6%	0.6%	-1.0%	-0.6%	-0.5%

Fig 13 Chunghwa Telecom: Profit and loss statement

NT\$m	2006	2007	2008E	2009E	2010E	2011E	2012E	2013E	2014E
Diluted EPS	4.63	4.56	4.96	4.99	5.07	5.11	5.05	5.02	5.00
% growth YoY	-6.3%	-1.4%	8.8%	0.6%	1.6%	0.6%	-1.0%	-0.6%	-0.5%
forex adjustment + tax	-	500	600	-	-	-	-	-	-
Net Profit (adjusted for forex)	44,891	48,649	47,836	47,725	48,509	48,801	48,307	48,017	47,760
% growth (YoY)	-6%	8%	-2%	0%	2%	1%	-1%	-1%	-1%
EPS (adjusted for forex)	4.63	4.60	5.00	4.99	5.08	5.11	5.05	5.02	5.00
% growth (YoY)	-6%	-1%	9%	0%	2%	1%	-1%	-1%	-1%
Dividend	34,611	40,716	42,691	42,953	43,658	43,921	43,476	43,215	42,984
% payout									
Ordinary DPS	3.58	4.26	4.47	4.49	4.57	4.60	4.55	4.52	4.50
Special DPS	-	-	-	-	-	-	-	-	-
Total DPS	3.58	4.26	4.47	4.49	4.57	4.60	4.55	4.52	4.50
% growth (YoY)	-17%	19%	5%	1%	2%	1%	-1%	-1%	-1%

Source: Company data, Macquarie Research, October 2008

Fig 14 Chunghwa Telecom: Balance sheet

NT\$m	2006	2007	2008E	2009E	2010E	2011E	2012E	2013E	2014E
Assets									
Current Assets									
Cash & equiv	70,639	74,753	91,745	91,745	97,967	109,846	119,815	129,817	139,846
Short-term investments	7,010	18,589	19,289	19,289	19,289	19,289	19,289	19,289	19,289
Accounts receivable	17,763	15,565	17,200	17,401	17,400	17,199	17,030	16,934	16,845
Inventories	2,181	2,794	2,902	2,795	2,799	2,785	2,757	2,741	2,726
Prepayments	905	970	3,693	3,736	3,736	3,693	3,656	3,636	3,617
Others	954	2,639	462	467	467	462	457	454	452
Total	99,452	115,310	135,291	135,434	141,659	153,274	163,006	172,871	182,776
Non - Current Assets									
Total Fixed assets	343,103	329,503	317,372	311,800	305,877	299,362	293,852	288,434	282,988
Intangible assets	9,192	8,572	8,160	8,160	8,160	8,160	8,160	8,160	8,160
Long-term investments	5,966	8,001	11,401	11,401	11,401	11,401	11,401	11,401	11,401
Other assets	3,269	3,849	4,309	4,309	4,309	4,309	4,309	4,309	4,309
Total	361,531	349,924	341,243	335,671	329,748	323,232	317,723	312,304	306,859
Total Assets	460,983	465,234	476,533	471,105	471,407	476,506	480,728	485,176	489,635
Liabilities									
Current Liabilities									
Short-term debt	-	-	-	-	-	-	-	-	-
Accounts payable	9,972	10,989	10,024	9,657	9,668	9,622	9,525	9,469	9,419
Current portion of l-t debt	300	-	-	-	-	-	-	-	-
Tax payable	8,528	6,961	7,807	6,811	6,865	6,867	6,801	6,763	6,728
Accrued expenses	18,797	14,957	11,194	11,194	11,194	11,194	11,194	11,194	11,194
Other current liabilities	13,909	24,690	17,110	17,110	17,110	17,110	17,110	17,110	17,110
Total	51,505	57,597	46,135	44,771	44,836	44,792	44,629	44,536	44,450
Non - Current Liabilities									
Necessary to finance	-	-	14,419	5,319	-	-	-	-	-
Others	-	12,570	14,811	14,811	14,811	14,811	14,811	14,811	14,811
Long-term debt	-	-	-	-	-	-	-	-	-
Others	9,461	12,570	29,230	20,131	14,811	14,811	14,811	14,811	14,811
Total	9,461	12,570	29,230	20,131	14,811	14,811	14,811	14,811	14,811
Total Liabilities	60,967	70,166	75,365	64,902	59,647	59,604	59,441	59,347	59,261
Equity									
Common share capital	96,678	96,678	95,578	95,578	95,578	95,578	95,578	95,578	95,578
Legal reserve	44,038	48,036	52,860	52,860	52,860	52,860	52,860	52,860	52,860
Capital reserve	210,273	200,606	198,323	198,323	198,323	198,323	198,323	198,323	198,323
Appropriated Retained earnings	2,680	2,679	2,675	2,675	2,675	2,675	2,675	2,675	2,675
Unappropriated Retained earnings	39,984	48,318	45,715	50,750	56,306	61,449	65,835	70,376	74,921
Others	6,362	-1,249	6,017	6,017	6,017	6,017	6,017	6,017	6,017
Total shareholders equity	400,017	395,068	401,168	406,203	411,759	416,902	421,288	425,829	430,374
Total liabilities & equity	460,983	465,234	476,533	471,105	471,407	476,506	480,728	485,176	489,635
Working capital	16,448	13,578	5,230	3,729	3,792	4,006	4,076	4,115	4,152
Working capital as % of sales	9%	7%	3%	2%	2%	2%	2%	2%	2%
Change in working capital	-11,853	2,870	8,348	-1,501	63	214	70	40	37
Debt									
Short term debt	-	-	-	-	-	-	-	-	-
Long term debt	300	-	-	-	-	-	-	-	-
Total debt	300	-	-	-	-	-	-	-	-
Debt movement	-200	-300	-	-	-	-	-	-	-
Net Debt (Cash)	-77,349	-93,341	-111,034	-111,034	-117,257	-129,135	-139,105	-149,106	-159,136
Net Debt/Equity %	-19%	-24%	-28%	-27%	-28%	-31%	-33%	-35%	-37%

Source: Company data, Macquarie Research, October 2008

Fig 15 Chunghwa Telecom: Cashflow statement

NT\$m, unless noted	2006	2007	2008	2009	2010	2011	2012	2013	2014
Operating cashflow									
Pre-tax profit	57,643	61,096	60,662	61,186	62,191	62,566	61,932	61,560	61,231
Depreciation	41,010	39,658	39,385	39,572	37,623	35,166	32,958	31,794	31,681
Tax Paid	(12,752)	(12,847)	(13,228)	(13,461)	(13,682)	(13,765)	(13,625)	(13,543)	(13,471)
Chg in CA & CL others			(5,403)	(5)	0	5	5	3	2
Change in working capital	(11,853)	2,870	8,348	(1,501)	63	214	70	40	37
Interest Income	(804)	(1,445)	(1,589)	(1,490)	(1,492)	(1,479)	(1,464)	(1,455)	(1,448)
Interest Exp	4	1	0	-	-	-	-	-	-
Other	26,747	-2,062							
Operating cash flow	100,795	87,271	88,176	84,300	84,703	82,708	79,875	78,398	78,033
Investing cash flow									
Inc/Dec in short-term investments	8,325	-10,959	(701)	-	-	-	-	-	-
Inc/Decrease in long-term investments	-558	-3,606	(3,400)	-	-	-	-	-	-
Inc/Decrease in non-current other assets			(460)	-	-	-	-	-	-
Inc/Decrease in non-current liabilities - other & LT debt			(2,242)	-	-	-	-	-	-
Inc/Decrease in intangible assets			412	-	-	-	-	-	-
Disposal/(addition) of fixed assets	-27,676	-24,910	-34,000	-34,000	-31,700	-28,650	-27,448	-26,376	-26,236
Interest received	804	1,445	1,589	1,490	1,492	1,479	1,464	1,455	1,448
Others	-92	-1,572							
Investing cash flow	-19,198	-39,602	-38,803	-32,510	-30,208	-27,172	-25,984	-24,920	-24,789
Financing cash flow									
Inc/(dec) in s-t debt	0	0	-	-	-	-	-	-	-
Inc/(dec) in long-term debt	-200	-300	-	-	-	-	-	-	-
Issuance of corporate bonds	0	0							
Inc/(dec) in TreasurySt	-11,392	-7,218							
Dividend paid	-40,660	-34,611	-40,716	-42,691	-42,953	-43,658	-43,921	-43,476	-43,215
Capital reduction paid			(1,101)						
Inc/(dec) in capital surplus & others			(4,984)						
Director & employee bonus	-245	-1,293							
Necessary to finance			14,419	(9,100)	(5,319)	-	-	-	-
Interest paid	(4)	(1)	(0)	-	-	-	-	-	-
Others	-346	-134							
Financing cash flow	-52,848	-43,555	-32,382	-51,790	-48,272	-43,658	-43,921	-43,476	-43,215
Net change in cash	28,749	4,113	16,992	0	6,223	11,879	9,969	10,002	10,029
Beginning cash	41,891	70,639	74,753	91,744	91,744	97,967	109,846	119,815	129,817
Ending Cash	70,639	74,753	91,744	91,744	97,967	109,846	119,815	129,817	139,846

Source: Company data, Macquarie Research, October 2008

Chunghwa Telecom (2412 TT, Neutral, Target price: NT\$66.90)

Interim Results					Profit & Loss						
		1H/08A	2H/08E	1H/09E	2H/09E		2007A	2008E	2009E	2010E	
Revenue	m	93,367	92,852	92,759	93,494	Revenue	m	186,329	186,220	186,254	186,472
Gross Profit	m	47,273	45,459	46,382	47,117	Gross Profit	m	92,013	92,732	93,499	93,609
Operating Expenses	m	-15,698	-17,694	-16,577	-16,577	Operating Expenses	m	-31,101	-33,392	-33,153	-32,260
Operating Income	m	31,575	27,765	29,806	30,541	Operating Income	m	60,912	59,340	60,346	61,349
Net Non-operating income	m	-1,551	2,873	420	420	Net Non-operating income	m	185	1,322	840	842
Pre-Tax Income	m	30,024	30,638	30,226	30,961	Pre-Tax Income	m	61,096	60,662	61,186	62,191
Tax Expense	m	-6,794	-6,434	-6,650	-6,811	Tax Expense	m	-12,847	-13,228	-13,461	-13,682
Exceptionals	m	0	0	0	0	Exceptionals	m	0	0	0	0
Minority Interests	m	0	0	0	0	Minority Interests	m	0	0	0	0
Reported Earnings	m	23,231	24,204	23,576	24,149	Reported Earnings	m	48,249	47,434	47,725	48,509
Reported Earnings (bonus exp)	m	23,231	24,204	23,576	24,149	Reported Earnings (bonus exp)	m	46,467	47,434	47,725	48,509
Bonus exp / Reported Earnings	%	0.0	0.0	0.0	0.0	Bonus exp / Reported Earnings	%	3.7	0.0	0.0	0.0
Adjusted Earnings	m	23,231	24,204	23,576	24,149	Adjusted Earnings	m	48,249	47,434	47,725	48,509
EBITDA	m	50,709	48,016	49,592	50,327	EBITDA	m	100,569	98,725	99,918	98,972
EPS (rep)	NT\$	2.43	2.53	2.47	2.53	EPS (rep)	NT\$	4.56	4.96	4.99	5.08
EPS pcp growth (rep)	%	4.5	13.3	1.5	-0.2	EPS growth (rep)	%	-0.4	8.8	0.6	1.6
EPS (rep bonus exp)	NT\$	2.43	2.53	2.47	2.53	EPS (rep bonus exp)	NT\$	4.39	4.96	4.99	5.08
EPS pcp growth (rep bonus exp)	%	8.5	17.6	1.5	-0.2	EPS growth (rep bonus exp)	%	-4.1	13.0	0.6	1.6
EPS (adj)	NT\$	2.43	2.53	2.47	2.53	EPS (adj)	NT\$	4.56	4.96	4.99	5.08
EPS pcp growth (adj)	%	4.5	13.3	1.5	-0.2	EPS growth (adj)	%	-0.4	8.8	0.6	1.6
Revenue pcp growth	%	1.1	-1.2	-0.7	0.7	PE (rep)	x	14.8	13.6	13.5	13.3
Operating Income pcp growth	%	0.3	-5.6	-5.6	10.0	PE (rep bonus adj)	x	15.4	13.6	13.5	13.3
Reported Earnings pcp growth	%	-5.6	2.3	1.5	-0.2	PE (adj)	x	14.8	13.6	13.5	13.3
Gross Profit Margin	%	50.6	49.0	50.0	50.4	Total DPS	NT\$	4.26	4.47	4.49	4.57
Operating Income Margin	%	33.8	29.9	32.1	32.7	Total Div Yield	%	6.3	6.6	6.6	6.8
Reported Earnings Margin	%	24.9	26.1	25.4	25.8	Weighted Average Shares	m	10,578	9,558	9,558	9,558
EBITDA Margin	%	54.3	51.7	53.5	53.8	Period End Shares	m	10,578	9,558	9,558	9,558
Profit and Loss Ratios		2007A	2008E	2009E	2010E	Cashflow Analysis		2007A	2008E	2009E	2010E
Revenue Growth	%	1.1	-0.1	0.0	0.1	Reported Earnings	m	48,249	47,434	47,725	48,509
Gross Profit Growth	%	2.1	0.8	0.8	0.1	Depreciation & Amortisation	m	-39,658	-39,385	-39,572	-37,623
Operating Income Growth	%	6.5	-2.6	1.7	1.7	Chgs in Working Cap	m	2,870	8,348	-1,501	63
Reported Earnings Growth	%	7.5	-1.7	0.6	1.6	Other	m	75,809	71,779	77,649	73,754
EBITDA Growth	%	2.4	-1.8	1.2	-0.9	Operating Cashflow	m	87,271	88,176	84,300	84,703
Gross Profit Margin	%	49.4	49.8	50.2	50.2	Acquisitions	m	-10,959	-701	0	0
Operating Income Margin	%	32.7	31.9	32.4	32.9	Capex	m	-24,910	-34,000	-34,000	-31,700
Reported Earnings Margin	%	25.9	25.5	25.6	26.0	Asset Sales	m	0	0	0	0
EBITDA Margin	%	54.0	53.0	53.6	53.1	Other	m	-3,733	-4,102	1,490	1,492
Payout Ratio	%	93.4	90.0	90.0	90.0	Investing Cashflow	m	-39,602	-38,803	-32,510	-30,208
EV/EBITDA	x	6.2	5.6	5.5	5.6	Dividend (Ordinary)	m	-34,611	-40,716	-42,691	-42,953
EV/EBIT	x	10.2	9.4	9.2	9.0	Equity Raised	m	0	0	0	0
Balance Sheet Ratios						Debt Movements	m	0	0	0	0
ROE	%	12.1	11.9	11.8	11.9	Other	m	-8,945	8,335	-9,100	-5,319
ROA	%	13.2	12.6	12.7	13.0	Financing Cashflow	m	-43,555	-32,382	-51,790	-48,272
ROIC	%	14.6	14.5	15.2	15.2	Net Chg in Cash/Debt	m	4,113	16,992	-0	6,223
Net Debt/Equity	%	-18.9	-22.9	-22.6	-23.8	Free Cashflow	m	62,361	54,176	50,300	53,003
Interest Cover	x	nmf	nmf	nmf	nmf	FCF per Share	NT\$	5.90	5.67	5.26	5.55
Price/Book	x	1.8	1.6	1.6	1.6	P/FCF	x	11.5	11.9	12.8	12.2
Book Value per Share	NT\$	37.3	42.0	42.5	43.1	Balance Sheet		2007A	2008E	2009E	2010E
						Cash	m	74,753	91,745	91,745	97,967
						Receivables	m	15,565	17,200	17,401	17,400
						Inventories	m	2,794	2,902	2,795	2,799
						Investments	m	26,590	30,690	30,690	30,690
						Fixed Assets	m	329,503	317,372	311,800	305,877
						Intangibles	m	0	0	0	0
						Other Assets	m	16,030	16,624	16,673	16,673
						Total Assets	m	465,234	476,533	471,105	471,407
						Payables	m	10,989	10,024	9,657	9,668
						Short Term Debt	m	0	0	0	0
						Long Term Debt	m	0	0	0	0
						Provisions	m	0	0	0	0
						Other Liabilities	m	59,177	65,341	55,245	49,980
						Total Liabilities	m	70,166	75,365	64,902	59,647
						Total S/H Equity	m	395,068	401,168	406,203	411,759
						Total Liab & S/H Funds	m	465,234	476,533	471,105	471,407

All figures in NT\$ unless noted.
Source: Macquarie Research, October 2008

Important disclosures:

Recommendation definitions	Volatility index definition*	Financial definitions
<p>Macquarie - Australia/New Zealand Outperform – return >5% in excess of benchmark return (>2.5% in excess for listed property trusts) Neutral – return within 5% of benchmark return (within 2.5% for listed property trusts) Underperform – return >5% below benchmark return (>2.5% below for listed property trusts)</p> <p>Macquarie – Asia/Europe Outperform – expected return >+10% Neutral – expected return from -10% to +10% Underperform – expected return <-10%</p> <p>Macquarie First South - South Africa Outperform – expected return >+10% Neutral – expected return from -10% to +10% Underperform – expected return <-10%</p> <p>Macquarie - Canada Outperform – return >5% in excess of benchmark return Neutral within 5% of benchmark return Underperform – return >5% below benchmark return</p> <p>Macquarie - USA Outperform (Buy) – return >5% in excess of benchmark return Neutral (Hold) – return within 5% of benchmark return Underperform (Sell) – return >5% below benchmark return</p> <p>Recommendations – 12 months</p> <p>Note: Quant recommendations may differ from Fundamental Analyst recommendations</p>	<p>This is calculated from the volatility of historic price movements.</p> <p>Very high–highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.</p> <p>High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.</p> <p>Medium – stock should be expected to move up or down at least 30–40% in a year.</p> <p>Low–medium – stock should be expected to move up or down at least 25–30% in a year.</p> <p>Low – stock should be expected to move up or down at least 15–25% in a year.</p> <p>* Applicable to Australian/NZ stocks only</p>	<p>All "Adjusted" data items have had the following adjustments made: Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests</p> <p>EPS = adjusted net profit / epowa* ROA = adjusted ebit / average total assets ROA Banks/Insurance = adjusted net profit / average total assets ROE = adjusted net profit / average shareholders funds Gross cashflow = adjusted net profit + depreciation *equivalent fully paid ordinary weighted average number of shares</p> <p>All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).</p>

Recommendation proportions – For quarter ending 30 September 2008

	AU/NZ	Asia	RSA	USA	CA	EUR
Outperform	43.17%	61.57%	63.08%	53.60%	71.54%	43.00%
Neutral	41.37%	16.43%	30.77%	37.60%	24.61%	48.00%
Underperform	15.47%	22.00%	6.15%	8.80%	3.85%	9.00%

Analyst Certification: The views expressed in this research accurately reflect the personal views of the analyst(s) about the subject securities or issuers and no part of the compensation of the analyst(s) was, is, or will be directly or indirectly related to the inclusion of specific recommendations or views in this research. The analyst principally responsible for the preparation of this research receives compensation based on overall revenues of Macquarie Group Ltd ABN 94 122 169 279 (AFSL No. 318062)(MGL) and its related entities (the Macquarie Group) and has taken reasonable care to achieve and maintain independence and objectivity in making any recommendations.

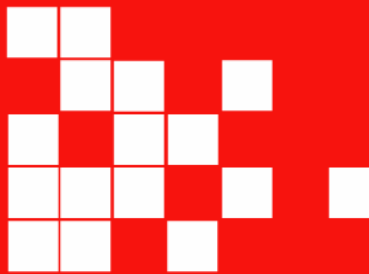
Disclaimers: Macquarie Securities (Australia) Ltd; Macquarie Capital (Europe) Ltd; Macquarie Capital Markets Canada Ltd; Macquarie Capital Markets North America Ltd; Macquarie Capital (USA) Inc; Macquarie Capital Securities Ltd; Macquarie Capital Securities (Singapore) Pte Ltd; Macquarie Securities (NZ) Ltd; and Macquarie First South Securities (Pty) Limited are not authorised deposit-taking institutions for the purposes of the Banking Act 1959 (Commonwealth of Australia), and their obligations do not represent deposits or other liabilities of Macquarie Bank Limited ABN 46 008 583 542 (MBL) or MGL. MBL does not guarantee or otherwise provide assurance in respect of the obligations of any of the above mentioned entities. MGL provides a guarantee to the Monetary Authority of Singapore in respect of the obligations and liabilities of Macquarie Capital Securities (Singapore) Pte Ltd for up to SGD 35 million. This research has been prepared for the general use of the wholesale clients of the Macquarie Group and must not be copied, either in whole or in part, or distributed to any other person. If you are not the intended recipient you must not use or disclose the information in this research in any way. Nothing in this research shall be construed as a solicitation to buy or sell any security or product, or to engage in or refrain from engaging in any transaction. In preparing this research, we did not take into account the investment objectives, financial situation and particular needs of the reader. Before making an investment decision on the basis of this research, the reader needs to consider, with or without the assistance of an adviser, whether the advice is appropriate in light of their particular investment needs, objectives and financial circumstances. There are risks involved in securities trading. The price of securities can and does fluctuate, and an individual security may even become valueless. International investors are reminded of the additional risks inherent in international investments, such as currency fluctuations and international stock market or economic conditions, which may adversely affect the value of the investment. This research is based on information obtained from sources believed to be reliable but we do not make any representation or warranty that it is accurate, complete or up to date. We accept no obligation to correct or update the information or opinions in it. Opinions expressed are subject to change without notice. No member of the Macquarie Group accepts any liability whatsoever for any direct, indirect, consequential or other loss arising from any use of this research and/or further communication in relation to this research.

Other Disclaimers: In Canada, securities research is prepared, approved and distributed by Macquarie Capital Markets Canada Ltd, a participating organisation of the Toronto Stock Exchange, TSX Venture Exchange & Montréal Exchange. Macquarie Capital Markets North America Ltd., which is a registered broker-dealer and member of FINRA, accepts responsibility for the contents of reports issued by Macquarie Capital Markets Canada Ltd in the United States and to US persons and any person wishing to effect transactions in the securities described in the reports issued by Macquarie Capital Markets Canada Ltd should do so with Macquarie Capital Markets North America Ltd. Securities research is issued and distributed by Macquarie Securities (Australia) Ltd (AFSL No. 238947) in Australia, a participating organisation of the Australian Securities Exchange; Macquarie Securities (NZ) Ltd in New Zealand, a licensed sharebroker and New Zealand Exchange Firm; Macquarie Capital (Europe) Ltd in the United Kingdom, which is authorised and regulated by the Financial Services Authority (No. 193905); Macquarie Capital Securities Ltd in Hong Kong, which is licensed and regulated by the Securities and Futures Commission; Macquarie Capital Securities (Japan) Limited in Japan, a member of the Tokyo Stock Exchange, Inc., Osaka Securities Exchange Co. Ltd, and Jasadq Securities Exchange, Inc. (Financial Instruments Firm, Kanto Financial Bureau(kin-sho) No. 231, a member of Japan securities Dealers Association and Financial Futures Association of Japan); Macquarie First South Securities (Pty) Limited in South Africa, a member of the JSE Limited and in Singapore, Macquarie Capital Securities (Singapore) Pte Ltd (Company Registration Number: 198702912C), a Capital Markets Services licence holder under the Securities and Futures Act to deal in securities and provide custodial services in Singapore. Pursuant to the Financial Advisers (Amendment) Regulations 2005, Macquarie Capital Securities (Singapore) Pte Ltd is exempt from complying with sections 25, 27 and 36 of the Financial Advisers Act. Clients should contact analysts at, and execute transactions through, a Macquarie Group entity in their home jurisdiction unless governing law permits otherwise. Macquarie Capital (USA) Inc., which is a registered broker-dealer and member of FINRA, accepts responsibility for the content of each research report prepared by one of its non-US affiliates when the research report is distributed in the United States by Macquarie Capital (USA) Inc. Macquarie Capital (USA) Inc. affiliate research reports and affiliate employees are not subject to the disclosure requirements of FINRA rules. Any persons receiving this report directly from Macquarie Capital (USA) Inc. and wishing

to effect a transaction in any security described herein should do so with Macquarie Capital (USA) Inc. The information contained in this document is confidential. If you are not the intended recipient, you must not disclose or use the information in this document in any way. If you received it in error, please tell us immediately by return e-mail and delete the document. We do not guarantee the integrity of any e-mails or attached files and are not responsible for any changes made to them by any other person. MGL has established and implemented a conflicts policy at group level (which may be revised and updated from time to time) (the "Conflicts Policy") pursuant to regulatory requirements (including the FSA Rules) which sets out how we must seek to identify and manage all material conflicts of interest. Disclosures with respect to the issuers, if any, mentioned in this research are available at www.macquarie.com/research/disclosures. © Macquarie Group

Auckland Tel: (649) 377 6433	Bangkok Tel: (662) 694 7999	Calgary Tel: (1 403) 218 6650	Hong Kong Tel: (852) 2823 3588	Jakarta Tel: (62 21) 515 1818	Johannesburg Tel: (2711) 583 2000	Kuala Lumpur Tel: (60 3) 2059 8833
London Tel: (44 20) 3037 4400	Manila Tel: (63 2) 857 0888	Melbourne Tel: (613) 9635 8139	Montreal Tel: (1 514) 925 2850	Mumbai Tel: (91 22) 6653 3000	Perth Tel: (618) 9224 0888	Seoul Tel: (82 2) 3705 8500
Shanghai Tel: (86 21) 6841 3355	Singapore Tel: (65) 6231 1111	Sydney Tel: (612) 8232 9555	Taipei Tel: (886 2) 2734 7500	Tokyo Tel: (81 3) 3512 7900	Toronto Tel: (1 416) 848 3500	New York Tel: (1 212) 231 2500

Available to clients on the world wide web at www.macquarie.com/research and through Thomson Financial, FactSet, Reuters and Bloomberg.



Asia Research

Head of Equity Research

Stephen O'Sullivan (852) 2823 3566

Automobiles/Auto Parts

Deepak Jain (India) (9122) 6653 3157
Kenneth Yap (Indonesia) (6221) 515 7343
Adam Collins (Japan) (813) 3512 6047
Dan Lucas (Japan) (813) 3512 6050
Toshisuke Hayami (Japan) (813) 3512 7873
Eunsook Kwak (Korea) (822) 3705 8644
Linda Huang (Taiwan) (8862) 2734 7521

Banks and Non-Bank Financials

Ismael Pili (Asia) (65) 6231 2840
Nick Lord (Asia, China, Hong Kong) (852) 2823 4774
Sarah Wu (China) (8621) 2412 9035
Seshadri Sen (India) (9122) 6653 3053
Ferry Wong (Indonesia) (6221) 515 7335
Chin Seng Tay (Malaysia, S'pore) (65) 6231 2837
Nadine Javellana (Philippines) (632) 857 0890
Matthew Smith (Taiwan) (8862) 2734 7514
Alastair Macdonald (Thailand) (662) 694 7741

Chemicals/Textiles

Scott Weaver (Taiwan) (8862) 2734 7512
Jal Irani (India) (9122) 6653 3040
Christina Lee (Korea) (822) 3705 8670
Sunaina Dhanuka (Malaysia) (603) 2059 8993

Conglomerates

Gary Ping (Asia) (852) 2823 3557
Leah Jiang (China) (8621) 2412 9020
Kenneth Yap (Indonesia) (6221) 515 7343
Ashwin Sanketh (Singapore) (65) 6231 2830

Consumer

Mohan Singh (Asia) (852) 3901 1111
Jessie Qian (China, Hong Kong) (852) 2823 3568
Charles Yan (China) (8621) 2412 9033
Unmesh Sharma (India) (9122) 6653 3042
Sarina Lesmina (Indonesia) (6221) 515 7339
Duane Sandberg (Japan) (813) 3512 7867
Toby Williams (Japan) (813) 3512 7392
Heather Kang (Korea) (822) 3705 8677
HongSuk Na (Korea) (822) 3705 8678
Edward Ong (Malaysia) (603) 2059 8982
Alex Pomento (Philippines) (632) 857 0899
Linda Huang (Taiwan) (8862) 2734 7521

Emerging Leaders

Jake Lynch (Asia) (8621) 2412 9007
Hiu-Lui Ko (China) (852) 2823 4704
Minoru Tayama (Japan) (813) 3512 6058
Robert Burghart (Japan) (813) 3512 7853
Heather Kang (Korea) (822) 3705 8677
Scott Weaver (Taiwan) (8862) 2734 7512

Industrials

Bin Liu (China) (8621) 2412 9006
Inderjeetsingh Bhatia (India) (9122) 6653 3166
Christopher Cintavey (Japan) (813) 3512 7432
Janet Lewis (Japan) (813) 3512 7475
Michael Na (Korea) (822) 2095 7222
Sunaina Dhanuka (Malaysia) (603) 2059 8993
David Gambrell (Thailand) (662) 694 7753

Sales

Regional Heads of Sales

Peter Slater (Boston) (1 617) 217 2103
Michelle Paisley (China, Hong Kong) (852) 2823 3516
Ulrike Pollak-Tsutsumi (Frankfurt) (49) 69 7593 8747
Thomas Renz (Geneva) (41) 22 818 7712
Ajay Bhatia (India) (9122) 6653 3200
Stuart Smythe (India) (9122) 6653 3200
Chris Gray (Indonesia) (6221) 515 7304
K.Y. Nam (Korea) (822) 3705 8607
Lena Yong (Malaysia) (603) 2059 8888
Gino C Rojas (Philippines) (632) 857 0761
Greg Norton-Kidd (New York) (1 212) 231 2527
Luke Sullivan (New York) (1 212) 231 2507

Insurance

Mark Kellock (Asia) (852) 2823 3567
Seshadri Sen (Asia, India) (9122) 6653 3053
Makarim Salman (Japan) (813) 3512 7421

Media

Jessie Qian (China, Hong Kong) (852) 2823 3568
Shubham Majumder (India) (9122) 6653 3049
Prem Jearajasingam (Malaysia) (603) 2059 8989
Alex Pomento (Philippines) (632) 857 0899

Oil and Gas

David Johnson (Asia, China) (852) 2823 4691
Scott Weaver (Taiwan) (8862) 2734 7512
Jal Irani (India) (9122) 6653 3040
Christina Lee (Korea) (822) 3705 8670
Edward Ong (Malaysia) (603) 2059 8982
Sunaina Dhanuka (Malaysia) (603) 2059 8993
Ashwin Sanketh (Singapore) (65) 6231 2830
Trevor Buchinski (Thailand) (662) 694 7728

Pharmaceuticals

Abhishek Singhal (India) (9122) 6653 3052
Naomi Kumagai (Japan) (813) 3512 7474
Christina Lee (Korea) (822) 3705 8670

Property

Matt Nacard (Asia) (852) 2823 4731
Eva Lee (China, Hong Kong) (852) 2823 3573
Tata Goeyardi (Hong Kong) (852) 2823 4077
Unmesh Sharma (India) (9122) 6653 3042
Chang Han Joo (Japan) (813) 3512 7885
Hirosaki Okubo (Japan) (813) 3512 7433
Tuck Yin Soong (Singapore) (65) 6231 2838
Elaine Cheong (Singapore) (65) 6231 2839
Corinne Jian (Taiwan) (8862) 2734 7522
Patti Tomaitrichitr (Thailand) (662) 694 7727

Resources / Metals and Mining

Andrew Dale (Asia) (852) 2823 3587
YeeMan Chin (China) (852) 2823 3562
Rakesh Arora (India) (9122) 6653 3054
Adam Worthington (Indonesia) (6221) 515 7338
Polina Diyachkina (Japan) (813) 3512 7886
Christina Lee (Korea) (822) 3705 8670
Scott Weaver (Taiwan) (8862) 2734 7512

Technology

Warren Lau (Asia) (852) 2823 3592
Kishore Belai (India) (9122) 6653 3046
Damian Thong (Japan) (813) 3512 7877
David Gibson (Japan) (813) 3512 7880
George Chang (Japan) (813) 3512 7854
Yoshihiro Shimada (Japan) (813) 3512 7862
Yukihiro Goto (Japan) (813) 3512 5984
Do Hoon Lee (Korea) (822) 3705 8641
Michael Bang (Korea) (822) 3705 8659
Patrick Yau (Singapore) (65) 6231 2835
Andy Kung (Taiwan) (8862) 2734 7534
Chia-Lin Lu (Taiwan) (8862) 2734 7526
Daniel Chang (Taiwan) (8862) 2734 7516
James Chiu (Taiwan) (8862) 2734 7517
Nicholas Teo (Taiwan) (8862) 2734 7523

Telecoms

Tim Smart (Asia, China) (852) 2823 3565
Shubham Majumder (India) (9122) 6653 3049
Kenneth Yap (Indonesia) (6221) 515 7343
Nathan Ramler (Japan) (813) 3512 7875
Prem Jearajasingam (Malaysia) (603) 2059 8989
Ramakrishna Maruvada (Philippines, Singapore, Thailand) (65) 6231 2842

Regional Heads of Sales cont'd

Scot Mackie (New York) (1 212) 231 2848
Sheila Schroeder (San Francisco) (1 415) 835 1235
Giles Heyring (Singapore) (65) 6231 2888
Mark Duncan (Taiwan) (8862) 2734 7510
Angus Kent (Thailand) (662) 694 7601
Michael Newman (Tokyo) (813) 3512 7920
Charles Nelson (UK/Europe) (44) 20 7065 2032
Rob Fabbro (UK/Europe) (44) 20 7065 2031

Sales Trading

Adam Zaki (North Asia) (852) 2823 3528
Duncan Rutherford (ASEAN, India) (65) 6231 2888
Mona Lee (Hong Kong) (852) 2823 3519

Transport & Infrastructure

Anderson Chow (Asia, China) (852) 2823 4773
Jonathan Windham (Asia, China) (852) 2823 5417
Tim Bacchus (Asia, China) (852) 2823 3586
Wei Sim (China, Hong Kong) (852) 2823 3598
Eunsook Kwak (Korea) (822) 3705 8644
Sunaina Dhanuka (Malaysia) (603) 2059 8993

Utilities

Carol Cao (China, Hong Kong) (852) 2823 4075
Deepak Jain (India) (9122) 6653 3157
Adam Worthington (Indonesia) (6221) 515 7338
Prem Jearajasingam (Malaysia) (603) 2059 8989
Alex Pomento (Philippines) (632) 857 0899

Commodities

Jim Lennon (4420) 7065 2014
Adam Rowley (4420) 7065 2013
Jonathan Butcher (4420) 7065 5938
Max Layton (4420) 7065 2000
Bonnie Liu (8621) 2412 9008
Henry Liu (8621) 2412 9005
Rakesh Arora (9122) 6653 3054

Data Services

Andrea Clohessy (Asia) (852) 2823 4076

Economics

Bill Belchere (Asia) (852) 2823 4636
Rajeev Malik (ASEAN, India) (65) 6231 2841
Richard Gibbs (Australia) (612) 8232 3935
Paul Cavey (China) (852) 2823 3570
Richard Jerram (Japan) (813) 3512 7855

Quantitative

Martin Emery (Asia) (852) 2823 3582
Viking Kwok (Asia) (852) 2823 4735
George Platt (Australia) (612) 8232 6539
Raelene de Souza (Australia) (612) 8232 8388
Tsumugi Akiba (Japan) (813) 3512 7560

Strategy/Country

Tim Rocks (Asia) (852) 2823 3585
Daniel McCormack (Asia) (852) 2823 4073
Desh Peramunetilleke (Asia) (852) 2823 3564
Mahesh Kedia (Asia) (852) 2823 3576
Stewart Ferns (Asia) (852) 2823 4068
Michael Kurtz (China) (8621) 2412 9002
Seshadri Sen (India) (9122) 6653 3053
Ferry Wong (Indonesia) (6221) 515 7335
Chris Hunt (Japan) (813) 3512 7878
Peter Eadon-Clarke (Japan) (813) 3512 7850
Eugene Ha (Korea) (822) 3705 8643
Prem Jearajasingam (Malaysia) (603) 2059 8989
Edward Ong (Malaysia) (603) 2059 8982
Alex Pomento (Philippines) (632) 857 0899
Tuck Yin Soong (ASEAN, Singapore) (65) 6231 2838
Daniel Chang (Taiwan) (8862) 2734 7516
Alastair Macdonald (Thailand) (662) 694 7741

Find our research at

Macquarie: www.macquarie.com.au/research
Thomson: www.thomson.com/financial
Reuters: www.knowledge.reuters.com
Bloomberg: MAC GO
Factset: <http://www.factset.com/home.aspx>
Email macresearch@macquarie.com for access

Sales Trading cont'd

Stuart Goddard (Europe) (44) 20 7065 2033
Brendan Rake (India) (9122) 6653 3204
Edward Robinson (London) (44) 20 7065 5883
Robert Risman (New York) (1 212) 231 2555
Isaac Huang (Taiwan) (8862) 2734 7582
Jon Omori (Tokyo) (813) 3512 7838

Alternative Strategies

Convertibles - Roland Sharman (852) 2823 4628
Depository Receipts - Robert Ansell (852) 2823 4688
Derivatives - Tim Connolly (852) 2249 3380
Futures - Tim Smith (852) 2823 4637
Hedge Fund Sales - Darin Lester (852) 2823 4736
Structured Products - Andrew Terlich (852) 2249 3225