

Morgan Stanley Taiwan Limited+

Frank A.Y. Wang

Frank.ay.Wang@morganstanley.com
+886 2 2730 2869

Jerry Su

Jerry.Su@morganstanley.com
+886 2 2730 2860

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Taiwan Discovery

CPT (2475.TW) – 4Q08

Analyst Meeting Takeaways

Conclusion: CPT is seeing some rush orders in monitor and TV panels benefiting from inventory re-stocking and China rural TV subsidies. For 1Q09, CPT guides for flat Q/Q shipments for large size panels and small size panels at 40-50% fab utilization. CPT sees monitor panel prices increasing M/M again in February (this reflects panel makers' reluctance to produce below cash cost at trough utilization). CPT strives to minimize cash outflow in 2009 at minimal capex. CPT will increase its 18.5", 20"W and 21.6" monitor shipment mix in 1Q09 at the expense of notebooks on a notebook inventory correction (notebook panel prices will stay flat until inventory clears).

What's New: CPT reported 4Q08 LPS NT\$1.27 (net loss NT\$12bn) vs LPS of NT\$0.64 (net loss NT\$6bn) in 3Q08. 4Q08 TFT OM/EBITDA margin of (-70%)/(-25%) on 38% Q/Q shipments decline to 3.5m units and 15% Q/Q ASP decline to \$US79. 4Q08 inventory declined by 4 days Q/Q to 45 days. **Value Added Data:** 1. 4Q08 Large size product mix – monitors 72%, notebooks 19%, 9% LCD TV. Monitors mix increased by 6% at expense of notebooks mix decline. 2. For 4Q08 shipments, monitors, down 32% Q/Q; NBs down 54% Q/Q; TVs down 30% Q/Q. 3. S/M size shipments declined 35% Q/Q to 11.2m units (small size shipments declined 37% Q/Q; medium size shipments declined 31% Q/Q).

Debt Payments: CPT has US\$400m (NT\$13.5bn) ECB put in 2009 (US\$150m in April 2009 and US\$250m in July 2009) and will retire NT\$15bn loans in 2009. 4Q08 cash on hand was NT\$24bn.

4Q08 Panel Market Trends: 1. 4Q panel pricing trend – Monitor panel prices declined 20% Q/Q, notebook prices declined 25% Q/Q, TV prices declined 25% Q/Q (32"+ LCD TV ASP declined 25-30% Q/Q). 2. 4Q panel shipments trend – Monitor shipments declined by 25% Q/Q, Notebook shipments declined by 22% Q/Q, LCD TV shipments increased by 10%+ Q/Q on price cut.

Stock Data

Rating	NOT RATED
Ticker (Reuters)	2475.TW
Price (Feb 10, 2009)	NT\$3.33
Market Cap (NT\$ mn)	31,571
Foreign Ownership (%)	11.66%
Outstanding Shares (mn)	9,480
3M/6M/12M Rel. Perf. (%)	12 / -12 / -22
6M Avg. Daily Turnover (NT\$ mn)	160

Company Description

Chunghwa Picture Tubes Ltd. (CPT) established in 1971, is the third-largest TFT-LCD manufacturer in Taiwan. CPT currently operates five TFT fabs in Taiwan.

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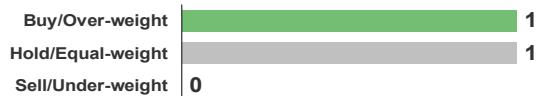
Exhibit 1

Summary of Consensus View: CPT

Chunghwa Picture Tubes Ltd.

2475-TW

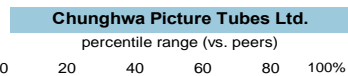
Consensus recommendations



Sector Yardstick

Chunghwa Picture Tubes

key metrics ranked relative to Information Technology sector



Price / Volatility

Metric	Peer Median
12m price perf	7.1%
3m price perf	8.7%
1m price perf	-38.1%
12m hist vol	54.9%

Growth

Sales 1yr hist	25.9%
EBIT 1yr hist	-264.7%
EPS (1 yr fwd)	-194.3%
EPS (2 yrs fwd)	-62.2%

Valuation

P/E (1 yr fwd)	9.5x
P/E (2 yrs fwd)	-2.6x
P/Book	1.5x
EV/Ebitda	2.4x

Profitability

ROE	16.4%
EBITDA margin	27.5%
EBIT margin	11.8%
Net inc. margin	9.8%

Cash Flow

FCF/Market Cap	44.2%
FCF/Sales	23.1%

Liquidity

Cash ratio	47.4%
Quick ratio	104.9%
Current ratio	127.7%

Financial Leverage

Debt/Assets	23.9%
Debt/Equity	48.8%
Net Debt/Equity	19.5%

Current Price

3.2

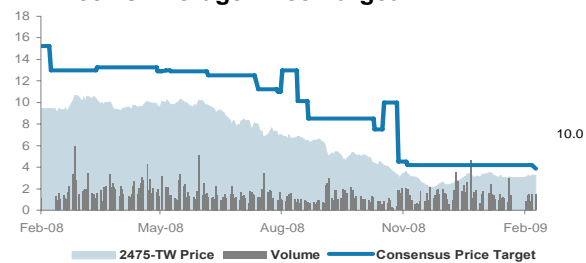


20%

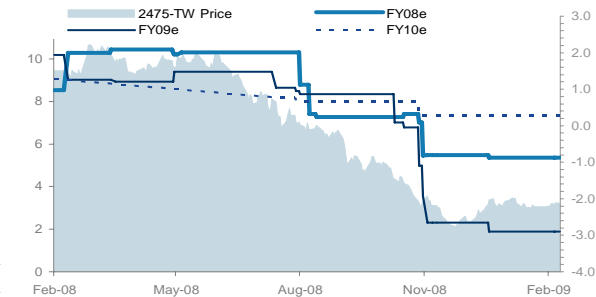
Avg Price Target

3.9

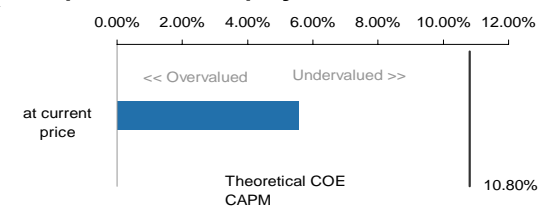
Price vs Average Price Target



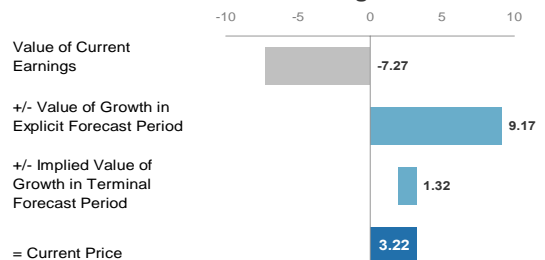
Price vs. Annual EPS Estimates (FY08-10)



Implied cost of equity



Current Value of Future Earnings



Source: Morgan Stanley Research, Factset data

Exhibit 2

CPT Financial Summary

All values in millions except per share data - (Taiwan Dollar)

Income Statement					Cash Flow Statement				
	12/2004	12/2005	12/2006	12/2007		12/2004	12/2005	12/2006	12/2007
Net Sales	117,102	103,329	126,605	159,397	Cash Flow From Operating				
COGS	87,202	85,073	104,067	108,443	Net Income	10,322	(7,352)	(13,160)	8,703
Gross Profit	29,900	18,255	22,539	50,953	Dep & Amort.	12,634	17,847	23,851	28,342
SG&A	5,729	5,961	8,543	9,435	Chg in WC	(19,237)	1,011	3,958	1,137
EBIT	12,441	(5,074)	(8,107)	13,352	Chg in Other Liabs	29,508	(3,057)	(4,415)	(11,410)
Net NO Income	0	(0)	0	0	CF from Operations	33,226	8,448	10,234	26,772
PBT	11,326	(7,046)	(13,068)	8,823	Cash Flow from Investing				
Taxes	548	201	51	196	Capital Expenditures	(56,411)	(60,571)	(14,678)	(6,198)
Net Profit	10,322	(7,352)	(13,160)	8,703	Change in ST Investments	8,480	1,553	4,900	(9,032)
EPS	1.29	-0.94	-1.60	0.92	Other Investing Cash Flow	(11,578)	(1,617)	(7,514)	2,940
DPS	0.54	0.00	0.00	0.40	CF from Investing	(59,508)	(60,635)	(17,291)	(12,291)
Balance Sheet					Ratio Analysis				
	12/2004	12/2005	12/2006	12/2007		12/2004	12/2005	12/2006	12/2007
Cash & Equivalents	27,073	15,756	12,841	15,635	Cash Flow from Financing				
Marketable Securities	17,092	18,645	23,546	14,514	Dividends	0	0	0	0
Acct Receivable	20,345	23,100	21,185	29,893	Change in Debt	21,812	36,697	9,146	(34,486)
Inventories	10,903	14,369	18,604	11,650	Change in Equity	7,397	(1,283)	(2,648)	(9,618)
Total Current Assets	75,413	71,871	76,175	71,691	Change in Preferred Stock	0	0	0	0
PP&E	117,390	162,498	154,771	135,094	Other Financing Cash Flow	14,262	5,192	2,574	21,853
Goodwill	0	0	0	0	CF from Financing	43,471	40,606	9,073	(22,251)
Amortizable Intangibles	740	1,013	1,341	2,367	Other Cash Flow - Including FX	(9,894)	263	(4,931)	10,563
Other Assets	11,303	11,381	15,097	22,251	Change in Cash	7,295	(11,317)	(2,915)	2,794
Total Fixed Asset	129,434	174,892	171,209	159,712	Growth				
Total Assets	204,847	246,763	247,384	231,403	Sales	31.6%	-11.8%	22.5%	25.9%
Accounts Payable	27,154	33,557	37,856	35,093	EBITDA	72.4%	-49.1%	23.3%	167.9%
Other Accrued Expenses	2,990	3,579	5,127	10,304	Operating Profit	343.0%	-140.8%	59.8%	(264.7%)
Income Taxes Payable	65	76	12	89	Net Income	988.7%	-171.2%	79.0%	(166.1%)
Deferred Revenue	0	0	0	0	EPS	783.6%	-173.1%	70.5%	(157.4%)
Deferred Taxes	572	800	1,295	1,694	Margins				
Total Current Liabilities	30,781	38,013	44,290	47,180	EBITDA	21.4%	12.4%	12.4%	26.5%
L/T Debt	63,479	100,177	109,323	74,837	Gross Margin	25.5%	17.7%	17.8%	32.0%
Minority Interest	1,438	1,460	1,330	1,405	EBIT	10.6%	-4.9%	(6.4%)	8.4%
Other Liabilities	14,372	13,188	10,301	7,902	Net Income	8.8%	-7.1%	(10.4%)	5.5%
Total L/T Liabilities	79,290	114,825	120,954	84,144	Returns				
Total Liabilities	110,071	152,837	165,243	131,324	ROE	15.5%	-7.8%	(14.0%)	10.6%
Preferred Equity	0	0	0	0	ROA	8.8%	(2.5%)	(3.3%)	5.4%
Shareholders' Equity	94,776	93,926	82,140	100,078	RNOA	14.6%	-4.4%	(5.0%)	8.3%
Liabs+Shrholders Eq	204,847	246,763	247,384	231,403	Leverage				
					Net Debt/Equity	38.4%	89.9%	117.5%	59.2%
					Gross Debt/Equity	67.0%	106.7%	133.1%	74.8%

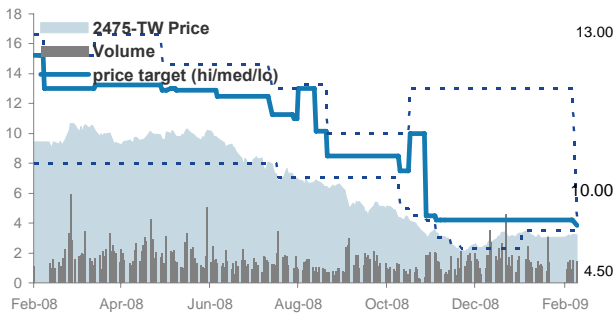
Source: Company data & Factset

Source: Morgan Stanley Research, Factset data

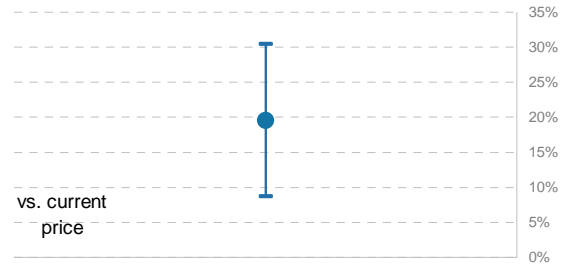
Exhibit 3

CPT: Consensus Price Target and EPS Estimates

Changes to Price Targets (hi/median/low)

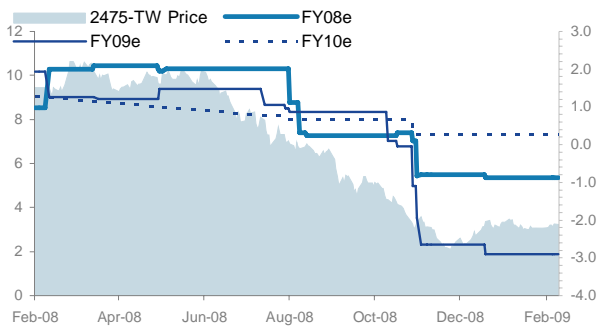


Current Upside to Price Targets

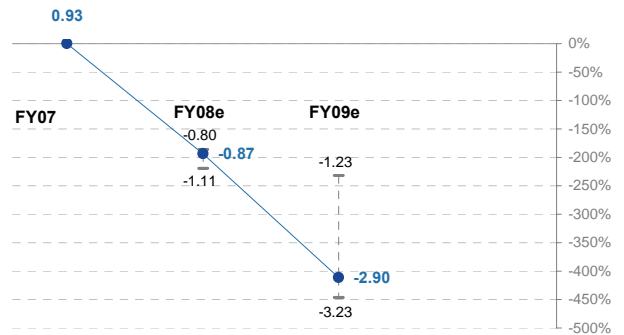


3.22 based on 2 price targets in FactSet consensus

Price vs. Annual EPS Estimates (FY08-10)



Current Ranges for EPS Estimates



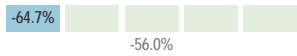
	Current		% Upside to Median Price Target	Current Distribution of Ratings		
	Price	Median Price Target		Sell	Hold	Buy
HannStar Display Corp.	4.40	5.60	27%	0	1	2
Chunghwa Picture Tubes Ltd.	3.22	3.85	20%	0	1	1
LG Display Co. Ltd.	28,050	29,000	3%	1	10	8
Samsung Electronics Co. Ltd.	527000.00	520000.00	-1%	1	9	9
Innolux Display Corp.	28.50	28.00	-2%	2	3	4
AU Optronics Corp.	28	24	-13%	6	11	4
Sharp Corp.	778	565	-27%	5	8	0
Chi Mei Optoelectronics Corp.	11.75	8.05	-31%	7	4	1

Source: Morgan Stanley Research, Factset data

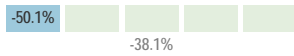
Exhibit 4

CPT: Price Performance and Volatility

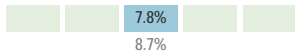
Pchange 12mo



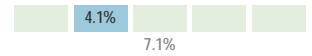
Pchange 6 mo



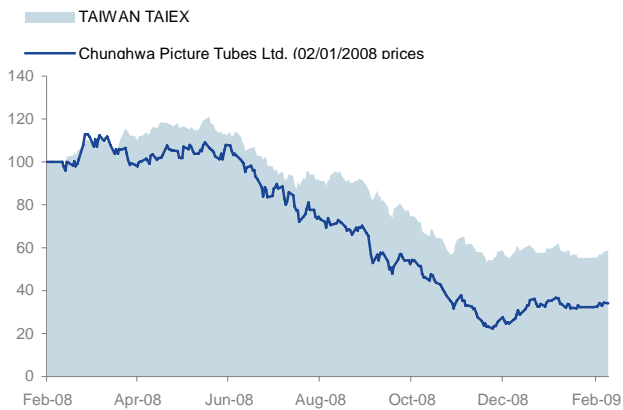
Pchange 3 mo



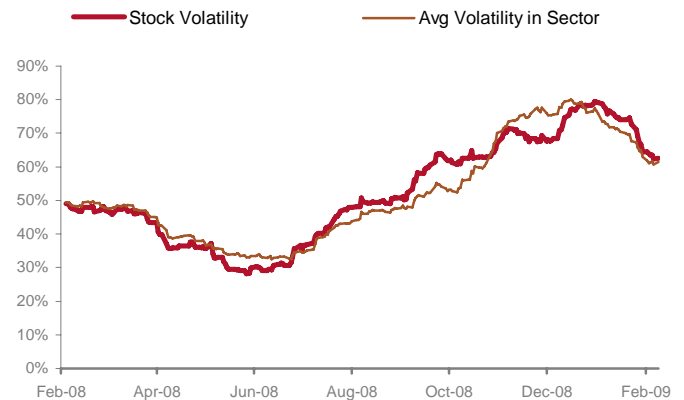
Pchange 1mo



Price Performance vs Index



Stock Volatility vs Sector Volatility



Price Performance and Volatility vs. Industry Peer Group

	12 mo. Δ (%)	3 mo. Δ (%)	1 mo. Δ (%)	12 mo. volatility (%)
Samsung Electronics Co. Ltd.	-41.4%	3.5%	3.9%	46.1%
AU Optronics Corp.	-47.8%	22.1%	7.4%	50.5%
Sharp Corp.	-53.0%	17.1%	-7.4%	59.1%
LG Display Co. Ltd.	-53.2%	12.6%	14.8%	64.0%
Innolux Display Corp.	-56.9%	18.5%	6.7%	66.5%
HannStar Display Corp.	-62.4%	-17.5%	-1.5%	54.8%
Chunghwa Picture Tubes Ltd.	-67.6%	0.3%	-0.9%	55.0%
Chi Mei Optoelectronics Corp.	-69.6%	-3.7%	10.7%	50.5%

Source: Morgan Stanley Research, Factset data

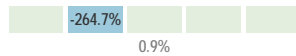
Exhibit 5

CPT Growth vs. Peer Group

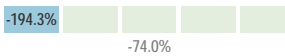
Int Cov Ratio



EBIT 1yr hist



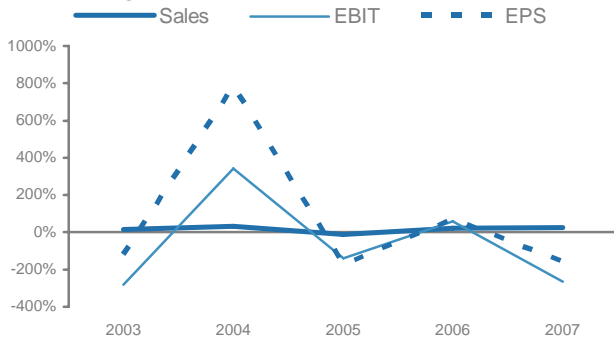
EPS 1yr fwd



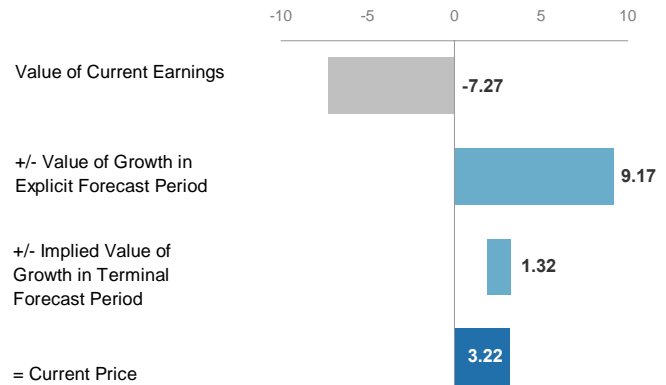
EPS 2yr fwd



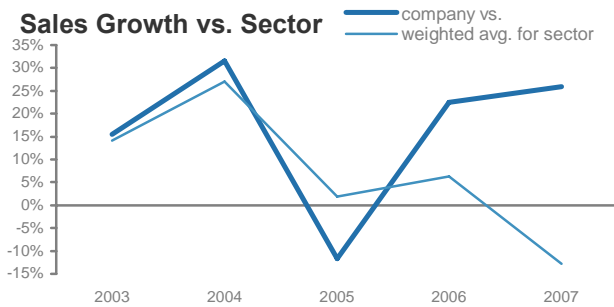
Company's Annual Growth Rates in...



What's in the Price: Implied Value of Growth



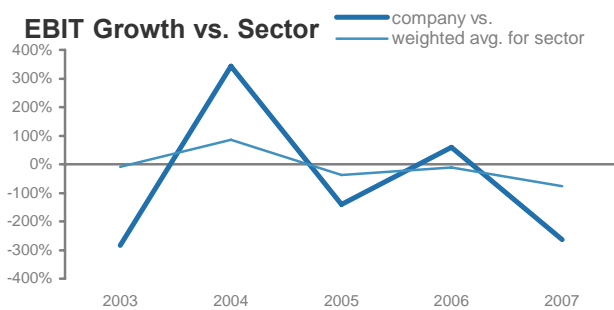
Sales Growth vs. Sector



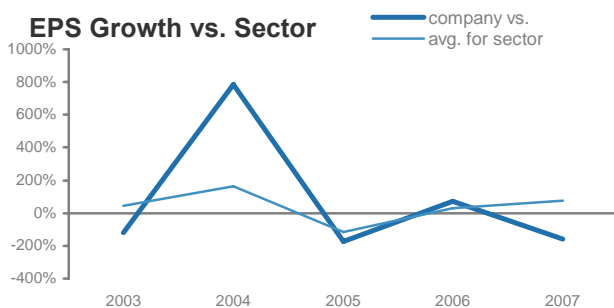
What's in the Price: Implied Terminal Growth Rate vs. Peers

	Cost of Equity	Implied terminal growth rate (years 4+)
Chi Mei Optoelectr	10.7%	230.8%
Innolux Display Co	10.7%	170.5%
Au Optronics Corp	10.7%	107.3%
Chunghwa Picture T	10.8%	26.4%
Hannstar Display C	10.8%	18.3%
Samsung Electronic	9.9%	13.0%
Lg Display Co Ltd	10.6%	11.2%

EBIT Growth vs. Sector



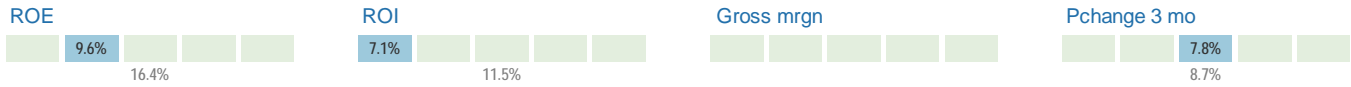
EPS Growth vs. Sector



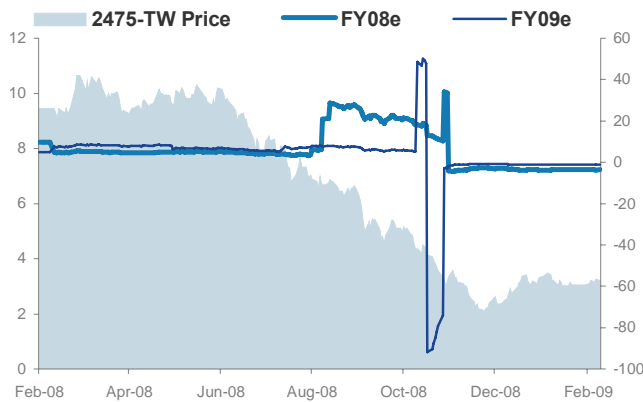
Source: Morgan Stanley Research, Factset data

Exhibit 6

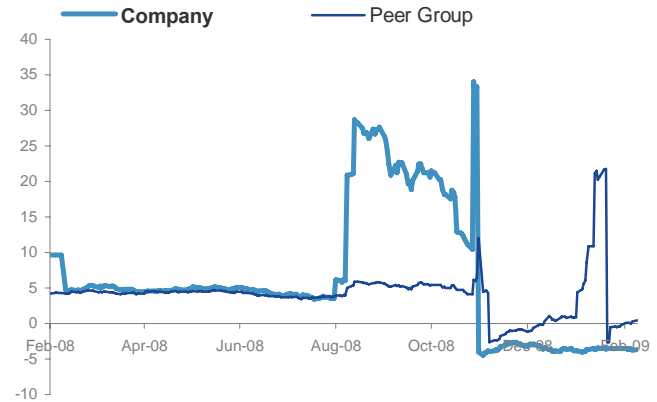
CPT: Valuation vs. Peers



Price and P/E (1-yr and 2-yr fwd)



P/E (1-yr fwd)



Relative Valuation vs. Industry Peers

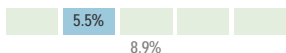
	P/E (FY1)	P/E (FY2)	P/Book	EV/Ebitda	EPS growth (2yr CAGR)
Innolux Display Corp.	17.5	-28.8	3.2	2	468%
Samsung Electronics Co. Ltd.	15.2	36.2	1.3	5	7%
Chi Mei Optoelectronics Corp.	11.3	-1.9	1.5	3	89%
AU Optronics Corp.	10.8	-4.1	1.7	2	37%
LG Display Co. Ltd.	9.1	-33.8	2.1	3	57%
Chunghwa Picture Tubes Ltd.	-3.8	-1.1	1.0	2	-
HannStar Display Corp.	-18.0	-3.0	1.1	1	-
Sharp Corp.	-34.9	87.7	1.5	3	7%

Source: Morgan Stanley Research, Factset data

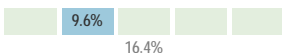
Exhibit 7

CPT Profitability Analysis

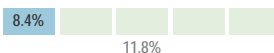
ROA



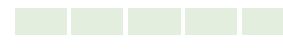
ROE



EBIT margin



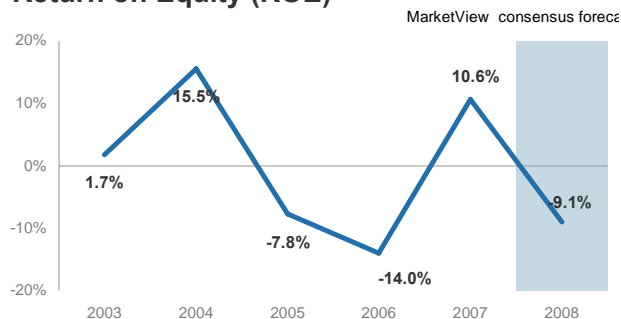
Payout ratio



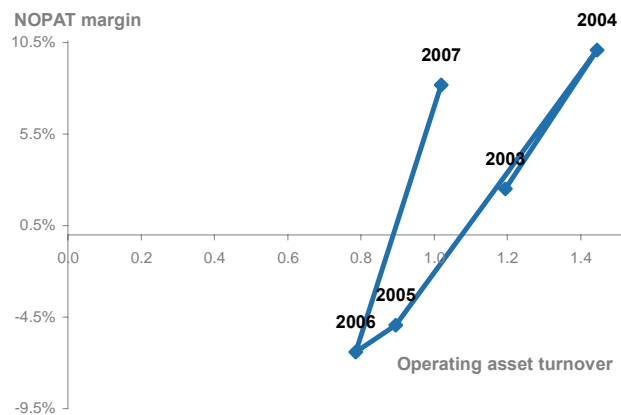
ROE Analysis

Return on equity (ROE) is the percentage return on capital raised from (or reinvested by) shareholders. The return on equity (ROE) metric is calculated by dividing net income by beginning shareholders' equity. ROE can also be decomposed into return on net operating assets plus the leverage effect (both financial and other). Finally, ROE can be calculated by the sum of return on net operating assets (RNOA), return from leverage, and return on net other funding. All calculations yield the same result. ROE is used for absolute and relative stock and sector valuation.

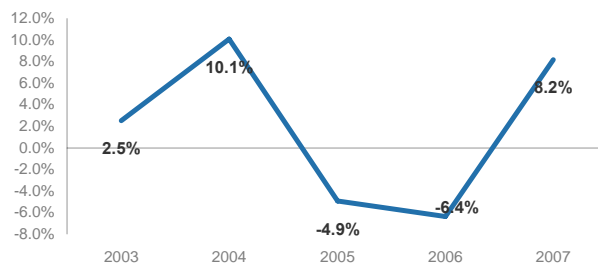
Return on Equity (ROE)



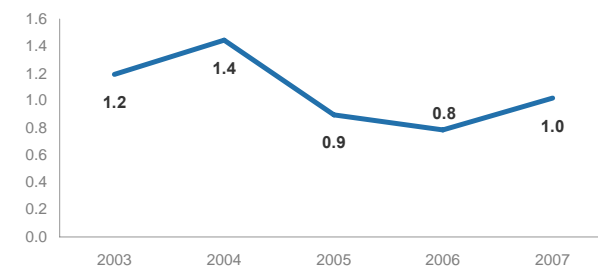
Profitability Map



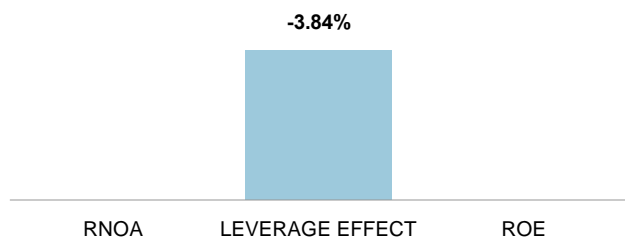
Net Operating Profit After Tax (NOPAT) Margin



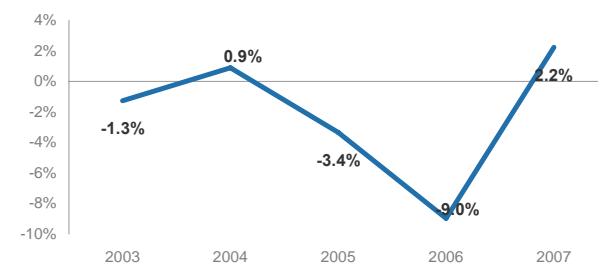
x Operating Asset Turnover



ROE Decomposition (2008)



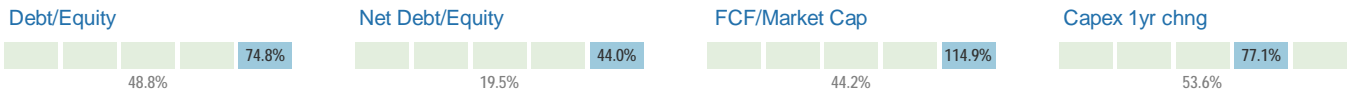
+ Return from Leverage



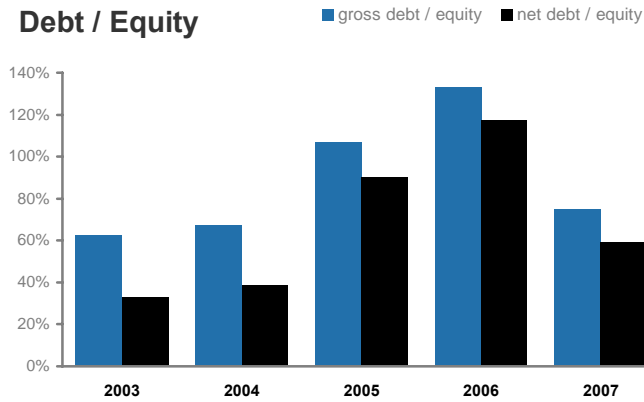
Source: Morgan Stanley Research, Factset data

Exhibit 8

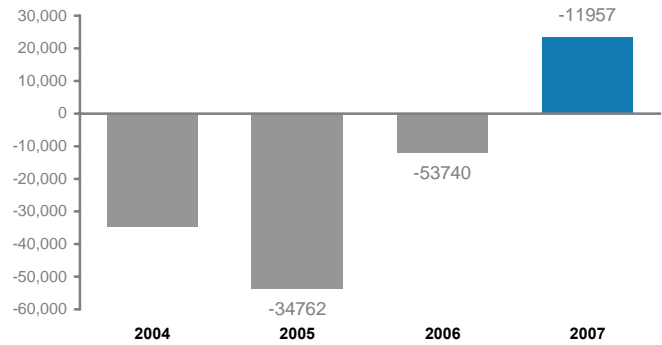
CPT: Leverage and Cash Flows Analysis



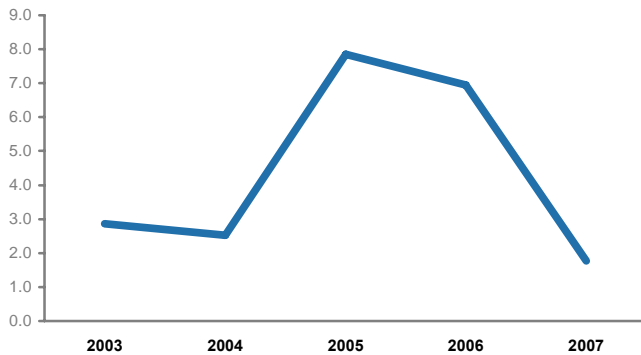
Debt / Equity



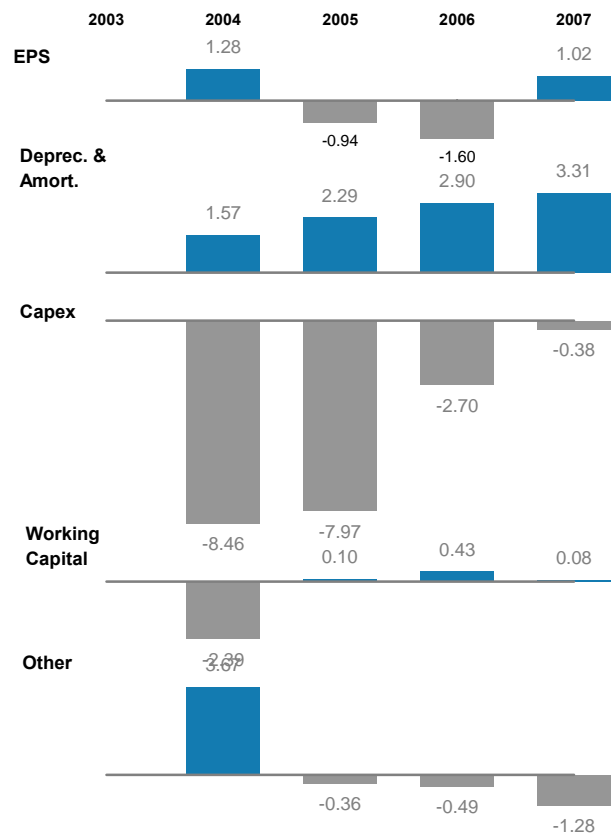
Free Cash Flow



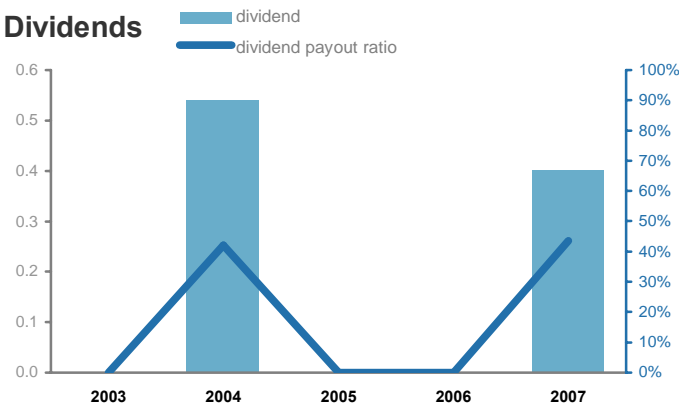
Debt / Gross Ebitda



Free Cash Flow Breakout



Dividends



Source: Morgan Stanley Research, Factset data

Exhibit 9

CPT: Factor Analysis

	Chunghwa Picture Tubes Ltd.					Peer	Chunghwa Picture Tubes Ltd.					Peer	
	percentile range (vs. peers)					Median	percentile range (vs. peers)					Median	
	0	20	40	60	80	100%		0	20	40	60	80	100%
Valuation													
P/E LTM				11.0x			10.5x						
P/E (FY1)	-3.6x						9.5x						
P/E (FY2)					-1.4x		-2.6x						
P/Book	1.0x						1.5x						
P/CF	2.7x						3.8x						
P/Sales	0.6x						1.0x						
EV/Ebitda	1.8x						2.4x						
EV/Sales					0.5x		0.4x						
Performance													
Pchange 1mo			4.1%				7.1%						
Pchange 3 mo				7.8%			8.7%						
Pchange 6 mo	-50.1%						-38.1%						
Pchange 12mo	-64.7%						-56.0%						
Efficiency													
Cash Turn							4.6x						
Fix Asset Turn							1.2x						
Inventory Turn							7.5x						
Total Asset Turn	0.7x						0.9x						
Work Cap Turn							-26.0x						
LTD/Work Cap							-8.4x						
Cash Flow													
FCF/Market Cap						114.9%	44.2%						
FCF/Sales				22.0%			23.1%						
Liquidity													
Cash ratio				39.8%			47.4%						
Quick ratio			86.0%				104.9%						
Current ratio			101.4%				127.7%						
Growth													
EPS 1yr fwd								-194.3%					
EPS 2yr fwd													
EPS 1yr hist											792.8%		
EPS 3yr hist								-11.3%					
EPS 5yr hist													
BVPS 1yr hist								-1.0%					
DPS 1yr hist													386.9%
EBIT 1yr hist									-264.7%				
Sales 1yr hist										25.9%			
Quality													
ROA				5.5%									8.9%
ROE				9.6%									16.4%
EBIT margin						8.4%							11.8%
Net inc. margin						5.5%							9.8%
Payout ratio													1.8%
Gross mrgn													19.7%
ROI						7.1%							11.5%
Financial Leverage													
Debt/Assets												32.3%	23.9%
Debt/Equity												74.8%	48.8%
Net Debt/Equity												44.0%	19.5%
Capex Discipline													
Capex/Deprec						23.4%							49.8%
Capex/Sales						3.9%							8.6%
FCF/EPS												416.6%	270.4%
Depr 1yr chng													#NUM!
Shares out 1yr chng													1.4%
Capex 1yr chng											77.1%		53.6%

Source Morgan Stanley Research, Factset data

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(as of January 31, 2009)

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	Count	% of Total	Count	% of Total IBC	% of Rating Category
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Not-Rated/Hold	33	1.4%	8	1.3%	24.2%
Underweight/Sell	498	21%	101	17%	20%
Total	2,348		598		

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The Americas

1585 Broadway
New York, NY 10036-8293

United States

Tel: +1 (1) 212 761 4000

Europe

25 Cabot Square, Canary Wharf
London E14 4QA

United Kingdom

Tel: +44 (0) 20 7 425 8000

Japan

4-20-3 Ebisu, Shibuya-ku
Tokyo 150-6008

Japan

Tel: +81 (0) 3 5424 5000

Asia/Pacific

Three Exchange Square
Central

Hong Kong

Tel: +852 2848 5200