



Chung Hwa Pulp Corp. (1905 TT)

Strong BUY

Strong BUY on Tight Supply and Valuable Forestland

MasterLink Research

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Recommendation

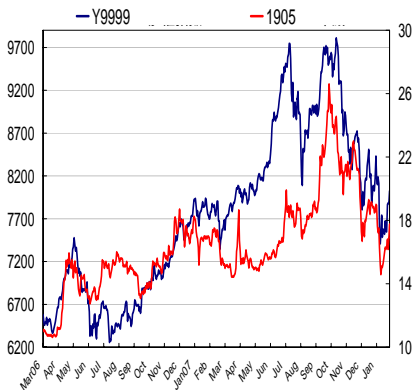
Date:	2008/02/25
Share Price (NT\$):	19.65
Target Price (NT\$):	23.3
52-wk Range (NT\$):	14.5-26.6
TWSE:	8024.41

Company Data

Capital Size (US\$/mn):	190.57
Market Cap (US\$/mn):	308.80
20d Avg Vol (lots):	8040
PER ('07E):	17.4
PBR ('07E):	1.13
Foreign Ownership:	12.93
TCRI	4

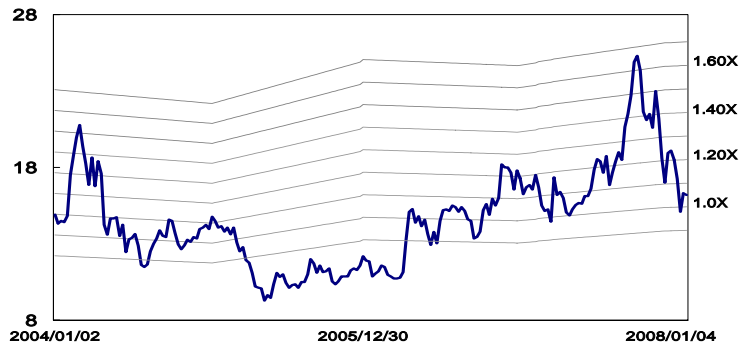
Price Performance	1-m	3-m	6-m
Absolute (%)	-14.7	-24.7	-11.0
Relative to TAIEX	-6.6	-11.6	-8.3

Key Changes	Current	Previous
Recommendation	Strong BUY	BUY
Target Price (NT\$)	23.3	20.3
Revenue (NT\$/mn)	7269	7171
Gross Margin (%)	12.7	12.62
Operating Margin (%)	6.1	6.01
EPS (NT\$)	1.02	1.01
BVPS (NT\$)	15.71	15.7



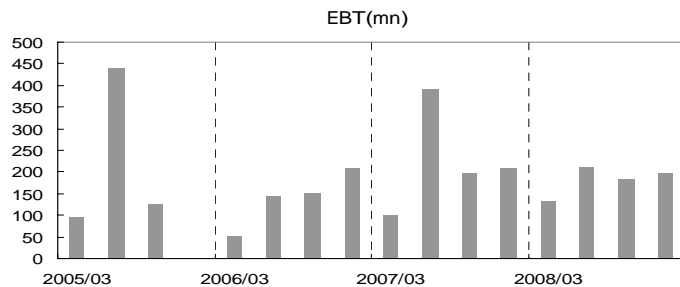
- **2008 pulp prices to rise.** CHP mainly manufactures short-fiber pulp and papers, accounting for 50% and 50% of total sales. We project 2008 pulp prices to increase by US\$25-30/ton every quarter due to 1) the strong pulp demands from China and South America and 2) the pulp capacity declines in Indonesia, China, Europe and America.
- **CHP's forestland in China is valuable.** As Russia planned to raise export tariff on woodchips significantly, forestland owners are the biggest winners. CHP's forestland area in Guangdong is up to 400k acres. Based on the wood prices estimated by Pulp and Paper Council and 50% gross margin of the China forest industry, NPV of CHP's forestland reaches NT\$8.27bn. To factor in CHP's 60% stake in Zhaoqing Dingfeng Paper Co., the forestland will contribute BVPS of up to NT\$8.3 and carbon credit value of NT\$770mn.
- **Strong BUY.** We estimate CHP's 2007 sales of NT\$6.74bn, up 10.9%, pretax profit of NT\$899mn, and EPS of NT\$1.41; 2008 sales of NT\$7.27bn, up 7.8% YoY, pretax profit of NT\$729mn and EPS of NT\$1.02. CHP's 2008 operating profit, excluding the 2007 disposed non-operating profit of NT\$250mn, is expected to continue to grow 12% YoY. We previously valued CHP based on PBR but now based on NPV. Without considering carbon credit value, we expect NPV of CHP's forestland in China to contribute BVPS of NT\$8.3. In addition, CHP's BVPS in Taiwan was NT\$15 and CHP's stock price dropped from the peak NT\$26.6 in 2007. In view of the above, we upgrade our rating to Strong BUY and set a target price at NT\$23.3.

Exhibit 1: P/B BAND



Source: MasterLink

Exhibit 2: Pre-Tax Profit



Source: MasterLink



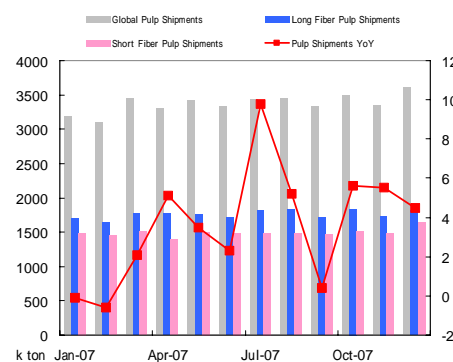
CHP has the highest pulp sales volume in Taiwan

CHP mainly manufactures short-fiber pulp and papers, accounting for 50% and 50% of total sales. CHP's annual pulp capacity is 250k tons, including 80k tons for self use and 170k tons for sale. CHP's major paper client is YFY (1907 TT). CHP's annual paper capacity is 120k tons, only second to YFY's 380k tons in Taiwan.

2008 pulp demands remain strong due to the robust demands from China and South America

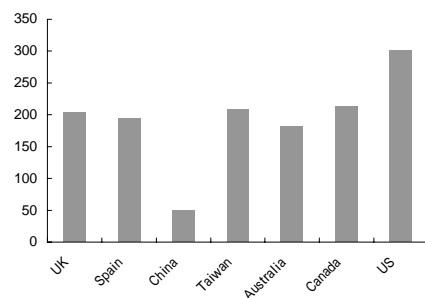
NBSK (long-fiber) prices surged all the way to US\$880/ton currently from US\$770/ton in early 2007 given strong demands and short supplies. We expect 2008 pulp prices to grow further. According to RISI, Jan07-Nov07 import volume of chemical pulp in China increased 15.8% YoY and that in South America rose 10.7% YoY. However, Jan07-Nov07 pulp shipments of North America and West Europe scarcely increased. The strong demands from China and South America boosted global chemical pulp shipments to 40kk units in 2007, up 3.6% YoY and 2007 shipment-to-capacity ratio remained high at 95%. Compared to the paper consumption in UK (200kg per capita) and US (300kg per capita), the paper consumption in China is only 50kg per capita. In view of the above and China's 2008 GDP is estimated to improve 10% YoY, we expect the 2008 pulp consumption in China to continue to grow. Despite the 2008 global economy slowdown, we expect 2008 pulp consumption growth to maintain at 3% or above given 2008 demands for US newsprint papers are projected to rebound from 2007 and demands in China and South America are strong.

Exhibit 3: 2007 Global Pulp Shipments



Source: RISI, MasterLink

Exhibit 4: Global Paper Consumption Per Capita



Source: Company

As Indonesia is prohibited from using natural woods as pulp materials, pulp shipments in Indonesia may slump

In addition to the strong demands, the supply cut in Indonesia, China, Europe, and Canada is also expected to drive up 2008 pulp prices. In the Dec07 United Nations climate change conference in Bali, Indonesia was required to use only man-made woods to manufacture pulp. The 2007 pulp shipments in Indonesia were roughly 5kk tons, half of which were illegally manufactured with natural woods. Related pulp manufacturers in Indonesia are sued for using natural woods as pulp materials. After the lawsuit is settled, Paper and Pulp Weekly anticipated pulp shipments in Indonesia to plunge to 1.68kk tons while Indonesian Paper and Pulp Association estimated them to drop 65% YoY. CHP indicated that the recent decrease of Indonesian pulp shipments has resulted in the tight short-fiber pulp supply in Asia.

China's disposal of grass pulp capacity is projected to boost wood pulp consumption

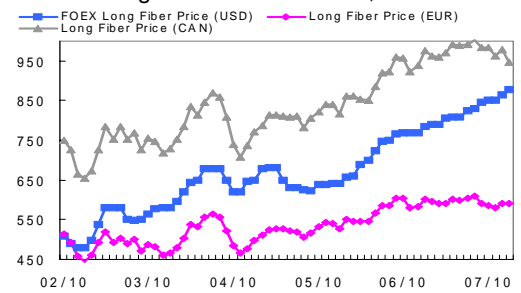
National Development and Reform Commission in China scheduled to reduce environment-unfriendly pulp capacity to less than 20k tons by disposing of pulp capacity of 6.5kk tons during the golden week holiday. As most of the disposed pulp is grass pulp and the public gradually accepts high quality wood pulp amid the rising China economy, we expect the wood pulp consumption to improve.



Exhibit 5: China's Pulp Disposal Plan Exhibit 6: Long Fiber Prices in USD, EUR and CAN

China Pulp Disposal Plan During Golden Week Holiday (10k tons)	
2006	210.5
2007	230
2008	106.5
2009	50.7
2010	52.3
Total	650

Source: NDRC



Source: Bloomberg

Due to Russia's raising woodchip export tariff and EUR/CAN appreciation, gross margins were eroded and production was reduced

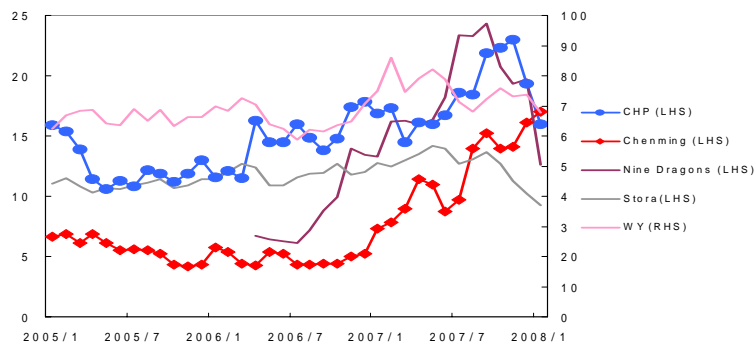
As EUR and CDN appreciate, Europe and Canada are under the exchange rate pressure. Although pulp prices continued to surge, the surge level shrinks if the pulp prices are converted from USD to EUR/CAN. The USD-denominated NBSK prices surged 42% from early 2005. However, if the pulp prices are converted from USD into EUR and CDN, the surge level becomes merely 26% (EUR) and 34% (CAN). The current woodchip (pulp's major material) prices increased 15% in 2006 and 20% in 2007. Pulp and Paper Council estimated the woodchip prices to further to grow 20% in 2008 and 30% in 2009. Gross margins of pulp manufacturers are significantly eroded. Russia's raising export tariff on woodchips is one of the factors that boost woodchip prices – 7% in 2006 raised to 17% in end 2007. Given Russia planned to further raise export tariff to 80% in 2009, Russia's 2009 woodchip export volume is projected to drop. Given Russia's woodchip export volume account for 30% of the global woodchip export volume, woodchip prices hardly decline. The gross margin of Stora Enso, a large pulp manufacturer in Finland, was greatly eroded and the stock price slumped due to Russia's increased export tariff, high transportation fees and EUR appreciation. Therefore, Stora Enso planned to cease partial production in the coming two years.

Exhibit 7: Global Pulp and Paper Manufacturers' Gross Margins

	Operating Margin		1Q07-3Q07
	2006	1Q07-3Q07	Operating Profit YoY
CHP	3.59	4.7	15.7
Chenming (China)	3.32	5.91	51.3
Weyerhaeuser (North America)	7.45	3.63	-29.1
Stora Enso (Europe)	2.04	-0.71	-1.4

Source: TEJ, Bloomberg

Exhibit 8: Global Pulp and Paper Manufacturers' Stock Prices



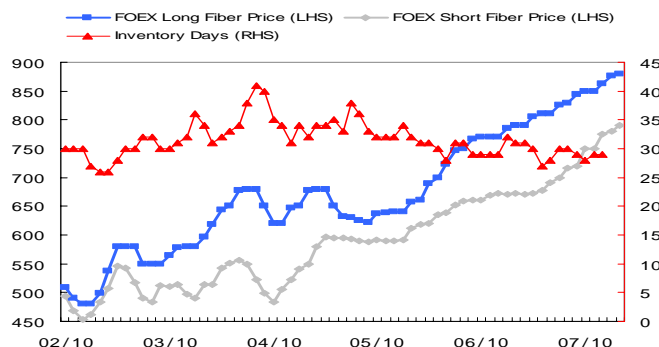
Source: Bloomberg



According to FOEX, global pulp inventory days were 29 in Dec07, lower than the safety stock days of 32 days. 2008 pulp prices are expected to rise

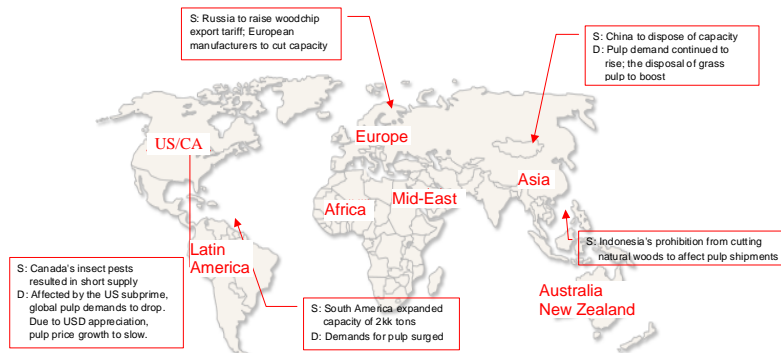
South America sequentially expanded pulp capacity of 2.1kk tons. However, due to strong demands in emerging countries and the pulp capacity cuts in Europe, Indonesia and China and, we expect pulp prices to remain high. According to FOEX, Dec07 inventory days of long-fiber pulp and shot-fiber pulp were 27 days and 32 days respectively, both flat with Nov07. The overall inventory days of pulp were 29 days in Dec07, lower than the safety stock days of 32 days. In view of the tight supply and the woodchip price surge, we expect 2008 pulp prices to remain high, growing US\$25-30/ton every quarter.

Exhibit 9: FOEX Long/Short Fiber Prices and Inventory Days



Source: Bloomberg

Exhibit 10: Factors Influencing Global Pulp Markets



Source: MasterLink

Amid the woodchip price surge, woodchip owners are expected to become the biggest winners. CHP's long-term investment value is seen

Although profits of pulp manufacturers declined globally, CHP's 2007 gross margin still rose slightly given 1) it was easier to transfer pulp costs to downstream companies as pulp sales weighting was higher; 2) CHP continued to cut costs and 3) given woodchip costs accounted for 40% of total production costs, if woodchip prices increase by 10% and pulp prices rise by 4%, CHP will be able to transfer costs. However, in the long run, pulp prices may not completely reflect the woodchip price increase. Among pulp and paper manufacturers in the world, manufacturers that are ensured with reliable materials have higher stock prices. For example, given most of Nine Dragons Paper's (2689 HK) materials come from US AOCC and the transportation fees surged, Nine Dragons Paper's stock price dropped significantly. The stock price of Stora Enso, that acquires woodchips from Russia, slumped. In view of the above, manufacturers who hold upstream materials will be the most valuable ones in the future. Stock prices of Chenming Paper repeatedly hit record highs given 1) Chenming acquired a electric heater company to reduce costs and 2) Chenming has large-scaled forestland for manufacturing pulp. While stock prices of pulp and paper manufacturers declined, we believe CHP's stock price is undervalued and see the investment value in the mid/long run.



CHP's forestland area in Guangdong is up to 400k acres. Based on 50% gross margin of the China forest industry, CHP's NPV of the forestland is NT\$8.27bn, contributing BVPS of NT\$8.3

CHP's forestland area in Guangdong is up to 400k acres, including jointly developed forestlands. CHP planned to expand the forestland area to 600k acres, which can provide Guangdong Dingfeng Paper Co. with woodchip materials for 30 years to meet the needs of the capacity expansion project – expanding 200k-ton capacity in 2009. Although CHP has not been certificated to build new plant for the forestland expansion due to the environment concern, the current 400k-acre forestland is still of great value. One acre of the forestland can produce 8 tons of woods, which can be manufactured into 4 tons of dry woodchips. Based on the wood prices estimated by Pulp and Paper Council and 50% gross margin of the China forest industry, CHP's NPV of the forestland is NT\$8.27bn. To factor in CHP's 60% stake in Zhaoqing Dingfeng Paper Co., the forestland will contribute BVPS of up to NT\$8.3. In calculating forestland value, wood cutting speed is a key factor to determine net realizable value. For example, Yueyang Paper in China, the first company that uses man-made woods as materials, cut 10k acres of woods in 2007, lower than the market estimate of 50k acres. Yueyan Paper's 2007 profit was also far less than the market estimate. Yueyang Paper did not speed up cutting woods, given wood prices are expected to surge in 2008 and 2009. In addition, as the volume of woods are expected to increase 5-10%, even if the speed of cutting woods goes down in a short period of time, CHP's forestland is still of great value.

Exhibit 11:China Forestland Value Assumption

Price Assumption (USD/ton)	2009	2010	2011-2030 (Lease Period: 30 yrs)	Description
Woodchip Price	180	215	up 5% annually	Wood Natural Growth
Wood Cutting Cost	85	95	up 7% annually	China Inflation Rate
Quantity Assumption (10k acre)	2009	2010-2015	2016-2030	
	2	4	6	1/6 of the 40-acre woods are cut annually
Discount Rate	7.13%			CHP's five-year average ROE 7.13% as required return rate
NPV	NT\$8.27bn			Based on CHP's 60% stake in Guangdong Dingfeng Paper, CHP's BVPS is NT\$8.3

Source: MasterLink

With woodchip inventory of 4 months, Guangdong Dingfeng Paper's 2008 profit is expected to grow thanks to the low cost materials.

The pulp capacity of Guangdong Dingfeng Paper is currently 110k tons. CHP's plan of 200k-ton capacity expansion in 2007 has not been approved of due to the environment concern. Therefore, we expect the sales contribution from the 200k-ton capacity expansion to be delayed to 2011. Guangdong Dingfeng Paper currently has woodchip inventory for 4 months. Although woodchip prices are expected to surge in 2008, we believe Guangdong Dingfeng Paper's 2008 profit to increase slightly thanks to the low-cost materials. We estimate Guangdong Dingfeng Paper to contribute profit of NT\$250mn in 2007 and NT\$280mn in 2008 to CHP.

Despite the pulp and paper industry uncertainties in the world, woodchip prices are expected to increase. CHP's forestland is valuable

Currently, uncertainties of investing in pulp and paper companies are: 1) the global economy slowdown due to the US subprime crisis may affect demands for pulp and papers; 2) major banking institutions in the world projected USD to appreciate in 2008, compressing the pulp price increase and 3) downstream paper manufacturers may reduce capacity owing to the difficulties in transferring high pulp costs. However, although the pulp price growth slowed, we still expect woodchip prices to increase due to Russia's raising export tariff. CHP's forestland is of great value. In addition, Carbon Trading Center in Beijing scheduled to trade carbon credits in 2009. According to Council of Agriculture in Taiwan, the credit value of one-ton carbon dioxide is NT\$1,820 and forestland per hectare can absorb 16-ton carbon dioxide. Therefore, forestland per hectare generates carbon credit value of NT\$29,000 annually. CHP's 400k-acre (or 26,600-hectare) forestland is expected to generate carbon credit value of NT\$771mn every year.



We estimate CHP's 2007 sales of NT\$6.74bn, up 10.9%, pretax profit of NT\$899mn, and EPS of NT\$1.41; 2008 sales of NT\$7.27bn, up 7.8% YoY, pretax profit of NT\$729mn and EPS of NT\$1.02. CHP's 2008 operating profit, excluding the 2007 disposed non-operating profit of NT\$250mn, is expected to continue to grow 12%. We previously valued CHP based on PBR but now based on NPV. Without considering carbon credit value, we expect the NPV of CHP's forestland in China to contribute BVPS of NT\$8.3. In addition, CHP's BVPS in Taiwan was NT\$15 and CHP's stock price dropped from the peak NT\$26.6 in 2007. In view of the above, we upgrade our rating to Strong BUY and set a target price at NT\$23.3.



Unconsolidated Income Statement					NT\$m
Year-end Dec. 31	FY05	FY06	FY07F	FY08F	
Net sales	5,225	6,081	6,743	7,269	
COGS	4,771	5,397	5,948	6,344	
Gross profit	454	685	795	925	
Operating expense	411	466	456	478	
Operating profit	43	219	339	447	
Net interest inc/(exp)	4	6	5	6	
Investment income	85	317	208	287	
Total non-operate. Inc.	621	340	560	283	
Pre-tax profit	664	558	899	729	
Net profit	717	469	847	613	
EPS (NT\$)	1.20	0.78	1.41	1.02	
Y/Y %	FY05	FY06	FY07F	FY08F	
Sales	(10.1)	16.4	10.9	7.8	
Gross profit	(41.1)	50.8	16.2	16.3	
Operating profit	(87.2)	411.9	55.2	31.7	
Pre-tax profit	31.9	(15.9)	61.1	(18.9)	
Net profit	43.4	(34.5)	80.4	(27.6)	
EPS	43.4	(34.5)	80.4	(27.6)	
Margins %	FY05	FY06	FY07F	FY08F	
Gross	8.7	11.3	11.8	12.7	
Operating	0.8	3.6	5.0	6.1	
EBITDA	18.8	14.2	18.1	14.5	
Pre-tax	12.7	9.2	13.3	10.0	
Net	13.7	7.7	12.6	8.4	

Unconsolidated Balance Sheet					NT\$m
Year-end Dec. 31	FY05	FY06	FY07F	FY08F	
Cash	608	499	596	326	
Marketable securities	219	243	213	183	
A/R & N/R	887	449	480	1,211	
Inventory	1,235	765	843	909	
Others	147	148	158	169	
Total current asset	2,969	2,619	2,899	2,755	
Long-term invest.	2,873	3,209	3,209	3,209	
Total fixed assets	4,493	4,453	4,763	5,063	
Total other assets	152	153	164	175	
Total assets	10,488	10,434	11,034	11,202	
Short-term Borrow	0	0	0	0	
A/P & N/P	84	64	119	127	
Other current liab.	226	295	217	79	
Total current liab.	309	359	336	206	
L-T borrows	0	0	0	0	
Other L-T liab.	1,357	1,395	1,492	1,597	
Total liability.	1,666	1,754	1,828	1,803	
Common stocks	5,984	5,984	5,984	5,984	
Reserves	2,104	2,176	2,176	2,176	
Retain earnings	734	519	1,046	1,239	
Total Equity	8,822	8,680	9,207	9,399	
Total Liab. & Equity	10,488	10,434	11,034	11,202	

Unconsolidated Quarterly Income Statement					NT\$m
	1Q08F	2Q08F	3Q08F	4Q08F	
Net sales	1,713	1,885	1,860	1,811	
Gross profit	202	248	239	236	
Operating profit	84	128	120	115	
Investment income	62	75	75	75	
Total non-ope inc.	51	84	64	84	
Pre-tax profit	135	212	184	199	
Net profit	113	178	155	167	
EPS	0.19	0.30	0.26	0.28	
Y/Y %	1Q08F	2Q08F	3Q08F	4Q08F	
Net sales	6.8	16.3	7.6	1.1	
Gross profit	17.8	22.6	21.5	4.8	
Operating profit	48.3	38.7	43.3	7.6	
Net profit	50.6	(51.2)	(31.2)	(8.4)	
Q/Q %	1Q08F	2Q08F	3Q08F	4Q08F	
Net sales	(4.4)	10.0	(1.3)	(2.6)	
Gross profit	(10.3)	22.8	(3.5)	(1.4)	
Operating profit	(21.5)	52.6	(6.1)	(4.4)	
Net profit	(37.9)	57.2	(13.1)	8.0	
Margins %	1Q08F	2Q08F	3Q08F	4Q08F	
Gross	11.8	13.2	12.9	13.0	
Operating	4.9	6.8	6.5	6.3	
Net	6.6	9.4	8.3	9.2	

Unconsolidated Statement of Cash flow				
Year-end Dec. 31	FY05	FY06	FY07F	FY08F
Net income	717	469	847	613
Dep & Amort	320	312	330	330
Investment income	(84)	(317)	(208)	(287)
Changes in W/C	(89)	344	(154)	(145)
Other adjustment	(613)	(59)	(59)	(60)
Cash flow – ope.	251	750	755	450
Capex	(334)	(285)	(310)	(300)
Change in L-T inv.	(115)	0	0	0
Other adjustment	1,091	(40)	27	27
Cash flow –inve.	642	(324)	(283)	(273)
Free cash flow	(84)	465	445	150
Inc. (Dec.) debt	0	0	0	0
Cash dividend	(419)	(539)	(320)	(420)
Bond issue	0	0	0	0
Right issue	0	0	0	0
Other adjustment	(73)	(24)	(26)	(28)
Cash flow-Fin.	(492)	(563)	(346)	(448)
Exchange influence	0	0	0	0
Change in Cash	401	(137)	126	(271)

MasterLink Securities – Stock Rating System**STRONG BUY:** Total return expected to appreciate 20% or more over a 3-month period.**BUY:** Total return expected to appreciate more than 10% and less than 20% over a 3-month period.**HOLD:** Total return expected to be between 10% to –10% over a 3-month period.**SELL:** Total return expected to depreciate 10% or more over a 3-month period.

Additional Information Available on Request

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