

Japanese construction machinery

Komatsu remains our preferred name

- **What is new** — FY3/13 results for both Komatsu and Hitachi Construction Machinery (HCM) were disappointing but buoyed by the impact of the weak yen. Komatsu's FY3/14 OP guidance calls for ¥305bn (+44% YoY) on a 9% increase in top-line sales. At HCM it is basically a similar story, with FY3/14 OP guidance of ¥83bn (+61%), on an 8% rise in sales. Both companies say they worry about the outlook for new mining equipment in FY3/14 but there are a list of positives, including upbeat demand in Japan and North America, signs of a cyclical bottom in key emerging markets like China and Indonesia, robust demand for higher margin mining parts, scope to raise prices, and some possibly conservative forex assumptions.
- **Komatsu** — We maintain our Buy rating and, based on forex rates of ¥100/\$ and ¥130/€, we model FY3/14 OP of ¥335.4bn (+58.5% YoY), up from ¥298.7bn. Company guidance is based on ¥95/\$ and ¥123/€. Assuming that the shares are still worth a FY3/14 PER of 14x, we raise our target price to ¥3,200 from ¥2,800.
- **Hitachi Construction Machinery** — We maintain our Neutral rating and, based on forex rates ¥100/\$ and ¥130/€, we model FY3/14 OP of ¥84.6bn (+64.3% YoY), up from ¥75.4bn. HCM's guidance is based on ¥94/\$ and ¥123/€. Assuming the shares are still worth a FY3/14 PER of 12x, we raise our target price to ¥2,400 from ¥2,300.
- **China** — After two depressed years, demand for excavators in China is showing signs of rebounding, albeit from depressed levels. China remains the largest global market for excavators but in FY3/14 it will only account for 8% of sales at Komatsu and 13% at HCM. In terms of sales, Japan is a more important market for both companies.
- **Mining** — Citi Research remains bearish on the outlook for global mining capex (see our April 9 report [Global Mining Capex - 2014 Risk Lies on The Downside](#)). In FY3/14 Komatsu believes that global demand for new mining equipment will drop by 25%, to around 5,100 units. However, based on the trends of rising global population and urbanization and a tighter demand/supply balance for commodities the company projects total unit demand to grow by 15% per annum in both FY3/15 and FY3/16. In the meantime, the company expects demand for higher margin parts to hold up relatively well. We assume that the mining business will comprise 30% of equipment OP at Komatsu and c40% at HCM.

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Company	Ticker	Rating		Target Price		Current Year Earnings Estimates	
		Old	New	Old	New	Old	New
Komatsu	6301	1	1	¥2,800	¥3,200	¥203	¥229
HCM	6305	2	2	¥2,300	¥2,400	¥189	¥199

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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Global outlook for excavators

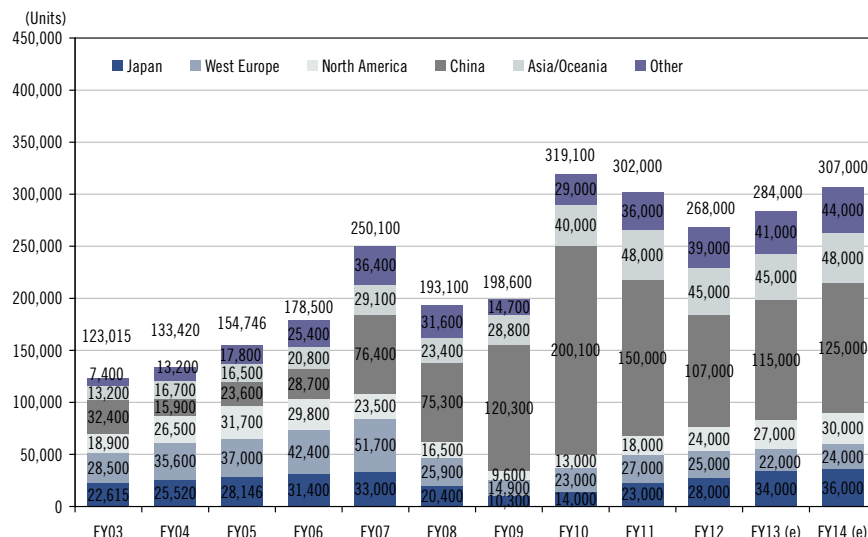
Global excavator demand has dropped by 16% from the peak two years ago

A better year in store for both FY3/14 and FY3/15 in spite of worries on mining side

Figure 1 shows the trend of global excavator demand, excluding units of 6-tons or less. In our view, what stood out in FY3/13 was another strong year of double-digit growth in Japan and North America; a 40% YoY slump in demand for foreign makers' units in China; a decline in demand in Asia / Oceania, led by a collapse in mining related demand in Indonesia from June 2012; and the second consecutive year of overall decline.

In FY3/14 we think that demand global demand could rise by 6% YoY, to 284,000 units. In China we expect a single digit increase with another year of double-digit rises in Japan and North America. Based on recent unit trends in Indonesia we also think that there is unlikely to a YoY decline, and expect total demand in Asia / Oceania to be flat. In FY3/15 we believe that demand could rise by 8%, to 307,000 units, with growth in most regions, although mining related demand in Australia, Latin America and North America could remain relatively weak.

Figure 1. Global demand for excavators



Note: Excludes excavators of 6 tons and less.
Source: Company data, HCM, Citi Research.

Regional trends

Japan

Three years of growth and more on the way, though the YoY rate of change will probably slow from here

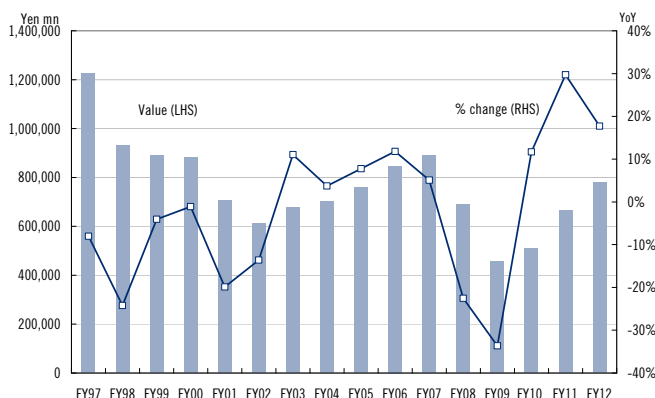
According to the Japan Construction Equipment Association (CEMA), the value of domestic demand has risen every month for the past 36 months with the March 2013 market recording a 14% YoY increase, and Q1 CY13 growth coming in at +11%. Data from Komatsu shows that led by on-going demand for new equipment in Tohoku, total unit shipments, defined as the seven main products, or 7PL, (crawler and wheel excavators, bull dozers, wheel loaders, rigid and articulated dump trucks, and motor graders), rose by 25% YoY in FY3/13. In spite of the strong headline growth for the industry, Komatsu's domestic revenues only grew 2% as reported revenues were impacted by sales of equipment to in-house rental subsidiaries and a mixed performance by Komatsu Castex and Komatsu Butsuruyu. The headline figure at HCM showed a 9% decline in domestic sales but this reflects the impact of the sale of its forklift business (TCM) to the Innovation Network Corporation of Japan (INCJ) in mid-2012. Adjusting for the disposal of this

chronically low-margin business HCM's domestic revenues in FY3/13 were up by 9% YoY.

Japan set to be 19% of Komatsu's equipment sales in FY3/14 and 25% at HCM

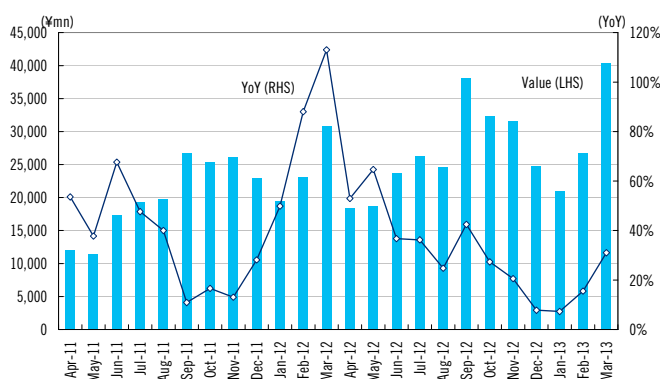
In FY3/14 Komatsu suggests that overall unit demand (7PL) in Japan could rise by between 7-12% YoY. The CEMA is also guiding for revenue growth in CY of around 9%. In our view, Komatsu's forecast of a 5% increase in revenues could prove to be too conservative. In contrast, the 12% growth in domestic sales projected by HCM (adjusting for the disposal of TCM) looks more realistic. As shown in fig-1 we think that total excavator demand in FY3/14 could increase by another 20% YoY, to 34,000 units.

Figure 2. Japanese construction equipment shipments



Source: CEMA, Citi Research

Figure 3. Domestic construction equipment shipments (since 4/11)



Source: CEMA, Citi Research

North America

Poised to see the fourth straight year of growth in FY3/14, led by robust demand from rental companies

According to Komatsu, led by demand from rental companies and supported by the rebound in US housing starts, demand for the seven main products (7PL) in FY3/13 in North America rose by 18% YoY. The company forecasts another year of 15-20% growth this fiscal year. Rates of growth have slowed but as shown in Figure 1 we believe that unit demand just for excavators could increase by more than 10% YoY, for the fourth straight year. One of the reasons for this strong showing is the upbeat state of demand from rental companies such as URI, Sun Belt and Hertz.

Scope for revenues to surprise on the upside

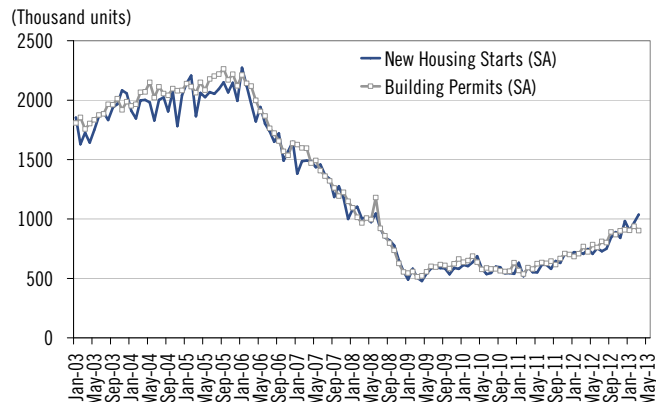
In FY3/13 Komatsu estimates that the rental industry accounted for 36% of total unit demand, after accounting for 21% just four years ago. Recognizing that they have been slow to respond to this change in market dynamic Komatsu has decided to allow its distributors in North America to build up a rental business. This was one of the main reasons why Q1 CY13 revenues jumped by 44% YoY, to ¥94.7bn. Further efforts to build-up rental fleets at their distributors are one of the main reasons why Komatsu is forecasting a 15% increase in North American revenues, to ¥319.0bn in FY3/14. Bearing in mind the impact of the weak yen (Komatsu's forecasts are based on ¥95/\$) we believe that there is scope for an upside surprise, notwithstanding the weak state of demand for mining equipment from the coal industry. Komatsu says that the backlog for mining equipment in North America at the end of March was 30% lower than six months earlier.

N. America set to be 18% of Komatsu's equipment sales in FY3/14 but only 12% at HCM

In the same way, following an impressive 23% YoY jump in revenues in FY3/13, the FY3/14 guidance at HCM for a 7% decline in North American sales looks too pessimistic even allowing for some inventory adjustment at John Deere's dealers (who handle most of HCM's unit sales in North America). In addition, we note that

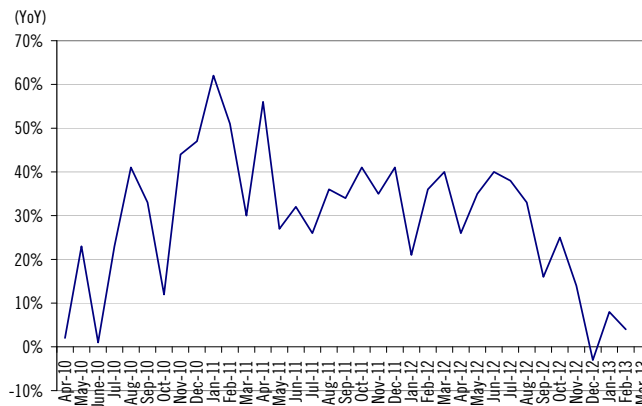
HCM's guidance is based on ¥94/\$. As at Komatsu, one risk is a fall in shipments of mining equipment but the guidance assumes a 6% fall in sales in the Americas.

Figure 4. US housing starts and permits



Source: US Census, Citi Research

Figure 5. N. American demand for seven main products (7PL)



Source: Company data, Citi Research

Latin America

Lat Am set to be 14% of Komatsu's equipment sales in FY3/14 but only 1% at HCM

The contribution of Lat Am to revenues at Komatsu is relatively important mainly due to the demand for copper mining equipment in Chile and Peru, where its main customers are Codelco, Xstrata and Anglo American. With a smaller presence in the mining market in general, the impact of Lat Am on earnings at HCM is far less. For reference we note that in Q1 CY13 Lat Am was 14% of equipment revenues at CAT (construction, resource and power). Based on their assumptions of ¥95/\$ and ¥94/\$, Komatsu and HCM are guiding for revenue growth of 9% YoY and 10% YoY, respectively, but we believe that the risks are probably on the downside. According to Komatsu, at the end of March copper made up c40% of their mining backlog.

China

In Q1 CY13 FAI growth was +20.9% YoY

Reflecting the slower growth of the Chinese economy, high levels of inventory and lower level of equipment utilization Komatsu says that in FY3/13 demand for the seven main products made by foreign makers fell by 41% YoY, following a 37% decline in FY3/12. However, Komatsu argue that there are grounds to be more upbeat for this year, as a combination of the sharp falls seen in the past two years and some improvement in fixed asset investment should lead to a rise of 3-8% YoY for total unit demand. HCM is more upbeat and forecasts that unit demand for excavators for the foreign brands could rise by more than 20% in FY3/14 to 51,000 units.

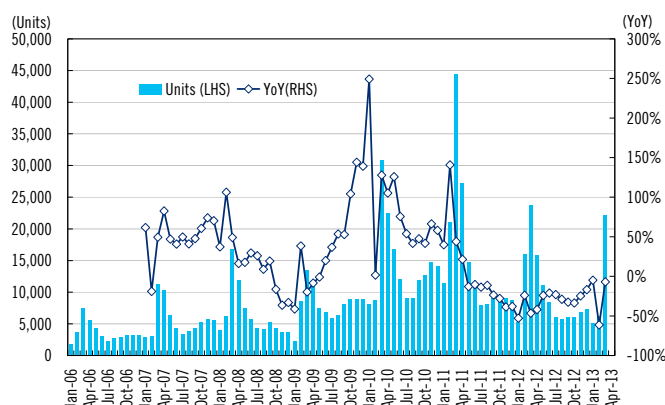
For the Japanese makers, the main focus of the Chinese market is excavators. As shown below in March 2013 both Komatsu and HCM had an 8% share putting them behind Sany but ahead of the two Korean makers (Hyundai and Doosan), CAT, Volvo and Kobelco. We forecast total excavator demand in FY3/14 of 115,000 units (+7% YoY), though in CY13 the rate of growth forecast by Citi analyst Jenny Zhen in Hong Kong is slightly lower at only 5%. The main worries we have regards the China market are 1) the high level of finished inventory, said to be around 50,000 units; 2) excess industry-wide capacity due to too many makers chasing share; and 3) a shift in the demand pattern for excavators towards smaller-sized units, which could negatively impact product mix. HCM estimate that for foreign makers in Q1

CY13 nearly 40% of all demand was for excavators under 10 tons compared to c30% a year earlier.

China is forecast to be 8% of FY3/14 equipment sales at Komatsu and 13% at HCM

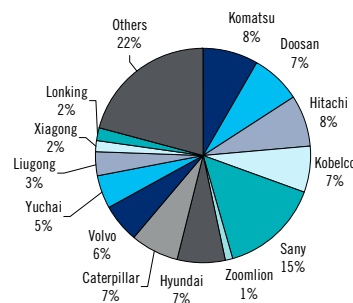
In FY3/14, Komatsu is guiding for local revenues to be flat at 9.2bn RMB but when translating these back into yen at ¥15.3/RMB yen-denominated revenues are forecast to increase by 17% YoY. At HCM guidance calls for a 7% rise in revenues to 7.2bn RMB but when translating these back at ¥15.2/RMB the growth in yen terms is +20%. HCM is also guiding for its unit sales to grow by 36% YoY, to 6,800. As noted above there is a shift in the composition of these units towards smaller-sized equipment, but the company also implicitly assumes some increase in share. According to HCM their inventory at the end of March was 1,100 units unchanged, from three months earlier.

Figure 6. Monthly trend of excavator shipments in China



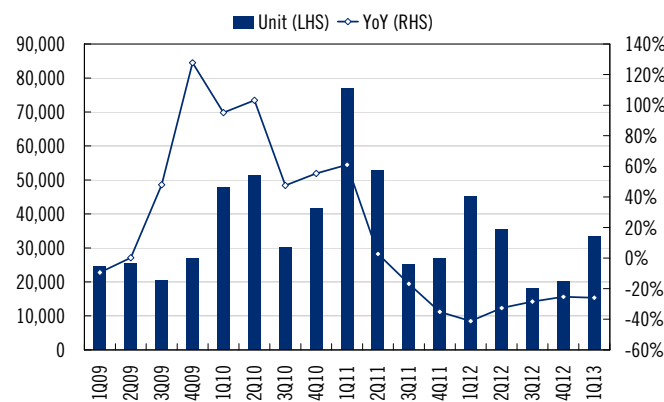
Source: CCMA, Citi Research

Figure 7. Excavator market share (March 2013)



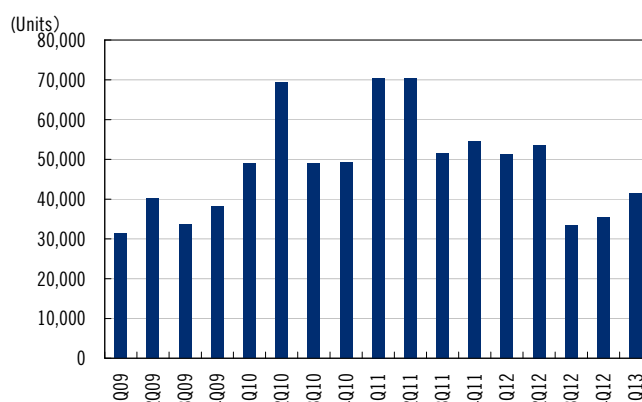
Source: CCMA, Citi Research

Figure 8. Quarterly trend of excavator shipments in China



Source: CCMA, Citi Research

Figure 9. Quarterly trend of wheel loader shipments in China



Source: CCMA, Citi Research

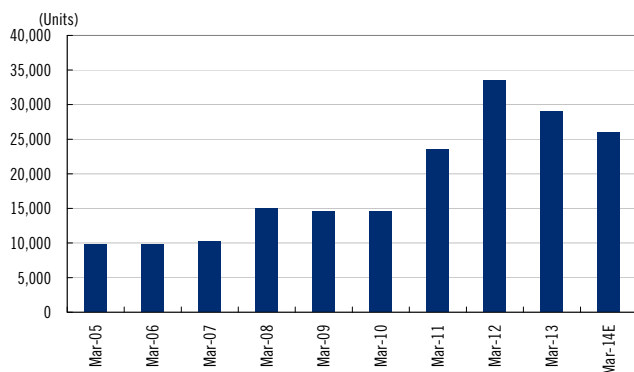
SE Asia

Signs of a recovery in Indonesia which made up 7% of Komatsu's sales in FY3/13 down from 10% a year earlier

According to Komatsu, demand for the seven main products fell by 13% YoY in FY3/13 and a further decline of 8-13% is forecast for this fiscal year. The main market for the Japanese companies in the region is Indonesia and demand for equipment crumbled from mid-2012 as mining companies and contractors reacted

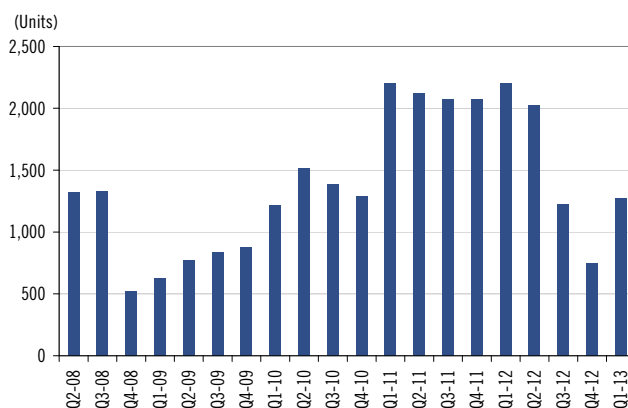
to lower prices for coal and the slower global economy. This is clearly shown by the data from United Tractors (UT) in Figure 11 below. In Q1 CY12 mining demand made up 2/3 of total equipment demand at UT but by Q4 this ratio had dropped to only 39%. However, demand for equipment at UT in the first three months of CY13 rebounded strongly and the ratio of mining-related equipment also climbed back to just over 50%. At Komatsu in FY3/13 we estimate that Indonesia generated total revenues of ¥135bn (-34% YoY) and we model a small rebound this fiscal year to ¥140bn. This year we are more upbeat on prospects for Komatsu to increase revenues in markets like Thailand, Malaysia, Philippines and Vietnam. We note that forecasts for Hexindo (the 54% owned Indonesian distributor for HCM) are for 15% growth in yen denominated sales to c¥60bn. Last term mining related revenues at Hexindo made up 21% of total sales, down from 29% the previous year. Other sources of demand last term included agriculture (especially palm oil) 34%; forestry (27%); and civil engineering (18%).

Figure 10. SE Asian demand (7PL)



Source: Company data, Citi Research

Figure 11. Equipment demand at United Tractors (Indonesia)



Source: Company data, Citi Research

Australia

Australia is forecast to be 10% of FY3/14 equipment sales at Komatsu and 13% at HCM

The slowdown in demand for mining equipment from majors such as Rio and BHP is the main reason why the outlook for demand in FY3/14 is relatively depressed. Komatsu is guiding for revenues of ¥198bn (+3%) but in USD this translates into a double digit decline. The company notes one factor mitigating the downturn in its Australian revenues is that Rio remains committed to the contract signed in late 2011 requiring Komatsu to deliver and service 150 un-manned dump trucks in the Pilbara region by late 2015. At present we estimate that only 30 of these trucks are currently operating. HCM is marginally more upbeat on the outlook for Australia, guiding for a 4% increase in revenues to ¥110bn, though this will be down in USD terms. Separately we note that HCM is guiding for mining equipment revenues in Oceania and Asia (ex-China) to drop by 4% YoY to ¥84.8bn. We note that this regional forecast calls for a 14% decline in revenues from excavators but a 42% jump in revenues from the sale of dump trucks.

EU and CIS

Not a lot of good news expected from Europe except, maybe, some further weakening of the yen

There is still not a lot of good news for Japanese equipment makers in Europe. Data from Komatsu show that demand for the 7PL fell by 5% YoY in FY3/13 and the forecast for this year calls for another decline of 0-5% with most of the weakness focused on countries in Southern and Eastern Europe. Separate data from HCM (see Fig-1) show that excavator demand in FY3/13 fell by 7% YoY, to 25,000 units,

with a further 12% decline projected for this fiscal year. The weak yen will provide a cushion for the Japanese makers this year, which is why Komatsu and HCM are guiding for revenues growth in Europe of +14% and +5% respectively.

Brighter prospects in CIS (Russia)

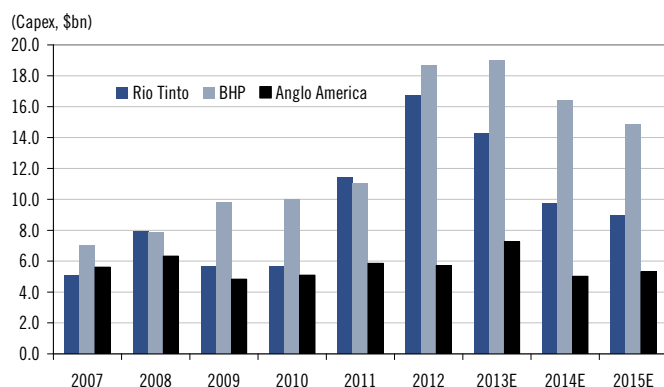
In FY3/14 both Komatsu and HCM are positive on the outlook for sales in the CIS guiding for ¥96.0bn (+7% YoY) and ¥35.4bn (+20%), respectively. Both companies expect this year to mark a new all-time high for sales.

Mining equipment

Sentiment is almost universally bearish with negative comments from global equipment players including Cat, Sandvik and Atlas Copco

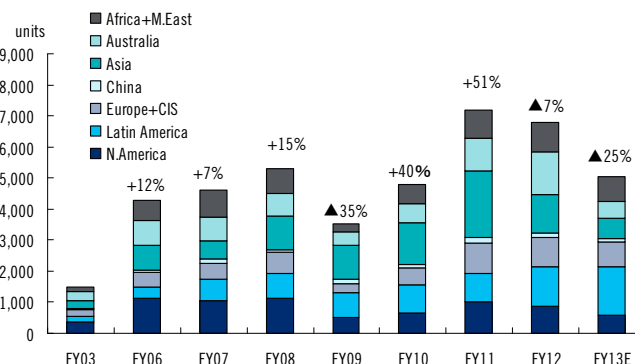
Investor sentiment is almost universally bearish on the outlook for mining equipment in FY3/14. As shown in Figure 12 below, capex plans by the most of the majors are for significant declines. Our April 9 report [Global Mining Capex - 2014 Risk Lies on The Downside](#) shows that planned mining capex by the 40 companies covered by Citi Research is expected to decline by 8% in 2013, with a 19% fall in 2014 and a further decline of 12% in 2015. Against this backdrop it is no surprise to see a swathe of poor numbers from a raft of companies involved in supplying equipment to the global mining industry. Caterpillar, in its Q1 results, reported a 23% YoY decline in revenues from its resource division (90% mining related) and a 60% slump in OP. The company also said that in 2013 it expects demand for traditional Cat machines to fall 50% with a 15% decline in demand for equipment supplied by Bucyrus. While some of these drops reflect inventory adjustment at Cat's dealers there is no hiding from the fact that no pick up in demand is expected any time soon. Q1 data from Sandvik also showed a 35% YoY fall in mining orders, a 19% decline in sales and a 16% retreat in EBIT. In the same way, Atlas Copco posted a 26% YoY fall in Q1 numbers orders in its mining and rock excavation division in Q1, with a 7% QoQ retreat.

Figure 12. Capex plans by major mining companies



Source: Company data, Citi Research

Figure 13. Mining equipment demand (unit)



Source: Komatsu, Citi Research

Some positive comments regards global demand for FY3/15 and FY3/16 from Komatsu

Komatsu forecasts that global demand for new equipment will drop by around 25% in FY3/14, to around 5,100 units. This is nearly 30% below the peak of two years ago but considering the extent of the upswing for mining equipment over the past seven years, we think that the forecast made by Komatsu of a 15% YoY rebound in FY3/15 and FY3/16 could well prove to be too optimistic. The company is well aware of the comments regards capex and capital deployment from the new CEOs of the mining majors but argues that equipment demand in FY3/16 could rebound to the same level of FY3/13 (c6,800 units) due to the long-term trends of global population growth and urbanization, and a tighter demand/supply balance for commodities.

Parts sales are expected to be up again, but mainly due to impact of yen weakness

The only bright spots for the Japanese makers are 1) relatively robust demand for higher margin mining parts; and 2) the impact of the weak yen providing a cushion to USD-denominated revenues. As shown in Figure 16 Komatsu expects sales of parts to increase by 17% YoY, to ¥201bn this year, although in USD terms these same sales will only be up by 1%. HCM also expects sales of parts to the mining companies and contractors to increase by 3% YoY, to ¥68.2bn, but in USD translates into a 12% decline. Reasons for the divergent trends include the larger unit fleet operated by Komatsu globally and the greater presence / market share for Komatsu in the harder working dump truck segment.

Figure 14. Spot price of coal



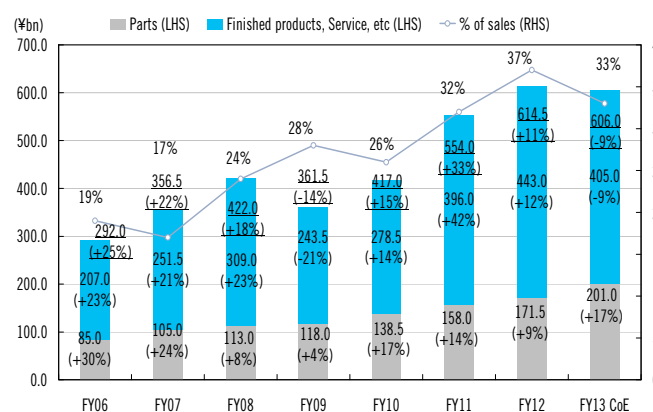
Source: Bloomberg, Citi Research

Figure 15. Spot price of iron ore



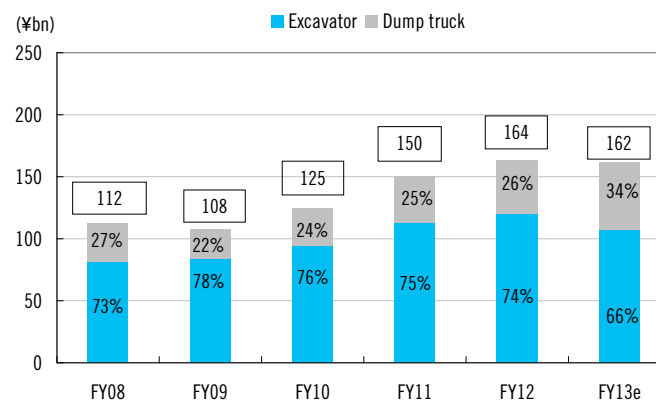
Source: Bloomberg, Citi Research

Figure 16. Trend of Komatsu's mining revenues



Source: Company data, Citi Research

Figure 17. Trend of HCM's mining revenues



Source: Company data, Citi Research

Figure 18. Global Construction and Mining company valuation comparison

	Ticker	Price	Rating	EV/Sales		EV/Ebit		P/E		Ebit Margin	
		08-May-13		2012E	2013E	2012E	2013E	2012E	2013E	2012E	2013E
Asia pacific											
Komatsu	6301.JP	¥2,728	1	1.3	1.1	8.1	7.2	12.0	11.5	16%	17%
Hitachi Construction Machinery	6305.JP	¥2,425	2	0.9	0.9	14.8	9.3	17.4	13.2	7%	10%
Nabtesco	6268.JP	¥2,311	2	1.7	1.5	20.8	15.7	25.6	22.8	8%	10%
Sany Heavy	0631.CN	HK\$3.0	2	1.9	1.8	10.8	9.2	13.9	12.1	17%	20%
Zoomlion	1157.CN	HK\$8.3	3	1.1	1.0	7.6	6.9	9.8	9.0	14%	14%
United Tractors	UNTR.ID	Rp17,300	1	1.0	0.9	7.0	5.9	9.7	8.5	14%	15%
Boart Longyear	BLY.AU	\$0.92	2H	0.5	0.5	11.5	9.1	11.8	9.6	5%	6%
North America											
Caterpillar	CAT.US	\$90.31	2	1.1	1.0	10.2	8.7	13.0	11.5	11%	12%
Cummins	CMI.US	\$115.01	1	1.2	1.1	9.3	8.1	14.7	12.1	13%	14%
Deere & Company	DE.US	\$92.35	1	1.1	1.1	8.5	8.2	10.7	10.1	13%	13%
United Rentals	URI.US	\$58.17	1	2.4	2.0	10.4	8.0	12.9	9.1	24%	26%
Joy Global	JOY.US	\$61.48	2	1.4	1.3	7.0	6.1	9.8	9.5	21%	22%
Terex	TEX.US	\$32.12	NA	0.7	0.6	6.8	5.6	12.6	9.3	8%	9%
Europe											
Atlas Copco	ATCOa.SE	SKr172.70	3	2.3	2.2	11.4	11.0	16.0	15.7	20%	20%
Fenner	FENR.GB	£3.66	1	1.1	1.0	10.5	9.0	12.1	10.5	11%	12%
FLSmidth	FLS.DK	Dkr336.20	1	0.8	0.7	9.7	7.7	11.0	9.4	8%	10%
Metso Oyj	MEO1V.FI	€31.53	3	0.7	0.8	9.3	10.1	13.5	14.3	8%	8%
Sandvik	SAND.SE	SKr93.65	2	1.6	1.5	13.3	11.6	16.7	15.0	12%	14%
Weir	WEIR.GB	£22.11	2	2.0	1.9	11.3	10.5	14.4	13.8	18%	18%

Note: Bloomberg forecasts for NA companies

Source: Bloomberg, Company data and Citi Research

Company Focus

- Company Update
- Target Price Change
- Estimate Change

Buy	1
Price (08 May 13)	¥2,728
Target price	¥3,200
from ¥2,800	
Expected share price return	17.3%
Expected dividend yield	2.1%
Expected total return	19.4%
Market Cap	¥2,599,181M
	US\$26,250M

Price Performance
(RIC: 6301.T, BB: 6301 JP)



Komatsu (6301)

Mining concerns offset by yen, upside in DM and low valuations

■ **Where could there be a surprise in FY3/14** — We think the guidance of a 15% increase in revenues in North America and a 5% rise in Japan will be exceeded. In North America not only do we expect equipment demand from both the resi and non-resi segments to be upbeat but that Komatsu will also benefit from a full-fledged entry into the rental business by its dealers, with a lift from the weak yen. On the downside we worry that Q1 results in late July could be disappointing but this will mainly reflect the tough comps.

■ **Mining** — Komatsu thinks that global demand for mining equipment will fall by 25% this year, to around 5,100 units. Even so, the company argues that demand for equipment related to copper mining in Lat Am should hold up relatively well, and it also projects sales of high margin parts will increase by 17% YoY. In USD terms total mining the company forecasts revenues to fall by 15% YoY, to \$6.4bn, but this decline is only 1% in yen terms at the official rate of ¥95/\$.

■ **Yen** — The FY3/14 guidance is based on ¥95/\$ / ¥123/€ and ¥15.3/RMB, while our estimates assume ¥100/\$, ¥130/€ and ¥15.5/RMB. According to Komatsu each ¥1 move in these rates impacts OP by ¥5.3bn, ¥0.4bn and ¥3.5bn, respectively.

■ **Prices** — In FY3/13 the impact of higher ASPs on operating profits was +¥26.8bn. According to the company, higher ASPs (including parts) are expected to boost OP by ¥29.1bn this term, but we note that this figure also include some impact of higher production. The “real” impact of increased prices is closer to ¥20bn.

■ **FCF and inventory** — At the end of March, inventory stood at ¥663.6bn (+8% YoY), with inventory days up to 169 from 138. However, adjusting for the impact of the weak yen inventory was actually down by 3%. In FY3/13 FCF was in the black to the tune of ¥82.6bn, reversing the poor performance a year earlier.

■ **New mid-term targets** — In late April, the new CEO Tetsuji (Ted) Ohashi laid out some of his goals for March 2016. At the mid-point, with forex assumptions of ¥90-95/\$ / ¥120-125/€ and ¥15.0-15.3/RMB, these included sales of ¥2.3trn, an operating margin of 18-20% and a RoE of 18-20%. The payout ratio has also been raised to 30-50%. The new slogan “together we innovate GEMBA worldwide” is a bit of a mouthful but one feature of the greater focus on innovation is a broader application of its accumulated ICT (information and communication technology) via unmanned dump trucks and fleet management using the Komtrax system.

Consol.	Sales		OP			Pretax Profit		NP		EPS		PE
	¥M	YOY (%)	¥M	YOY (%)	OPM(%)	¥M	YOY (%)	¥M	YOY (%)	¥		X
3/12A	1,981,763	7.5	256,343	15.0	12.9	249,609	13.6	167,041	10.8	173		15.8
3/13A	1,884,991	-4.9	211,602	-17.5	11.2	204,603	-18.0	126,321	-24.4	132		20.7
3/14CE	2,050,000	8.8	305,000	44.1	14.9	297,000	45.2	184,000	45.7	193		14.1
3/14E	1,948,000	3.3	298,700	41.2	15.3	295,700	44.5	193,200	52.9	203		13.4
3/14RE	2,072,875	10.0	335,400	58.5	16.2	332,900	62.7	217,700	72.3	229		11.9
3/15E	2,068,000	6.2	325,000	8.8	15.7	322,000	8.9	210,000	8.7	221		12.4
3/15RE	2,120,000	2.3	350,000	4.4	16.5	348,000	4.5	228,000	4.7	239		11.4
3/16E	2,208,500	4.2	372,400	6.4	16.9	370,900	6.6	242,100	6.2	254		10.7

A: Actuals, E: Citi Research Ests, CE: Co. Ests, RE: Citi Research Revised Ests, CRE: Co. Revised Ests, NA: Not Available, NM: Not Meaningful

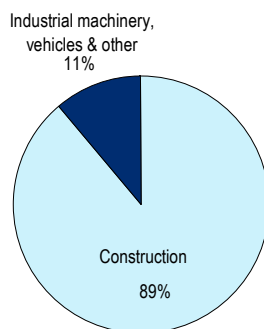
Komatsu (6301) Investment Dashboard

Reasons for Buy rating

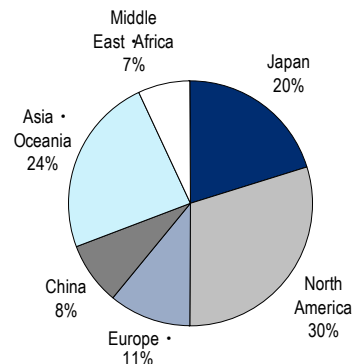
- The weak yen underpins prospects for a better year in FY3/14. On a PER of 12x, valuations are low against its own history and versus global industrials, with a RoE of 17%.
- Japan is Komatsu's largest market and a combination of on-going work in Tohoku and possibly higher public works spending by the new government should underpin higher equipment demand. We see scope for a positive surprise in North America.
- We do not see much more downside in key emerging markets like China and Indonesia.
- Lower mining capex is still a worry but with c14,000 units of equipment operating globally, sales of higher margin parts and service revenues should hold up relatively well.

Sales breakdown (FY3/13)

By segment



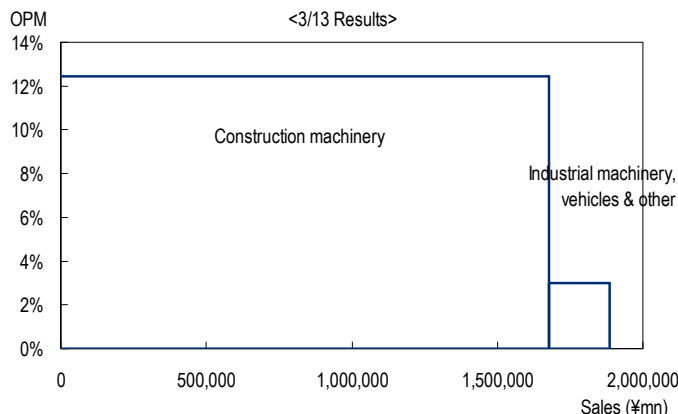
By region



Source: Company data.

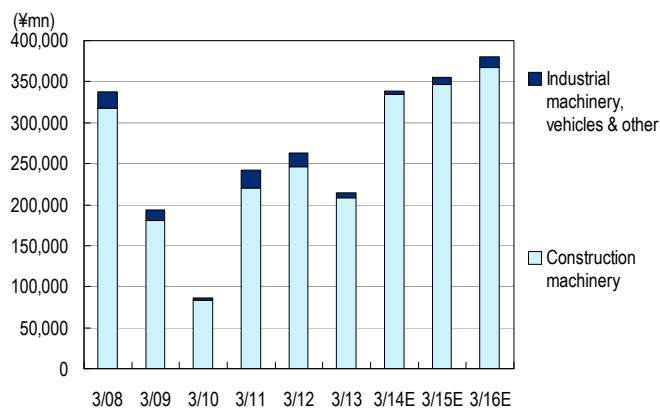
Business portfolio

<3/13 Results>



Source: Company data.

OP by segment

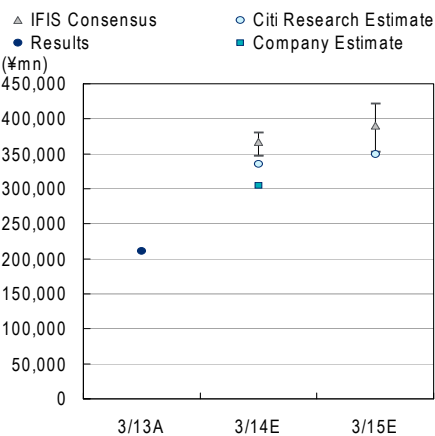


Note: Before eliminations. Source: Company data, Citi Research

Alternate scenario: a more bullish case

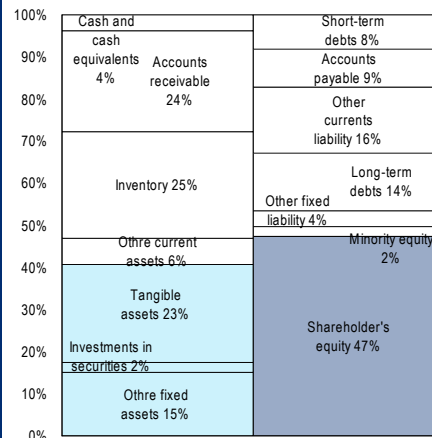
- Should demand for mining equipment begin to rebound, the yen were to weaken to ¥100/\$ or more, and there is a cyclical rebound in demand in China we can envisage a scenario where FY3/14 OP reaches ¥350bn. This would top the all-time high of ¥333bn in FY3/08.
- Assuming that the shares are worth a PER of 14x, this would produce a theoretical share price of around ¥3,400.

OP forecast comparison



Source: Company data, Bloomberg (May 7, 2013), Citi Research.

Balance sheet (FY3/13)



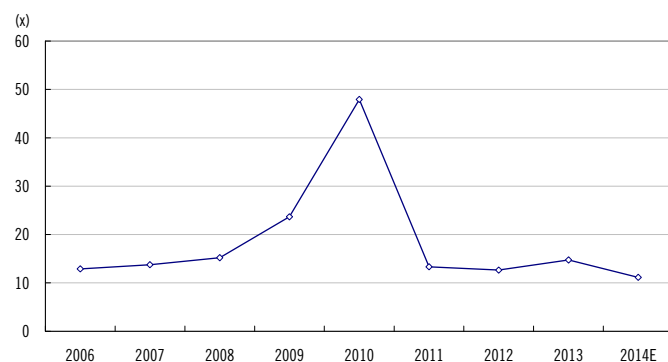
Source: Company data.

Figure 19. Regional trend of equipment sales and segment breakdown of sales and OP

(¥mn)	FY3/10	FY3/11	FY3/12	FY3/13	FY3/14CE	YoY	FY3/14E	YoY	FY3/15E	YoY	FY3/16E	YoY
Sales	1,431,564	1,843,127	1,981,763	1,884,991	2,050,000	9%	2,072,875	10%	2,120,000	2%	2,208,500	4%
Construction machinery	1,268,575	1,615,689	1,739,348	1,677,049	1,850,000	10%	1,866,875	11%	1,905,000	2%	1,978,500	4%
Domestic	228,505	251,597	286,342	292,732	308,000	5%	310,000	6%	320,000	3%	325,000	2%
Overseas	1,040,070	1,364,092	1,453,006	1,384,317	1,540,000	11%	1,556,875	12%	1,585,000	2%	1,653,500	4%
Americas	306,135	386,758	443,044	535,750	601,000	12%	610,000	14%	600,000	-2%	610,000	2%
North America	135,500	184,500	237,800	276,475	319,000	15%	350,000	27%	380,000	9%	400,000	5%
Latin America	170,500	202,200	205,200	259,275	282,000	9%	260,000	0%	220,000	-15%	210,000	-5%
EU, Russia	122,018	164,007	200,404	189,833	210,000	11%	223,500	18%	235,000	5%	258,000	10%
EU	90,318	104,400	120,600	100,350	114,000	14%	123,500	23%	130,000	5%	143,000	10%
Russia	31,700	59,500	79,700	89,483	96,000	7%	100,000	12%	105,000	5%	115,000	10%
Other	611,917	813,327	809,558	658,734	729,000	11%	723,375	10%	750,000	4%	785,500	5%
Asia, Oceania	281,878	374,577	481,277	411,059	456,000	11%	450,000	9%	460,000	2%	470,000	2%
Asia	168,800	252,900	319,400	218,009	258,000	18%	260,000	19%	280,000	8%	300,000	7%
Oceania	113,078	121,600	161,800	193,050	198,000	3%	190,000	-2%	180,000	-5%	170,000	-6%
China	244,509	334,270	201,312	119,940	140,000	17%	143,375	20%	155,000	8%	170,500	10%
Middle East, Africa	85,530	104,480	126,969	127,735	133,000	4%	130,000	2%	135,000	4%	145,000	7%
Middle East	32,200	42,800	36,472	29,686	41,000	38%	40,000	35%	40,000	0%	45,000	13%
Africa	53,330	61,500	90,497	98,049	92,000	-6%	90,000	-8%	95,000	6%	100,000	5%
Industrial machinery and other	162,989	227,438	242,415	207,942	205,000	-1%	206,000	-1%	215,000	4%	230,000	7%
Operating profit	67,035	222,929	256,343	211,602	305,000	44%	335,400	59%	350,000	4%	372,400	6%
Construction machinery	83,061	220,830	246,291	208,591	302,000	45%	334,200	60%	346,800	4%	367,200	6%
Industrial machinery	2,998	20,965	16,779	6,222	6,000	-4%	4,200	-32%	8,200	95%	13,200	61%
Elimination	-19,024	-18,866	-6,727	-3,211	-3,000		-3,000		-5,000		-8,000	
Operating profit margin	4.7%	12.1%	12.9%	11.2%	14.9%		16.2%		16.5%		16.9%	
Construction machinery	6.5%	13.7%	14.2%	12.4%	16.3%		17.9%		18.2%		18.6%	
Industrial machinery	1.8%	9.2%	6.9%	3.0%	2.9%		2.0%		3.8%		5.7%	

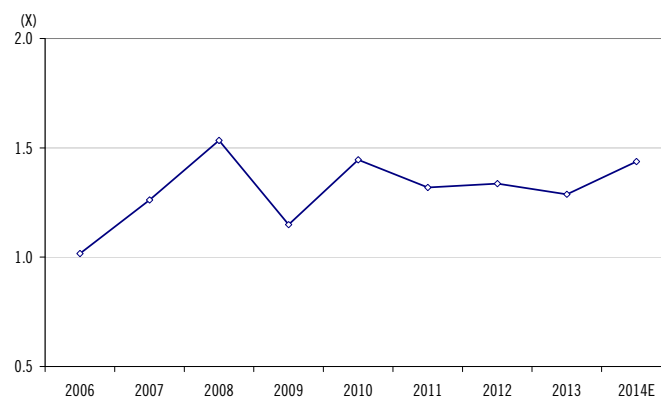
Source: Company data, Citi Research

Figure 20. Komatsu long-term PER (x)



Source: Company data, Citi Research

Figure 21. Komatsu long-term EV/sales (x)



Source: Company data, Citi Research

Company Focus

- Company Update
- Target Price Change
- Estimate Change

Neutral	2
Price (08 May 13)	¥2,425
Target price	¥2,400
from ¥2,300	
Expected share price return	-1.0%
Expected dividend yield	2.1%
Expected total return	1.0%
Market Cap	¥513,878M
	US\$5,190M

Price Performance (RIC: 6305.T, BB: 6305 JP)



Hitachi Construction Machinery (6305) Low valuations reflect China dependence and low margins

■ **Where could there be a surprise** — We think the FY3/14 guidance of a 21% YoY fall in North American sales to ¥97.5bn is probably too bearish. In yen terms this translates into a 7% decline at ¥94/\$, but at ¥100/\$ we model sales of ¥125bn (+19%). We note that management indicate that the internal budgets are more upbeat than the official guidance but worry that tough comps mean that Q1 results in late July could be markedly weak.

■ **Mining** — FY3/13 equipment and parts sales disappointed on the downside, coming in at ¥163.4bn, comprising 21% of total revenues. This term HCM is guiding for dump truck sales of ¥54.7bn (+26% YoY) and mining excavator sales of ¥107.5bn (-11%). Approx 40% of projected dump truck shipments are in the current backlog including five units for a coal mine in Mozambique and two units for a gold mine in Turkey. More than 60% of its dump trucks are excavators remain exposed to coal. In FY3/14 including sales of parts of ¥68.2bn (+3%), total mining equipment revenues are projected to be ¥162.2bn (-1%) but in USD terms this translates into a 16% decline to \$1.7bn. The company argues that global demand for mining equipment could decline by 20% in FY3/14 but notes that their definition of what is classed as mining equipment is different from Komatsu, which is one reason they are less bearish.

■ **Yen** — HCM's guidance is based on ¥94/\$, ¥123/€ and ¥15.2/RMB. According to HCM each ¥1 move impacts OP by ¥2.0bn, ¥0.3bn and ¥3.0bn respectively. Our estimates are based on ¥100/\$, ¥130/€ and ¥15.5/RMB.

■ **Prices** — In FY3/13 the impact of higher ASPs on recurring profits was +¥10.7bn, equivalent to a 1.4% increase. According to HCM, against a tougher backdrop, especially for mining equipment, higher ASPs (including parts) are expected to boost recurring profits by only ¥4.5bn this term, equivalent to a 0.6% increase. Regions where the company would like to raise prices this year include Japan, the US and India.

■ **FCF and inventory** — At the end of March, inventory stood at ¥314.9bn (+17% YoY), with inventory days climbing to 188 from 139. In FY3/13 FCF was in the black to the tune of ¥22.9bn, reversing the poor performance a year earlier, but there was a big boost from the sale of their stake in TCM (+¥29.3bn). Reflecting the tough macro backdrop, HCM is guiding for capex (excluding rental assets) of ¥46.2bn (-21%), with depreciation (ex rental assets) of ¥27.4bn.

Consol.	Sales		OP			RP		NP		EPS		PE
	¥M	YOY (%)	¥M	YOY (%)	OPM (%)	¥M	YOY (%)	¥M	YOY (%)	¥	X	
3/12A	817,143	5.6	54,837	32.1	6.7	51,711	23.4	23,036	107.8	109	22.3	
3/13A	772,355	-5.5	51,496	-6.1	6.7	35,745	-30.9	22,818	-0.9	108	22.5	
3/14CE	830,000	7.5	83,000	61.2	10.0	69,000	93.0	37,000	62.2	175	13.9	
3/14E	779,400	0.9	75,447	46.5	9.7	67,947	90.1	40,063	75.6	189	12.8	
3/14RE	843,500	9.2	84,611	64.3	10.0	77,111	115.7	42,075	84.4	199	12.2	
3/15E	824,000	5.7	89,367	18.5	10.8	83,867	23.4	50,707	26.6	239	10.1	
3/15RE	884,200	4.8	92,751	9.6	10.5	86,351	12.0	47,039	11.8	222	10.9	
3/16E	950,000	7.4	112,201	21.0	11.8	107,701	24.7	61,557	30.9	291	8.3	

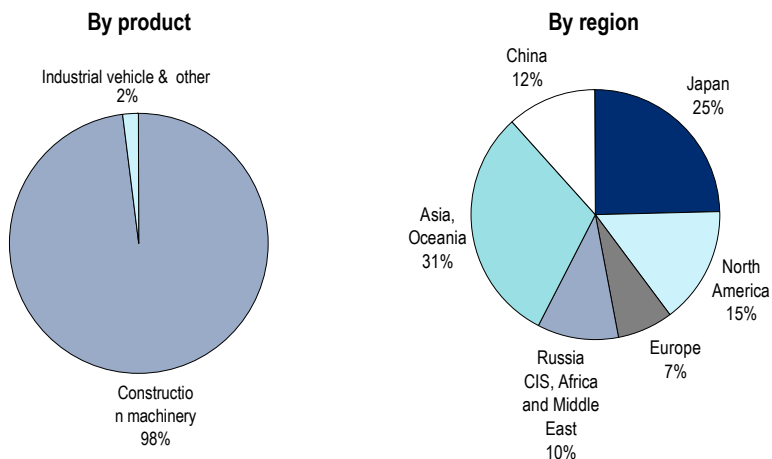
A: Actuals, E: Citi Research Ests, CE: Co. Ests, RE: Citi Research Revised Ests, CRE: Co. Revised Ests, NA: Not Available, NM: Not Meaningful

Hitachi Construction Machinery (6305) Investment Dashboard

Reasons for our Neutral rating

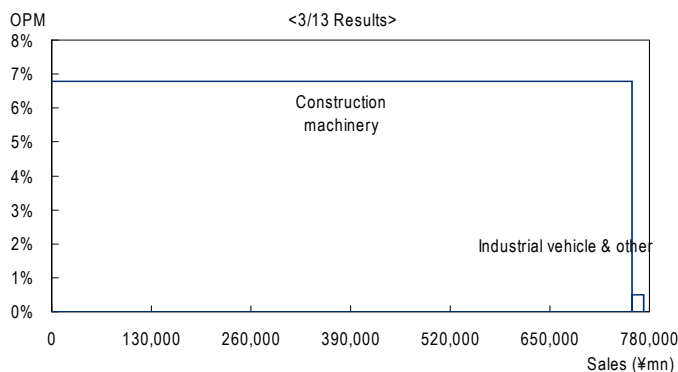
- We estimate that China will comprise 13% of FY3/14 sales and though there is scope for excavator demand to surprise on the upside the shift towards smaller sized units is a negative for product mix. Japan is HCM's single biggest market (25% of sales) but guidance assumes a 12% increase.
- HCM has a relatively strong position in emerging markets such as Indonesia, India and Russia. It also benefits from the strength of John Deere in the US.
- Helped by the weak yen, operating margins should climb back to 10% in FY3/14 but this is still below Komatsu, and we see no reason to pay a similar multiple especially with a weaker balance sheet.
- HCM is strong in mining excavators but we think it will struggle to win share in high-margin dump trucks from CAT.

Sales breakdown (FY3/13)



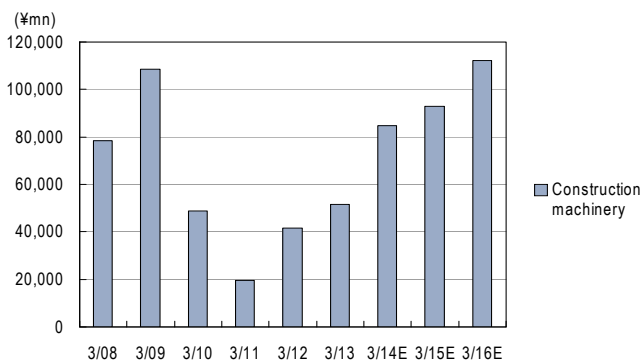
Source: Company data.

Business portfolio



Source: Company data.

OP by segment

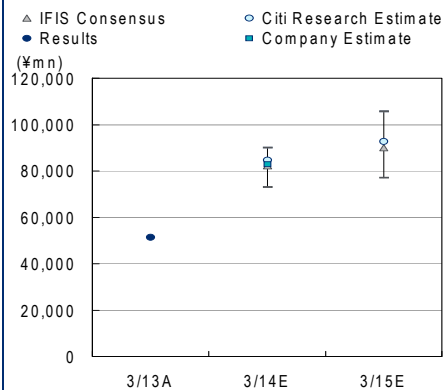


Source: Company data, Citi Research.

Alternate scenario: a more bullish case

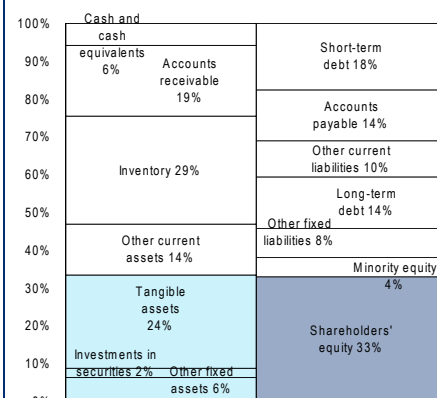
- If Chinese excavator demand does begin to rebound, coupled with an acceleration in demand for mid- and larger-sized units, HCM should be one of the main beneficiaries. If they are also successful in winning share in higher margin mining dump trucks, we can envisage a scenario where OP in FY3/14 is ¥90bn.
- In this scenario, assuming a multiple of 12x on EPS of ¥216, the theoretical share price could rise to ¥2,600.

OP forecast comparison



Source: Company data, IFIS (May 7, 2012), Citi Research.

Balance sheet (end-FY3/13)



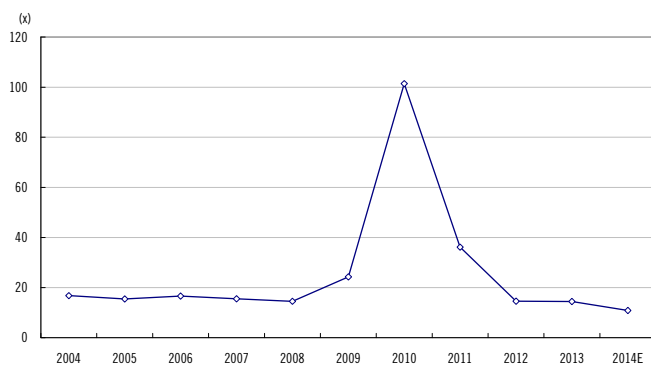
Source: Company data.

Figure 22. Regional sales and OP trends

(¥mn)	FY3/10	FY3/11	FY3/12	FY3/13	FY3/14CE	YoY	FY3/14E	YoY	FY3/15E	YoY	FY3/16E	YoY
Sales	605,788	773,769	817,143	772,355	830,000	7%	843,500	9%	884,200	5%	950,000	7%
Japan	171,657	172,701	210,979	191,915	204,100	6%	205,000	7%	210,000	2%	215,000	2%
Overseas	434,131	601,100	606,164	580,440	625,900	8%	638,500	10%	674,200	6%	735,000	9%
Asia (ex. Japan, India and China)	69,300	81,500	101,400	96,687	110,400	61%	110,000	14%	120,000	9%	130,000	8%
India	6,400	46,100	45,500	34,600	44,900	30%	40,000	16%	45,000	13%	45,000	0%
Oceania	65,600	74,800	95,800	106,200	110,000	4%	100,000	-6%	90,000	-10%	100,000	11%
North America	30,800	57,100	85,500	105,200	97,500	-7%	125,000	19%	135,000	8%	150,000	11%
Latin America	6,500	5,300	6,800	8,700	9,600	10%	8,000	-8%	7,000	-13%	8,000	14%
Western Europe	63,504	66,367	64,415	57,342	60,200	5%	65,000	13%	71,500	10%	78,000	9%
Russia	5,800	19,200	31,800	29,500	35,400	20%	32,000	8%	36,000	13%	40,000	11%
Middle East	10,900	13,700	16,800	18,500	19,500	5%	22,000	19%	25,000	14%	28,000	12%
Africa	16,700	32,300	23,100	32,900	29,300	-11%	28,000	-15%	30,000	7%	32,000	7%
China	158,681	204,757	134,960	90,773	109,100	20%	108,500	20%	114,700	6%	124,000	8%
Operating profit	19,669	41,511	54,837	51,496	83,000		84,611		92,751		112,201	
OPM	3.2%	5.4%	6.7%	6.7%	10.0%		10.0%		10.5%		11.8%	

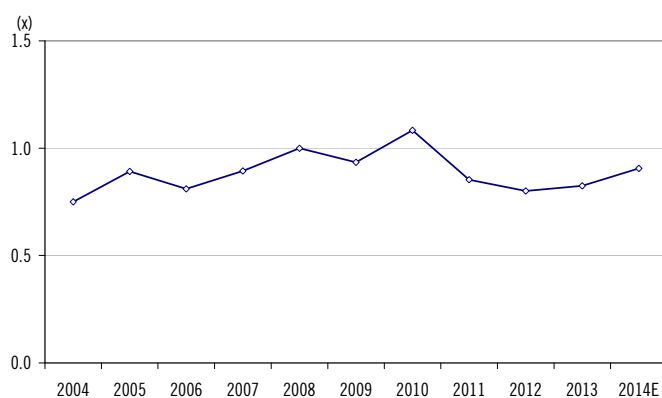
Source: Company data, Citi Research

Figure 23. HCM long-term PER (x)



Source: Company data, Citi Research

Figure 24. HCM long-term EV/sales (x)



Source: Company data, Citi Research

Komatsu

Investment strategy

We rate the shares of Komatsu a Buy with a ¥3,200 target price. The company is the second-largest maker of construction machinery in the world, after Caterpillar, has the top share of excavators in Japan and SE Asia (excluding India) and is one of the top players in China. Alongside Caterpillar, Komatsu is also one of the biggest suppliers of mining equipment globally with particular strength in high margin dump trucks. All in, sales of equipment in emerging markets account for approx 60% of total equipment revenues.

Komatsu has a vertically integrated business model encompassing the manufacture of key components (engines, most hydraulics and castings), assembly, sales, finance, sales of used equipment and IT (including Komtrax and AHS). Komatsu describes its Komtrax system as "both a wireless equipment monitoring system and a secure, web-based, application used for reviewing the data KOMTRAX collects and sends". This system is now installed on around 300,000 pieces of equipment. AHS is a remote-control system to run super-large unmanned dump trucks in Western Australia and Chile for major global mining companies.

With a growing sense that domestic demand can continue to increase, the potential to raise its presence in the rental market in North America together with scope for equipment demand in China and Indonesia to see a cyclical bounce from here, we think it is right to rate the shares a Buy. On top of this, the yen's weakness will provide a support for operating margins and the new mid-term plan (announced in late April 2013) targets a RoE by FY3/16 of 18-20%, with a new higher payout ratio of 30-50%.

Valuation

We set our target price by applying a PER of 14x to our FY3/14 EPS forecast which comes to ¥3,200. 14x is the average PER multiple for global industrials in CY13, and 14x is also the median PER for the past eight years (FY3/06 - FY3/13), versus the average of 19x. During this eight year period, the median EV/ebitda was 7.9x, with an average of 8.6x. The median EV/sales ratio was 1.3x, with a PBR of 2.2x.

Our ¥3,200 target price equates to a FY3/14 EV/EBITDA multiple of 7.8x, an EV/sales ratio of 1.6x and a PBR of 2.2x.

Risks

Risks that could impede the attainment of our target price include: 1) a further deterioration in the outlook for high margin mining equipment, parts and service revenues; 2) a slide in commodity prices which may prompt mining companies to reduce their capex plans; 3) a further loss of market share in China as a result of Chinese government policy and/or growing competition from local makers; 4) forex fluctuations. Our FY3/14 forex assumptions are ¥100/\$ and ¥130/€. Our estimates assume forex sensitivity at the OP level (full-year basis) of ¥5.3bn for every ¥1 move against the dollar and ¥0.4bn for every ¥1 move against the euro; and 5) a downturn in the US rental equipment market possibly due to higher prices of shale gas.

Hitachi Construction Machinery

Investment strategy

We rate the shares of Hitachi CM Neutral with a target price of ¥2,400.

HCM has traditionally been viewed as more of a China play than Komatsu but in FY3/14 we estimate that only 13% of total sales will be generated in China down from 26% in FY3/11. The relative decline of China has meant that the relative importance of Japan has increased such that the domestic market will be the single largest source of revenues in FY3/14 (c25% of total sales). However, in the Japanese excavator market in CY2011 HCM was a distant second behind Komatsu in terms of market share with just under 20%. In other markets, HCM has seen steady growth in Indonesia (backed by its local distributor Hexindo) and is well geared to the growth of the US market where distribution is mainly handled by John Deere's dealers.

On the mining side, HCM is a stronger player in large-sized excavators than dump trucks but it has a clear strategy of trying to win more market share in the higher margin truck segment. On a regional basis, the strategy at HCM is aimed at raising its presence in Latin America and in Africa. At the end of March 2013 its backlog was 60% exposed to coal, and c20% iron ore and the rest copper and gold.

Compared to Komatsu, HCM is second best not just in terms of range of its construction equipment product range but also in its share of the dump truck market and the ratio of key components (engines and hydraulics) sourced internally. These differences are reflected in a projected OPM of roughly 10% this term versus 15% at Komatsu. In HCM's defense, we note that annual goodwill amortization runs at ¥4.9bn (¥23/share) relating to the acquisition of a majority stake in Telcon (India) in 2009.

Valuation

We assume that the shares are worth a PER of 12x our FY3/14 EPS estimate, which we round up to ¥2,400. We think the shares should trade at a discount to the average CY13 multiple for global industrials of 14x due to the long history of lower than average margins and a relatively weak balance sheet. At a target price of ¥2,400 the shares would stand on a FY3/14 PBR of 1.3x, with an EV/ebitda of 6.6x and an EV/sales of 1.0x. Over the past eight years (FY3/06 - FY3/13), the median PER was 16x, with a PBR of 1.3x, an EV/ebitda of 7.1x and an EV/sales of 0.9x.

Risks

Risks that could impede the attainment of our target price include: 1) a slower-than-expected rebound for construction machinery demand in China; 2) the planned expansion of capacity of all Chinese based makers coming to fruition pushing down ASPs; 3) a decline in excavator demand in Asia, and other emerging economies; 4) a slowdown in global mining capex; and 5) forex fluctuations. Our forex assumptions for FY3/14 are ¥100/\$ and ¥130/euro. We estimate forex sensitivity at the OP stage (full-year basis) at around ¥2.0bn for every ¥1 move against the dollar and around ¥0.3bn for every ¥1 move against the euro.

Not all the risks are on the downside. A few upside risks to consider would be 1) a re-acceleration in demand for construction machinery in China, as monetary policy eases following a fall in inflation; 2) a turnaround in market share in excavator market in China due, possibly, to higher prices for locally made equipment; 3) yen depreciation; 4) ongoing strength in major emerging markets including Indonesia,

Russia and India, and 5) a move to buy a majority stake in its US manufacturing joint venture with John Deere.

Appendix A-1

Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

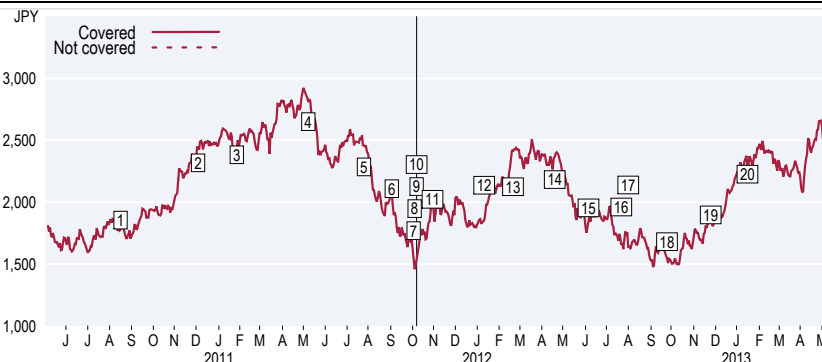
IMPORTANT DISCLOSURES

Komatsu (6301)

Ratings and Target Price History

Fundamental Research

Analyst: Graeme McDonald
Covered since September 28 2010



Date	Rating	Target Price	Closing Price
1 17-Aug-10	1M	*2,200	1,781
2 3-Dec-10	1M	*2,900	2,443
3 27-Jan-11	1M	*3,000	2,446
4 9-May-11	1M	*3,400	2,810
5 26-Jul-11	1M	*2,900	2,458
6 2-Sep-11	*2M	*2,200	2,086
7 4-Oct-11	2M	*1,750	1,540

* Indicates change

Date	Rating	Target Price	Closing Price
8 5-Oct-11	2M	*1,630	1,458
9 7-Oct-11	Stock rating system changed		
10 7-Oct-11	*2	1,630	1,539
11 31-Oct-11	2	*2,250	1,976
12 11-Jan-12	2	*2,000	1,852
13 21-Feb-12	2	*2,600	2,410
14 19-Apr-12	*1	*2,850	2,367

Date	Rating	Target Price	Closing Price
15 6-Jun-12	1	*2,150	1,845
16 23-Jul-12	*2	*1,850	1,655
17 1-Aug-12	2	*1,700	1,633
18 25-Sep-12	2	*1,600	1,551
19 26-Nov-12	2	*2,000	1,874
20 16-Jan-13	*1	*2,800	2,265

Rating/target price changes above reflect Eastern Standard Time

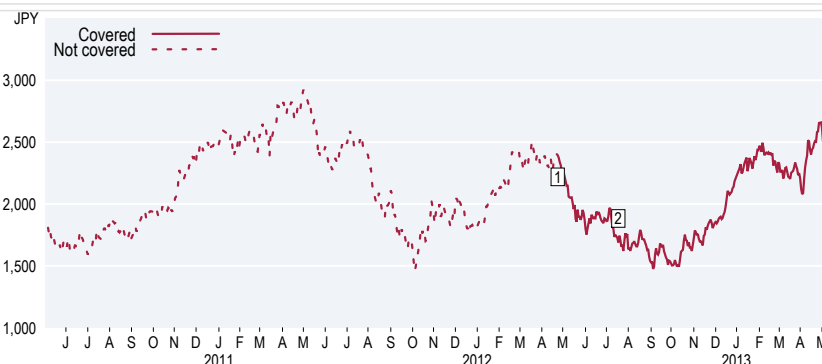
Komatsu (6301)

Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Graeme McDonald
Covered since September 28 2010



Date	Rating	Target Price	Closing Price
1 24-Apr-12	*ADD MP	-	2,394

* Indicates change

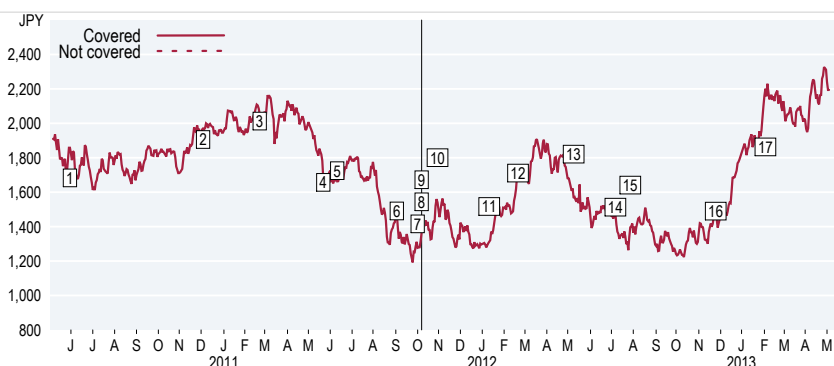
Date	Rating	Target Price	Closing Price
2 18-Jul-12	*REM MP	-	1,689

Rating/target price changes above reflect Eastern Standard Time

Hitachi Construction Machinery (6305)

Ratings and Target Price History Fundamental Research

Analyst: Graeme McDonald
Covered since September 28 2010



Date	Rating	Target Price	Closing Price
1 31-May-10	2H	*1,900	1,858
2 3-Dec-10	2H	*2,100	1,970
3 22-Feb-11	*1H	*2,600	2,053
4 23-May-11	*2H	*1,730	1,676
5 10-Jun-11	2H	*1,750	1,663
6 2-Sep-11	2H	*1,600	1,476

* Indicates change

Date	Rating	Target Price	Closing Price
7 3-Oct-11	2H	*1,300	1,277
8 7-Oct-11	Stock rating system changed		
9 7-Oct-11	*2	1,300	1,368
10 31-Oct-11	2	*1,600	1,540
11 11-Jan-12	2	*1,450	1,312
12 21-Feb-12	2	*1,750	1,670

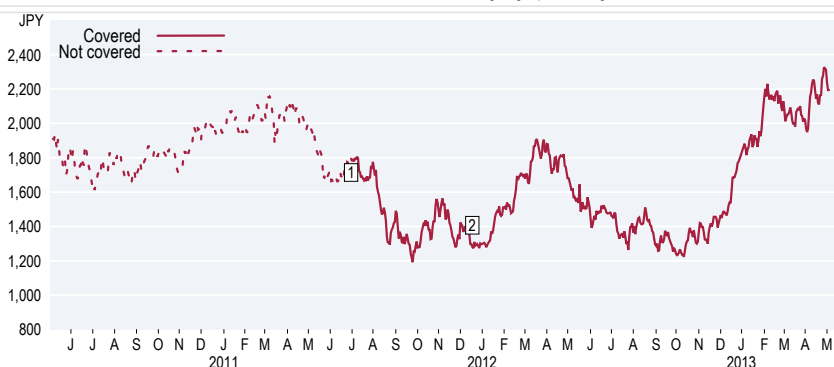
Date	Rating	Target Price	Closing Price
13 9-May-12	2	*1,800	1,566
14 6-Jul-12	2	*1,600	1,475
15 27-Jul-12	2	*1,500	1,396
16 26-Nov-12	2	*1,450	1,456
17 4-Feb-13	2	*2,300	2,201

Rating/target price changes above reflect Eastern Standard Time

Hitachi Construction Machinery (6305)

Ratings and Target Price History Best Ideas Research Relative Call (3 Month)

Analyst: Graeme McDonald
Covered since September 28 2010



Date	Rating	Target Price	Closing Price
1 30-Jun-11	*ADD LP	-	1,794

* Indicates change

Date	Rating	Target Price	Closing Price
2 19-Dec-11	*REM LP	-	1,281

Rating/target price changes above reflect Eastern Standard Time

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