Machinery | CHINA

INDUSTRIALS

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NOMURA
NOMURA INTERNATIONAL (HK) LIMITED

BULLISH

ANCHOR REPORT

No barriers

We dispute the consensus view that the slowing in fixed asset investment (FAI) growth is negative for the Chinese machinery industry; we accept there has to be a natural slowdown after 60%-plus volume growth in 2010 (exaggerated by the general recovery from the credit crisis and policy-driven investment spending), but see no barriers to our healthy 12% growth forecast for 2011F. We also recognise that investor interest in the sector may be somewhat weak leading up to expected negative y-y growth in March 2011 (high base and seasonality), particularly given the background of tight monetary policy in 1Q. Still, we think rising labour costs in the industrial economy will refresh investor interest in Chinese machinery manufacturing from 2Q, and we see pockets of value for longer-term investors now. Our recommendations also cross the investability barrier; even though many Chinese players only have A-share listings, we see access to the story through the listed Japanese manufacturers. Our top BUYs are SANY Heavy, Zoomlion and Komatsu, with exposure to excavators and concrete machinery, the fastest-growing segments in 2011F on our estimates (both 20% vs 10% for cranes and flat for wheel loaders). We also recommend BUY on hydraulics suppliers Kawasaki Heavy, Toshiba Machine and Nabtesco, given strong demand and their technological competitiveness. Meanwhile, we think Hitachi Construction Machinery (NEUTRAL) will benefit from strong excavator growth.

① **Beyond the base effect**

② **Secular growth drivers**

③ **Prefer excavators for investment; play China through Japan**

Nomura Anchor Reports examine the key themes and value drivers that underpin our sector views and stock recommendations for the next 6 to 12 months.

Stocks for action

Our top picks in the Asia-Pacific construction machinery universe are SANY Heavy, Zoomlion, and Komatsu, all rated BUY.

Stock	Rating	Price	PT
Zoomlion (000157 CH)	BUY↑	14.8	18*
SANY Heavy (600031 CH)	BUY	21.5	26*
Lonking (3339 HK)	NEUTRAL	4.87	5.3*
Kobe Steel (5406 JP)	BUY	206	300
Toshiba Machine (6104 JP)	BUY	390	470
Nabtesco (6268 JP)	BUY	1,596	1,870
Komatsu (6301 JP)	BUY	2,427	3,000*
Hitachi Construction (6305 JP)	NEUTRAL	1,973	2,160*
Kawasaki Heavy (7012 JP)	BUY	272	310
Volvo (VOLVB SS)	NEUTRAL	109.3	96

↑ Upgrading rating from Neutral; * lifting PT
Prices as of 10 December, 2010; all prices in local currency

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Action

We believe rising labour costs, an improving product mix and gradually increasing pricing power will bring the limelight back to strong growth in the machinery sector. We would advise investors to focus on excavators and concrete machinery: these should be 2011's fastest growing segments. SANY, Zoomlion and Komatsu are our top BUYs on this basis. With listed China exposure still limited to HKSE, we also recommend Japanese suppliers Kawasaki Heavy Industries, Toshiba Machine and Nabtesco.

Catalysts

Possible negative growth in March 2011 could hurt share prices, while strong volume growth from 2Q and onwards should support share-price appreciation.

Anchor themes

We expect rising mechanisation in China as a consequence of labour cost increases. Chinese construction machinery makers will likely become more competitive due to strong growth of the domestic market, improving product quality and technology level.

Stocks for action

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① Beyond the base effect

After 60%-plus volume growth in 2010, we forecast machinery will increase 12% y-y in 2011. The slowing growth rate is mainly due to: 1) a high base effect and 2) the peaking of new projects. We believe the industry might witness negative y-y growth in March 2011 owing to a high base effect and seasonality. Coupled with a tight monetary policy in 1Q, we think the share-price performance of Chinese machinery makers might face downward pressure during this period. However, we think increasing attention to labour cost/Lewis effect will refresh investor interest from 2Q, but we underscore that buying on dips is not a bad way into our BUYs here.

② Secular growth drivers

Contrary to the consensus view that machinery companies have passed the golden investment period due to the slowing growth rate of FAI investment over the long term, we are still positive on the long-term growth potential of China's machinery industry, thanks to: 1) improving mechanisation rate due to rising labour cost and safety/environmental requirements; 2) improving product mix; 3) increasing pricing trend due to better product quality and brand image, and 4) export growth potential. In the next five years, we believe Chinese machinery makers will likely become competitive in the global market, backed by continuous R&D investment.

③ Prefer excavators for investment; play China through Japan

Of the different types of machinery, we believe excavators will lead in 2011, with 20% y-y growth to 194,400 units, while concrete machinery will be up 20% y-y, cranes up 10% and wheel loaders should be flattish y-y. SANY, Zoomlion and Komatsu are our top BUYs on this basis. We believe SANY and Zoomlion could potentially emerge as global players due to their long-term commitment to product quality, aftermarket service and R&D investment. We believe Komatsu, HCM and Kobe Steel will benefit from strong excavator growth in China in both the short and long term. Given their strong demand and technological competitiveness on hydraulic equipment, we recommend accumulating hydraulic suppliers Kawasaki Heavy Industries, Toshiba Machine and Nabtesco.

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Not hard to see China taking a quarter of the global market in construction machinery further out

China's construction machinery market has experienced robust growth in the past decade with a CAGR of 23%; it became an RMB300bn sales industry in 2009 due to strong FAI and GDP growth. In 2010 YTD, the industry has grown about 60%-plus, in terms of sales volume. China has become one of the largest markets globally, and we estimate China could account for about 25% of global market share this year, in terms of sales revenue. We estimate that the market size of major construction machinery (including excavators, wheel loaders / bulldozers, road machinery, construction cranes, concrete machinery and forklifts) could reach about RMB280bn in 2010, with excavators becoming the largest segment with about RMB90bn sales revenue.

But note going into 2011, the industry faces demanding base effect

After 60%-plus volume growth in 2010, we forecast machinery will increase 12% in 2011. The slowing growth rate is mainly due to: 1) a high base effect, and; 2) peaking of new projects. We believe the industry might witness negative y-y growth in March 2011 due to high base effect and seasonality. With different dynamics in different segments, we forecast excavators will lead industry growth next year, with a 20% y-y volume increase, partly due to continuous substitution of wheel loaders. We estimate 20% y-y growth in concrete machinery, with positive impact from continuously improving mechanisation rate. We also estimate 10-15% growth for cranes and flattish growth for wheel loaders in 2011.

We don't think the best time to buy the industry has passed

Contrary to the consensus view that machinery companies have passed the golden investment period due to the slowing growth rate of FAI investment over the long term, we are still positive on the long-term growth potential of China's machinery industry, owing to: 1) improving mechanisation rate due to rising labour cost and safety/ environmental requirements; 2) improving product mix; 3) increasing pricing trend due to better product quality and brand image, and; 4) export growth potential. As China starts experiencing its "Lewis turning point", with the most important long-term implication of rising wages being increased consumption, it will force Chinese companies to use machinery and improve automation to reduce the reliance on labour and improve productivity to meet increasing demand. At the same time, rising affordability at Chinese companies will lead to an improving product mix, in our view.

Exhibit 1. Construction machinery demand forecast

(Units)	2003	2004	2005	2006	2007	2008	2009	2010F	2011F	2012F
Truck-mounted concrete pumps	858	1,027	955	1,919	4,271	4,527	5,880	9,996	11,995	13,794
Truck cranes	9,706	11,645	11,012	14,465	20,862	21,908	27,360	36,100	39,710	43,681
Crawler cranes	164	237	237	500	947	1,686	1,185	1,766	2,030	2,335
Excavators	-	-	33,862	45,702	66,764	77,851	95,820	162,000	194,400	223,560
Wheel loaders		91,334	105,381	119,868	158,942	166,308	143,322	217,700	228,585	240,014
Roadheaders	198	497	699	855	867	1,343	1,406	1,616	1,848	2,172
y-y change (%)										
Truck-mounted concrete pumps	120.6	19.7	(7.0)	100.9	122.6	6.0	29.9	70.0	20.0	15.0
Truck cranes	-	20.0	(5.4)	31.4	44.2	5.0	24.9	31.9	10.0	10.0
Crawler cranes	-	44.5	0.0	111.0	89.4	78.0	(29.7)	49.0	15.0	15.0
Excavators	-	-	-	35.0	46.1	16.6	23.1	69.1	20.0	15.0
Wheel loaders	-	-	15.4	13.7	32.6	4.6	(13.8)	51.9	5.0	5.0
Roadheaders	-	-	40.6	22.3	1.4	54.9	4.7	15.0	14.3	17.6

Source: CCMA, Nomura estimates

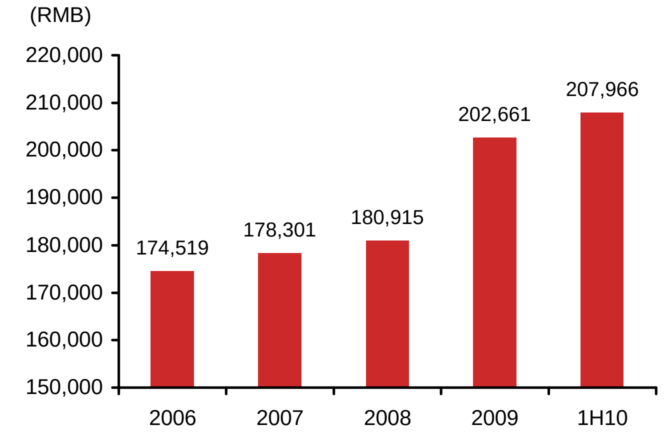
Capital goods are sold more on specs than on brand, not bad for China

Chinese manufacturers are rapidly climbing the technology and quality ladder, as they continue to invest in R&D and transform themselves into "value for money" constructive innovators from "low-price, low-quality copy cats". Unlike consumer products, capital goods customers attach less of a premium to brands, offsetting certain disadvantages of "Made in China" products. In the next five years, we believe Chinese machinery makers will likely become competitive in the global market via continuous R&D investment. The changing face and considerable export opportunities will likely extend the growth and widen investment windows for capital goods stocks.

Exhibit 2. Labour costs surge in China

Source: CEIC, Nomura research

Exhibit 3. Wheel loader historical pricing trend



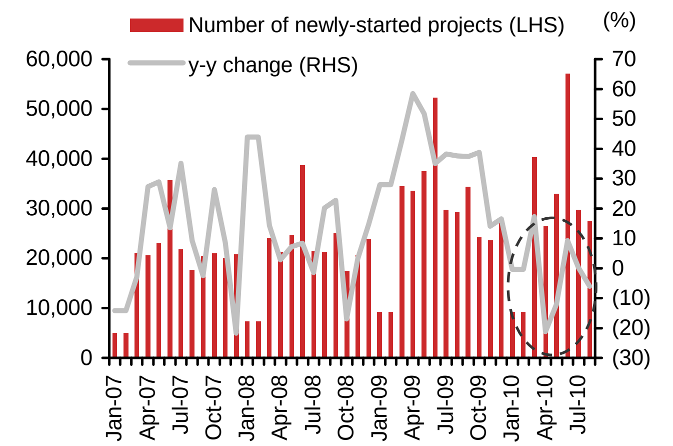
Note: Lonking's wheel loader blended ASP
Source: Company data, Nomura research

Scope for market timing

In the short term, however, we believe a slowing growth rate coupled with tight monetary policy in 1Q, might exert downward pressure on the share-price performance of Chinese machinery makers. However, increasing attention to labour cost/Lewis effect should refresh investor interest from 2Q, although buying on dips is not a bad strategy where we like the fundamentals.

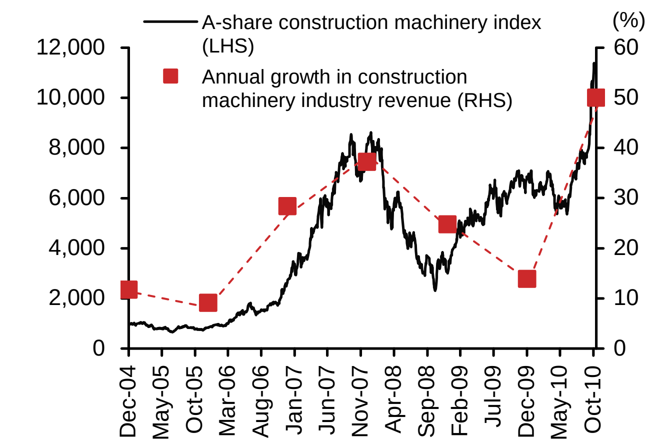
SANY, Zoomlion, and Komatsu are our top BUYs on strong excavator sales. We believe SANY and Zoomlion could potentially emerge as global players due to their long-term commitment on product quality, aftermarket service and R&D investment. We believe Komatsu, HCM and Kobe Steel will benefit from strong excavator growth in China in both the short and long term.

Exhibit 4. Number of newly-started FAI projects



Source: National Bureau of Statistics, Nomura research

Exhibit 5. A-share construction machinery vs annual industry revenue growth



Source: National Bureau of Statistics, Nomura research

Japanese players are still completive in this field

As key components suppliers, we also recommend BUYing Japanese hydraulic equipment makers such as Nabtesco, Kawasaki Heavy, and Toshiba Machine. A combination of technology, know-how and experience are required to manufacture hydraulic equipment such as valves, motors, and pumps. Japanese makers are highly competitive in this area and supply components not only to Japanese construction machinery makers but to Korean and Chinese players as well.

Valuation

From operational point of view, long-term positive

Construction machinery a vital outperformer in China

Construction machinery is one of the most vibrant sectors of a state's economy and contributes significantly to industrial output, GDP growth and employment. This is especially the case in China, where FAI contributed significantly to GDP growth over the past decades. As shown in the Exhibit below, the A-share listed construction machinery sector has significantly outperformed other indices over the past six years. Over the past six years, the construction machinery sector index has increased by almost 9x compared with 2-5x for other sectors and the Shanghai Index. Moreover, the construction machinery index has shown significant outperformance since the recent peak in 2007.

And in a growing economy this sector offers more secular growth than cyclical

Interestingly, investment returns on these "highly cyclical stocks" seem even better than those for consumer product stocks which are seen as a secular story. Due to its high correlation with FAI in developed countries, construction machinery related investments are seen as being highly cyclical. However, owing to continued urbanisation and heavy industrialisation in China, the cycle has been prolonged. In our view, China has entered a structural growth phase for some cyclical industries, including autos, trucks, machinery and railway equipment, and we expect this trend to continue due to ongoing urbanisation.

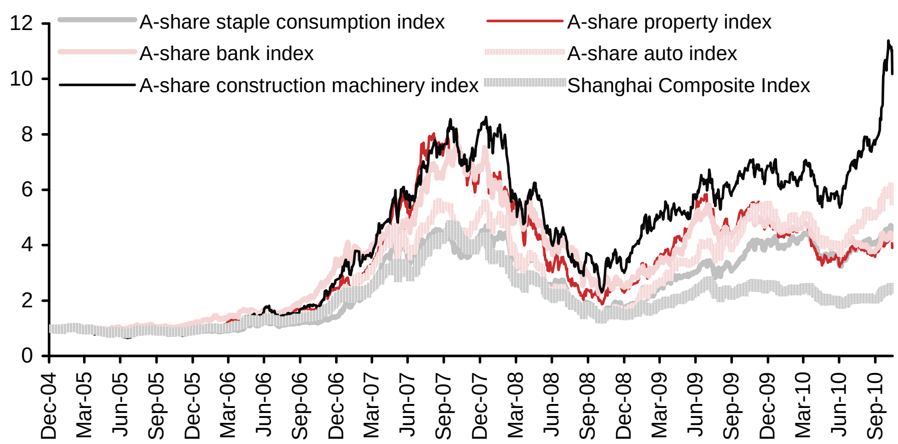
At the same time, we see positive factors during this urbanisation transition period: we anticipate a growing domestic market due to:

- Urbanisation and heavy industrialisation;
- Import substitution for mid- to high-end products;
- Export opportunities due to improving product quality;
- Product mix upgrades;
- Increasing price trends for existing products due to improved product quality and brand image;
- Localisation of high-tech critical components;
- Increase in acquisitions.

Bullish on the sector

Therefore, we believe the industrial sector could continue to provide investors with impressive investment returns, and we have a Bullish rating on the sector.

Exhibit 6. Share-price performance comparison across sectors



Note: All indexed rebased as 1 as of December, 2004.

Source: Bloomberg, Wind, Nomura research

However, capital market exaggerates cyclicality

Although SANY, Zoomlion and Weichai have been delivering strong earnings growth even during the financial crisis, their share prices have been extremely volatile. In our view, share price is the function of EPS, sales volume, order book, gross margin (this is partly correlated with future earnings forecast) and liquidity, not just EPS. The efficient market does not only react to EPS because the market constantly looks for a leading indicator, as far as it can. The order of factors influencing share price, in our view, is order flow > volume > gross margin and EPS.

A mistake would be to think the sector trades on nothing but EPS — this is not the most important factor

However, we find little correlation between share-price performance and factors that could influence share price. In our view, the capital market treats the construction machinery sector, as well as other capital goods sectors such as trucks, as cyclical industries, although from an operational point of view, construction machinery sector will remain in a growth phase in China for the foreseeable future. To some extent, construction machinery seems a derivative of the HSCEI or the Shanghai Index and has a very high beta and has been extremely volatile.

This volatile sector is part market proxy, part an operational story

We attribute this divergence between fundamental operations and share-price performance to normal liquidity fluctuation of the equity market; lack of conviction on the short-term demand growth of capital goods, which means these stocks are ranked high by investors as stocks to divest when macroeconomic growth faces uncertainty. Investors, even those who believe the construction machinery industry will see secular growth, might still divest on concerns that other investors treat this as a cyclical industry.

Many investors do not treat these companies as long-term holdings

Therefore, although we are long-term positive on the sector, we believe share prices will remain and continue to move on short-term sales volume, which is extremely difficult to forecast, especially when macroeconomic growth faces uncertainty and/or some policy change such as credit tightening.

A long-term story that moves on short-term trends

Valuation comparison

We believe Chinese construction machinery companies are still trading at attractive valuations compared with global peers, especially after taking into account their high growth potential and better macroeconomic growth outlook. Most Chinese capital goods stocks trade below the 20-year average EU capital goods stocks' average, in almost all metrics, such as P/E, P/BR, EV/EBITDA and EV/sales, although they have better growth rates. Therefore, we believe Chinese machinery companies provide great long-term investment value.

However, SANY and Zoomlion trade much higher than their domestic peers, and at the high end of their historical trading bands. We believe share-price movement is highly correlated with the monthly growth rate of sales volume. Coupled with a relatively shorter investment horizon for A-share investors, we believe there is potential downside risk for share-price performance before March 2011, due to potential negative industry volume growth. We recognise the middle- to long-term investment value of machinery industry, but flag volatility to March 2011.

In conclusion, we assign 17x P/E to FY11F EPS for Komatsu and Hitachi, considering their growth potential and historical trading range. We assign 17x P/E for both SANY and Zoomlion as well, due to improving competitiveness on the global market and higher earnings growth potential in FY11F.

The top players are worth, we think, 17x P/E

Exhibit 7. Global valuation comparison

	Ticker	Rating	Price	Mkt Cap	EPS CAGR	P/E (x)				P/B (x)				EV/EBITDA			
				(US$mn)	09-12F	09	10F	11F	12F	09	10F	11F	12F	09	10F	11F	12F
Lonking	3339 HK	Neutral	4.87	2,681	27%	11.1	11.9	10.9	9.7	2.3	3.5	2.8	2.3	9.3	4.9	4.2	3.5
CSR	1766 HK	Buy	10.20	14,541	53%	60.0	33.6	21.8	16.9	5.8	5.1	4.4	3.7	40.0	21.4	13.3	9.7
Zhuzhou CSR	3898 HK	Neutral	31.25	4,359	41%	53.2	32.1	24.6	19.1	7.5	6.4	5.4	4.5	46.2	26.2	19.6	15.0
Midas Holdings	1021 HK	Buy	5.48	858	35%	22.1	17.4	12.6	9.0	2.6	1.7	1.8	1.5	20.3	13.5	7.4	5.7
Sany International	631 HK	Neutral	12.14	3,241	35%	42.8	31.3	23.5	17.4	5.0	4.3	3.6	3.0	29.3	24.4	16.6	11.6
IMM	1683 HK	Not rated	6.95	1,162	24%	21.0	22.5	14.5	11.1	n.a.	3.3	2.8	2.4	n.a.	14.7	9.0	7.2
H share average					**36%**	**35.0**	**24.8**	**18.0**	**13.9**	**4.6**	**4.1**	**3.5**	**2.9**	**29.0**	**17.5**	**11.7**	**8.8**
Zoomlion Heavy	000157 CH	Buy	14.83	10,977	24%	10.1	18.1	14.3	11.6	3.4	4.4	3.4	2.7	10.9	5.4	4.0	2.8
Sany Heavy	600031 CH	Buy	21.49	16,343	65%	16.3	18.5	14.4	11.4	4.2	8.6	5.6	3.9	16.7	6.6	5.1	4.0
Zhenhua Heavy	600320 CH	Not rated	6.91	4,204	30%	36.4	39.7	23.5	14.5	2.0	1.8	1.7	1.6	19.8	16.4	13.7	11.6
CSR	601766 CH	Not rated	8.06	14,541	53%	56.8	33.9	23.3	15.2	5.5	4.8	4.1	3.4	31.3	23.2	16.4	12.3
China CNR	601299 CH	Buy	6.97	8,690	29%	30.3	30.2	18.3	12.4	2.7	2.5	2.3	2.0	29.6	16.4	10.5	7.1
Liugong Machinery	000528 CH	Not rated	36.66	3,580	27%	26.0	16.7	14.7	11.1	4.6	4.5	3.6	2.9	20.9	12.7	11.1	9.5
XCMG Construction Machinery	000425 CH	Not rated	50.04	7,753	23%	24.9	18.6	15.8	11.8	4.6	4.6	3.6	2.7	21.2	12.6	10.4	9.9
Xiamen XGMA	600815 CH	Not rated	14.45	1,692	110%	96.3	16.5	14.2	9.2	3.8	3.9	2.8	2.1	57.5	14.1	10.3	8.2
Tian Di Science and Technology	600582 CH	Not rated	25.23	3,834	30%	36.0	23.5	19.1	14.3	8.5	6.4	5.0	4.0	19.6	n.a.	n.a.	n.a.
Zhengzhou Coal Mining Machinery	601717 CH	Not rated	42.96	4,517	22%	38.0	33.9	26.0	18.6	16.1	5.5	4.6	3.8	n.a.	26.5	21.4	17.9
A share average					**41%**	**37.1**	**25.0**	**18.4**	**13.0**	**5.5**	**4.7**	**3.7**	**2.9**	**25.3**	**14.9**	**11.4**	**9.3**
Caterpillar	CAT US	Not rated	89.94	57,085	72%	62.0	22.6	15.7	10.8	5.8	5.6	4.6	3.4	28.8	14.7	11.1	9.5
Deere	DE US	Not rated	82.14	34,816	18%	18.7	15.1	12.9	10.1	5.5	4.4	3.5	2.9	15.2	13.3	12.2	11.0
Joy Global	JOYG US	Not rated	79.08	8,167	9%	17.8	18.9	16.2	12.1	7.3	6.9	5.3	4.1	10.4	11.0	9.3	8.1
Cummins Inc	CMI US	Not rated	105.03	20,776	55%	48.4	20.9	15.4	11.4	4.9	4.6	3.8	3.3	23.1	11.0	8.5	7.4
North America average					**32%**	**30.6**	**17.6**	**14.1**	**10.3**	**4.7**	**4.3**	**3.5**	**2.9**	**16.1**	**10.9**	**9.1**	**8.0**
Volvo	VOLVB SS	Neutral	109.00	33,887	n.a.	n.a.	20.6	14.4	12.1	3.8	3.2	2.8	2.4	n.a.	8.6	6.7	5.6
Sandvik	SAND SS	Not rated	126.00	22,356	n.a.	n.a.	23.3	17.1	12.6	4.9	4.5	3.8	3.3	51.6	11.7	9.7	8.6
Europe average					**n.a.**	**n.a.**	**21.9**	**15.7**	**12.4**	**4.3**	**3.8**	**3.3**	**2.8**	**51.6**	**10.1**	**8.2**	**7.1**
Sumitomo Heavy	6302 JT	Buy	517	3,785	26%	23.5	14.8	n.a.	10.0	1.3	1.2	1.1	1.0	7.3	6.0	5.3	5.0
Komatsu	6301 JT	Buy	2,427	28,875	73%	69.9	18.6	13.7	10.9	2.8	2.5	2.2	2.0	17.9	9.7	7.7	6.4
Hitachi Construction Machinery	6305 JT	Neutral	1,997	5,154	93%	102.0	39.0	19.0	14.2	1.4	1.3	1.3	1.2	17.3	10.4	4.2	3.7
Kawasaki	7012 JT	Buy	274	5,493	n.a.	n.a.	19.3	12.5	11.5	1.6	1.5	1.4	1.3	16.9	10.1	8.7	8.0
Nabtesco	6268 JT	Buy	1,688	2,577	56%	50.3	16.1	13.6	12.2	2.5	2.1	1.9	1.7	13.9	7.5	6.2	5.4
Toshiba Machine	6104 JT	Buy	407	815	n.a.	n.a.	34.8	21.2	14.1	0.9	0.9	0.9	0.8	76.1	10.5	7.9	6.2
Kobe Steel	5406 JT	Buy	210	7,851	117%	98.1	13.7	11.3	9.5	1.2	1.1	1.1	1.0	n.a.	5.8	5.6	5.3
Japan average					**67%**	**59.2**	**45.1**	**16.3**	**12.6**	**1.6**	**1.5**	**1.4**	**1.3**	**24.4**	**10.6**	**7.3**	**6.4**
Doosan Infracore	042670 KS	Not rated	26,300	4,035	n.a.	n.a.	64.0	12.6	8.6	3.6	3.9	3.0	2.4	23.0	8.6	7.3	9.6
Hyundai Heavy	009540 KS	Not rated	377,000	27,955	4%	11.9	8.3	9.9	9.2	2.6	2.0	1.7	1.5	13.0	8.0	8.2	10.0
Korea average					**78%**	**n.a.**	**36.1**	**11.2**	**8.9**	**3.1**	**2.9**	**2.4**	**1.9**	**18.0**	**8.3**	**7.8**	**9.8**

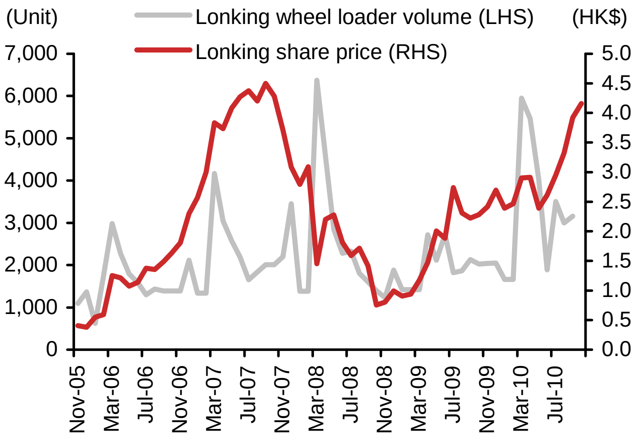
Source: Priced as of 10 December, Nomura research

Exhibit 8. Product line-up of major construction machinery vendors

	Sany Heavy	Zoomlion	XCMG	Lonking	Liugong	XGMA	Komatsu	Caterpillar	HCM	Doosan
Bloomberg ticker	600031 CH	000157 CH	000425 CH	3339 HK	00528 CH	600815 CH	6301 JP	CAT US	6501 JP	042670 KS
2009 revenue (US$ mn)	3,516	3,122	3,100	1,038	1,519	797	17,097	32,400	7,211	2,330
Concrete machinery										
- Truck-mounted concrete pumps	✓	✓	✓							
- Stationary concrete pumps	✓	✓			✓					
- Concrete-mixing trucks	✓	✓			✓					
- Concrete-mixing stations	✓	✓			✓					
Construction crane										
- Truck crane	✓	✓	✓		✓				✓	
- Crawler crane	✓	✓	✓		✓				✓	
- Tower crane		✓								
Earth-moving machinery										
- Excavator	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
- Wheel loader			✓	✓	✓	✓	✓	✓	✓	✓
- Bull dozer		✓	✓		✓	✓	✓	✓		
Road machinery										
Road roller	✓	✓	✓	✓	✓	✓		✓	✓	
Grader	✓	✓	✓	✓	✓	✓	✓	✓		
Other machinery										
- Dump trucks							✓	✓	✓	
- Forklift				✓	✓	✓	✓	✓	✓	✓

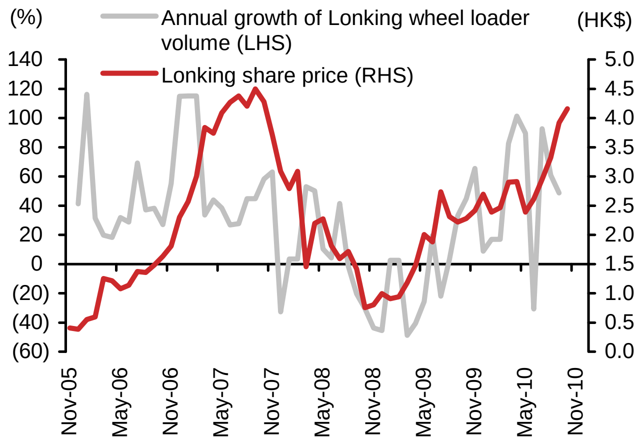
Source: Company data, Nomura research

Exhibit 9. Lonking: wheel loader sales volume vs share price



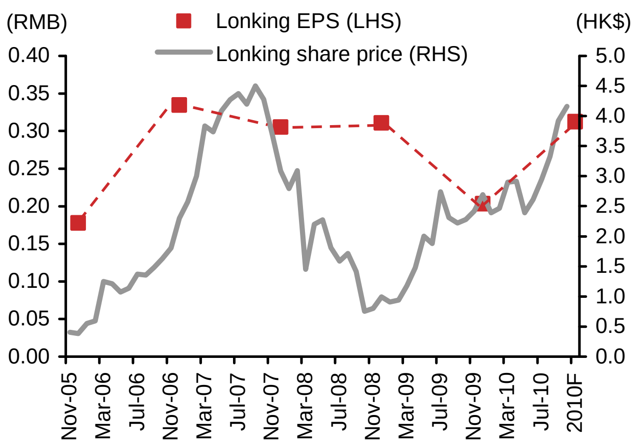
Source: Company data, Nomura research

Exhibit 10. Lonking: wheel loader sales volume y-y growth vs share price



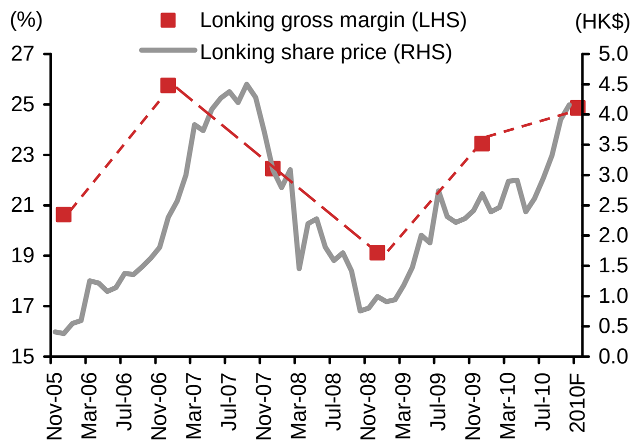
Source: Company data, Nomura research

Exhibit 11. Lonking: EPS vs share price



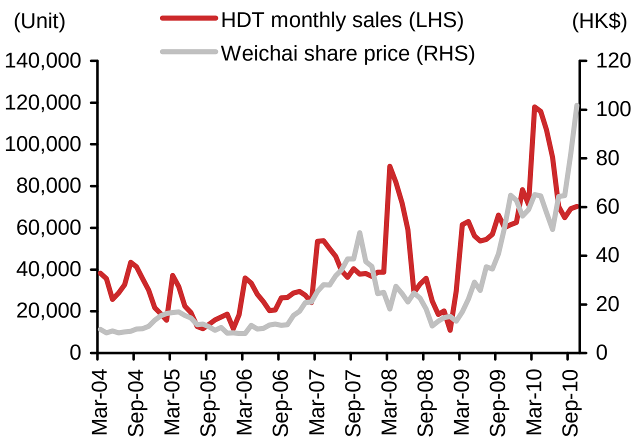
Source: Company data, Nomura research

Exhibit 12. Lonking: gross margin vs share price



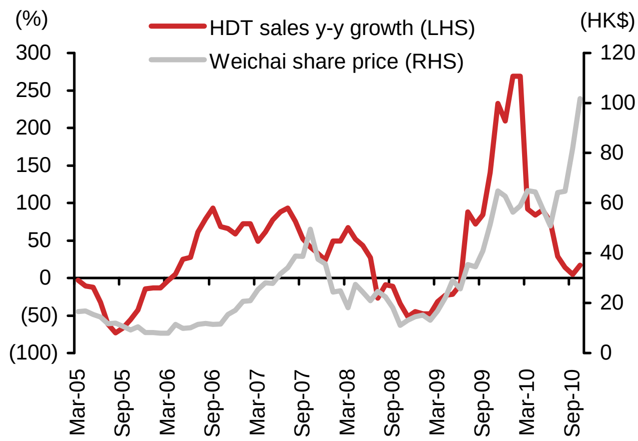
Source: Company data, Nomura research

Exhibit 13. Weichai: HDT sales volume vs share price



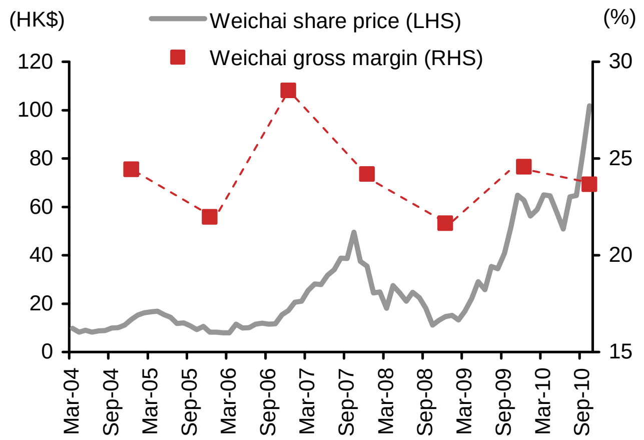
Source: Company data, Nomura research

Exhibit 14. Weichai: HDT sales volume y-y growth rate vs share price



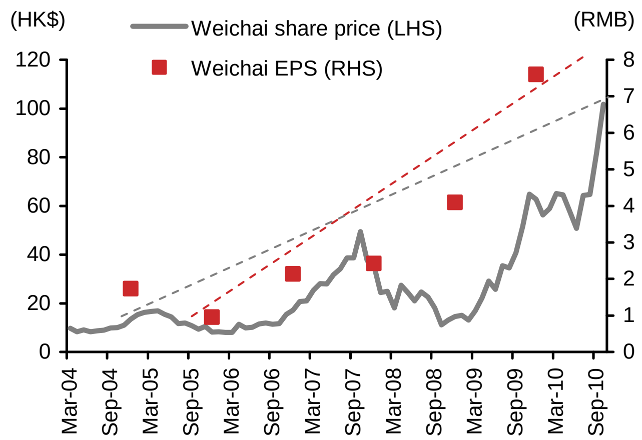
Source: Company data, Nomura research

Exhibit 15. Weichai: gross margin vs share price



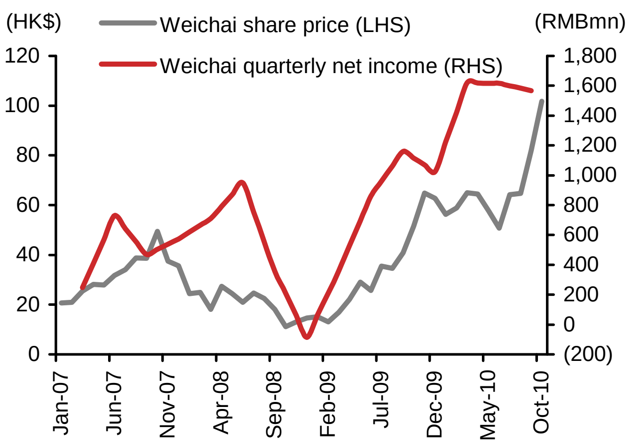
Source: Company data, Nomura research

Exhibit 16. Weichai EPS vs share price



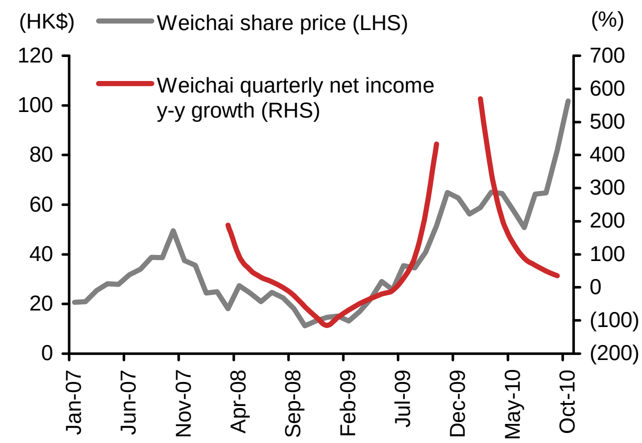
Source: Company data, Nomura research

Exhibit 17. Weichai: share price vs quarterly earnings (on rolling basis)



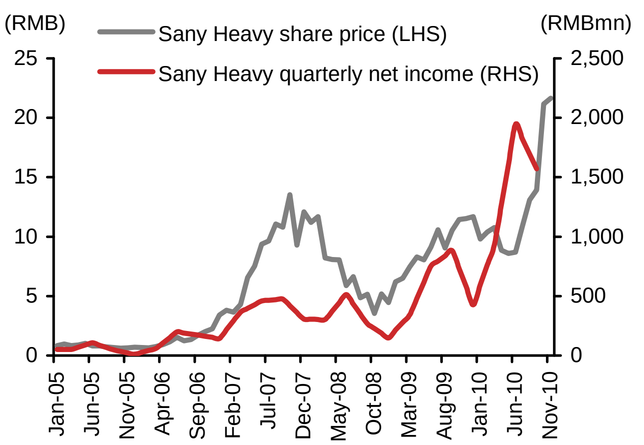
Source: Company data, Nomura research

Exhibit 18. Weichai: share price vs quarterly earning y-y growth (on rolling basis)



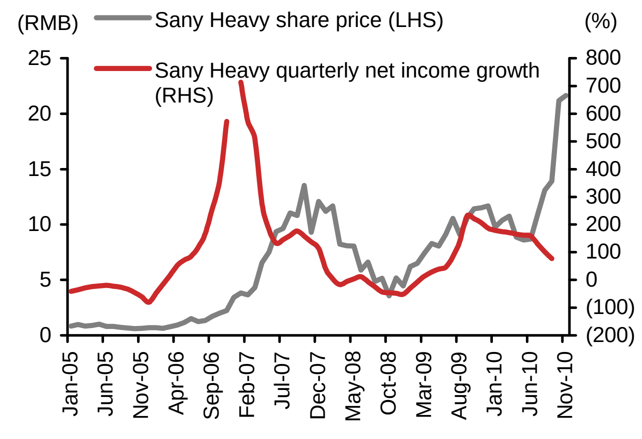
Source: Company data, Nomura research

Exhibit 19. SANY Heavy: share price vs quarterly earnings (on 3-month rolling basis)



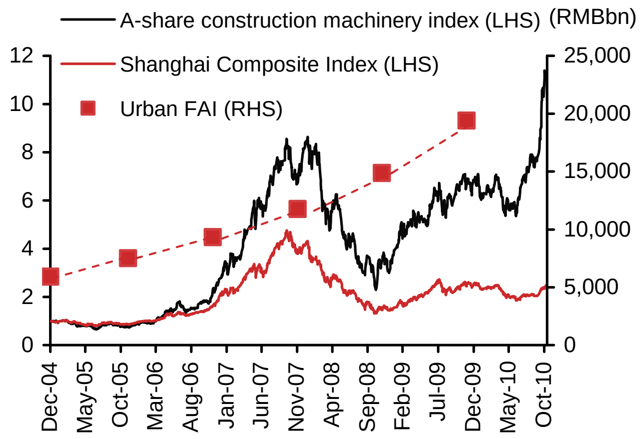
Source: Company data, Nomura research

Exhibit 20. SANY Heavy: share price vs quarterly earning growth (on 3-month rolling basis)



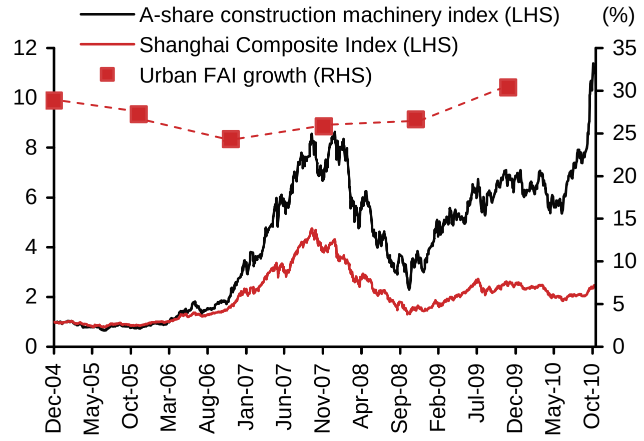
Source: Company data, Nomura research

Exhibit 21. Urban FAI vs A-share construction machinery Index



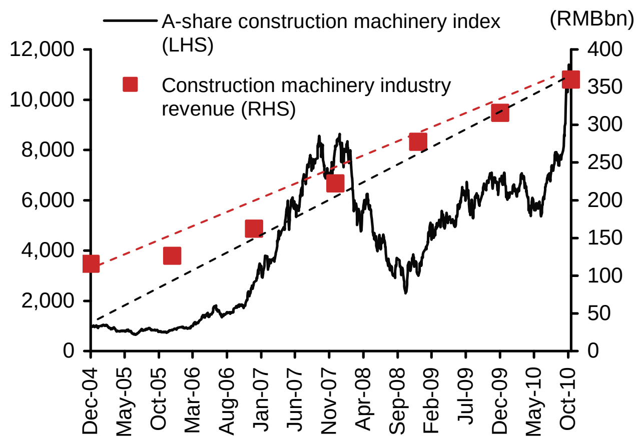
Source: Indexes rebased as 1 in December 2004

Exhibit 22. Urban FAI y-y growth vs A-share construction machinery Index



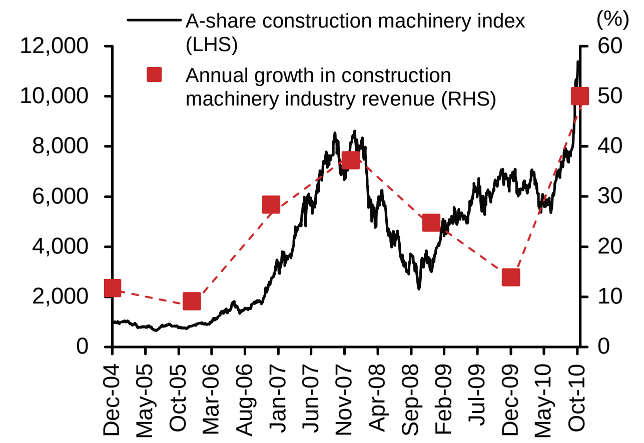
Source: CEIC, Nomura research

Exhibit 23. A-share construction machinery Index vs construction machinery industry revenue



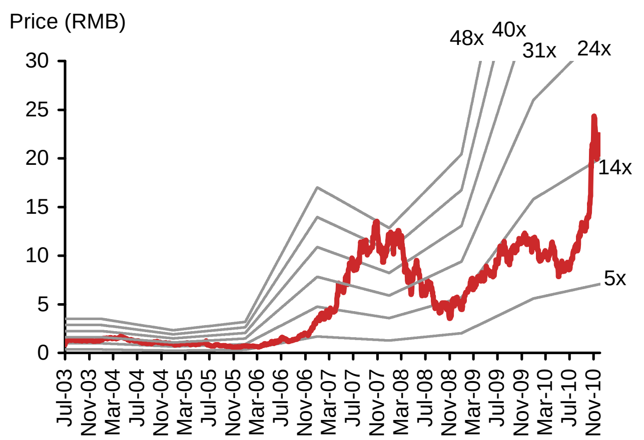
Source: CEIC, Nomura research

Exhibit 24. A-share construction machinery vs annual industry revenue growth



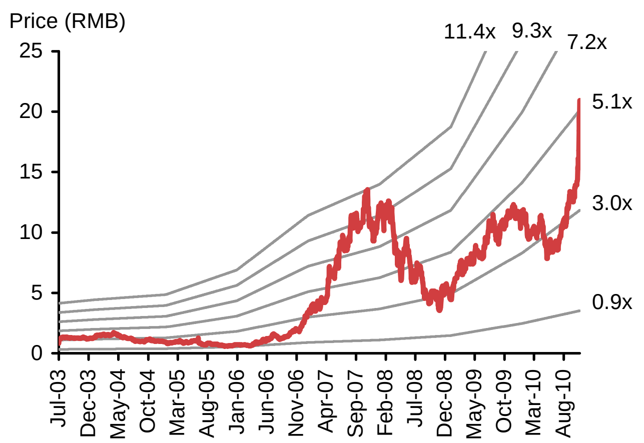
Source: CEIC, Nomura research

Exhibit 25. SANY historical P/E trading band



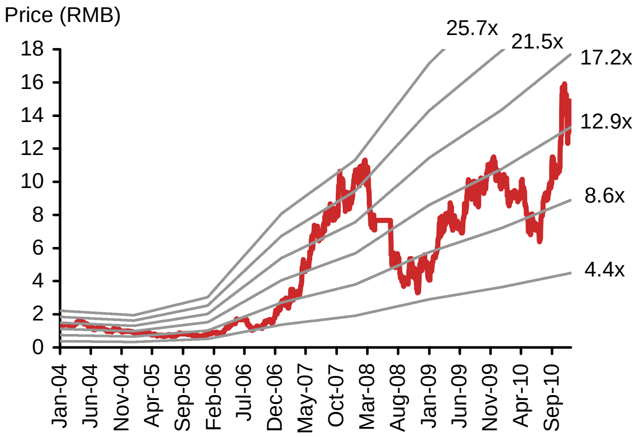
Source: Bloomberg, Nomura research

Exhibit 26. SANY historical P/BR trading band



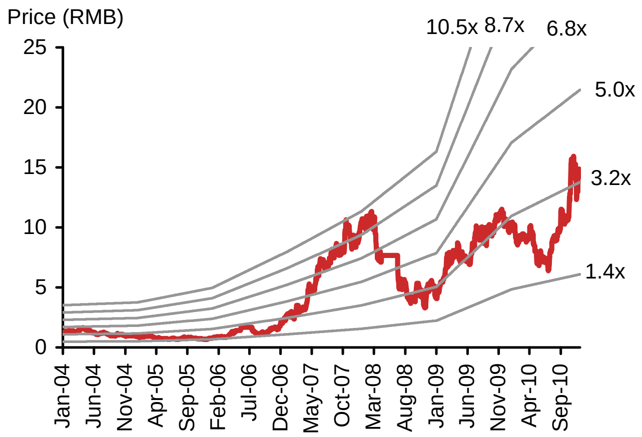
Source: Bloomberg, Nomura research

Exhibit 27. Zoomlion historical P/E trading band



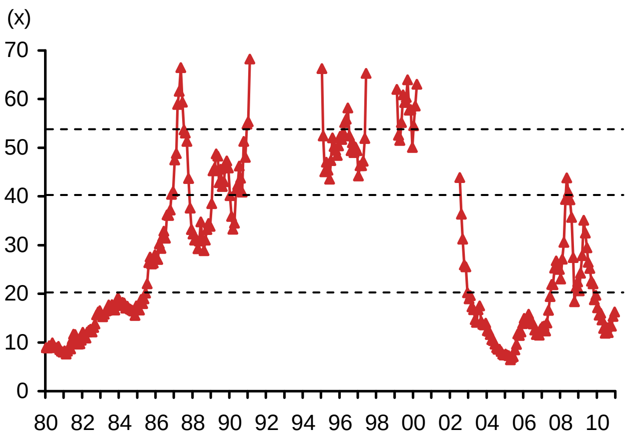
Source: Bloomberg, Nomura research

Exhibit 28. Zoomlion historical P/BR trading band



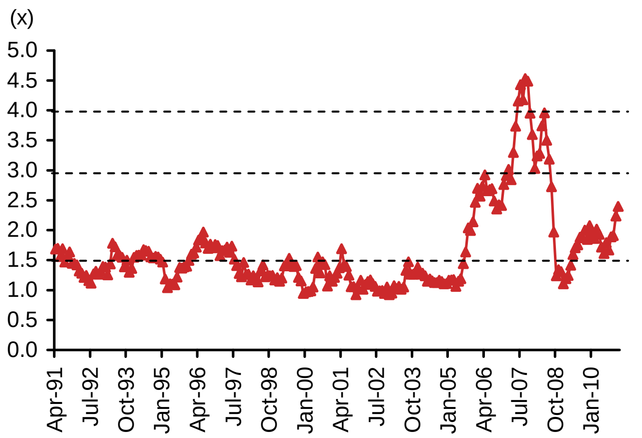
Source: Bloomberg, Nomura research

Exhibit 29. Komatsu historical P/E trading band



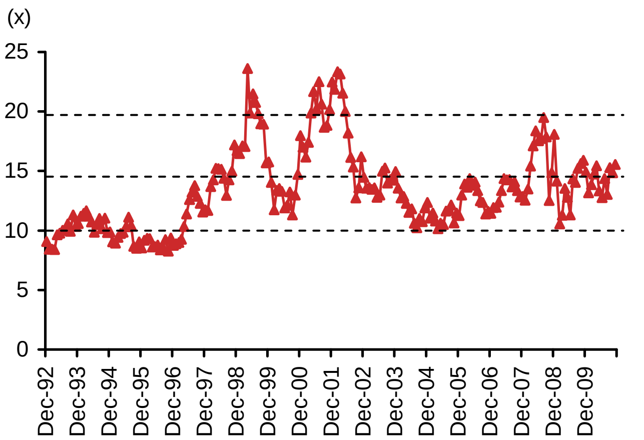
Source: Bloomberg, Nomura research

Exhibit 30. Komatsu historical P/BR trading band



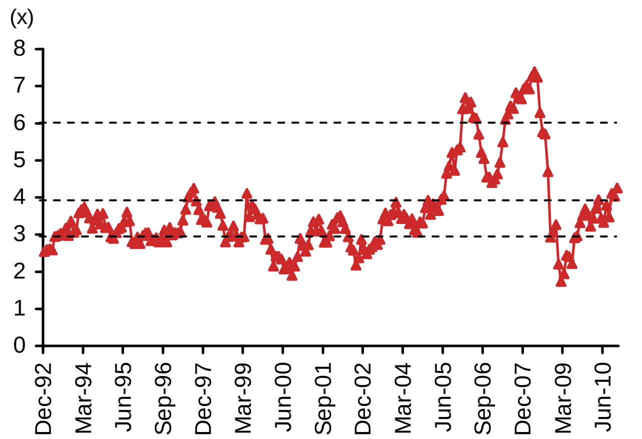
Source: Bloomberg, Nomura research

Exhibit 31. Caterpillar historical P/E trading band



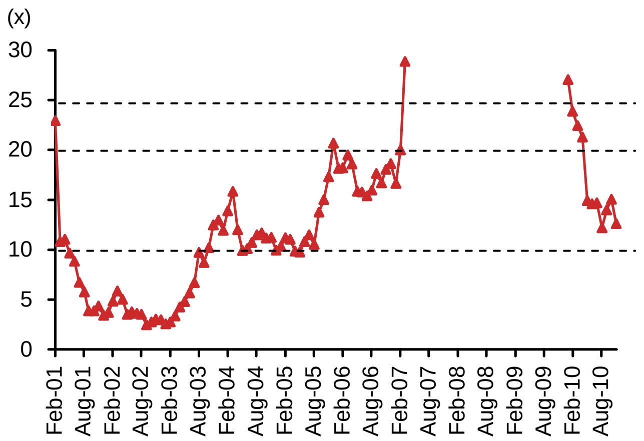
Source: Bloomberg, Nomura research

Exhibit 32. Caterpillar historical P/BR trading band



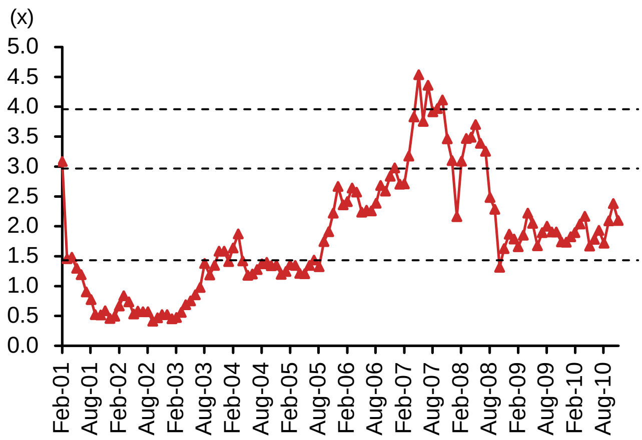
Source: Bloomberg, Nomura research

Exhibit 33. Doosan historical P/E trading band



Source: Bloomberg, Nomura research

Exhibit 34. Doosan historical P/BR trading band



Source: Bloomberg, Nomura research

Drilling down

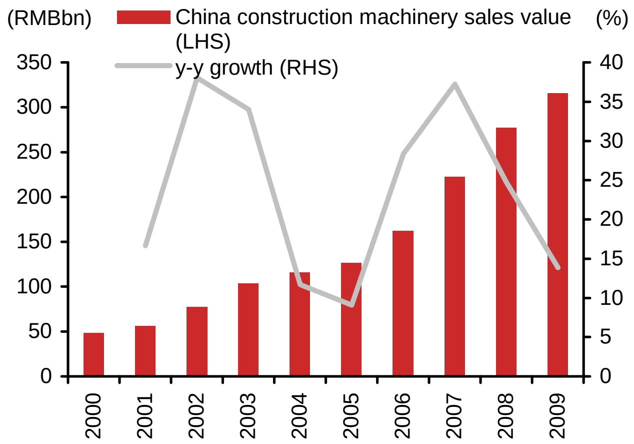
Moderate growth expected in 2011F

China may even now command a quarter of the market

The China construction machinery market has experienced robust growth in the past decade with a CAGR of 23%. In 2009, it became an RMB300bn sales industry. It has become one of the largest markets worldwide, garnering 16% of global construction machinery sales in 2008 in terms of sales revenue. As shown in the following Exhibits, major construction machinery sales revenue reached RMB186bn in 2009, with excavators, wheel loaders and concrete machinery accounting for 78% of total sales.

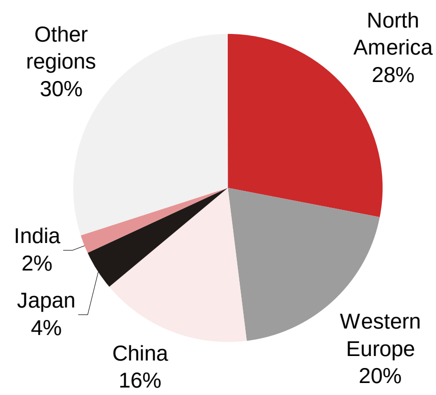
Not surprisingly, demand for construction machinery is highly correlated with FAI, which is allocated among infrastructure investment (~40%), property investment (~30%) and manufacturing capacity expansion (~30%). As shown in the following Exhibits, construction machinery is mainly used in the infrastructure construction, property and mining industries, although the percentage breakdown varies slightly year-on-year due to different dynamics in each industry.

Exhibit 35. China construction machinery sales



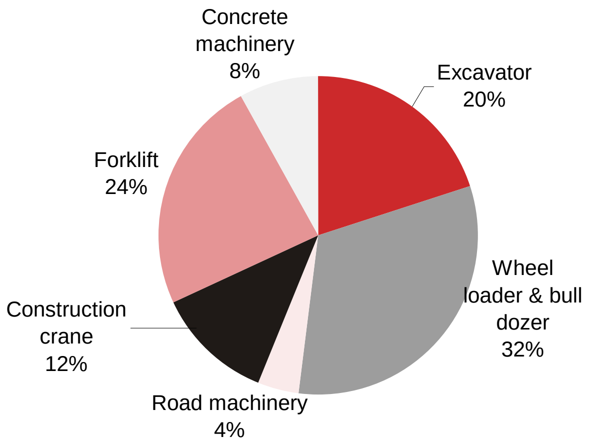
Source: CEIC, Nomura research

Exhibit 36. Global machinery market share in 2008 (value)



Source: CEIC, Nomura research

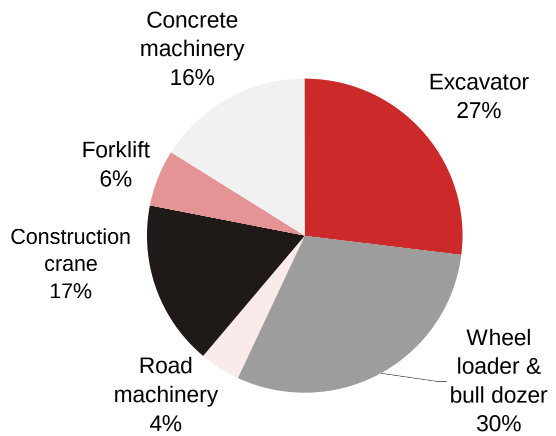
Exhibit 37. Construction machinery sales volume breakdown by segment in 2009 (units: 480,900)



Note: road machinery includes road roller and grader; construction crane includes tower crane, crawler crane and wheel crane; concrete machinery includes concrete pumps, concrete mixing trucks and concrete mixing stations;

Source: China Construction Machinery Association (CCMA), Nomura research

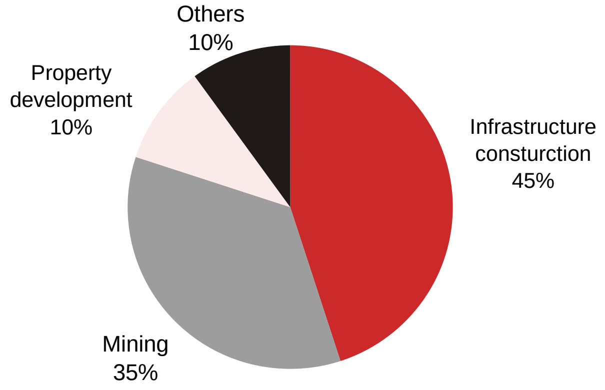
Exhibit 38. Construction machinery sales breakdown by segment in 2009F (value: RMB186bn)



Note: road machinery includes road roller and grader; construction crane includes tower crane, crawler crane and wheel crane; concrete machinery includes concrete pumps, concrete mixing trucks and concrete mixing stations;

Source: CCMA, Nomura estimates

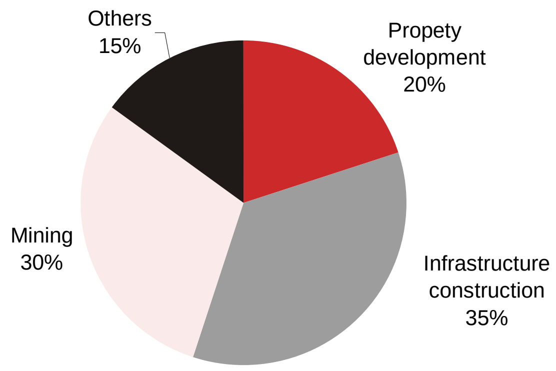
Exhibit 39. Wheel loader sales breakdown (Lonking)



Note: 2010YTD

Source: Company data, Nomura research

Exhibit 40. Excavator sales breakdown (Komatsu)



Note: 2010YTD; refers to Komatsu's China sales

Source: Company data, Nomura research

Excavator to lead growth in 2011

Coming half may be a demanding one

Although we are optimistic about the long-term growth potential of the China construction machinery sector, we remain cautious on volume growth in 1H11 given:

- Declining number of newly started projects. In our view, short-term sales momentum of capital goods is more correlated with newly started projects, rather than FAI.
- Potential negative impact of slow growth of infrastructure investment. With an estimated RMB1,990bn (+27% y-y) in investment spent on highways and railways in 2010, we estimate that FAI from infrastructure segment will only increase 6% y-y in 2011F. The significantly slowing growth rate of investment could negatively impact earth moving machinery.
- High base effect. Due to the RMB4tn stimulus package passed in early-2009, the industry witnessed exponential volume growth in 2H09 (excavator: +84% y-y; wheel loader: +22% y-y) and 1H10 (excavator: +104% y-y; wheel loader: +65% y-y), which created a high base effect for future comparisons.

As stated above, construction machinery is mainly used in infrastructure construction, property and mining. Our view on each industry as a driver of machinery demand is:

- With an estimated RMB1,990bn (+27% y-y) investment in highways and railways in 2010, FAI from the infrastructure segment is likely to only increase 6% y-y in 2011F, we believe. The expected significant slowdown in the rate of investment in highways and high-speed railways could negatively impact earth-moving machinery sales.
- As the integration of small coal mines in Shanxi Province draws to the end, we believe new orders from the mining industry will pick up owing to: 1) pent-up demand during the integration process, and; 2) the higher mechanisation rate at the merged mines.
- Spending on property development and new floor space started is likely to remain strong in 2011F, but lifted by governments' push into public housing, rather than private property developers. This could put downwards pressure on the product mix, due to budget constraints of low-rent housing projects.

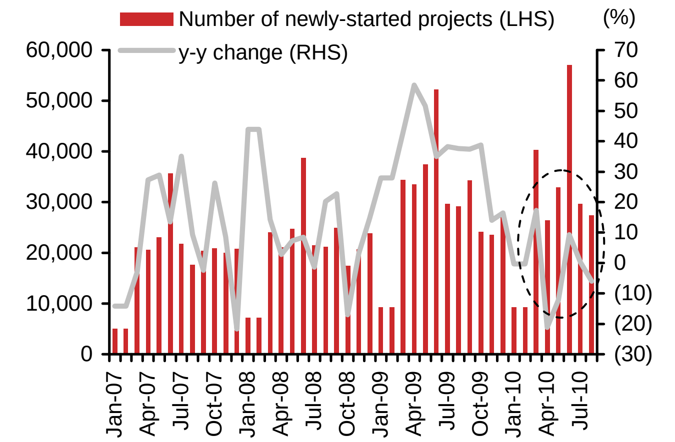
Factoring in the positives and negatives, we are of the view that the overall machinery market should witness moderate volume growth of 12% y-y in 2011F, compared with 60+% growth in 2010F. As shown below, we estimate the overall industry will increase 12% y-y, with excavators increasing 20%, wheel loaders rising 5%, HDT gaining 7%, concrete machinery increasing 20%, cranes rising 10-15%, and coal mining machinery increasing 14%.

Exhibit 41. Construction machinery demand forecast

(Units)	2003	2004	2005	2006	2007	2008	2009	2010F	2011F	2012F
Truck-mounted concrete pumps	858	1,027	955	1,919	4,271	4,527	5,880	9,996	11,995	13,794
Truck cranes	9,706	11,645	11,012	14,465	20,862	21,908	27,360	36,100	39,710	43,681
Crawler cranes	164	237	237	500	947	1,686	1,185	1,766	2,030	2,335
Excavators	-	-	33,862	45,702	66,764	77,851	95,820	162,000	194,400	223,560
Wheel loaders		91,334	105,381	119,868	158,942	166,308	143,322	217,700	228,585	240,014
Roadheaders	198	497	699	855	867	1,343	1,406	1,616	1,848	2,172
y-y change (%)										
Truck-mounted concrete pumps	120.6	19.7	(7.0)	100.9	122.6	6.0	29.9	70.0	20.0	15.0
Truck cranes	-	20.0	(5.4)	31.4	44.2	5.0	24.9	31.9	10.0	10.0
Crawler cranes	-	44.5	0.0	111.0	89.4	78.0	(29.7)	49.0	15.0	15.0
Excavators	-	-	-	35.0	46.1	16.6	23.1	69.1	20.0	15.0
Wheel loaders	-	-	15.4	13.7	32.6	4.6	(13.8)	51.9	5.0	5.0
Roadheaders	-	-	40.6	22.3	1.4	54.9	4.7	15.0	14.3	17.6

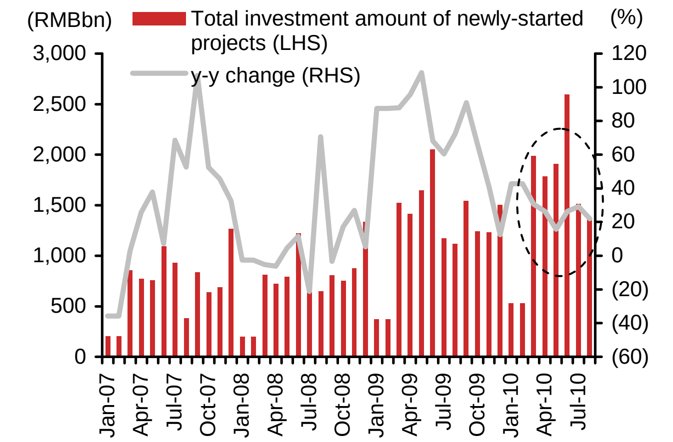
Source: CCMA, Nomura estimates

Exhibit 42. Number of newly started projects



Source: National Bureau of Statistics, Nomura research

Exhibit 43. Investments of newly started projects



Source: National Bureau of Statistics, Nomura research

Infrastructure construction: diminishing impact from railway and highway investment

We see railway construction peaking in 2011F-2012F

The massive commencement of railway projects (notably high-speed-railway projects), in the past two years has provided substantial stimulus for construction machinery such as excavators, concrete pumps and truck cranes. As per the Ministry of Railways (MoR), China has 3,711km of high-speed-rails in operation, with another 10,000km starting construction in 2009. As for most projects, equipment procurement will be concentrated in the early stage once construction has begun; 2010 has faced strong purchase demand related to railway construction. Nevertheless, as the peak of project commencement elapses, we expect to see growth of railway FAI decelerate, triggering a possible slowdown in machinery procurement. As a whole, we estimate annual spending on railway infrastructure construction will peak in 2011F and 2012F at RMB700bn, and drop to RMB600bn from 2013F on.

Capex investment in highways stands to be another major source for construction machinery demand, including road-paving machines (road rollers), earth-moving machines (wheel loaders, excavators) and, to a lesser extent, concrete pumps. We expect that following heavy investment in 2009 and 2010 (stimulus due to the financial crisis), spending on highways with slow, and we forecast moderate declining investment in highways in 2011F.

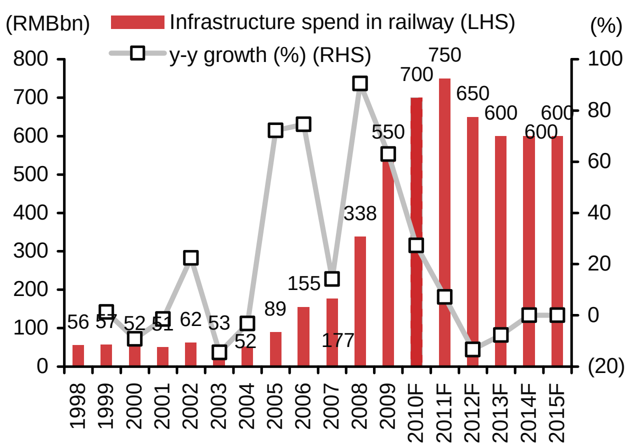
Highway spending should fall from next year

Metro construction emerges as a rising star amid lacklustre prospects for other infrastructure sub-segments, as the local governments are proactively pushing for metro network build-out, to alleviate the mounting pressure on urban transportation. Our checks show that 33 cities are proposing building a metro system in China, with total length of metro lines adding up to 11,042km, versus merely 1,400km in operation, on our estimates, at the end of 2010. Although most of the proposals are pending NDRC approval, we still believe 2,000-2,500km of metro lines will be built from 2010-15F, which would translate into total investment of RMB800mn-RMB1,125bn, assuming average construction costs of RMB400-450mn per km. The expected boom in metro investment would be positive for machinery such as rotary drilling rigs, concrete pumps and excavators. However, unlike FAI-driven spending, this spending will likely show up as a continuous investment as it will mainly funded by local government financing, in our view.

Metro construction only getting stronger

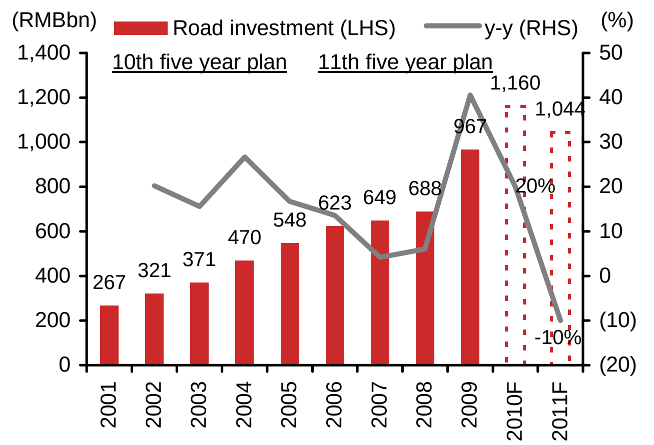
Given the large base effect of 2010, total newly-started FAI projects in 2011F may show slower growth than in 2009 and 2010. With about a one-year lag as projects get underway, any associated machinery sales for infrastructure are likely to slow from 1H11F, in our opinion.

Exhibit 44. Annual railway infrastructure spending



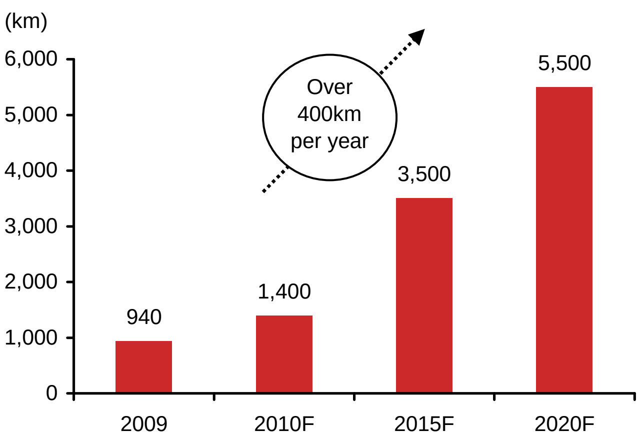
Source: MoT, Nomura estimates

Exhibit 45. Annual highway FAI forecasts



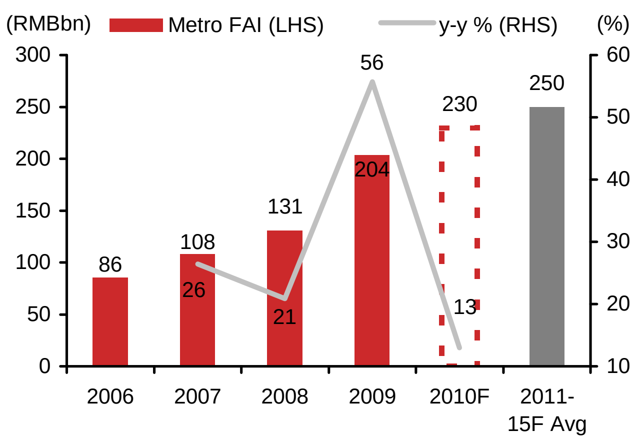
Source: MoT, Nomura estimates

Exhibit 46. Metro length in operation



Source: CEIC, Nomura estimates

Exhibit 47. Metro FAI trend



Source: CEIC, Nomura estimates

Mining industry: recovering from consolidation

Mining takes a breather

The mining sector used to be a significant source of demand for China's earth-moving machinery (wheel loader, excavator, etc), accounting for around 40-50% of wheel loader sales in 2008, as per our checks with vendors. Yet demand from the mining industry has been depressed throughout 2010 (we estimate 30-35% of wheel loader sales), mainly attributed to:

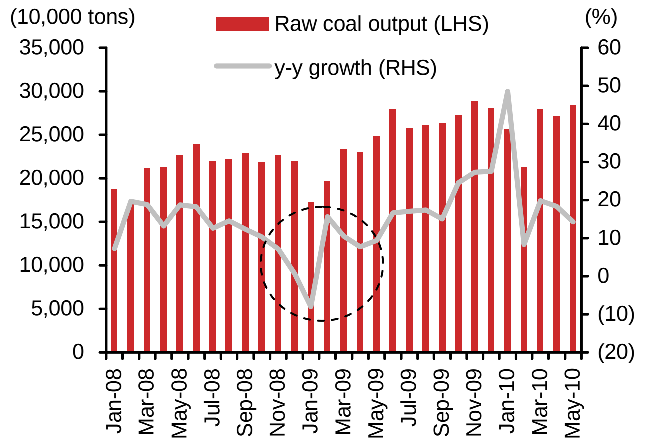
- Given headwinds from the global financial crisis, growth in coal production paused on reduced power consumption;
- Local authorities of some coal-producing provinces initiated a clampdown on small coal mines beginning in late 2008, aiming to address the haunting mining safety problems via industry consolidation and restructuring. Owing mainly to the temporary shutdown of numerous small mines, coal output of Shanxi, previously the biggest coal-producing province, experienced negative growth in 2009, with its contribution to national coal production shrinking to 19.9% from 23% in 2008.

Mining demand seems to be recovering

Nevertheless, our channel checks indicate that demand for equipment by the mining industry has gradually recovered since end-2009, as industry consolidation in most coal-producing provinces draws to an end.

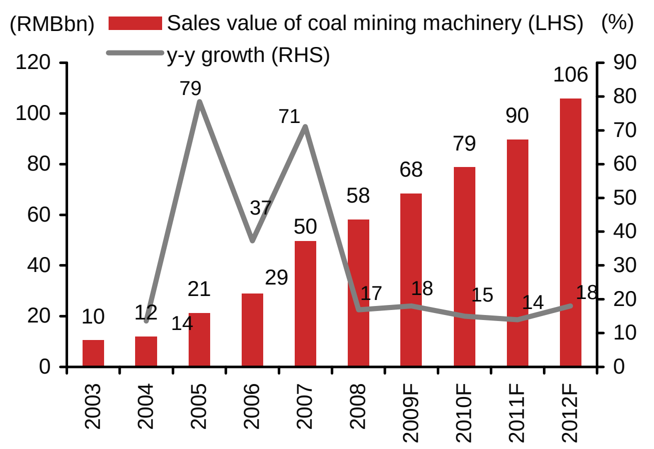
Up to August 2010, Shanxi had reduced its total number of coal mines to 1,053 from 2,598 through government-driven M&A. With production resumed in many closed mines, coal production of Shanxi staged a sharp rebound (+33% y-y in the first five months of 2010), and outpaced nationwide growth starting from end-2009. Similar progress has been seen at its peers, such as Henan Province and Guizhou Province, which also aim to complete the initial stage of coal mine restructuring toward the end of this year. Thus, we believe purchase demand from the mining industry will continue its ongoing recovery in 2011F driven by: 1) pent-up demand, and; 2) higher machinery rate at newly merged large mines. We believe the demand for machinery by the mining industry will grow by roughly 20% in 2011F.

Exhibit 48. Monthly coal output in China



Source: CEIC, Nomura research

Exhibit 49. China coal mining machinery sales



Source: CEIC, Nomura estimates

Properties development: public housing drives growth

Cooling measures don't really come into play in public housing

The construction of properties involves a wide range of machinery, such as concrete machinery, cranes, excavators and wheel loaders. Despite the Chinese government's frequently introduced tightening measures, both property floor space started and real estate FAI have delivered very strong growth so far this year (see Exhibit 50, 51), pointing to strong demand for construction machines. We believe this is mainly attributed to: 1) the rising price trend has encouraged developers to launch more projects, as is evidenced by the surging land supplies released in 2010 YTD; 2) the government's strong push into public housing, setting out a target of building 71mn sqm of low-rental housing, 174mn sqm of public housing, and redeveloping 366mn sqm poor-conditioned housing in 2010.

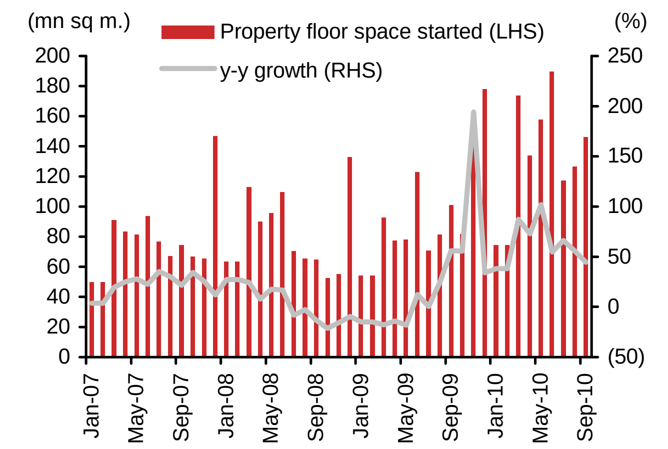
Although there may be many possible moves in government property tightening policies, Nomura's property analyst believe the newly started floor space and real estate FAI numbers will grow by 20-25% in 2011F, largely due to the following factors:

- No strong evidence thus far of a price correction, with land acquisition prices still on the uptrend, a positive sign for the developers' confidence, as suggested by Nomura's China properties team. (See *Policy… many possible moves*, Alvin Wong, Sunny Tam, 4 October, 2010).
- Developers growing landbanks and the China government's stringent control on land-stocking will pressure developers to start more new projects,
- The 12th Five-Year Plan will continue to focus on public housing development, aiming to resolve the housing difficulties of low-income households, according to Nomura's China properties team. The team estimates that an average GFA of 50mn sqm of economic housing will be delivered p.a. from 2010-15F, a 43% jump from GFA of 35mn sqm supplied per annum from 2004 to 2009.

Concrete machines more leveraged into property development

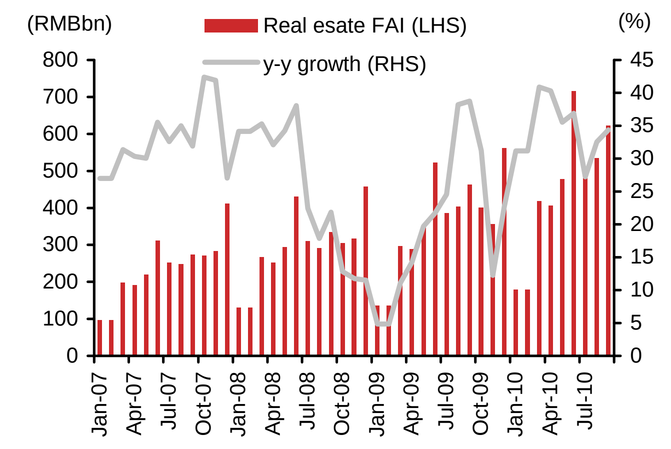
We highlight that the strong momentum in new property construction will likely buoy sales of various types of construction machinery, notably concrete machines, which have greater exposure to property development than other machines.

Exhibit 50. Property floor space started



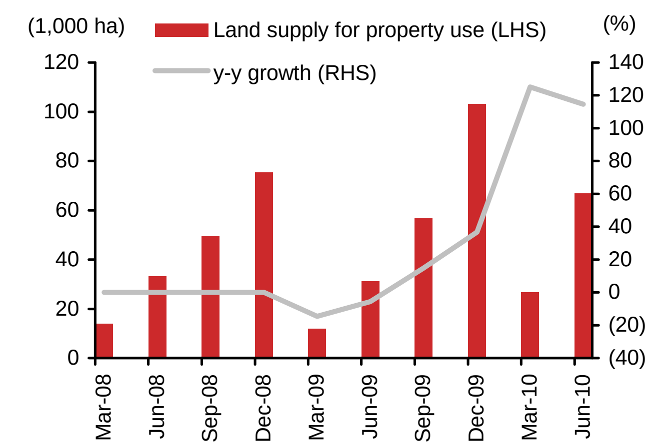
Source: CEIC, Nomura research

Exhibit 51. Real estate FAI



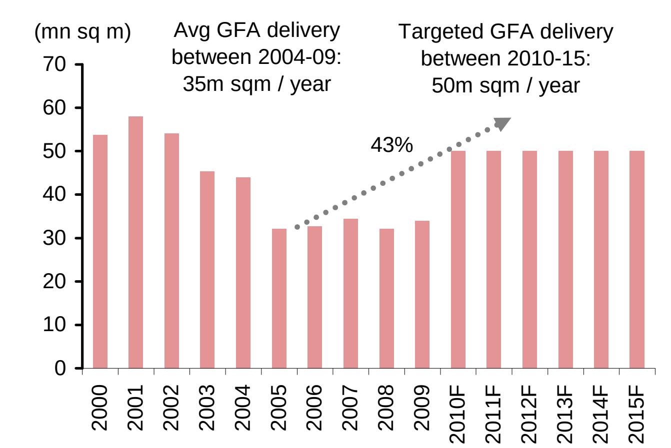
Source: CEIC, Nomura research

Exhibit 52. Land supply for property use



Source: CEIC, Nomura research

Exhibit 53. Targeted public housing GFA



Source: CEIC, Nomura estimates

Long-term drivers

Long term: not just an FAI story

In our view, construction machinery has been one of the key engines driving China's macroeconomic growth over the past few decades, as machinery is the tool to achieve fixed asset investment (FAI) and improve productivity, in our view. Among the "Three Wagons", namely investment, consumption and export, that drive the Chinese economic growth, FAI has consistently been the number one contributor in the past 10 years. Statistics from the past decade points to a strong correlation between FAI and construction machinery sales, while the proportion of construction machinery procurement stands at about 1.4%-1.6% in total FAI. We forecast that this number will stay at around 1.5% in the next couple of years.

After a decade of exponential growth, many investors believe that construction machinery is peaking in China due to:

1) High base effect created by the RMB4tn stimulation package in 2009; and

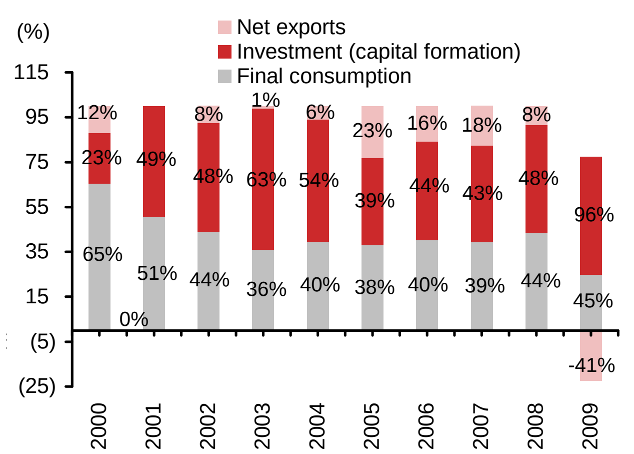
2) More emphasis from the central government on economic growth transformation, from "investment driven" to "consumption driven".

However, we believe construction machinery will continue to witness high growth in the next decade. First, we believe FAI will continue to be an important driver for GDP growth in China, although domestic consumption will gradually contribute more. During the 12th Five-Year Plan period, despite the government's goal to transform the economy into a more consumption-driven one, we believe it could take a decade for the Chinese government to achieve this goal.

We believe that FAI will continue to take an important role in driving China's macroeconomic growth, due to:

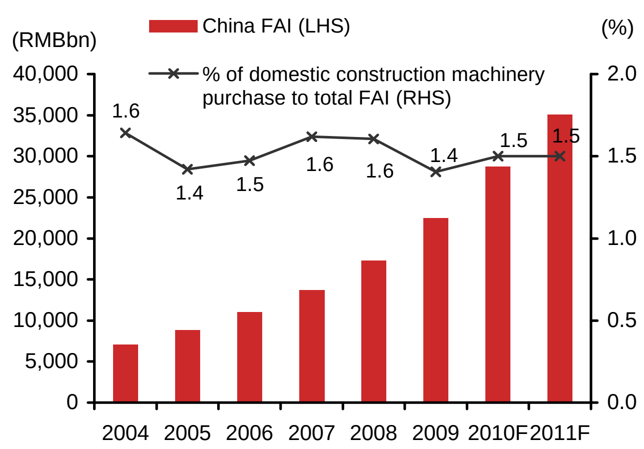
- Continuous urbanisation trend;
- Industrialisation of society; and
- Development of west China.

Exhibit 54. Constituents of China GDP growth



Source: CEIC, Nomura research

Exhibit 55. Proportion of construction machinery procurement in total FAI



Source: CEIC, Nomura estimates

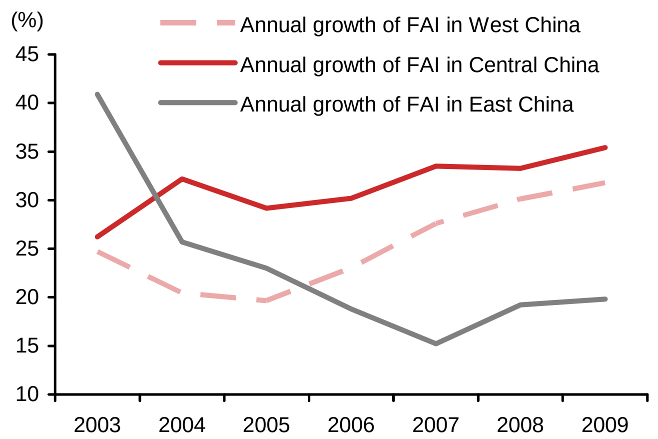
Nomura's global economics team forecasts China GDP growth will reach 10.2%, 9.8% and 9.5% in 2010F, 2011F and 2012F, respectively, while FAI will see a CAGR of 20+% over 2010F-12F, underscoring our positive view on China machinery companies' long-term growth.

Besides, we believe the following factors will continue to lift future demand:

- Replacement demand. After a decade of exponential growth seen in construction machinery companies, total ownership has substantially increased to provide a strong base for future demand.
- Improving mechanisation rates. With China continuing to pursue industrialisation, high productivity and efficiency, more machinery will be needed. Rising labour costs and stricter safety requirements will also push up the mechanisation rate.
- Upgrading product mix. With increasingly stringent environmental and safety requirements, more and more new technologies are introduced into machinery, which will drive up revenue even if unit sales stay flat, in our view
- Export growth potential.

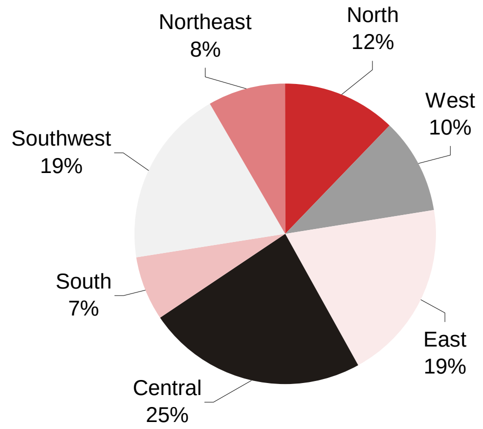
In conclusion, we believe Chinese construction machinery companies have started to enter a “stable growth decade” after experiencing an “exponential growth decade”.

Exhibit 56. Regional FAI growth comparison



Source: CEIC, Nomura research

Exhibit 57. Regional excavator sales (2009)



Source: CCMA, Nomura research

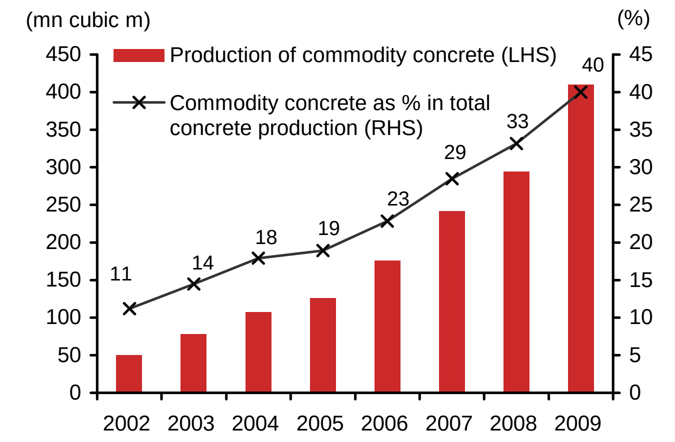
Rising mechanisation rates

Just in meeting its own demand, sales in China could easily rise

While about 55% of world’s cement was poured on China’s land in 2009, China’s construction machinery sales took only a 16% global share (Source: CEIC). There are many reasons for this, such as China’s lower machinery average selling price (ASP), it still suggests huge potential for China’s construction mechanisation demand.

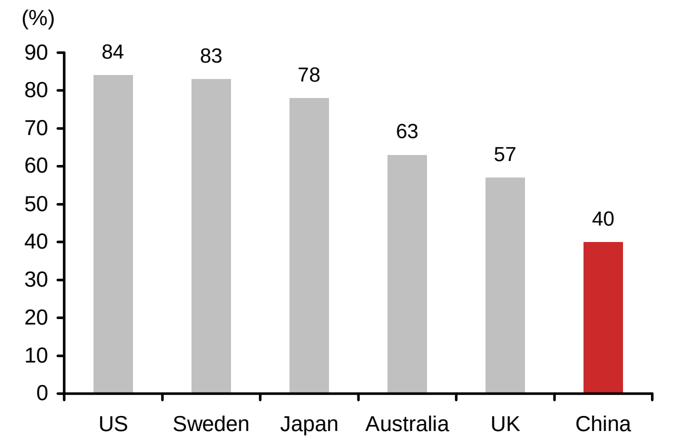
A modern economy features high industrialisation and mechanisation, but China’s mechanisation rate is still far below those of developed economies such as the US and Europe, owing largely to its low purchasing power and access to abundant inexpensive labour. Our industry checks suggest that only 33% of China’s coal output is explored by road headers, compared to nearly 100% in developed countries. The lack of mechanisation has raised concerns regarding safety issues in China’s coal mining sector. In the construction sector, about 40% of China’s total concrete is commodity concrete that is pre-mixed, transported and transmitted by concrete machinery, with the other 60% mixed and used on-site using primitive methods. In contrast, the commodity concrete ratio reaches as high as 84% in the US, 83% in Sweden and 78% in Japan (source: China Concrete and Cement Web).

Exhibit 58. Rising proportion of commodity concrete in China



Source: CEIC, Nomura research

Exhibit 59. Global comparison of commodity concrete ratio (2009)



Source: China Concrete and Cement Web, Nomura research

Nevertheless, we believe the mechanisation rate is set to improve as China progresses towards the next stage of economic growth, because of:

- Rising labour costs. Increased machinery usage improves productivity and makes more economic sense as labour costs surge. Our channel checks suggest that a 10-tonne excavator can normally replace 30 workers when executing earth-moving operations. The hourly rate for a 10-tonne excavator is some RMB250-300, which translates to an hourly pay of RMB10 per worker, almost at the wage floor of some regions in China. Due to China's structural shortage in labour and the government's determination to reduce its income distribution disparity, labour costs have continued to rise in recent years and inexpensive labour in China is unlikely to be the norm in future, in our view.
- Improving affordability. Improving profitability and increasing financial leasing have greatly improved the affordability of Chinese constructors. Ironically, as a developing country, China accounted for half of global excavator sales in 2009, which can be substituted by cheaper wheel loaders and bulldozers. Moreover, global construction machinery makers are able to charge a higher price in China than in developed countries.
- Personnel safety on construction sites and mines has attracted nation-wide attention in recent years. Frequent coal mine accidents, each of which caused dozens of casualties, have exerted pressure on the government to improve safety conditions. Improving mechanisation is also another effective way to enhance safety and reduce the number of accidents and casualties.

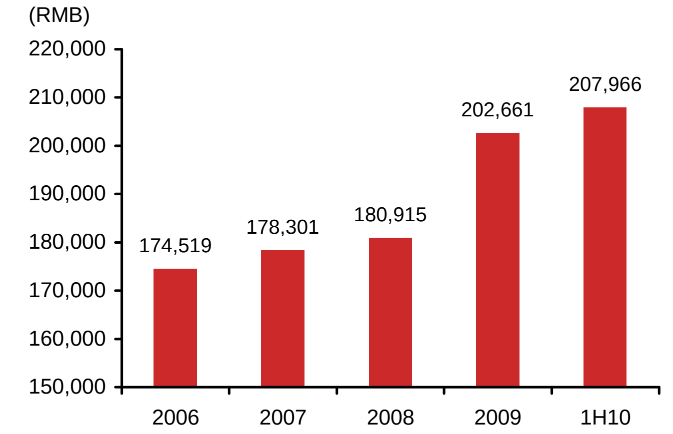
Can't mechanise without machinery

Overall, we consider the rise of mechanisation in China a prevailing trend in the coming decade, which will raise the demand for China construction machinery.

Exhibit 60. Labour costs surge in China

Source: CEIC, Nomura research

Exhibit 61. Wheel loader historical pricing trend



Note: Lonking's wheel loader blended ASP.

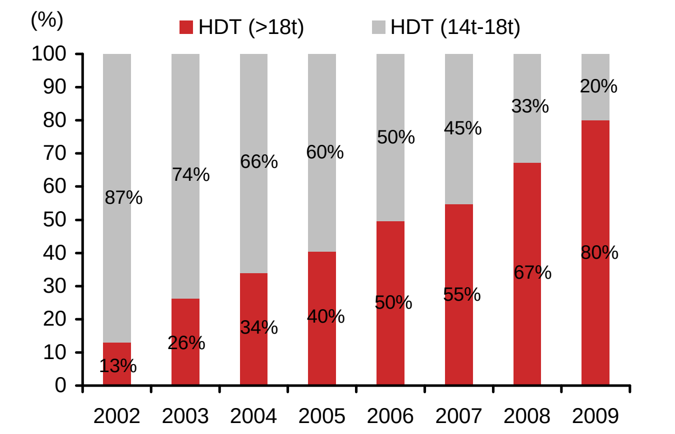
Source: Company data, Nomura research

Upgrading product mix

Moving into heavier and heavier machinery

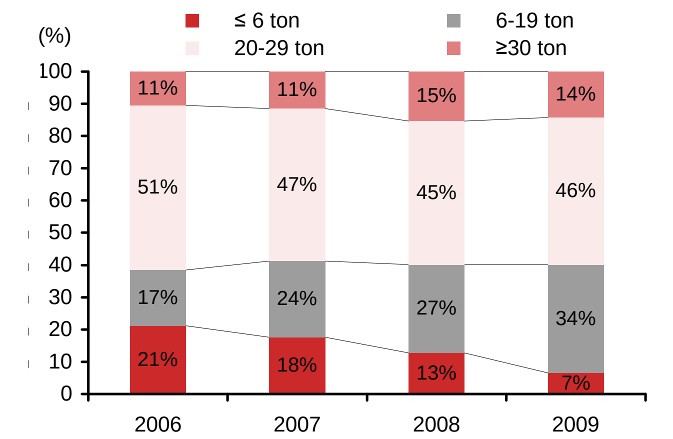
Over the past few years, the product mix has improved in most construction machinery sub-segments. In the heavy-duty truck sector, the >18tonne segment has consistently gained share from the 14-18 tonne segment, due mainly to the logistics industry's increased need for transportation efficiency. A similar trend has been observed in the excavator sector, where the share for the >30tonne segment has risen at the expense of the <6tonne segment.

Exhibit 62. Product mix trend of HDT sales



Source: Company data, Nomura research

Exhibit 63. Product mix trend of excavator sales



Source: CCMA, Nomura research

We believe the ongoing product mix upgrade is likely to continue in the coming years, due to: 1) customers' demand for higher working efficiency; 2) improving affordability of customers, and; 3) value of higher-end products are gradually being recognised and accepted.

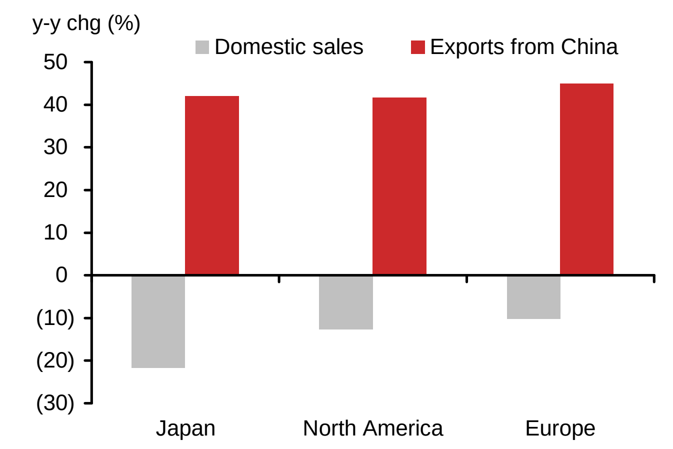
As upper-end products usually carry higher ASP and gross margins, we consider product mix upgrade a positive for this industry, and expect it to amplify the sales value and profitability of Chinese construction machinery companies and truck makers. Therefore, we believe the capital goods industry will be able to achieve revenue growth, even if unit sales stay flat.

Overseas expansion

Winning export orders in the most advanced markets

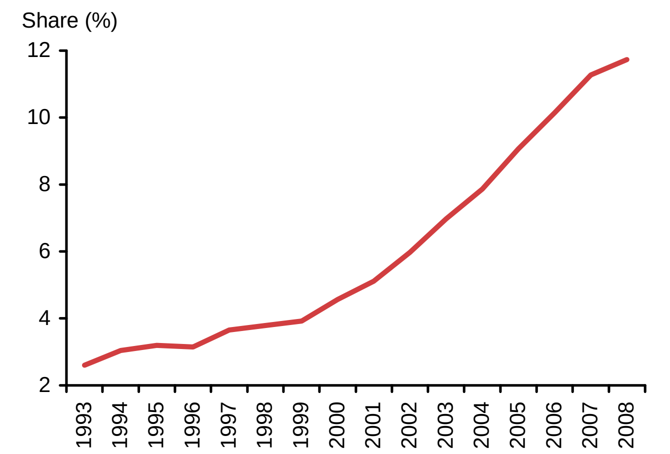
Exports of construction machinery posted a CAGR of 47% over 1999-2009. More importantly, over the past few years, Chinese machinery manufacturers have gained market share in developed countries, such as the US, Germany and Japan, highlighting the increased competitiveness of Chinese machinery manufacturers in the global market. With overseas demand gradually recovering, especially in emerging markets, the exports of construction machine have increased strongly so far 2010. Our channel checks suggest that Lonking expects to record 1,300 units in export sales this year, contributing 4-5% to our estimated FY10F revenue total revenue vs 100 units and less than 1% of FY09 revenue. We believe China's exports of construction machinery will continue, taking more global market share in the long term.

Exhibit 64. Rising exports to developed countries in 2009



Source: CCMA, Nomura research

Exhibit 65. Global share of China's manufactured exports



Source: Company data, Nomura research

Segment insights

Excavators: digging gold

See 20% growth in China excavator market next year …

China's economic growth plays an important role in shaping the world's economic recovery. Likewise, China is gaining importance in the global hydraulic excavator market, accounting for about 50% of global demand currently, according to Komatsu. The RMB4tn stimulus package from the Chinese central government, alongside public infrastructure expenses, has driven demand for hydraulic excavators since 2009. The excavator market grew 23% in 2009 and so far in 2010, has risen 69%, on our estimates. From the number of retained excavators for developed countries and China, and considering the shift of demand from wheel loaders to excavators, we think growth of 20% is possible in 2011F.

… Foreign players dominate

Excavators comprise the only field where foreign players still maintain a dominant position in the Chinese construction machinery segment, because of high technical barriers of key components and rigorous requirements for product reliability and durability. So far in 2010, Chinese excavator makers have commanded a combined market share of about 25%. At present, both global and local excavator manufacturers are rushing to increase their manufacturing capacity, but the procurement of hydraulic components could limit their growth potential in 2011F. Therefore, we believe components makers, with a high technology advantage, could be the major beneficiaries from the strong growth of China's excavator market and rising number of Chinese excavator makers.

China accounted for 50% of global excavator demand in 9M10

The global excavator market bottomed in July-Sept 2009, but has since rebounded. Emerging markets saw a stronger and quicker recovery vs that in developing countries, driven by replacement demand.

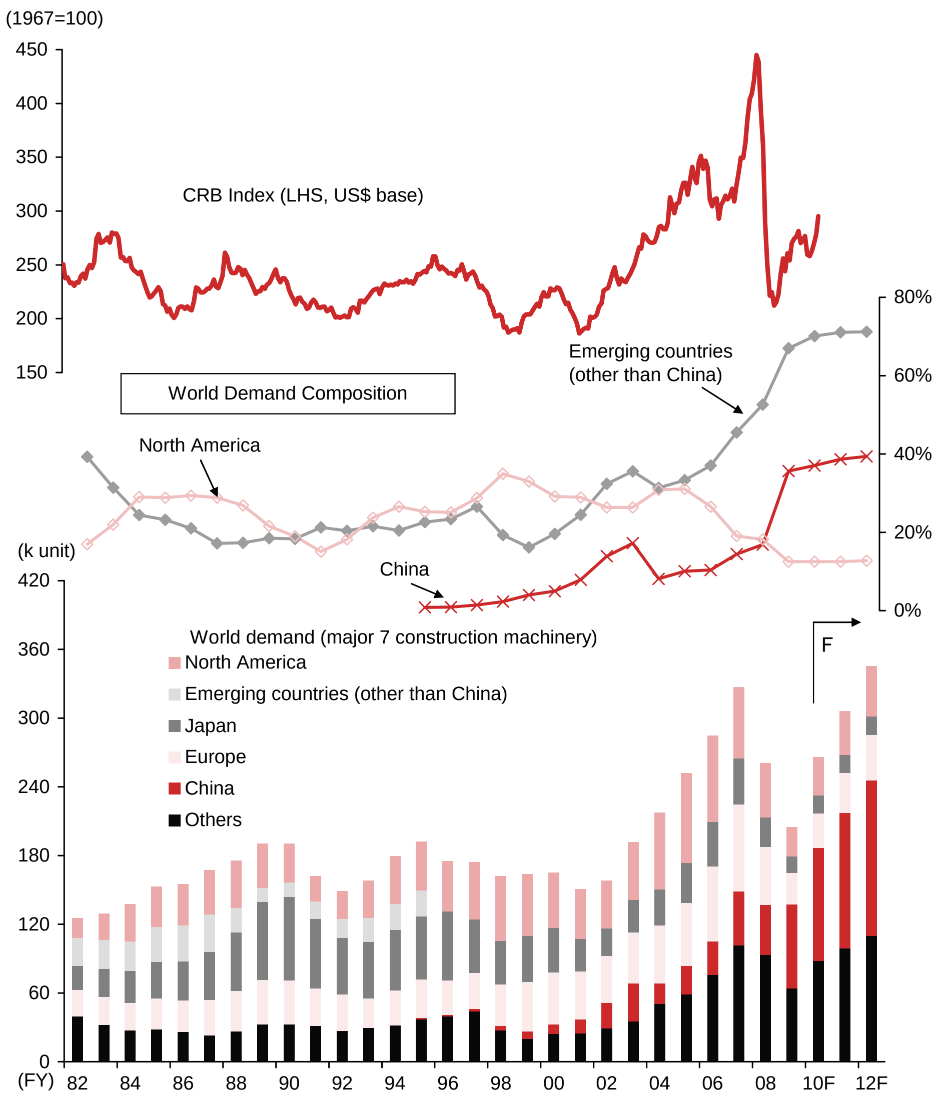
Broad machinery demand recovering

In terms of quarterly demand for crawler hydraulic excavators, wheel hydraulic excavators, bulldozers, wheel loaders, dump trucks, articulated dump truck and motor grade — the seven major catagories of construction machinery — both the US and Europe saw a trough in July-Sept 2009, fetching only 6,200 units and 5,600 units, according to Komatsu. However, this has started to recover gradually in the US and Europe.

Meanwhile, China is taking an increased global share in the demand for construction machinery. In 2001, China's demand for the seven construction machinery was less than 10% of worldwide demand. In 9M10, the proportion increased to about 40%. Europe and America saw their combined share drop from slightly less than 60% to 20% during the same period. For hydraulic excavators, China's demand accounted for slightly more than 10% of global share in 2001, and rose to about 50% in 9M10.

Demand from Asia ex China and Latin America is also growing. Resource-related demand, such as mining and forestry, is rising, but interestingly China tends to be the final consumer. We expect emerging markets, such as China, Southeast Asia and Latin America, to be the driving force for world demand. We also expect developing countries to recover from significantly low levels on replacement demand.

Exhibit 66. Global market share trend of major 7 construction machinery



Note: Major 7 construction machinery includes crawler hydraulic excavators, wheel hydraulic excavators, Bulldozer, Wheel loader, Dump truck, Articulated dump truck, motor grader. Source: Komatsu, Nomura estimates

Competitive landscape in China

SANY Heavy looking at a 10% market share at home by end-2011F

Komatsu overtook Doosan as the number-one excavator player in China in 2010, despite seeing a slight decline in market share (a 14.3% market share in 2010 YTD; competitors Hyundai Heavy and Doosan lost market share slightly during the same period). Meanwhile, Kobelco and Volvo have emerged as the best performers among foreign vendors, gaining 0.9% and 1.2% market share, respectively (Source: CCMA). SANY Heavy has been significantly gaining market share over the past few years on extensive product launches, aggressive marketing strategy and improving product quality. So far in 2010, SANY has commanded a market share of about 7.5%; it targets a 10% market share in 2011.

Over the past four years, the product mix has improved in China with large tonnage excavators taking more market share. The market structure breakdown by segment suggests that the three groups of players (first-tier players, Korean players and major local players) have varying weights in different tonnage segments. The Chinese players tend to have a greater edge in small-mid tonnage segments, with a 32% share in the 0-6t segment and a 35% share in the 6-20t segment. Meanwhile, the first-tier players tend to be more focused on the mid-large tonnage segment, capturing a 47% share in 20-30t and a 68% share in the >30t segment. The Korean vendors, on the other hand, have larger presences in the smallest-tonnage segment (0-6t) and the middle-tonnage segment (20-30t).

In terms of market positioning, excavator players in China are also broadly divided into three groups:

How the market breaks down

- First-tier players, that charge highest prices with top quality: Komatsu, HCM, Kobelco, Caterpillar and Volvo;
- Korean players, who command a significant market share (a combined 24.4% share so far in 2010), but adopt a high price-to-performance ratio strategy: Doosan, Hyundai;
- Major local players, who have the shortest operation history in this product and concentrate on small-tonnage products. They usually charge a low price. These players include Liugong, Lonking, Sunward, Yuchai, Foton Lovol and XGMA.

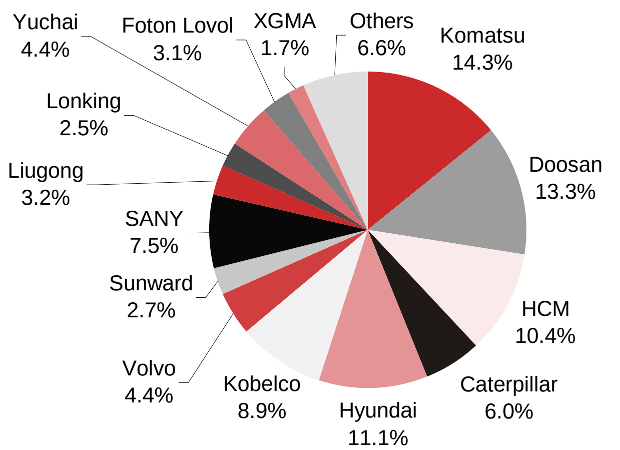
SANY well positioned to compete

In our view, SANY stands out among its Chinese peers with its full product range, from small-tonnage (below 6 tonnes) products to compete with domestic markers to large tonnage (above 40 tonnes) products to compete with global manufacturers. Indeed, SANY is able to charge higher prices compared to Doosan for certain products because of improved product quality, aftermarket service and brand image. For example, SANY charges about RMB800k for a 20-tonne crawler hydraulic excavator, while Doosan charges about RMB750k. Komatsu, however, charges about RMB1mn because of its superior product quality and aftermarket service.

Local names gaining at the expense of Korean players

Although Chinese players entered the market relatively late, they are able to gain share from foreign competitors fast. Korean players, with their weaker product positioning, in our view, are likely to be victims to the Chinese players' aggressive market-share gain; they have lost a 7.5% share to local players since 2007. First-tier players, meanwhile, have managed to keep their share relatively unchanged since 2007.

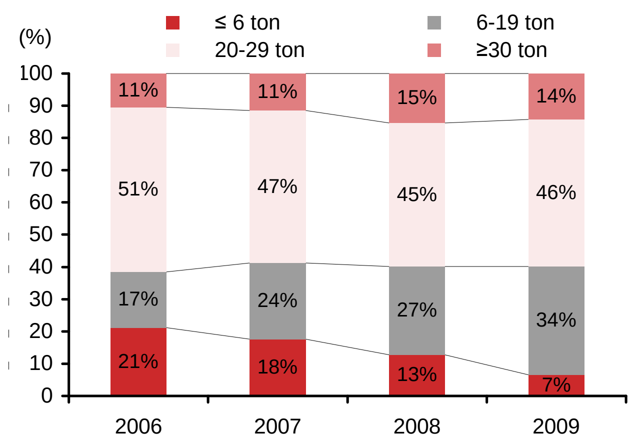
Exhibit 67. China excavator market (2010YTD)



Note: all tonnage

Source: CCMA, Nomura research

Exhibit 68. Excavator product mix



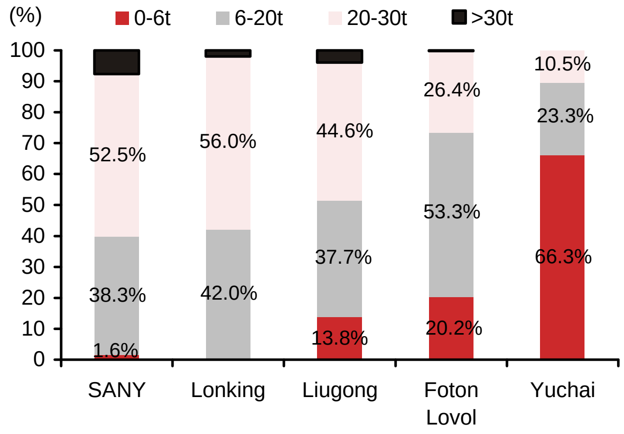
Note: all tonnage

Source: CCMA, Nomura research

For local players, we like the mid-tonnage segment

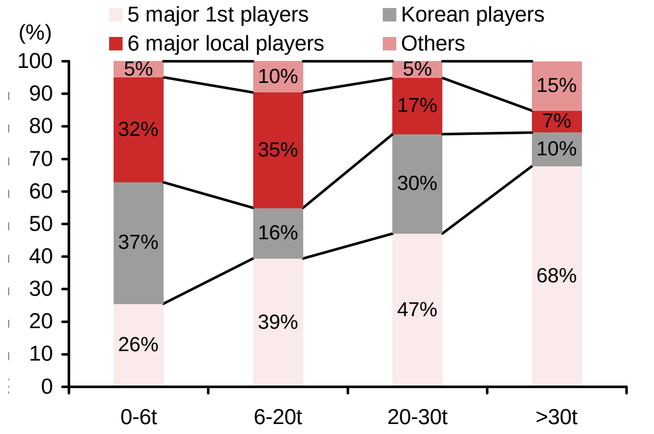
We believe the major competition ground for Chinese and Korean vendors will be in the mid-tonnage segment (20-30t), where the Chinese players have been ramping up capacity aggressively and the Korean players are still commanding a significant market share. Mid-tonnage has been the largest segment in the Chinese excavator sector; it represented 46% of total sales in 2009. Thus, among the Chinese players, we are more Bullish on names that have larger exposure to the mid-tonnage segment, such as SANY and Lonking.

Exhibit 69. Product mix of local players



Source: CCMA, Nomura research

Exhibit 70. Market structure by segments (2010YTD)



Note: Tier one players including Komatsu, HCM, Kobelco, Caterpillar and Volvo

Source: CCMA, Nomura research

Industry growth forecasts

Excavator growth should have legs …

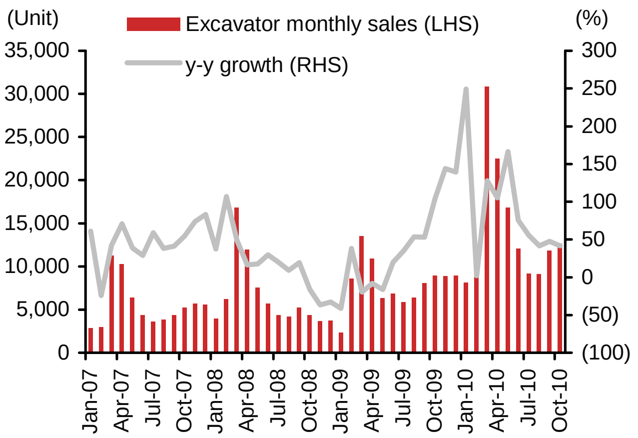
Excavator sales jumped 82% y-y to 141,960 units in 10M10, driven by strong demand from newly-started infrastructure and property projects. Although such strong growth is likely to be just a one-off, in our view, we expect the excavator segment in China to continue to post healthy growth in the next few years, due to:

- China's urbanisation trend and rising mechanisation rates, which will continue to support excavator demand in the mid-long term, in our view.
- Specifically, the prevailing trend of substituting wheel loaders will likely spur further excavator sales, enabling it to outpace other categories of construction machinery, in our view.

… see 20% and 12% growth over the next two years, respectively

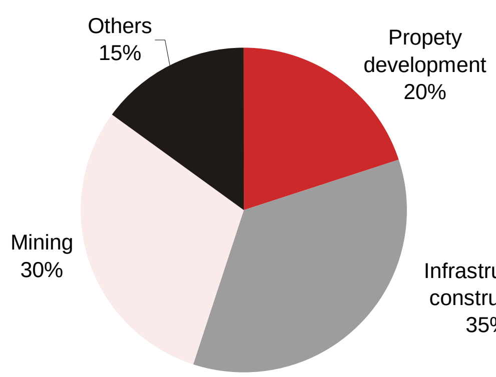
For 2011F, we estimate that excavator sales growth will slow to 20% on high base effect and weakening demand from infrastructure construction companies. We believe resilient demand from property development and the mining industry will support base demand. We expect excavator sales to grow 15% in 2012F, with total industry sales reaching 220,000 units.

Exhibit 71. Excavator monthly sales trend



Source: CCMA, Nomura research

Exhibit 72. Komatsu excavator demand distribution (2010YTD)



Note: Referring to Komatsu's China sales.

Source: Company data, Nomura research

According to Komatsu, infrastructure construction has contributed about 39% of its China excavator sales so far in 2010, while mining and property development accounted for 31% and 15% of purchase demand, respectively. We highlight that demand distribution for the entire industry may vary slightly, as Komatsu's product mix is skewed towards high-tonnage products that are more commonly used for mining purposes in China.

Mining is a higher-end industry

Stock analysis

Our numerical model of China's hydraulic excavator stock units and FAI growth shows that Chinese excavator demand (including mini excavators, new car) will grow 13% in 2011F. On top of that, we expect China's hydraulic excavator sales to grow 20% in 2011F and 15% in 2012F.

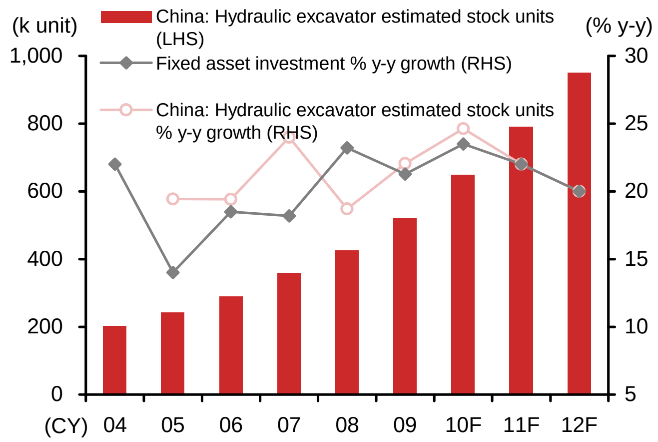
Public infrastructure and private sector, which combined account for around 55% of excavator demand in China (per Komatsu), have shown a strong correlation with fixed asset investment, and therefore, we think Chinese hydraulic excavator demand can be largely driven by fixed asset investments.

Hydraulic excavator sales are largely a product of fixed asset sales

In the Chinese excavator market, a new car life cycle is about 10 years, whereas a second-hand excavator's life cycle is about five years, on our estimates. To arrive at our estimated stock units of hydraulic excavators, we sum up the past 10 year's annual excavator sales.

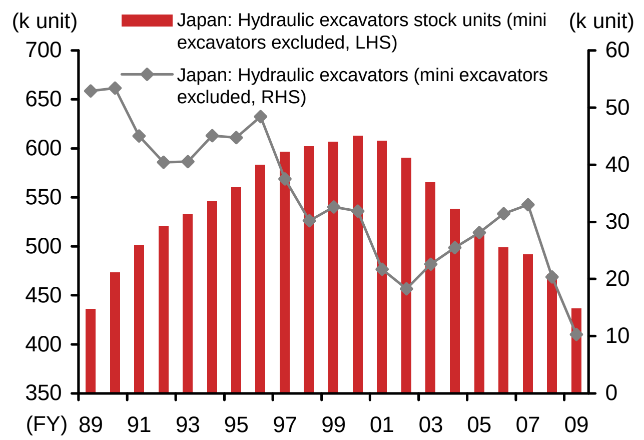
Historical trends reveal that stock units and FAI have similar growth patterns. Assuming that hydraulic excavator stock units grow at same rate with the fixed asset investment, we conducted a stock-based analysis on new excavator demand. The result (13% annual growth in 2011F) shows our excavator growth forecast (20% in 2011 and 15% in 2012) reasonable, given FAI growth estimates of 23.5% in 2010, 22% in 2011, and 21% in 2012 (per Nomura China economics team).

Exhibit 73. Hydraulic excavator stock units in China



Source: Nomura research

Exhibit 74. Japan Hydraulic excavator stock units



Source: Hitachi Construction Machinery, Nomura estimates

Demand for capital goods, such as hydraulic excavators, follows the investment acceleration principle, and therefore demand should fluctuate easily. Construction machinery stock unit growth could drop when FAI growth decelerates significantly from the previous year. As such, demand for construction machinery could even contract.

Sales of capital goods are volatile

Apart from FAI, the demand for hydraulic excavators is also dependent on the demand for wheel loaders. In this numerical model, we have excluded a demand shift from wheel loaders to hydraulic excavators. Hence, it will be important to monitor the construction machinery sales numbers, which are announced on a monthly basis.

We have also made a similar assumption for Japanese excavators (excluding mini excavators) market. On our estimates, the stock units of Japanese new cars peaked at 610k units in 2000, while new car annual demand peaked in 1990 with sales of 53k units, as compared to our estimated excavator stock units in China at around 540k units (new car), or 650k units (including 2nd-hand excavators). Considering China's plan to develop its western regions, coupled with urbanisation and a shift towards using hydraulic excavators from wheel loaders, we believe there is still significant room for stock units to grow.

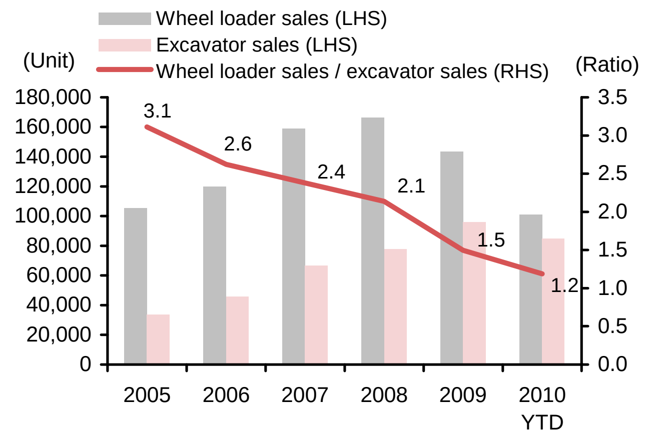
Substitution for wheel loaders

China uses a greater proportion of wheel loaders … but mix is changing

We believe the substitution of wheel loaders is another factor aiding the excavator sector's strong sales performance. Wheel loaders are weaker in terms of digging, but have higher capability in material-handling. Our channel checks suggest that the installed base of excavators is usually twice of wheel loaders in developed countries. However, as Chinese manufacturers have localized the production of wheel loaders for long, there has been a sizeable and widening pricing gap between excavators and wheel loaders in China, which discourages customers from buying more excavators compared to wheel loaders. According to CCMA, the installed base of wheel loaders was approximately 1.5x that of excavators in China as of end-2009, far higher than the global average level.

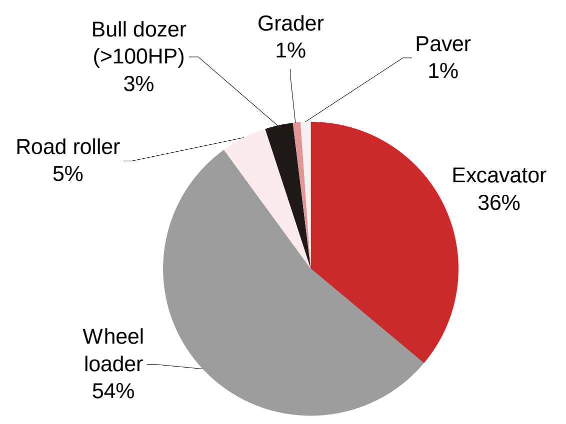
Nevertheless, the past couple of years have seen the sales volume of excavators gradually catching up with that of wheel loaders. We attribute this to: 1) the value of excavators, which is increasingly being recognised and accepted by end-users; 2) rising affordability of end-users, and; 3) more local vendors entering excavator manufacturing, in turn lowering prices for customers. We believe the sales volume of excavators will continue to outgrow that of wheel loaders.

Exhibit 75. Sales comparison: wheel loader vs excavator



Source: CCMA, Nomura research

Exhibit 76. China earth-moving machinery installed base (2009)



Source: CCMA, Nomura research

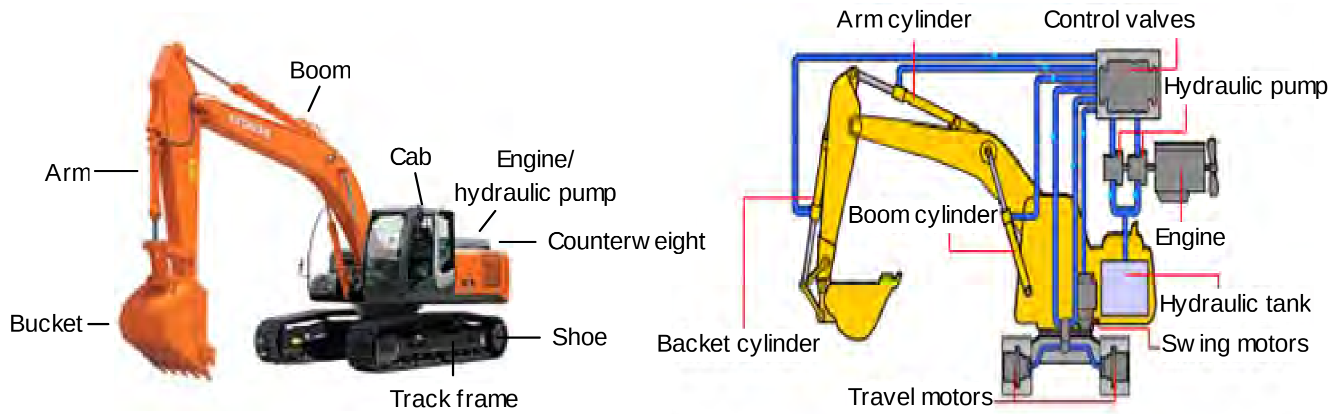
Hydraulic equipment: mainly reliant on Japanese suppliers

Except for Komatsu, most global hydraulic excavator manufacturers import their key hydraulic equipment (valves, pumps, motors and cylinders) and engines. Korean and Chinese hydraulic excavator manufacturers also import from Japan, although some local Chinese companies have started to manufacture hydraulic cylinders, which are relatively easy to produce in-house, in a bid to remain competitive globally. While there are more local Chinese and Korean hydraulic equipment manufacturers entering the market, a tightening supply-demand condition in the near term means that all manufacturers will likely reap the benefits of a robust demand, in our view. Apart from cylinders, valves in particular are technically difficult to manufacture. Hence, we see Japanese companies able to maintain their competitive edge over the medium term.

Basic structure of hydraulic excavators

Hydraulic excavators generally consist of eight parts: 1) hydraulic equipment; 2) engine; 3) electronic control system; 4) moving parts; 5) rotating parts; 6) digging parts; 7) body, and; 8) air conditioning systems. The electronic control system transmits the energy supplied by the engine to the moving and rotating parts, as well as the drilling parts, such as buckets, arms and booms, via the hydraulic equipment.

Exhibit 77. Structure and mechanism of hydraulic excavators



Source: Nomura research, based on Hitachi Construction Machinery

Exhibit 78. Main components of hydraulic excavators

Components	Functions	Products
(1) Hydraulic equipment	To transmit power to the different parts of the equipment	Hydraulic pumps, motors, valves, cylinders
(2) Engine	To generate power	Diesel or hybrid engines, generators, batteries
(3) Electronic control system	For control of hydraulic and mechanisation systems, precision control of processes, and to make effective use of energy	Measurement systems, CPU, memory devices, sensors, electromagnetic motors, opening/closing valves, hydraulic valves, pneumatic valves
(4) Mechanisation parts	To move and stop equipment	Sprockets, idlers, upper rollers, lower rollers, track rings
(5) Rotating parts	Rotational movement of digging components.	Rotary platforms, rotary bearings, rotary wheels
(6) Digging parts	Digging processes	Buckets, arms, booms
(7) Body	To cover steel frame and structural parts	Cab covers, engine covers, radiator covers etc
(8) Air conditioning system	To regulate the temperature inside the cab	Air conditioning systems

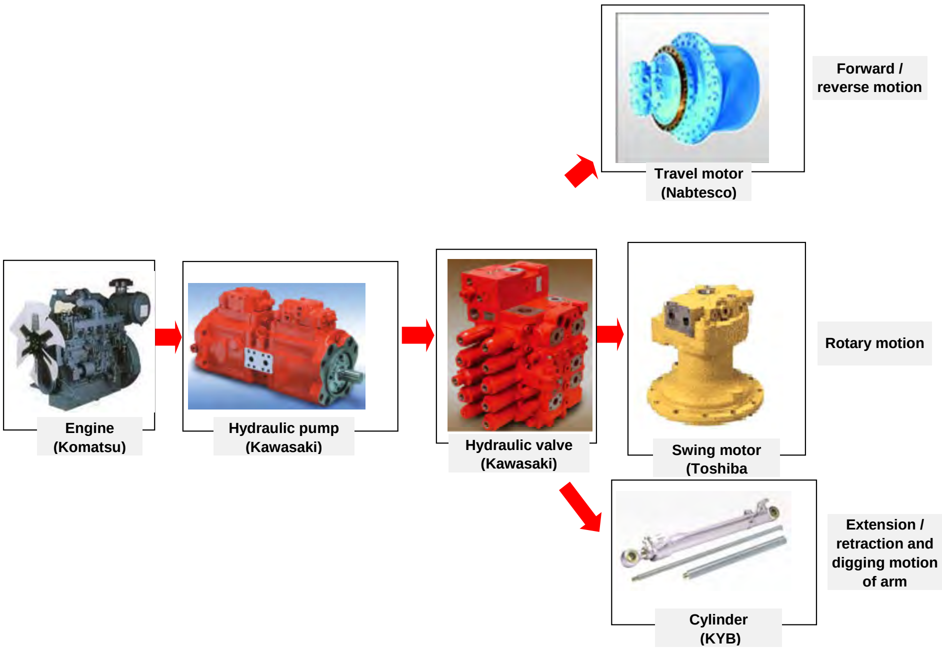
Source: Nomura research

Hydraulic equipment is technically demanding

Among the main constituent parts of hydraulic excavators, hydraulic equipment and engines are the most important. An optimum combination of engine and hydraulic equipment enables hydraulic excavators to achieve a high level of output and fuel efficiency. As a result, the requirements for component design and quality tend to be very exacting, and technical barriers to entry tend to be high. Currently, most hydraulic excavator components made in China are either made in-house or subcontracted to local Chinese manufacturers. For hydraulic equipment and engines, most components are sourced from Japanese, European, or US companies. It seems that Chinese companies rely particularly on Japanese companies for hydraulic equipment.

Since hydraulic excavators are used in processes such as digging that involves substantial power, they require a high level of output and need hydraulic equipment with a higher level of performance than wheel loaders. Hydraulic equipment, which is used to transform the energy generated by the engine into even greater power, mainly includes hydraulic pumps, valves, cylinders, travelling motors and rotary motors. When the equipment is being operated, using the power supplied by the engine, the pump draws up the hydraulic fluid stored in the hydraulic tank, and relays it via the valves to the cylinders, travelling motors and rotary motors. This makes it possible for the excavator to perform operations such as forward and reverse motion, reversing, rotation, and digging.

Exhibit 79. Hydraulic equipment controls the movement of hydraulic excavators



Source: Company data, Nomura research

The core components, hydraulic equipment and engines, are products with high value-added. For Japanese hydraulic excavator companies undertaking production in China, we estimate that engines account for around 15% of component costs, and hydraulic equipment around 25%, although there is some variation between their component costs structures. According to our checks, Komatsu exports around 40-50% of its value-added equipment from Japan, and Caterpillar around 40%, and in both cases we surmise that these exports correspond mostly to engines and hydraulic equipment. Local Chinese construction machinery manufacturers also appear to purchase most of their engines and hydraulic equipment either from the Chinese production bases of Japanese, European, and US manufacturers, or else from overseas.

Exhibit 80. Cost structure of hydraulic excavators

Cost structure	Component	% of costs	Suppliers
Engines	Engines	20	Cummins (US), Isuzu Motors (Japan), Hino Motors (Japan), Yanmar (Japan)
Hydraulic equipment	Hydraulic pumps, values, motors, cylinders	30	Kawasaki Heavy Industries (Japan), Nabtesco (Japan), Kayaba Industry (Japan), Toshiba Machine (Japan), Nachi-Fujikoshi (Japan), Bosh Rexroth (Germany), Dongyang Mechatronics (Korea), Tongmyung Industries (Korea), Jiangsu Hengli High-pressure Oil Cylinder (China)
Steel products	Body panels, buckets, booms, arms, etc	10	Japanese companies, some local Chinese companies
Other components	Control parts, rotary parts, cabs, electronic control systems, air conditioning systems	30	Japanese companies, some local Chinese companies
Labour costs, heating & lighting costs, other manufacturing costs	-	10	
Total		**100**	

Source: Nomura research

Hydraulic equipment makers

Local makes starting to emerge

We went to the Bauma China construction machinery exhibition in Shanghai in November 2010, and examined the engines and hydraulic equipment used by major companies in the Chinese hydraulic excavator market. We found that: 1) Komatsu is farther along than its competitors in terms of moving to in-house production of these parts, 2) non-Chinese companies, especially Japanese companies, are strong in this area with different companies specialising in different parts, and; 3) some local Chinese companies have started in-house manufacturing of relatively easy-to-produce hydraulic cylinders in a bid to remain competitive globally, and some local Chinese hydraulic equipment manufacturers have started to emerge.

Exhibit 81. Chinese hydraulic excavator market: parts procurement channels of major companies

		Japanese companies					
		Komatsu	Hitachi Construction Machinery	Kobelco Construction Machinery	North American companies	Korean companies	Chinese companies
Engines		In-house	Isuzu Motors (Japan), Cummins (US)	Yanmar (Japan), Isuzu Motors (Japan), Hino Motors (Japan)	In-house	Yanmar (Japan), Cummins (US), some in-house	Yanmar (Japan), Weichai (China), Yuchai (China), Isuzu Motors (Japan), Cummins (US)
Hydraulic equipment	Valves	In-house	KYB (Japan), Kawasaki Heavy Ind. (Japan), Toshiba Machine (Japan), some in-house	Kawasaki Heavy Industries (Japan)	Kawasaki Heavy Industries (Japan)	Kawasaki Heavy Industries (Japan), Bosch Rexroth (Germany), Tongmyung Industries (Korea), some in-house	Kawasaki Heavy Industries (Japan), KYB (Japan), Toshiba Machine (Japan)
	Pumps	In-house	KYB (Japan), some in-house	Kawasaki Heavy Ind. (Japan), Nabtesco (Japan)	Kawasaki Heavy Industries (Japan)		
	Motors (travel/swing)	Nabtesco (Japan), some in-house	Nachi-Fujikoshi (Japan)	KYB (Japan), Nabtesco (Japan)	Nabtesco (Japan)	Nabtesco (Japan), Tongmyung Industries (Korea), some in-house	Nabtesco (Japan), KYB (Japan)
	Cylinders	In-house	KYB (Japan)	KYB (Japan)	KYB (Japan)	Dongyang Mechatronics (Korea), some in-house	KYB (Japan), Jiangsu Hengli High-pressure Oil Cylinder (China), in-house

Source: Nomura research

Komatsu is strong here

We note that Komatsu now makes almost all of its engines and hydraulic equipment for hydraulic excavators in-house. Komatsu has been jointly developing diesel engines for hydraulic engines with Cummins of the US since 1998 and moving production in-house. Most of its engines for hydraulic excavators in China are manufactured at its Oyama plant in Japan, and most of its hydraulic equipment (except for travelling motors) is produced in Japan. Komatsu Hydraulics Manufacturing, a subsidiary in China, produces some of the cylinders in order to shorten delivery times and lower costs. Rotating and travelling motors are mainly procured from Nabtesco's Shanghai plant (which is 15% owned by Komatsu), but product design is done by Komatsu, and motors for large excavators are exported from its Osaka plant.

Japanese, European and US companies are strong in hydraulic equipment and engines, while different companies specialise in different parts. Engines for small excavators are made by local Chinese companies such as Weichai and Yuchai, while Yanmar is also strong in this area. Isuzu Motors, Hino Motors and Cummins are strong in engines for medium size/large excavators. Japanese companies have a strong presence in hydraulic equipment, with very strong positions in valves and pumps at Kawasaki Heavy Industries, travelling motors at Nabtesco, and cylinders at Kayaba Industry. Supported by a firm demand, hydraulic equipment makers apparently plan to increase production.

Exhibit 82. Characteristics of major hydraulic equipment makers

		Business fields					
				Motors			
Code	Company	Valves	Pumps	Travel	Swing	Cylinders	Comments
Japan							
7012	Kawasaki Heavy Industries	⊙	⊙	-	○	-	The top maker of hydraulic equipment, with an over-80% global share in hydraulic pumps
6268	Nabtesco	○	-	⊙	○	-	Estimated global share of around 30% (excluding mini excavators); strong in travelling motors
7242	Kayaba Industry	○	○	○	○	⊙	Strong in hydraulic cylinders; Hitachi Construction Machinery accounts for almost 30% of sales
6104	Toshiba Machine	○	-	-	○	-	In June 2010, formed alliance with both Yuchai of China and Korean company
6474	Nachi-Fujikoshi	○	○	○	○	-	Strong in products for mini excavators
Europe							
Unlisted	Bosh Rexroth	○	○	○	○	○	Like Japanese companies, able to supply virtually all types of hydraulic equipment
Korea							
013570 KS	Dongyang Mechatronics	-	-	-	-	○	Manufactures mainly hydraulic cylinders; supplies Korean and Chinese hydraulic excavator makers
Unlisted	Tongmyung Industries	-	○	○	○	-	Handles swiveling/travelling motors; supplies Korean hydraulic excavator makers
China							
Unlisted	Jiangsu Hengli Highpressure Oil Cylinder	-	-	-	-	○	Manufactures mainly hydraulic cylinders; supplies Chinese hydraulic excavator makers

Source: Nomura research

Kawasaki Precision does quite well in valves and pumps and it serves a broad client base in China

Kawasaki Precision Machinery, which runs the hydraulic equipment business at Kawasaki Heavy Industries, is one of the largest hydraulic equipment makers in Japan. Kawasaki Precision Machinery is particularly strong in valves and pumps, the heart of hydraulic excavators. We estimate that it has an almost 30% share of the global market for hydraulic valves, excluding in-house products. In China, the company's product quality and performance is well established. We estimate that about 40% of its customers are Japanese companies, 35% local Chinese companies, 15% Korean companies, and 10% other companies.

In Japan, Kawasaki Precision Machinery manufactures hydraulic pumps, valves, and motors at its Nishi-Kobe plant. It has a three-company structure in China, comprising two manufacturing and one sales company. In December 2005, it began production at a plant in Suzhou (Jiangsu province), and in October 2009 it tied up with Zhejiang Chunhui Industrial Group in the launch of the Zhejiang plant (Zhejiang province), creating a local production structure for hydraulic pumps and rotating motors.

Order receipts have risen sharply lately, in response to which Kawasaki Precision Machinery plans to open a new plant in China in October 2011 and to boost production capacity at existing plants. Accordingly, we expect local production capacity for hydraulic pumps to increase by about 40% (60,000 units annually) and for hydraulic valves by about 120% (20,000). In Japan, demand has grown strongly at its Nishi-Kobe plant, so the company plans to increase production and fill orders by upgrading production equipment.

Exhibit 83. Major hydraulic equipment makers' forecasts for FY10 sales

	Kawasaki Heavy Industries [7012]	Nabtesco [6268]	Kayaba Industry [7242]	Toshiba Machine [6104]	Nachi-Fujikoshi [6474]
11/3E sales	1,284,000	162,500	318,000	91,700	133,500
Hydraulic equipment (for construction machinery)	110,000	42,000	107,000	10,500	8,000
As % of total	9	26	34	11	6
Sales					
Valves	33,000	4,000	27,000	5,000	800
Pumps	33,000	-	4,000	1,000	2,400
Motors (travel/swing)	22,000	38,000	23,000	4,000	3,200
Cylinders	-	-	52,000	-	-
Other	22,000	-	1,000	500	1,600
As % of sales					
Valves	30	10	25	50	10
Pumps	30	0	4	10	30
Motors (travel/swing)	20	90	22	40	40
Cylinders	0	0	49	0	0
Other	20	0	0	0	20

Note: (1) Figures based on company interviews and The Heavy & Chemical Industries News Agency's "Fluid Power Industry Overview 2010" (2) Kayaba Industry, Nachi-Fujikoshi and overseas companies' sales figures for FY10 include some estimates by Nomura based on company forecasts.

Source: Nomura research

Kayaba Industry also a major manufacturer of hydraulic equipment

Kayaba Industry is a major manufacturer of hydraulic equipment on par with Kawasaki Heavy Industries. Kayaba Industry is particularly strong in hydraulic cylinders, a market where we estimate it has a global share of 40%. In Japan, the company produces hydraulic cylinders at its Gifu-Minami plant and pumps and motors at its Sagami plant. In China, Kayaba Industry built a cylinder plant in Zhenjiang (Jiangsu province) in February 2004. The company supplies hydraulic equipment to Hitachi Construction Machinery, Caterpillar, Kobelco Construction Machinery and Sumitomo Heavy Industries, among other Japanese, European, and US companies, as well as local Chinese companies. Kayaba Industry plans to increase production at its plants in Japan and China to meet growing demand.

Nabtesco accomplished in travelling motors

In travelling motors, we estimate that Nabtesco has around 30% of the global market and around 40% of the Japanese market. In Japan, the company produces hydraulic valves and motors at its Tarui plant. It also produces motors at its Shanghai plant, which is 15% owned by Komatsu. Nabtesco has a broad base of customers, including roughly half (20 or so) of all the hydraulic excavator makers with operations in China, such as Doosan Infracore, Kobelco Construction Machinery, SANY Heavy Industry, and Lonking. We estimate that at its Shanghai plant, about 50% of sales are to Japanese companies, 40% to local Chinese companies, 5% to Korean companies and 5% to other companies. Nabtesco recently reached full-scale operations at a new plant completed in 2009.

Third, in the Chinese hydraulic excavator market, some local Chinese companies have started to manufacture relatively easy-to-produce in-house hydraulic cylinders in a bid to remain internationally competitive, and some local Chinese and Korean hydraulic equipment manufacturers have started to emerge. Apart from cylinders, valves in particular are technically difficult to manufacture, suggesting Japanese companies will maintain their edge over the medium term.

SANY Heavy Industry is a major hydraulic excavator maker in China. It established ZTE Hydraulic Parts as a subsidiary in Loudi, Hunan Province in 2005, where it makes cylinders for its own products, such as concrete pumps and hydraulic excavators. About 60% of the cylinders in its hydraulic excavators are made in-house, and it also supplies them for hydraulic excavators up to 40t. We estimate that its sales in FY10F will be around RMB1bn. In 2011, the company plans to raise the ratio of in-house production of cylinders while also considering external sales. Lonking, a major Chinese construction machinery maker, has also begun to produce cylinders in-house.

ZTE Hydraulic Parts a subsidiary of SANY Heavy's

Local Chinese hydraulic equipment makers that also offer cylinders have begun to emerge. Jiangsu Hengli Highpressure Oil Cylinder is a local Chinese maker of hydraulic equipment that was founded in 2005 and sells cylinders to hydraulic excavator makers in China. Its plant uses many machine tools produced by Doosan Infracore.

We estimate that Jiangsu Hengli Highpressure Oil Cylinder's prices are about 10% lower than those of Japanese companies, and sales volume is around 200,000 cylinders for 6-80t hydraulic excavators. On this basis, we estimate that FY10F sales will be about RMB1.1bn (RMB820mn as of Jan-Sep 2010). The company has been building a new plant (annual capacity of 500,000) in Changzhou since June 2009, and plans to start operating it in May 2011.

Local Chinese companies are able to manufacture cylinders at an earlier stage than other hydraulic equipment because they are easier to manufacture than other kinds of hydraulic equipment. Hydraulic cylinders are made by machine tooling piston rods and cylinder tubes, and welding and assembling these parts together. The production process requires polishing, welding, and sealing technologies, but cylinders are relatively easy to produce with precision if the latest in production equipment is used.

Valves require complicated machine tools

On the other hand, valves are cast from moulds, so materials technology and know-how is a prerequisite. Their structures are complex, and greater precision is required than for cylinders, necessitating a higher degree of analog knowledge, such as in advanced moulding technology. When we visited SANY Heavy Industry, management commented that it would take at least two to three years before it could start to produce valves in-house.

In order of difficulty in manufacturing, we think valves are the most difficult, followed by pumps, motors, and cylinders. Hence, we think that Kawasaki Heavy Industries, Toshiba Machine, and Nabtesco, all of which have a high ratio of hydraulic valve, pump and motor sales, will be able to keep their competitiveness over the medium term. With cylinders, too, we do not expect competition to intensify in the near term bearing in mind the prospects of a robust demand. We, therefore, think the near-term earnings of hydraulic equipment makers will depend largely on their production capacity, or how much they can make to meet their demand.

After-market service and parts sales: the key to long-term sustainable success

Maintenance contracts are longer-term sources of revenue

For construction machinery companies, services such as parts and maintenance are not only critical for users, but also could be another cash cow for construction machinery manufacturers. In China, compared with wheel loaders, from the nature of longer life cycle and rapid increase in stock units, we see potential for parts and maintenance sales.

Typically, for hydraulic excavators, their annual parts and maintenance sales could be 10% of the machine's selling price. The major consumables for hydraulic excavators are filters and parts associated with the bucket. Exchange for filters will depend on the working hours of the excavator and for parts associated with the bucket, it is determined based on length of use of excavators and where they are used. By using genuine parts from a typical Japanese hydraulic excavator manufacturer, and assuming annual working hours of 2,000, we estimate the annual consumable cost would be RMB80,000, equivalent to 8% of a typical 20t excavator selling price from a Japanese company, on our numbers.

Exhibit 84. Main consumables for an hydraulic excavator

	Life cycle (hr)	Unit price (RMB)	Annual cost (RMB)
Filter	1,000	700	1,400
Hydraulic	500	1,200	4,800
Air Fuel	250	100	800
Engine Oil	250	100	800
Bucket			
Body	5,000	20,000	8,000
Tooth	600	14,000	46,700
Others	5,000	50,000	20,000
Total			**82,500**

Note: Assumed the annual working hour would be 2,000

Source: Nomura research

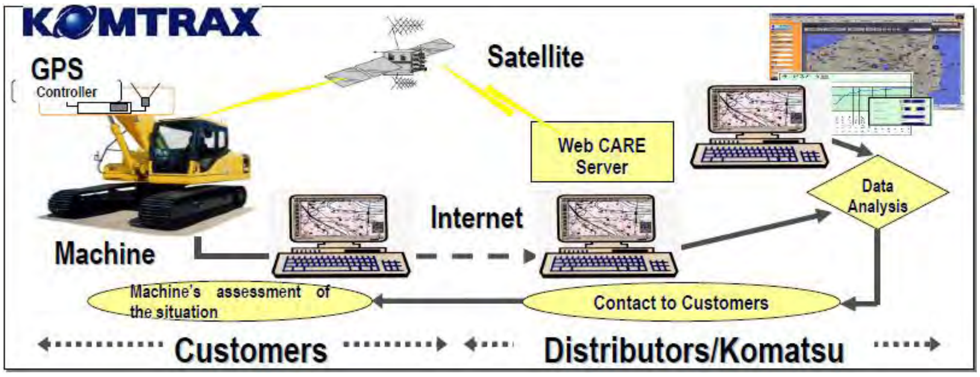
Komatsu has already started to strengthen its parts and maintenance sales. In FY09, parts and maintenance sales accounted for 21% of its global construction machinery sales, whereas in China, it was only 5%, on our estimates. Komatsu has some outstanding service networks, but due to the high prices of their branded parts, the sales composition of parts and maintenance is low. Therefore, Komatsu is planning to enhance its personnel training programmes for service employees and is adopting promotions, prolonging the duration of free engine warranty under the condition that clients use genuine consumables.

Concrete pump trucks require sound logistics

SANY Heavy Industry is also enhancing its services. Its hydraulic excavator division is growing rapidly, and it is the market leader in the truck-mounted concrete pump market, in terms of service quality. Truck-mounted concrete pumps are used to pump concrete cement into high buildings from a concrete mixer, and it requires timely, robust services, since delays could cause the concrete to solidify in the machine, making the machine unusable. In our opinion, the experience gained from the concrete pump truck segment is likely to make parts and maintenance sales SANY's new cash cow.

Another key factor to Komatsu's success is its application of information technologies (IT). Since 2004, Komatsu has been equipping its products with the Komtrax system for monitoring construction machinery usage with sensors and GPS. The system enables Komatsu to monitor equipment operating rates and use the data to flexibly adjust production plans. Sales volumes during the annual sales campaigns immediately after the Chinese New Year holidays can fluctuate sharply and have a major impact on annual sales. In addition, the ability of Komtrax to shut down engines remotely when customers fall into arrears on payments is a useful means of credit management. The company is also upgrading the IT capabilities of its sales agents and sales staff. By strengthening ties with its customers and dealers, the company is raising business efficiency and speeding up the decision-making process.

Exhibit 85. Komatsu's Komtrax system for monitoring construction machinery usage via the Internet



Source: Nomura research, Company data

Profitability analysis

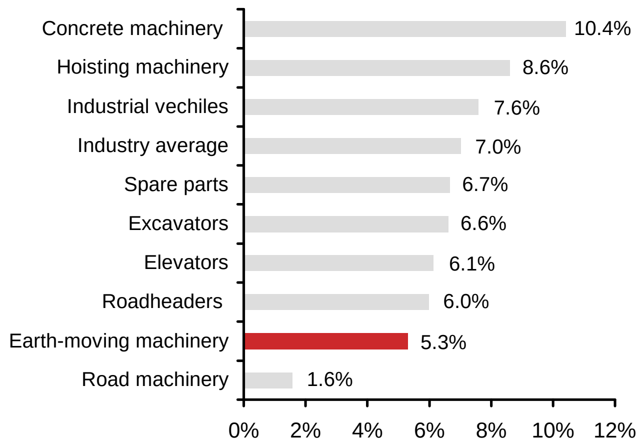
The profitability shown below is an arithmetic average of domestic construction manufacturers. For the excavator segment, as most Chinese manufacturers concentrate on low-end products, we believe the net profit margin of 6.6% in 2008 is significantly under estimating the industry profitability if all global manufacturers are included.

Industry profitability has a wide range; the low-end players are having a rough go

We believe the profitability of industry players diverges quite a bit. High-end producers enjoy above-average profitability due to strong demand, limited competition and premium pricing in China, while low-end local manufacturers, except for SANY, are struggling to improve profitability due to severe competition, heavy upfront investment and limited economies of scale.

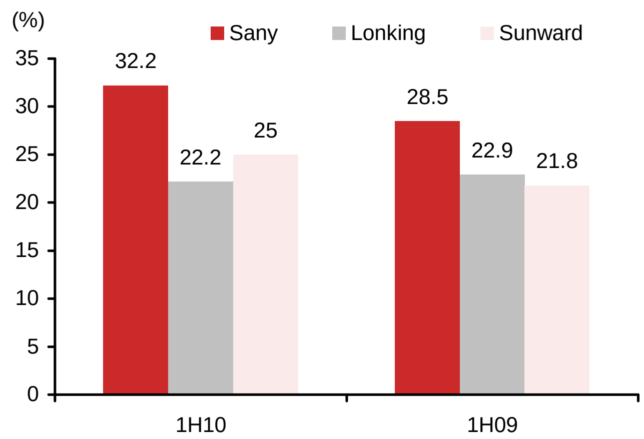
Among the local players under coverage, SANY has the highest margins. In 1H10, Lonking's gross margin was 22.2%, lagging SANY's 32.2%, which we attribute to: 1) Long's products, which are skewed to lower-end ones; 2) lower selling prices compared with SANY's, and; 3) weaker economies of scale. We believe global leading manufacturers, such as Komatsu, Hitachi and CAT, are likely to have a similar profitability level as SANY.

Exhibit 86. Segment net margin comparison (2008)



Source: CCMA, Nomura research

Exhibit 87. Company gross margin comparison



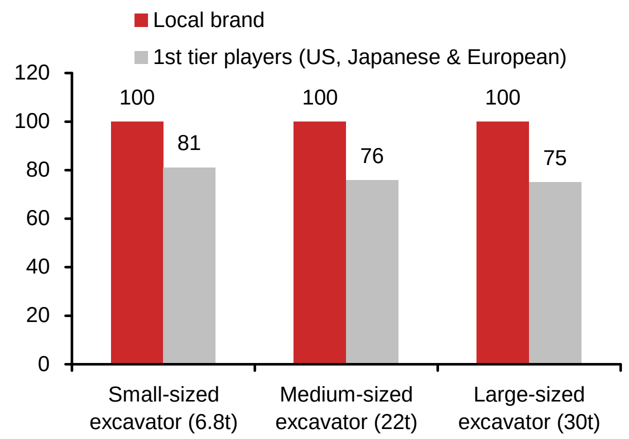
Note: Lonking 1H09 proxy with FY09. Source: Company data, Nomura research

Nowadays, a significant proportion of local excavator vendors' components, such as hydraulics and engines, will need to be outsourced from overseas suppliers. This reliance on imported parts has created tremendous difficulties on managing logistics and product schedules. It has also pushed up manufacturing costs. We observe that almost all major local vendors in China are investing heavily in R&Ds, aiming to self-product their hydraulic parts. Furthermore, a number of local component suppliers, including Weichai, are in the process of developing various key components. Any major progress achieved in localising these components will present significant potential upside for the local players, in our view. Our sensitivity analysis shows that should the engine and imported hydraulics prices trend down by 10%, our current gross margin estimate for Lonking's excavator business would widen by 2%.

Never mind the cost, relying on imported components makes it hard to run a business

On the pricing side, given the current pricing disparity between various groups of players, we believe local players still have substantial room for ASP improvement. Our study reveals that every 3% ASP increase will expand our current gross margin for Lonking's excavator segment by around 2%.

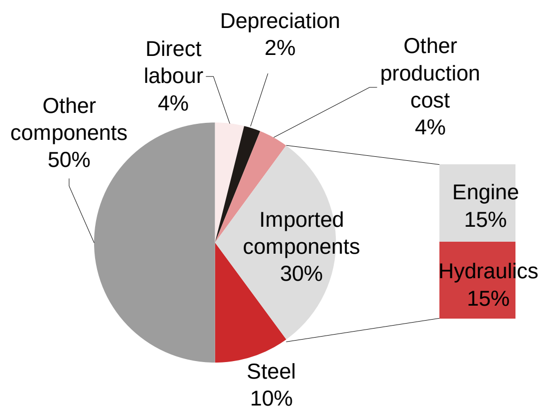
Exhibit 88. ASP comparison: Local & 1st tier players



Note: ASP for first-tier players rebased to 100

Source: Nomura research

Exhibit 89. Cost structure of a typical local brand excavator



Source: Company data, Nomura research

Segment insights

Concrete machinery: cementing a bright future

We see this as an RMB50bn-plus market in China

Concrete machinery is one of the largest construction machinery segments by sales value. We estimate that the total market size of the Chinese concrete machinery market reached RMB35bn in 2009, and expect it to exceed RMB51bn in 2010F. Over the past decade, total concrete machinery sales have shown strong growth, with a sales volume CAGR of 31.5% over 2000-09. We expect the segment to grow 20% y-y in 2011F, with total industry sales to exceed RMB60bn. SANY and Zoomlion are the two leading manufacturers in this segment; they together had over a 55% market share in 2009 in term of sales revenue.

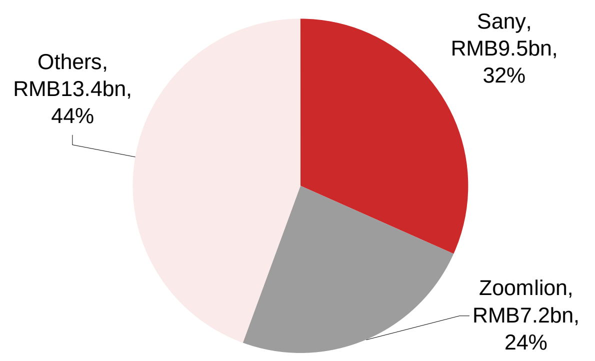
SANY and Zoomlion the leading Chinese players

Within China's concrete machinery space, we believe SANY and Zoomlion, which possess the most complete product line-ups, stand to be the leading players, with total sales of concrete machinery reaching RMB11.5bn and RMB8.5bn, respectively, in 2009. SANY has managed to stay slightly ahead of Zoomlion in terms of sales value, due largely to better sales of truck-mounted concrete pumps and larger market share in stationary concrete pumps, in our opinion. The two mainstays' leading positions are particularly prominent in the truck-mounted pump segment. Our channel checks show that SANY and Zoomlion would have accounted for nearly a combined 80% of total truck-mounted concrete pumps sales in 2010 to-date, shaping a quasi-monopoly competitive landscape.

The stationary pump market is dominated by SANY and Zoomlion as well, with the two put together contributing nearly 58% of total sales in 2008. Shanghai Hold took third place with a 6.7% market share. The concrete-mixing truck market is more fragmented compared with other segments. A-share listed Anhui Xingma stands to be the biggest player in this field, in our view, as it held a 9.2% market share in 2008, followed by SANY and Zoomlion, each taking around a 12% market share. Liebherr, the only meaningful foreign player in this segment, managed to edge into the top-five list in 2008 with a 7.1% market share.

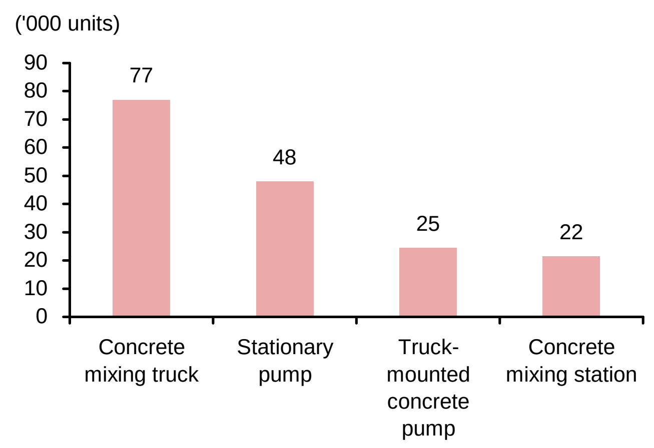
Within the sub-segments, the magnitude of growth varies. Truck-mounted concrete pumps delivered the highest growth rate, with a CAGR of 47% over 2002-2009 due mainly to: 1) low base effect; 2) successful localisation by SANY and Zoomlion, and; 3) substitution for stationary concrete pumps. Concrete mixing stations saw a CAGR of 37% during the same period, followed by concrete mixing truck (30%), and stationary concrete pumps (11%).

Exhibit 90. China concrete machinery market (09)



Source: Nomura estimates

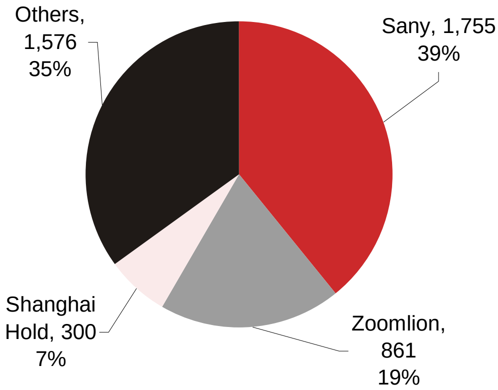
Exhibit 91. Ownership of concrete machineries (09)



Note: Truck-mounted concrete pump ASP: RMB3-5mn; Stationary concrete pump ASP: RMB400-600k; Concrete-mixing trucks ASP: RMB300-500k.

Source: CEIC, Nomura research

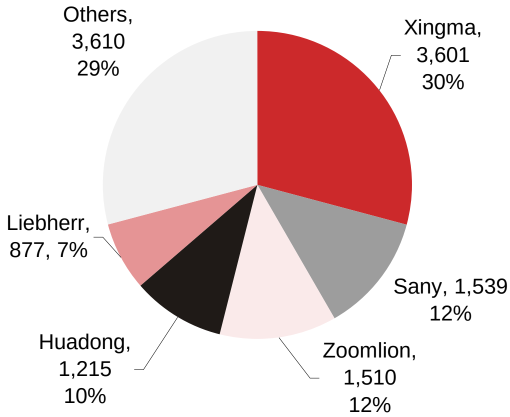
Exhibit 92. China stationary pumps market share (2008)



Note: by sales units.

Source: CCMA, Nomura research

Exhibit 93. China concrete-mixing trucks market share (2008)



Source: CCMA, Nomura research

Growth drivers: property, infrastructure, and mechanisation rate

Pump-mounted concrete truck market evenly split between property demand and infrastructure

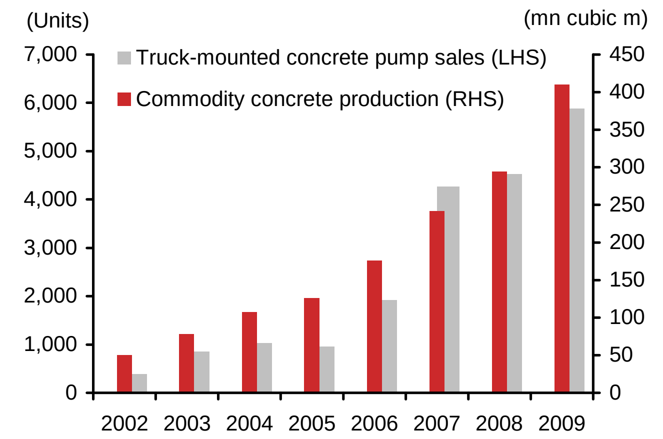
Our channel checks reveal that procurement demand for truck-mounted concrete pumps this year is almost a 50:50 split between property development and infrastructure construction, notably high-speed-rail construction. In light of the particularly strong infrastructure-related demand this year, we highlight that property development would have captured an even larger proportion of total concrete machinery sales in normal years.

At the same time, we believe an improved mechanisation rate (the increasing usage of commodity concrete) is another positive factor; it has magnified the growth pace of concrete machinery sales over the few years.

Mixing on site is polluting and troublesome

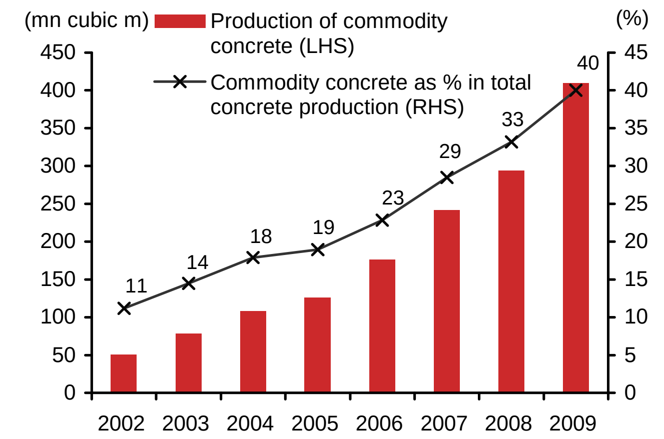
Concrete can be produced by two ways: mixing on-site or readily mixed off-site, and only the latter requires the usage of concrete machinery. Prior to 2003, as ready-mix concrete was more costly than on-site-mixing concrete, commodity concrete was rarely used in property construction. We estimate just 11% of total concrete used was ready mixed until 2002. Mixing on site is neither efficient nor environmental friendly, as it produces large amounts of dust. As such, the Chinese government issued a regulation in 2003, prohibiting on-site-mixing of concrete in 124 major cities. Since then, this regulation has been introduced to more than 300 cities by local governments. Meanwhile, the value and convenience of commodity concrete have been gradually recognised by constructors in China, as the governments step up the implementation of the “on-site prohibited” regulation. Consequently, commodity concrete has become increasingly prevalent in China, triggering growing demand for the associated concrete machinery.

Exhibit 94. Commodity concrete production vs truck-mounted concrete pump sales



Source: CCMA, CEIC, Nomura research

Exhibit 95. Increasing usage of commodity concrete



Source: CEIC, Nomura research

Industry growth forecasts

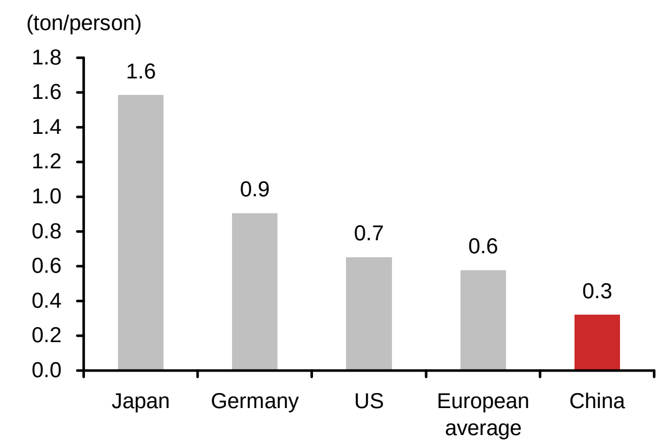
Bullish on concrete machinery

In our view, 2010 is likely to be a record year for concrete machinery sales, as SANY and Zoomlion achieved 100%-plus y-y growth in 1H10. We maintain our Bullish stance on concrete machinery companies for the medium to long term, due to:

- Continued rise in the usage of commodity concrete. The average consumption of commodity concrete is 0.3 tonne / person in China, compared to 1.6 tonne / person in Japan and 0.7 tonne / person in the US, according to China Cement and Concrete Web. Moreover, although the “on-site-mixing prohibiting” policy has been implemented for years, it has not yet been introduced or strictly implemented in most third- and fourth-tier cities, notably in central and western China. These all imply significant potential upside for commodity concrete and concrete machinery companies in China.
- Rapid urbanisation in China is creating huge demand for housing, and the accompanying demand for civic infrastructure works.

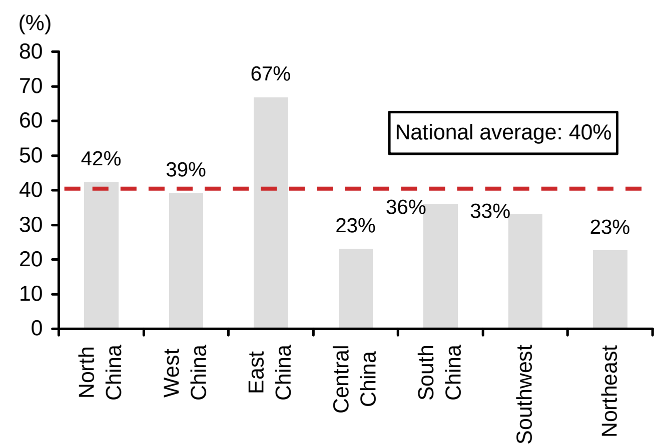
However, for 2011F, we estimate the annual growth of concrete machinery sales will slow to around 20%, against the high base this year and a slowdown in infrastructure construction projects. Yet, it will still outpace most of other sub-segments, as we estimate the commodity concrete ratio and exposure to property construction will remain high in 2011F.

Exhibit 96. Avg. annual consumption of commodity concrete



Source: China Cement and Concrete Web, Nomura research

Exhibit 97. Regional commodity concrete ratios

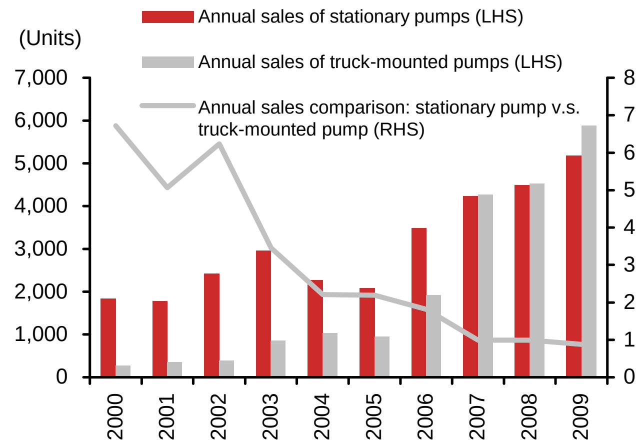


Source: China Cement and Concrete Web, Nomura research

Upgrading product mix

Stationary pumps and truck-mounted pumps are the two major types of concrete-pouring machinery, and could act as a substitute for each other. Sold at much higher prices, truck-mounted pumps feature twice-higher working efficiency, much greater mobility, and lower difficulty for set-up than stationary pumps, and thus have been regarded as an upgraded version for the traditional stationary pump. We note that the truck-mounted pump has been rapidly gaining share from the stationary pump over the past one decade, due mainly to: 1) rising affordability of Chinese machinery uses, and; 2) a downward pricing trend owing to local players' remarkable success venturing into this segment. With relatively high ASP and strong purchase demand, the truck-mounted concrete pump has grown to be the largest sub-segment of concrete machinery in China in terms of annual sales value. We believe this upgrade is likely to continue on growing demand for working efficiency and rising purchasing power.

Exhibit 98. Truck-mounted concrete pump gains ground



Source: CCMA, Nomura research

Exhibit 99. Truck-mounted vs stationary concrete pump comparison

	Truck-mounted concrete pump	Stationary concrete pump
Mobility	High	Low
Difficulty for set-up	Low	High
Pumping efficiency	80-170 (cubic m / h)	30-100 (cubic m / h)
Scope of reach	30-72m (depending on arm length)	< 600m
ASP (RMB1,000)	3,000-5,000	400-600

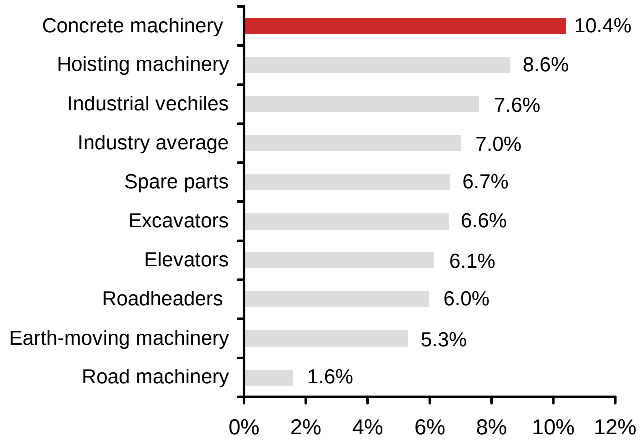
Source: CCMA, Nomura research

Profitability analysis

This is the most profitable part of the local construction machinery market

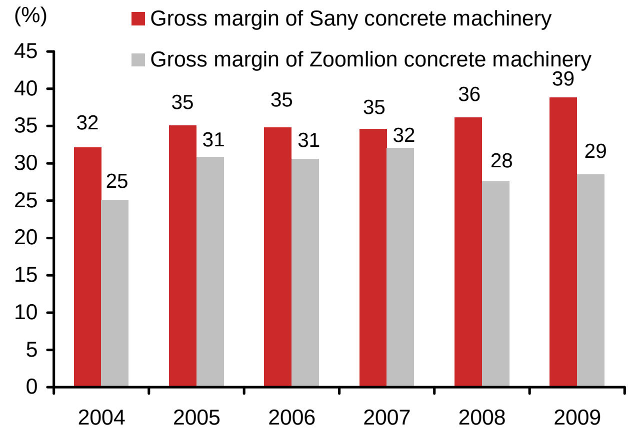
Due largely to relatively high industry concentration, the concrete machinery segment has enjoyed the highest profitability across all segments in China's construction machinery industry, with segment net margin hitting 10.4% in 2008. Industry leaders, SANY and Zoomlion, have also managed to achieve impressive margin profiles, backed by their dominant positions. The gross margin of SANY's concrete machinery business has been on an uptrend since FY04, owing to its improved product quality and successful marketing. On the other hand, after four years of expansion, Zoomlion's gross margin for concrete machinery dropped to 28% in 2008, and stayed flat in 2009, which we believe could partially be explained by the sudden jump in its depreciation costs associated with new plant construction.

Exhibit 100. Segment net margin comparison (2008)



Source: CCMA, Nomura research

Exhibit 101. Company profitability comparison



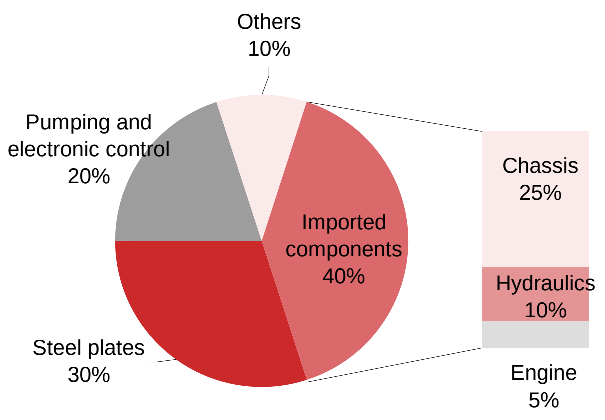
Source: Company data, Nomura research

Local sourcing would boost margins

On the cost side, we note that despite the great strides local vendors have made, imported components still capture about 40% of total manufacturing costs for a typical truck-mounted concrete pump that SANY or Zoomlion makes. We observe that the local vendors are already trying to use self-made or domestically outsourced chassis for their truck-mounted pumps. The localisation efforts of these components are likely to provide potential upside for any margin expansion in the future, in our view.

On the pricing side, we believe the ASP for local vendors' truck-mounted pumps still have room to rise, given a 20-40% price discount to the foreign vendors, such as Putzmeister and Schwing. If this materialises, it will also help lift the gross margins of the local players, in our view. However, we highlight that the ramp-up of any potential new entrants will also exert downward pressure on pricing, and ultimately the margin profile of the entire industry.

Exhibit 102. Cost structure of truck-mounted pumps (2009)



Source: Company data, Nomura research

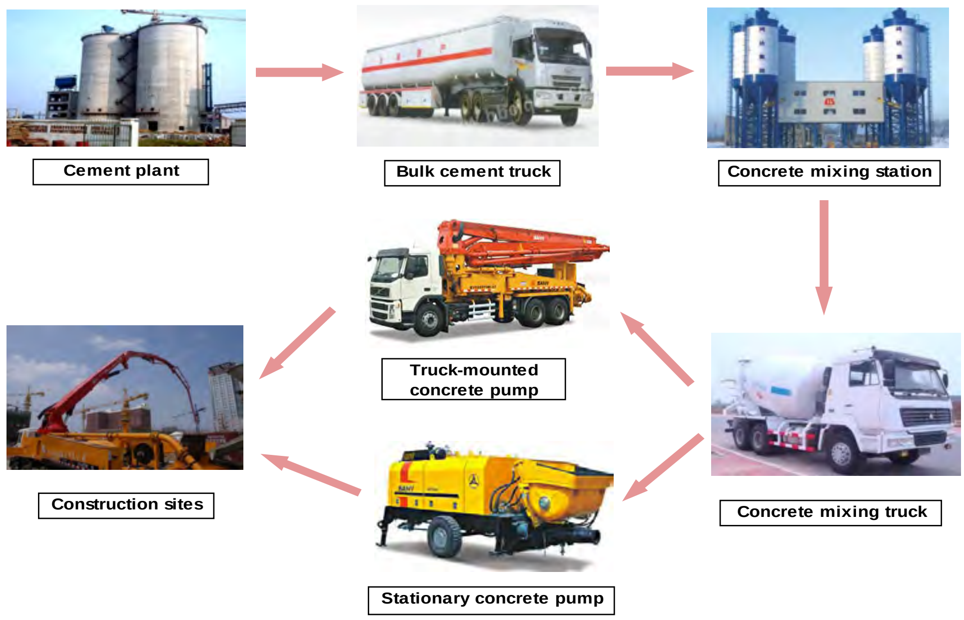
Exhibit 103. Composition of truck-mounted pumps

Source: Nomura research

Technical: Concrete machinery

Concrete machinery refers to equipment used by the entire chain of concrete (ready-mix) production, transportation, and pumping. The full range of concrete machinery typically includes: 1) bulk cement trucks, which transport bulk cement from cement plants to concrete mixing station; 2) concrete mixing stations, which convert bulk cement into commodity concrete; 3) concrete mixing trucks, which preserve the produced concrete and transport it to construction sites, and; 4) truck-mounted concrete pumps and stationary concrete pump, which pour concrete into the foundation of construction works.

Exhibit 104. Product spectrum of construction machinery



Source: Nomura research

Segment insights

Construction crane: lifting to new heights

According to the China Construction Machinery Association, the total size of China's construction cranes market reached RMB31bn in 2009, while we estimate it will surpass RMB40bn in 2010F. The sales value of the China crane industry has recorded a CAGR of 35% over the past six years, on robust sales volume growth in various sub-segments, upgrading product mix and improving ASP.

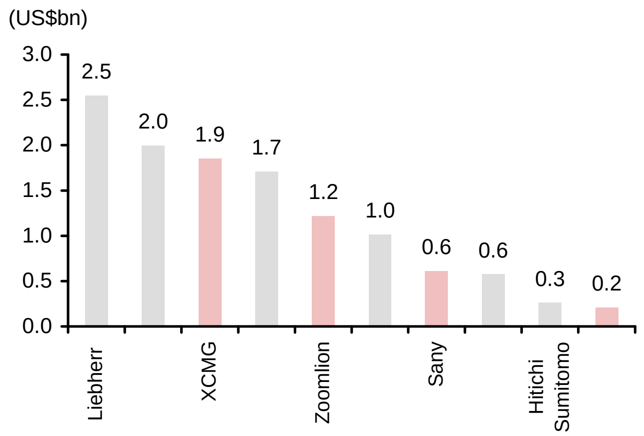
As China emerges as one of the largest markets for construction cranes, Chinese crane makers have also grown to be an influential force in the international arena. The Chinese vendors took four spots in the 2010 global top-10 crane maker ranking, while XCMG overtook Terex and edged into the global top-3 list for the first time in history.

In terms of revenue, XCMG has been the dominating player in China's construction crane sector, capturing a 40% market share in 2009. Backed by complete product line-ups and strength in truck crane, Zoomlion took the second place, holding a 26% market share in 2009. Entering the crane space in 2004, SANY Heavy has since ramped up rapidly, especially in the crawler crane sub-sector, with a 13% market share gained in 2009. The top-three China crane makers accounted for a combined market share of 79% in 2009, indicating a fairly concentrated market structure.

Truck cranes have been a dominant sub-segment in China's construction crane market, accounting for nearly 80% of total mobile crane sales. We believe this is mainly attributed to: 1) the truck crane's wide range of loading capacity, which can handle most hoisting jobs in China; 2) the rental business, which is a major customer base for construction cranes in China, and generally has higher requirements for cranes' mobility, and; 3) compared to all-terrain crane and large-tonnage crawler crane, the truck crane is more affordable for Chinese customers.

In the truck crane segment, XCMG has been the undisputed leader, holding a 57.2% share in 2009, followed by Zoomlion, which took a 23% share. However, XCMG's monopoly in this segment seems to have been challenged, as in the first ten months of 2010 it lost a 6.4% market share. The crawler crane segment is more fragmented, with four major players (Fuwa, SANY, XCMG, and Zoomlion) battling to split the share. SANY and XCMG have proven to be the biggest winners in 2010, climbing up to No.1 and No.2 positions, respectively in the first 10 months of 2010. The truck-mounted crane segment is also led by XCMG, which held a 46% market share in 2008, while Zoomlion merely managed to grab a 5% share in the same year.

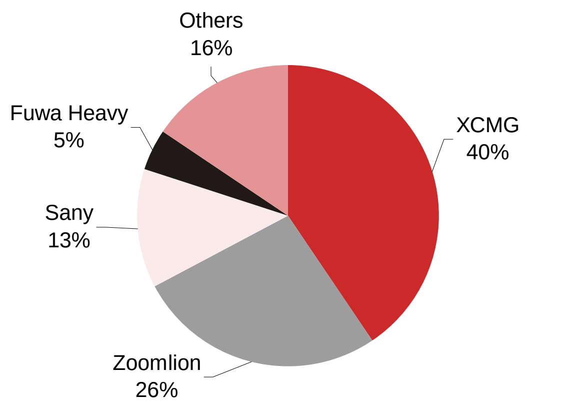
Exhibit 105. Global crane maker ranking (2010)



Note: Ranking based on FY09 revenue.

Source: CCM360.com, Nomura research

Exhibit 106. China construction crane market (2009)



Note: by sales value.

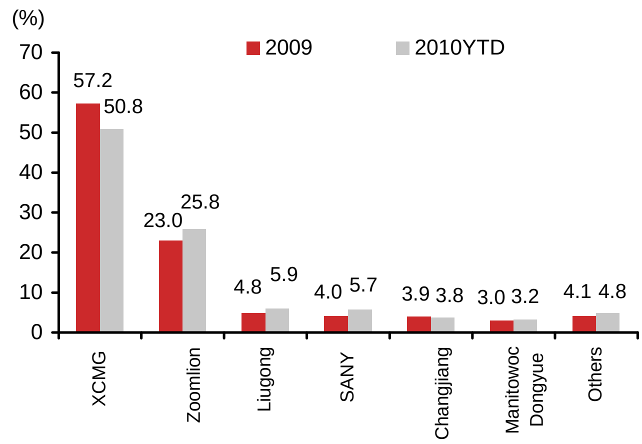
Source: Company data, Nomura research

Exhibit 107. Product line-ups of the four major players

	XCMG	Zoomlion	SANY	Fuwa
Truck crane	✓	✓	✓	✓
All-terrain crane	✓	✓	✓	✓
Crawler crane	✓	✓	✓	✓
Truck-mounted crane	✓	✓		
Tower crane	✓	✓		

Source: Company data, Nomura research

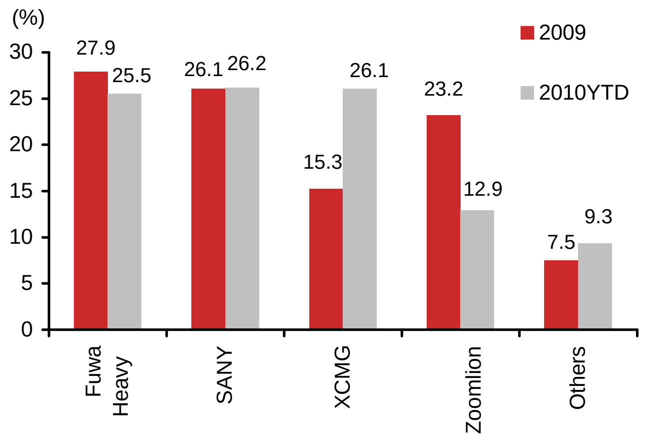
Exhibit 108. China truck crane market share change



Note: by sales volume

Source: CCMA, Nomura research

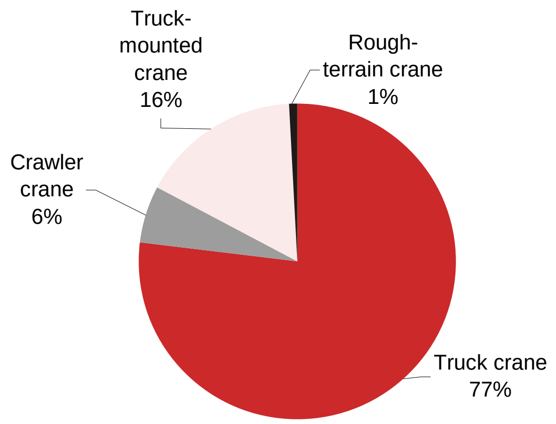
Exhibit 109. China crawler crane market share change



Note: by sales volume;

Source: CCMA, Nomura research

Exhibit 110. China truck-mounted crane market (2008)



Source: CCMA, Nomura research

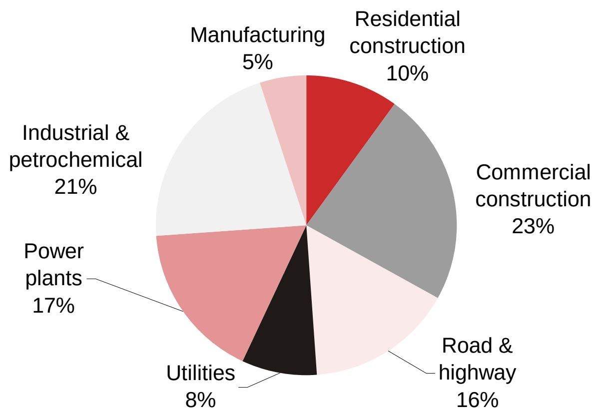
Growth driver: industrials & energy capex, infrastructure and property investment

Procurement demand for Manitowoc (the largest crane maker globally) primarily comes from three major sources: 1) property development; 2) infrastructure, and; 3) energy and industrial projects, which contributed 33%, 16%, and 51%, respectively, of total crane sales in 2009.

We believe the Chinese crane market faces the same demand sources, but sees different distributions among various sources. Our channel checks reveal that property and infrastructure constructions have been the primary contributor of truck crane sales in China. Largely affected by the ups and downs of the property market, truck crane sales hit a trough in 2005, and bounced back in 2006 and 2007; impacts of infrastructure construction become increasingly prominent post-2008, when the economy was affected by the global financial crisis, and the Chinese governments launched a RMB4bn stimulus package with a key focus on infrastructure build-out. Industrial and energy projects, on the other hand, have contributed much less to truck crane sales in recent years, as the construction of new thermal-power plants stalls on overcapacity concerns and capex investments in petrochemical processing slow down.

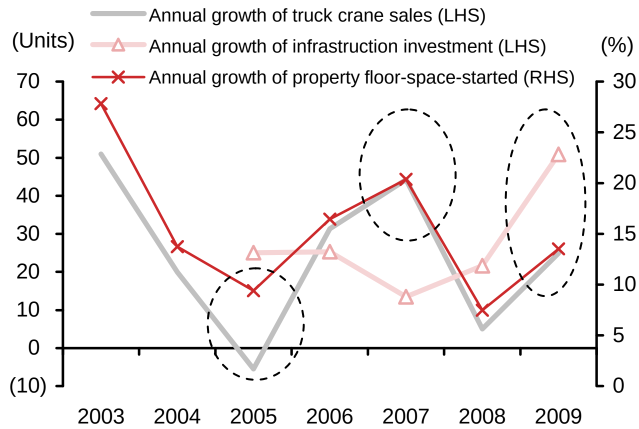
However, we note that as China's industrialisation process moves on, and as the investment boom of infrastructure recedes, procurement orders from industrial and energy projects will gradually rise in total crane sales. As referenced to Manitowoc's global demand distribution, we estimate industrial & energy, infrastructure and property construction will each contribute one-third of China's crane sales in the next few years.

Exhibit 111. Demand distribution for Manitowoc (2009)



Source: Company data, Nomura research

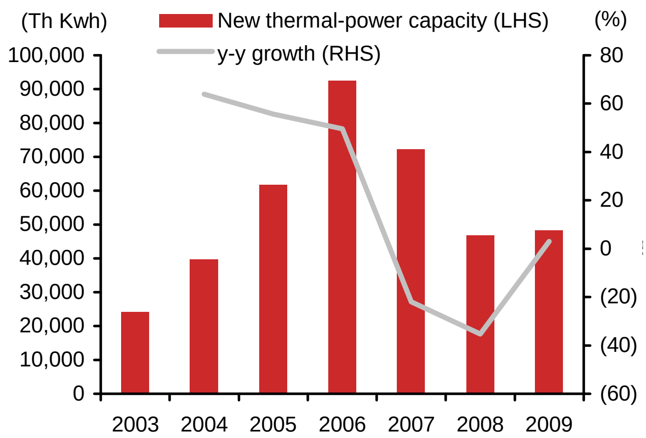
Exhibit 112. Demand sources for cranes in China



Note: infrastructure investment proxies as railway FAI + highway FAI + urban transportation FAI.

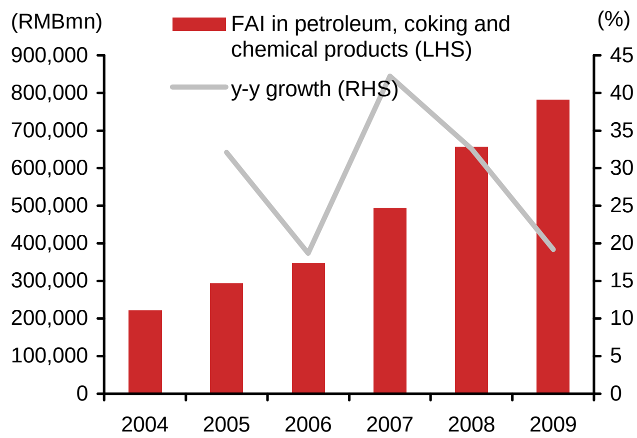
Source: CCMA, CEIC, Nomura research;

Exhibit 113. New addition of thermal-power capacity



Source: CEIC, Nomura research

Exhibit 114. FAI in petroleum, coking and chemicals



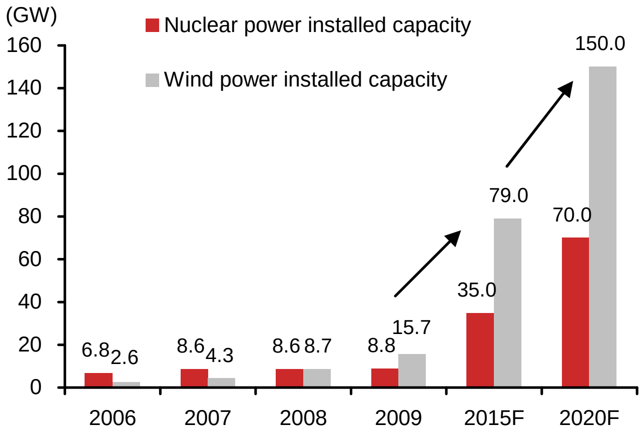
Source: CEIC, Nomura research

Industry growth forecasts

Driven by massive commencement of new infrastructure and property projects, the domestic sales of construction crane has posted very strong growth in 2010 to-date, with truck crane and crawler crane sales volume up by 32% y-y and 56% y-y, respectively. Looking ahead, we are of the view that China's construction crane segment will deliver stable positive growth in the mid-long term, with increasing contributions from industrial and energy projects as the ongoing infrastructure investment book peaks out. China aims to expand its installed capacity of wind power and nuclear power by almost 10x in 10 years, which will unleash a significant demand for construction cranes, notably large-tonnage cranes, in our view. By sub-segment-, we're more optimistic on all-terrain cranes and crawler cranes rather than truck cranes, on the product upgrading trend.

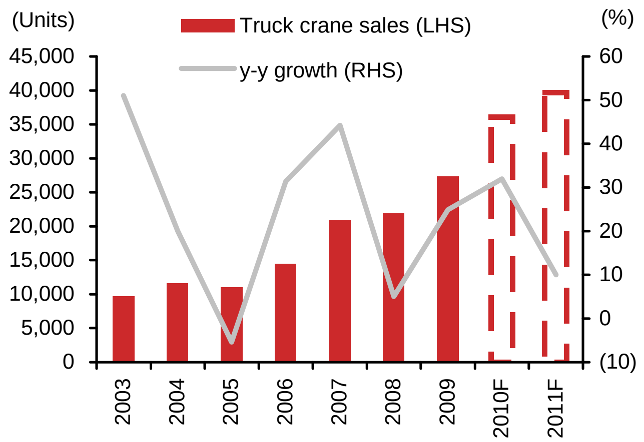
Nevertheless, similar to concrete machinery, we remain concerned on the segment outlook for 2011F, due to the estimated weaker demand from infrastructure projects and a high base this year. For the truck crane sub-segment, we forecast a 30% y-y increase in 2010F and 10% annual growth for 2011F.

Exhibit 115. China's push into nuclear and wind power



Source: CEIC, Nomura estimates

Exhibit 116. Truck crane growth forecasts

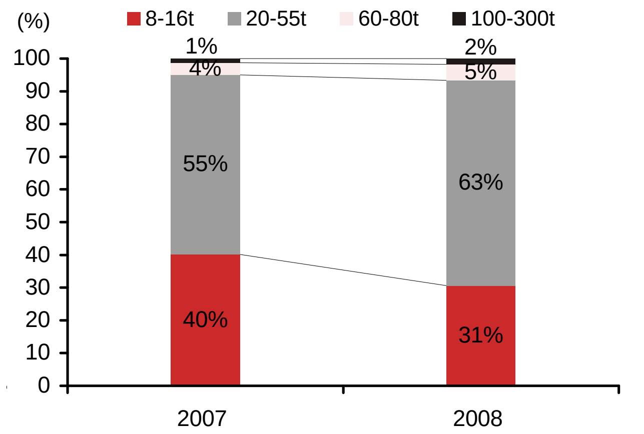


Source: CCMA, Nomura estimates

Shifting to upper-end

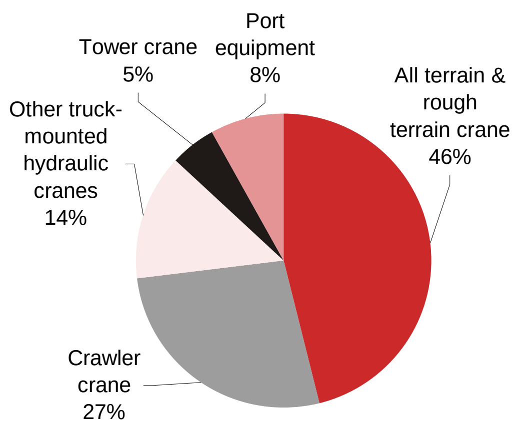
As China's industrialisation proceeds and more large-scale projects (high-speed-rails, nuclear power, wind power, etc) commence construction in the coming decade, we believe the Chinese construction crane sector will continue to upgrade to upper-end spec. We believe the general demand for lifting capacity will rise, which will prompt an upgrade toward higher-tonnage products within the currently best-selling truck crane segment. On the other hand, as observed from Terex's global product structure, cranes with higher hosting capability, such as all-terrain and crawler cranes, represent the majority of procurement demand in the global market. We believe all-terrain crane and crawler crane will partially replace truck crane in the future as demand for extra-high-tonnage crane (>200t) surges, and the value of upper-end cranes becomes gradually recognised by users.

Exhibit 117. Product mix of China's truck crane segment



Source: Company data, Nomura research

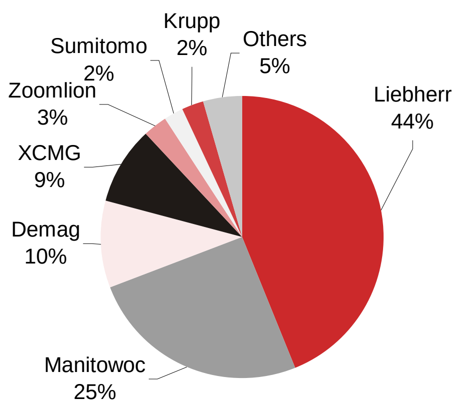
Exhibit 118. Product mix of Terex's construction crane business (2009)



Source: CCMA, Nomura research

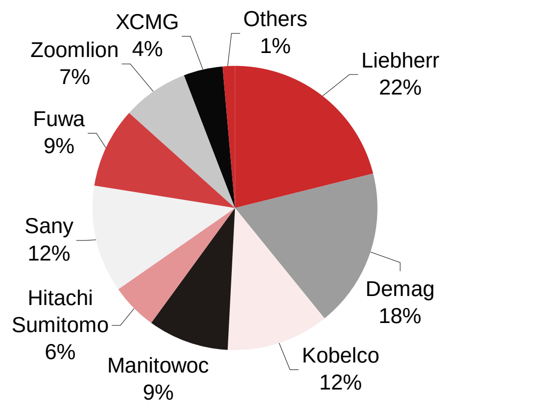
The rise of Chinese crane makers has created another push for the product mix upgrade. According to a survey conducted by Crane and Lifting Catalog magazine, despite the local players' dominance in domestic sales, merely 12% of high-end truck cranes (>100t) and 32% of high-end crawler cranes (>100t) currently owned by users are Chinese brands, with the rest mostly imported from overseas. This implies large market opportunities for the local players, as they further tap into the high-end market with steadily improving product reliability, in our view.

Exhibit 119. Truck crane installed base (>100t) (2009)



Source: Crane and Lifting Catalog, Nomura research

Exhibit 120. Crawler crane installed base (>100t) (2009)



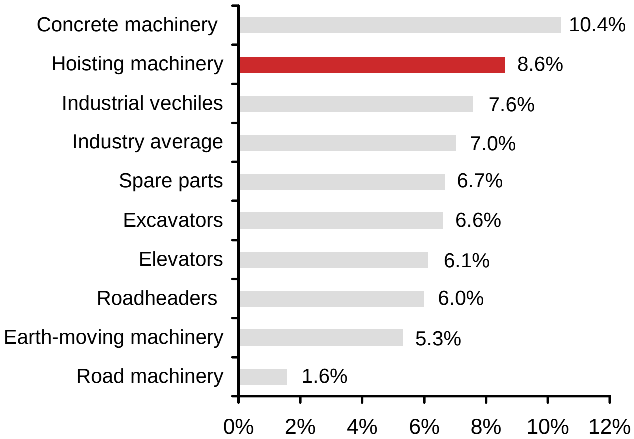
Source: Crane and Lifting Catalog, Nomura research

Profitability analysis

With a highly-concentrated market structure, construction crane has been the second most profitable sub-segment in the China construction machinery space, after concrete machinery. Despite a weaker market position, Zoomlion has been able to maintain an edge over the industry leader, XCMG, in terms of profitability in the past few years, reflecting its impressive marketing and cost management capabilities. SANY's segment margin for 2009 was dragged down post the injection of the truck crane business, which had a gross margin of 20% in 2009. Yet, with its elevated profitability in other segments, we believe SANY is on track to improve margins in the truck crane business as the ramp-up of its production capacity completes.

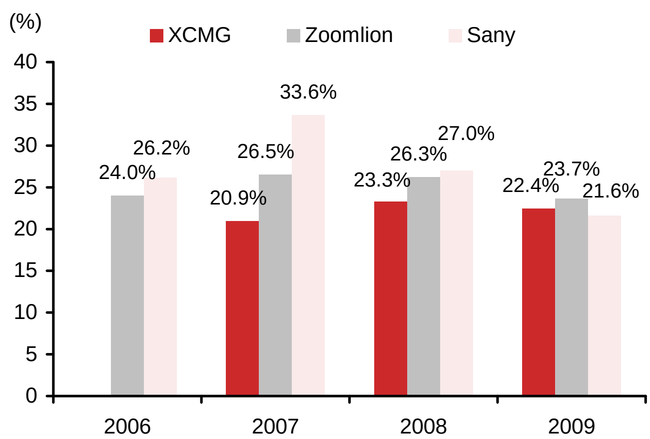
Moving forward, we believe the margin profile of Chinese crane makers still has potential upside, as the sector is experiencing an upgrade toward higher-tonnage and upper-end products, which generally carry higher margins.

Exhibit 121. Segment net margin comparison (2008)



Source: CCMA, Nomura research

Exhibit 122. Company gross margin comparison



Note: SANY's gross margin represents crawler crane only prior to 2009, with truck crane added in 2009.

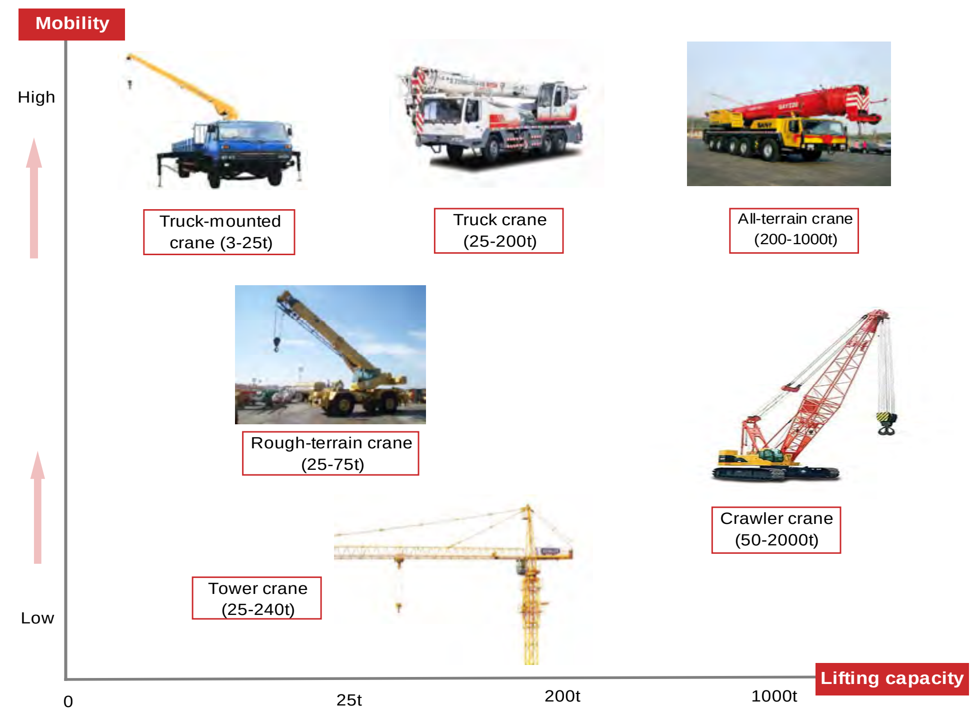
Source: Company data, Nomura research

Technical: Construction cranes

Construction cranes are used to lift equipment or materials to various heights. Major types of construction cranes include truck, all-terrain, rough-terrain, truck-mounted, crawler and tower cranes, which have varying degrees of lifting capacity and mobility:

- Truck cranes have two cabs and can travel from one work site to another at highway speeds, with lifting capacity usually capped below 200t. Crawler cranes have a maximum lifting capacity that can exceed 1,000t and can lift material on rough or uneven terrain. However, their booms are made of tubular steel sections, which together with the base unit, need to be transported to and erected at the construction site. All-terrain cranes are a mix between truck and crawler cranes, with the ability to lift capacity of up to 1,000t and travel on highways.
- Truck-mounted cranes are usually installed on the chassis of trucks and offer far less lifting capacity than other crane types. Designed to lift materials on particularly rough surfaces, rough-terrain cranes also have a comparably low lifting capacity (25-75t) and need to be transported by truck as well.
- With the lowest mobility, tower cranes are typically used in urban areas where space is constrained, and in long-term or high building sites.

Exhibit 123. Product spectrum of construction cranes



Source: Nomura research

Segment insights

Wheel loaders: glories in yesterday

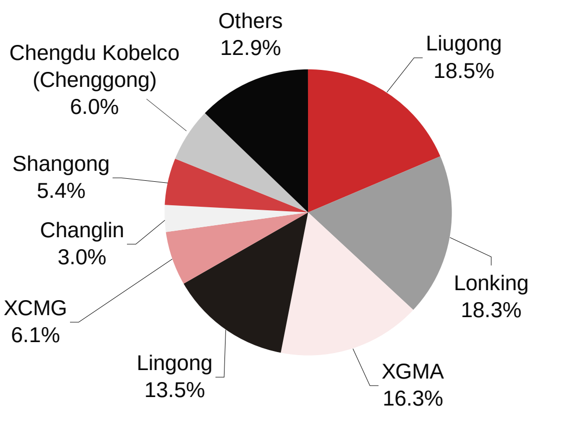
Wheel loaders are another type of earth-moving machinery primarily used to load materials into various types of vehicles, such as dump trucks and trains. As touched on in the previous section, wheel loaders can also partially substitute excavators in some work environments, albeit with weaker capability and lower efficiency.

Based on sales volume, wheel loaders have been the most popular earth-moving machinery in China (over 140k units sold in 2009). We estimate that total wheel loader market size surpassed RMB30bn in 2009 and could reach RMB45bn in 2010F. Already in its mature stage, wheel loader sales volumes have grown much slower than in other segments over the past few years, at a five-year CAGR of 9.4%. Due to high base effect, substitution from excavators, and peaking newly started projects, we forecast volume growth of only 5% y-y for 2011F.

China's wheel loader market has been dominated by local players, with the traditional mainstays Lonking, Liugong and XGMA commanding a combined 53.1% market share in the YTD. Lonking, the only private firm among the three, has steadily gained market share over the past few years, chased closely by Liugong for the lead. Liugong has seen its market share retreated by 1.8% so far this year, after a 3.1% gain in 2009. As a laggard, XGMA has managed to narrow its market-share gap from the top two to 2% in the YTD. As a whole, the top-three players' dominance has become increasingly prominent, with their combined market share expanding by 8.1% since 2004.

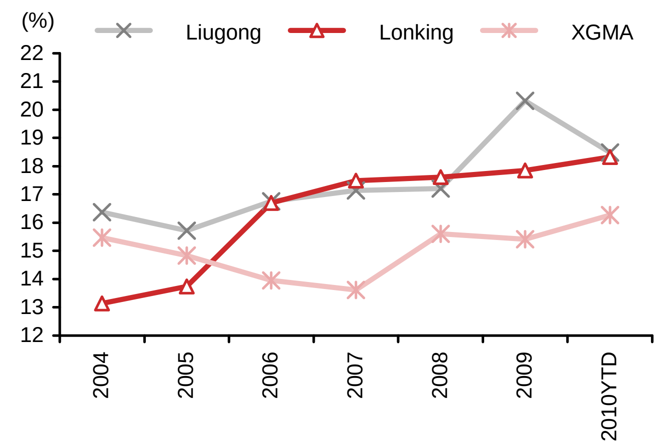
China's wheel loader product mix has also seen upgrades in the past couple of years, with the share of 5-tonne products growing to 70% in the YTD, from 56% in 2007, and the share of 3-tonne products shrinking to 21% in the YTD, from 29% in 2007. We believe that the improving product mix is at least partly attributable to the opening of large-scale construction projects in China, and to some extent has enhanced wheel loader vendors' margin profiles, given that large-tonnage products usually carry higher profitability.

Exhibit 124. China: wheel loader market (2010 YTD)



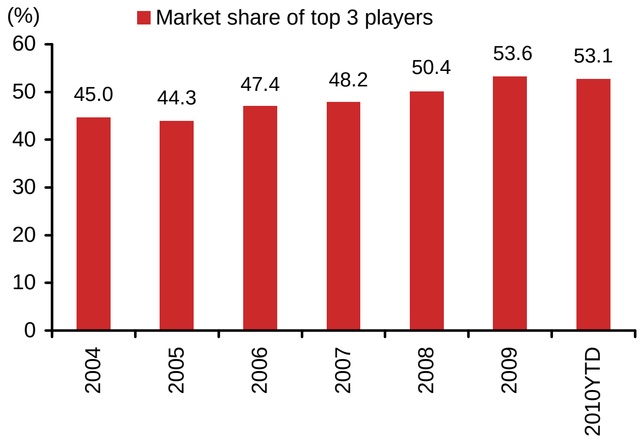
Source: CCMA, Nomura research

Exhibit 125. China: market share trend of the Big 3



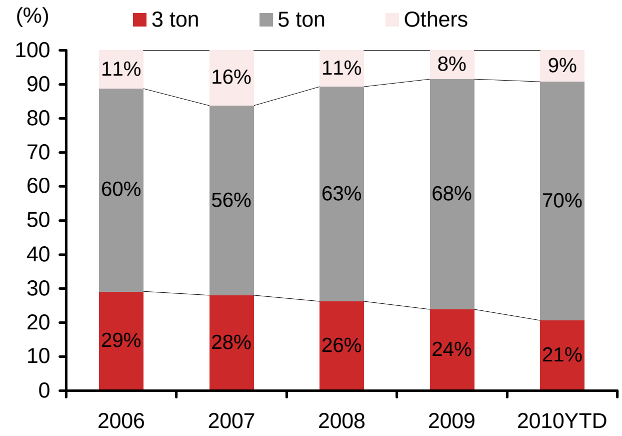
Source: CCMA, Nomura research

Exhibit 126. China: growing industry concentration



Source: CCMA, Nomura research

Exhibit 127. China: upgrading product mix



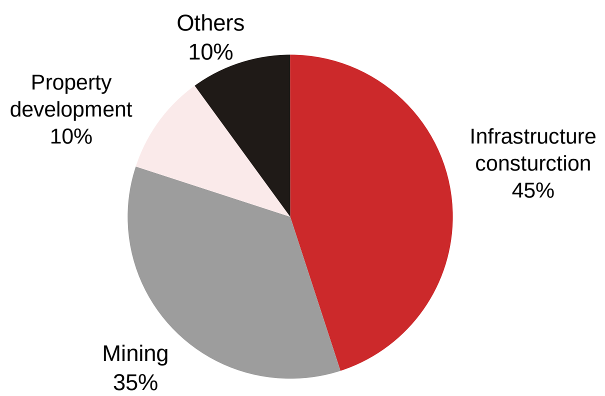
Source: CCMA, Nomura research

Growth drivers: mining and replacement demand

Similar to excavators, the three major sources of demand for wheel loaders are infrastructure construction, mining and property development. Lonking's management guided that some 45% of its wheel loaders have been purchased for infrastructure build-out in the YTD, while 35% and 10% have been purchased for mining and property development, respectively. We note that mining and property likely generated greater procurement demand prior to the infrastructure boom that started from end-2008. Our checks indicate that mining contributed more than 40% of total wheel loader sales in 2008, while the strong demand from new property construction played a key role driving up wheel loader sales in 2007.

Plus, we note that wheel loaders have a relatively short recycle period (3-5 years) and a huge installed base (estimated 1.1mn units at end-2009) in China. Thus, replacement demand is likely to capture a substantial portion of total wheel loader procurement, and should continue to provide support for wheel loader sales volumes for years to come, in our view.

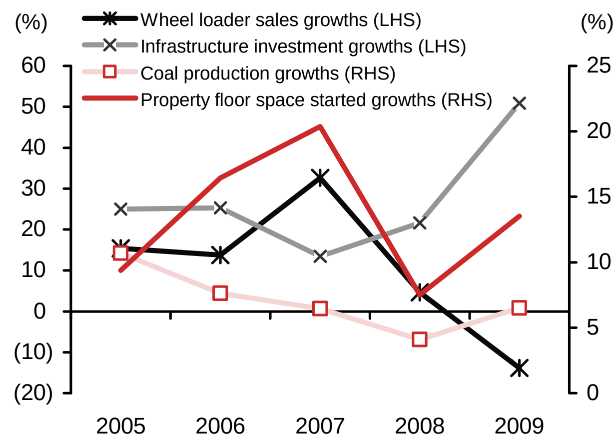
Exhibit 128. Lonking: loader demand distribution



Note: Based on 2010 YTD data

Source: Company data, Nomura research

Exhibit 129. Downstream drivers of wheel loaders

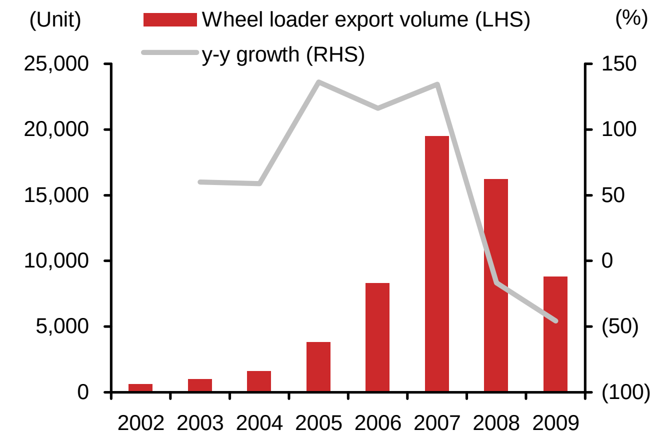


Source: Company data, Nomura research

However, while other types of machinery (eg, excavator, concrete machinery) posted robust growth in 2009, spurred by the kick-off of the government's RMB4tn stimulus package, wheel loader sales fell by 14% y-y, we believe attributable to:

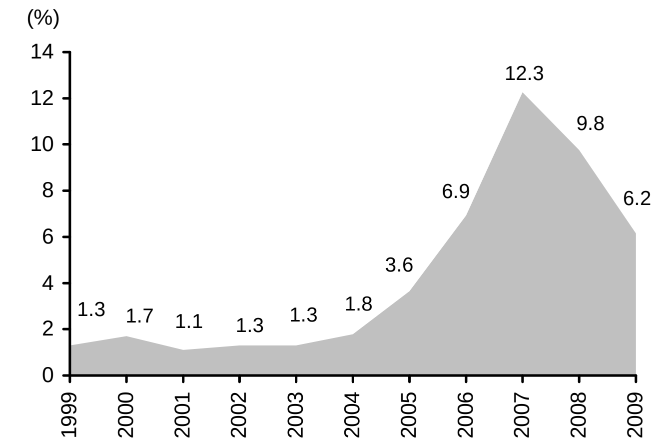
- **Mining exposure.** In contrast with concrete machinery and excavators, wheel loaders have greater exposure to mining, rather than infrastructure construction and property development. Demand from mining industry has been fairly sluggish since 2008 due to slowing economic growth and clampdowns on small mines.
- **Substitution with excavators.** Excavators have consistently outperformed wheel loaders over the past few years, we think owing to the prevailing trend of substituting wheel loaders with excavators.
- **Slumping export sales.** Exports have been a significant driving force for China's wheel loader industry over the past five years. Backed by relatively mature technology and low pricing, the "made-in-China" wheel loaders rapidly gained traction, with the contribution to total volume growing from 1.8% in 2004 to 12.3% in 2007. Yet the following global financial crisis has severely damaged overseas demand, triggering a dramatic downturn for China's wheel loader exports. Our study shows that the slump in exports contributed around 4% to the total volume decline in 2009.

Exhibit 130. China: wheel loader export volume



Source: CCMA, Nomura research

Exhibit 131. China: wheel loader exports as % of total sales



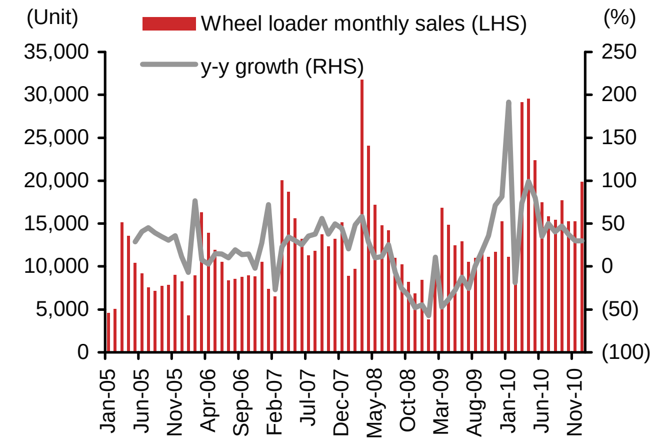
Source: CCMA, Nomura research

Industry growth forecasts

Among the major types of construction machinery, we're least optimistic on the wheel loader segment over mid to long term, as we believe wheel loaders are being at least partially substituted by the more efficient and powerful excavators in China. Nevertheless, we're still of the view that positive growth of wheel loader sales is achievable in the next couple of years, backed by China's rapid urbanisation, recovering overseas demand and stable replacement demand.

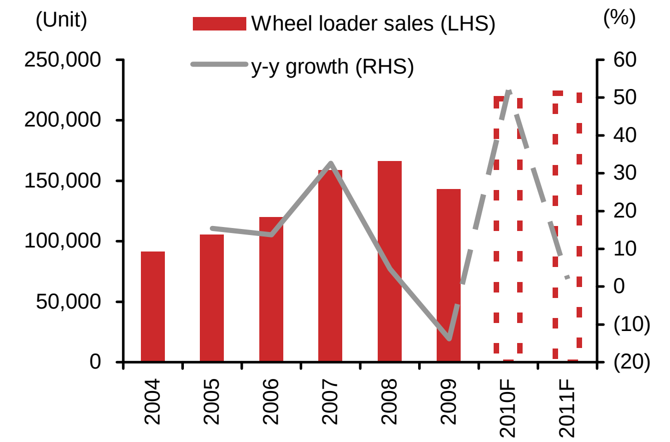
Chinese wheel loader sales have grown by 57% y-y to 182,599 units in the first 10 months of 2010, we think benefiting from the infrastructure boom and resilient mining demand. For 2011F, we look for 5% y-y growth for China's wheel loader sector, against a high base set in 2010F.

Exhibit 132. Wheel loader monthly sales trend



Source: CCMA, Nomura research

Exhibit 133. Wheel loader annual sales trend

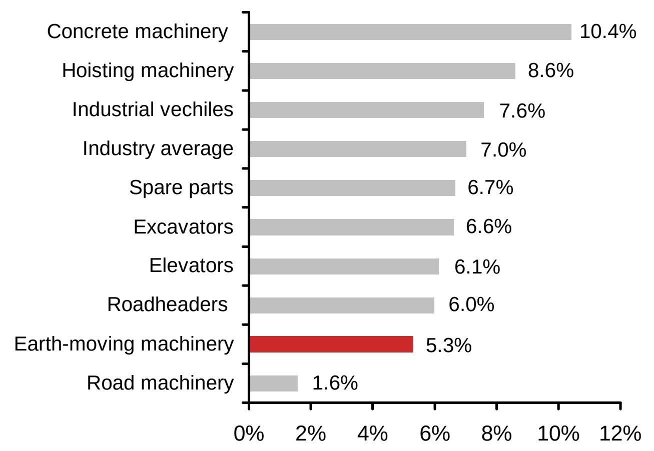


Source: CCMA, Nomura research

Profitability analysis

Owing to relatively low technical barriers, and thus intense industry rivalry, profitability in China's wheel loader segment has been squeezed to a fairly low level, as compared with other types of machinery, such as concrete machinery and excavator. Among the Big 3, Lonking has achieved the highest gross margins in spite of its slightly lower pricing, which we believe reflects its strong cost management capabilities. Liugong, which charges the highest prices, has seen stable margin improvement in the past few years, gradually closing the gap with Lonking. XGMA has adopted a similar pricing strategy as Lonking, but delivers a much uglier margin profile.

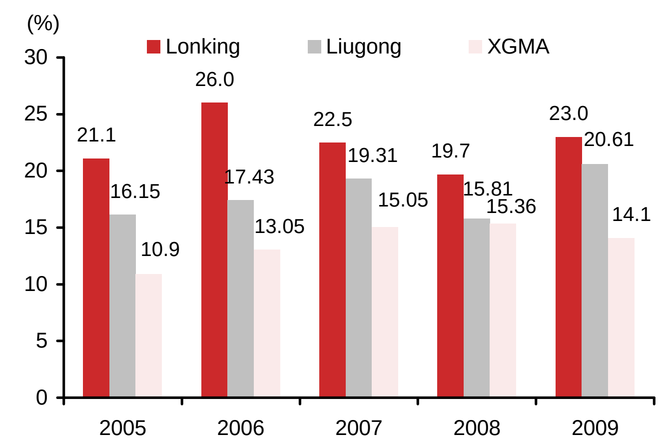
Exhibit 134. Segment net margin comparison (2008)



Note: earth-moving machinery includes wheel loader

Source: CCMA, Nomura research

Exhibit 135. Wheel loader vendor gross margin comparison



Note: Lonking's number refers to wheel loader segment only; Liugong, XGMA: firm-wide gross margin

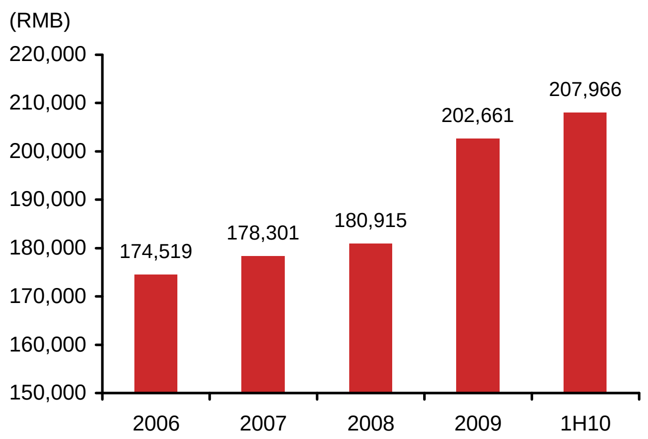
Source: Company data, Nomura research

On the pricing side, heated competition had kept Lonking's wheel loader prices fairly stable prior to 2008. However, increasing industry concentration has since seen the top players build pricing power. Lonking raised its selling prices by 9-15% in 2008, leading its gross margin to widen by 3.3pp in 2009. Price hikes in China's wheel loader industry have become more organised in recent years. Our checks show that several major vendors, including Lonking, collectively hiked their ASP by another RMB5,000 (around 2.5%) at end-2009. We believe the top players' rising pricing power and organised moves could protect their margins by partially passing on material cost rises to downstream customers. However, we note that the room for further price hikes is likely to be limited, given: 1) comparably low entry barriers; 2) intense competition among the top players, and; 3) excavators are gradually substituting wheel loaders in China for earth-moving equipment.

On the cost side, we believe potential cost savings is limited, considering that the manufacturing of wheel loaders is already fully localised, and for some leading vendors such as Lonking and Liugong, the majority of components are self-fabricated.

We highlight that steel accounts for roughly 25% of total costs for a wheel loader (Lonking, FY09), thus any substantial price hike in steel would exert sizeable pressure on wheel loader vendor margins. Our study reveals that a 10% jump in steel price would drag down our estimate for Lonking's FY11F wheel loader gross margin by 2pp.

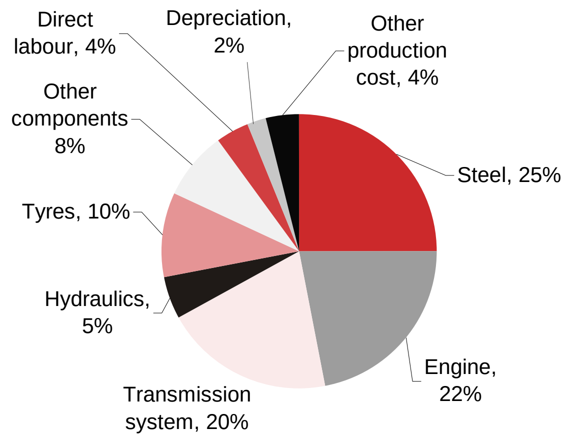
Exhibit 136. Lonking: wheel loader ASP trend



Note: blended ASP implied from segment revenue and unit sales

Source: Company data, Nomura research

Exhibit 137. Cost structure of a typical local brand wheel loader



Note: Lonking (FY09)

Source: Company data, Nomura research

Appendix

Appendix: Lewisian turning point and China's competitiveness

Sean Darby

According to Arthur Lewis, developing countries' industrial wages begin to rise quickly at the point when the supply of surplus labour from the countryside tapers off, namely "The Lewisian turning point". After analysing the micro-level data in six provinces of China, a paper issued by the IFPRI stated that the era of "unlimited labour supply" has already passed in China, and China's labour-intensive and export-driven growth model will gradually lose its competitive advantage.

Over the course of the past 12 months, wages have risen in many Asian countries considered to be 'cheap sources of labour'. Minimum monthly wages rose by 22% to US$61 in Cambodia, by 54% to US$43 in Bangladesh and by around 20% to US$88 in China. Despite that it is now the second-largest economy in the world (having overtaken Japan), China only produces 15% of the value-added in manufacturing, in contrast to the US, which contributes 24%, and the EU, which contributes 20%. Although Chinese wages have risen over the past few years, they have fallen as a percentage of output.

The most important long-term implication, we believe, is that while rising wages should help to boost consumption, they will also mean a loss of competitiveness for companies. China and many Asian companies may lose their export edge not just from an appreciating currency but also from a loss of competitiveness.

China heading toward the "middle-income trap"?

If US monetary conditions remain loose and Asian authorities prioritise growth over inflation it will not be long before a combination of an appreciating local currency and rising costs squash the competitiveness of exporters. For many countries, the advance in employee costs and higher operating costs are the first sign that the economy is moving towards "the middle-income trap'. Essentially, many countries' initial economic advantage is cheap labour, but once these labour-intensive jobs disappear, the spurt in growth peters out. Many economies find it difficult to move up the value-added product chain. To date, Korea appears to have made that leap. Malaysia hasn't and neither have parts of Latin America and the Middle East.

The transition from a low income to a high income economy is conditional on a number of factors. A well grounded education system, high investment rates and open economies are important.

How to avoid the trap?

- **Efficient capital deployment.** During the post financial crisis period, a great deal of discussion has centred around the quality of Asian growth and China's deployment of capital within the economy. We have argued that the natural scapegoat would be property but the evidence is mixed. A glance at the Incremental Capital Output Ratio (ICOR) demonstrates a different picture. If the ratio of annualised investment to annual GDP is growing, it is considered an indication of poor investment returns. The higher the ratio, the worse the efficiency of capital. During the past two years the ICOR has risen sharply, but relative to trend there is less evidence of a deterioration. Measures such as the ICOR should be observed over years.

- **Innovation, R&D.** High reinvestment rates by themselves may tell little about future success if companies are failing to move up the value-added curve. Unless there is an embedded culture of investment in new processes or technology, countries will experience diminishing returns on the investments being undertaken. If there is little protection for patents and the new technology being generated, countries will find themselves stagnating in their long-term returns on capital. Eventually, the comparative advantages will be eroded as companies elsewhere undercut through better productivity gains.

- **Outsourcing**

One of the consequences of rising costs is that big companies will increasingly ship production abroad. For example, 30% of Japanese manufacturing is done abroad, twice that seen in the early 1990s, according to *The Economist*. According to the Japanese trade ministry, profit margins of overseas subsidiaries are one-third higher than those of domestic production. The proximity of the overseas plants allows efficiencies to be squeezed out. According to the Nomura research team in Tokyo, three-quarters of the Japanese plants overseas were at the same technical level of their domestic ones in 2008, up 50% from 1996.

- **M&A activities**

One of the ways companies can grow is through acquisition or mergers. With companies able to borrow at historically low rates while generating unprecedented free cashflow, acquiring competitors makes commercial sense, particularly to gain market share as global growth recedes, in our view. Acquisitions allow earnings accretion faster than greenfield projects, while payback periods are shorter given the existing strong cash generation of target enterprises.

Although industry consolidation is a driving theme, companies appear willing to buy into growth rather than undertake organic investment as the risks are far more manageable and payback time periods have become shorter due to the high cashflow yields on offer in many sectors. From our analysis, the sectors that are likely to see M&A as a driver of consolidation are likely to be basic and capital goods industries.

Productivity basket: Bullish for Chinese capital goods companies

Our main theme for 2011F is competitiveness. We expect macro investors to focus on Asia's growing inflation problem and the ability of companies to either move up the value added curve and or to cut operating costs through productivity gains. With the world losing its 'demographic dividend' while China is experiencing the loss of its 'cheap labour dividend', we believe the global economy is set to experience a profound change in wages within the developing world. Further, with urbanisation proceeding at an exponential pace, the pressure on resources remains acute despite the sluggish growth in the developed world.

In the short term, terms-of-trade should provide a helpful uplift to many companies in Asia, but longer-term literacy and R&D will drive productivity gains. To avoid the 'middle income trap' Asian companies will need to do a combination of high reinvestment in machinery and plant, outsource work to lower-cost countries, acquire companies to gain market share and develop economies of scale by utilising FTA and overseas production.

As for the capital goods sector, we highlight that the trend of high reinvestment looks set to boost the demand for capital goods, while the industry leaders will meet with more M&A opportunities to accelerate their expansion. Further, we reiterate our view that overseas operation will become the next chapter of the leading Chinese machinery companies' growth story.

Zoomlion Heavy 000157 CH

INDUSTRIALS/CAPITAL GOODS | CHINA

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From Neutral

BUY

Action

We are upgrading Zoomlion Heavy to BUY from Neutral and raising our price target to RMB18. With its dominance in concrete machinery and expanding share of the construction-crane segment, Zoomlion looks set to continue its robust growth. It is transforming itself into a world-class, one-stop construction machinery provider, with a growing international presence.

Catalysts

Better-than-expected sales in FY11F and new business growth opportunities may serve as catalysts for the stock.

Anchor themes

We believe that continuous investment on R&D is a long-term sustainable competitive advantage for Chinese machinery makers. Continued improvements in component localisation also drive competitiveness.

Closing price on 10 Dec	RMB14.83
Price target	**RMB18.00**
	(from RMB10.80)
Upside/downside	21.4%
Difference from consensus	**18.1%**
FY11F net profit (RMBmn)	5,099
Difference from consensus	**7.3%**

Source: Nomura

Nomura vs consensus

We are more optimistic on Zoomlion's leadership in the concrete-machinery segment, and we believe Zoomlion's overseas expansion is also a highlight.

Zoom into this lion...

① Leader in concrete machinery with growth prospects

Zoomlion is a leading construction machinery vendor in China. While we think that a slowdown in infrastructure construction could negatively affect China's construction-machinery sector in 2011F, we remain relatively bullish on the concrete-machinery sub-sector. Based on our estimates, we believe that Zoomlion, on the back of its dominant position in concrete machinery and its expanding presence in the construction-crane market, will continue to embrace robust growth from 2011F onward.

② A one-stop construction-machinery provider

Apart from its dominance in China's concrete-machinery market, Zoomlion is also China's number-two player in construction cranes, a major provider of environmental and sanitation equipment, and a meaningful player in road machinery. Through a string of acquisitions in recent years, Zoomlion has further diversified its product portfolio by entering areas such as earth-moving machinery, material-handling machinery, etc. Its broad product spectrum positions it as one of the few one-stop construction machinery providers in China.

③ Overseas operations starting to gather steam

We believe that Zoomlion is transforming itself from a local mainstay into a global machinery giant as its products gain more traction in overseas markets and as its CIFA business gradually recovers from the financial crisis. In particular, we expect Zoomlion's synergies to improve through leveraging CIFA's established platform in Europe.

④ BUY; PT increased to RMB18, on 17x FY11F P/E

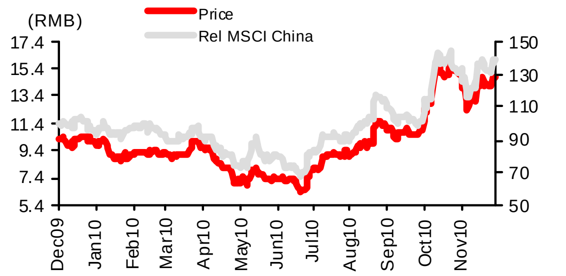
We apply a 17x target P/E multiple to Zoomlion, consistent with our valuation methodology for its closest comparable – Sany Heavy – and consider its current valuation attractive. Following a transfer of analyst coverage, we upgrade our rating for Zoomlion to BUY from Neutral.

Key financials & valuations

31 Dec (RMBmn)	FY09	FY10F	FY11F	FY12F
Revenue	20,762	31,916	39,012	47,491
Reported net profit	2,465	4,044	5,099	6,308
Normalised net profit	2,465	4,044	5,099	6,308
Normalised EPS (RMB)	1.47	0.82	1.03	1.28
Norm. EPS growth (%)	38.4	(44.3)	26.1	23.7
Norm. P/E (x)	10.1	18.1	14.3	11.6
EV/EBITDA (x)	10.9	5.4	4.0	2.8
Price/book (x)	3.4	4.4	3.4	2.7
Dividend yield (%)	1.7	0.6	0.7	0.9
ROE (%)	39.5	33.6	26.9	26.1
Net debt/equity (%)	87.0	1.4	net cash	net cash
Earnings revisions				
Previous norm. net profit		2,771	3,423	na
Change from previous (%)		45.9	48.9	na
Previous norm. EPS (RMB)		1.66	2.05	na

Source: Company, Nomura estimates

Share price relative to MSCI China



	1m	3m	6m
Absolute (RMB)	(1.3)	36.7	100.1
Absolute (US$)	(1.7)	39.0	105.3
Relative to Index	4.8	30.2	86.7

Market cap (US$mn)	10,977
Estimated free float (%)	49.1
52-week range (RMB)	15.92/6.38
3-mth avg daily turnover (US$mn)	234.2
Stock borrowability	Hard
Major shareholders (%)	
Hunan State-own assets	25.0
Good Excel Group	10.0

Source: Company, Nomura estimates

Overview

Investment highlights

Following a transfer of analyst coverage, we upgrade our rating for Zoomlion Heavy to BUY from Neutral and raising our price target to RMB18, based on 17x our FY11F EPS forecast of RMB1.03. We believe 20%-plus annual growth is achievable for Zoomlion's concrete-machinery segment, as we believe this segment has considerable potential over the medium to long term. We believe that Zoomlion's strong presence in the segment and its expanding market share in the construction-crane segment position it well to embrace healthy growth from 2011F onward. Zoomlion stock is trading at around 14x FY11F EPS, which we believe offers substantial upside potential.

Zoomlion is a leading construction-machinery player in China, and has a strong position in the concrete-machinery segment (together with Sany Heavy). Zoomlion is also the second-largest construction-crane maker in China, capturing around 26% market share by sales value in 2009. In addition, it plays a leading role in China's environmental- and sanitation-machinery market, and has a meaningful presence in the road-machinery business. Zoomlion has, through a serial of acquisitions, diversified itself into areas such as earth-moving machinery, material-handling machinery, axles, and so on. With its expanding product spectrum, we are of the view that Zoomlion is on its way to becoming a world-class one-stop construction-machinery provider. This would grant it a competitive edge over other more-specialised machinery manufacturers, in our view, since machinery customers in China are often inclined to purchase various types of machinery in one go.

Across the machinery segments, we are particularly bullish on the concrete-machinery one as a result of the increasing penetration of commercial concrete (ready-mix concrete) in China. We also remain optimistic on construction cranes as we see surging demand from industrial and energy projects. We expect Zoomlion, while maintaining and gradually expanding its leading position, to see healthy revenue growth from these two segments. We think the company's distinctive position in environmental and sanitation machinery should help it to achieve robust growth in this strongly growing business.

Zoomlion has considerable experience and excellent execution ability in mergers and acquisitions. We note that, as competition heats up in the China construction-machinery space, Zoomlion should have ample opportunity to make further acquisitions, to expand both the scale and scope of its operations. Besides, in a China machinery player's first attempt at a foreign acquisition, Zoomlion has now run its CIFA business for two years and our checks show that CIFA is on track to return to profitability. We expect the acquisition of CIFA to spark more synergies for Zoomlion, further strengthening its leading position globally in the concrete-machinery space.

We believe that, over time, Zoomlion will be able to transform itself from being a local mainstay to being a leading player in the international arena. Before the financial crisis, Zoomlion was substantially exposed to exports, with 13.4% of its revenue being derived from export sales in FY07. Following the acquisition of CIFA, Zoomlion's overseas revenue rebounded to 12.6% of its total revenue in FY09, from 4.0% in FY08. We are confident that, as Zoomlion continues to tap into the global market on the back both of improving product quality and CIFA's established platform, its products will gain more traction worldwide, with its overseas operations contributing an increasing portion of its sales. The upcoming secondary IPO in Hong Kong underscores Zoomlion's ambition to expand its international operations. Zoomlion plans to issue no more than 15% of its total shares (post IPO) in the H-share market, which would translate to IPO proceeds of around HK$11bn based on its current market capitalisation.

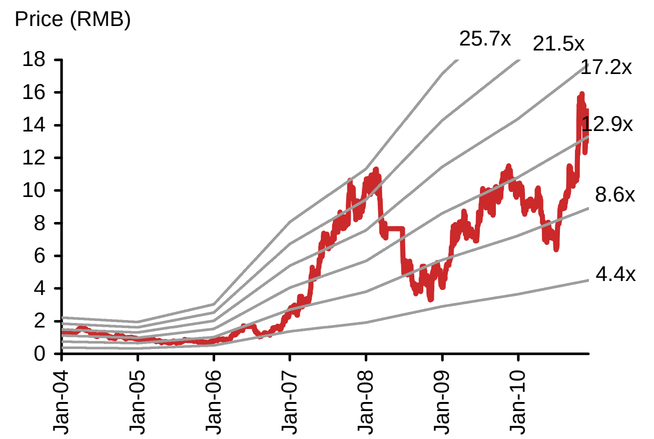
Valuation and investment risks

Valuation discussion

Zoomlion has historically traded at 10-20x forward 12-month P/E, with a three-year average forward P/E of 12.8x. In light of what we regard as its ability to increase its EPS at a CAGR of over 22% in 2010F-12F, we apply a target valuation multiple of 17x to it, consistent with our valuation methodology for Sany Heavy, which has a similar product portfolio and earnings visibility. We base our new target price of RMB18 on 17x our FY11F EPS estimate of RMB1.03. Zoomlion is trading at 14x our FY11F EPS, and we believe that it is undervalued given its visible growth prospects. With more than 20% potential upside to our price target, we upgrade Zoomlion's rating to BUY from Neutral.

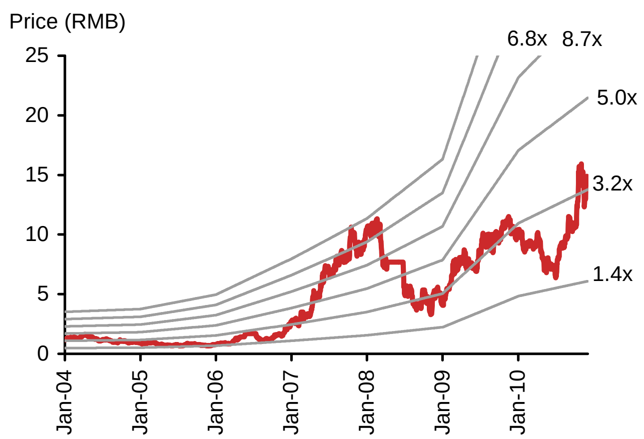
Investment risks. Should economic recovery slow or demand recovery for construction machinery in China stall, our estimates and price target would be at risk.

Exhibit 138. Zoomlion: historical P/E



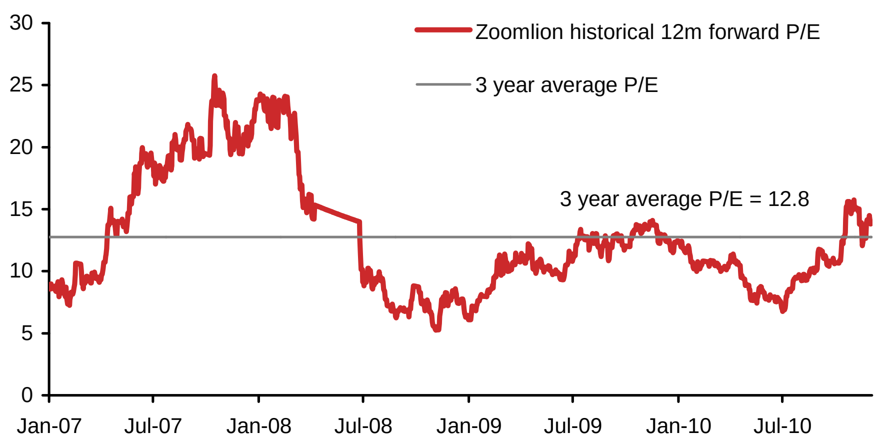
Source: Company data, Nomura research

Exhibit 139. Zoomlion: historical P/B



Source: Company data, Nomura research

Exhibit 140. Zoomlion: forward 12m P/E chart



Source: Bloomberg, Nomura research

Financial highlights

Financial analysis and forecasts

Revenue: Healthy growth should be sustained for FY10F-12F

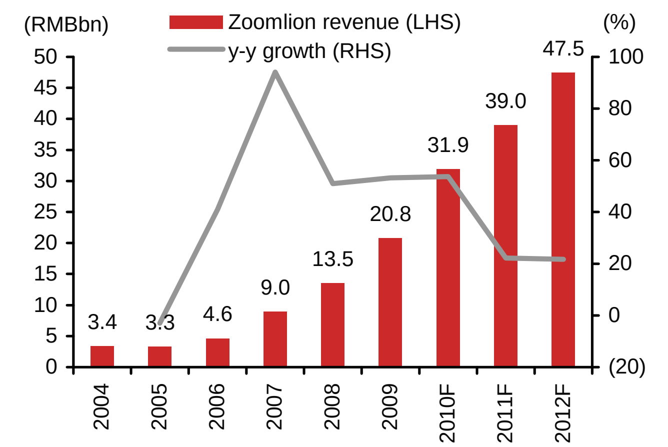
Zoomlion Heavy has witnessed robust top-line growth over the past couple of years, with a FY04-09 CAGR of 44%, driven by strong sales growth of concrete machinery and construction cranes, as well as by a string of acquisitions. We expect the growth momentum to continue in FY11F, with revenue jumping by 43% y-y, backed by solid sales in concrete machinery and truck cranes this year. We estimate annual revenue growth will moderate to around 20% in FY11F-12F, as procurement demand from infrastructure construction weakens.

Among the segments, construction cranes and concrete machinery have been the largest revenue contributors, together accounting for 75% of Zoomlion's total revenue in FY09. These two business divisions should continue to act as pillars for Zoomlion, in our view, but we expect the revenue contribution of construction cranes gradually to decline, since we expect that segment to experience slightly slower growth than other segments. We now forecast 35% y-y growth for Zoomlion's construction-crane segment in FY10F, and 15% for both FY11F and FY12F. We expect the concrete-machinery segment's contribution to jump to 39% in FY10F, and for it to stay constant for the following two years, as we forecast annual growth for the segment of 60% in FY10F, and 20% for both FY11F and FY12F.

Environmental and sanitation machinery is set to emerge as another bright spot for Zoomlion, in our view. Our checks reveal that Zoomlion is a dominant player in China's sanitation-machinery market, and that it has captured around 60% of the market to date. On the back of rapid urbanisation and increasingly stringent environmental standards in China, we expect Zoomlion's environmental- and sanitation-machinery business to deliver CAGR of 25% in FY11F-12F.

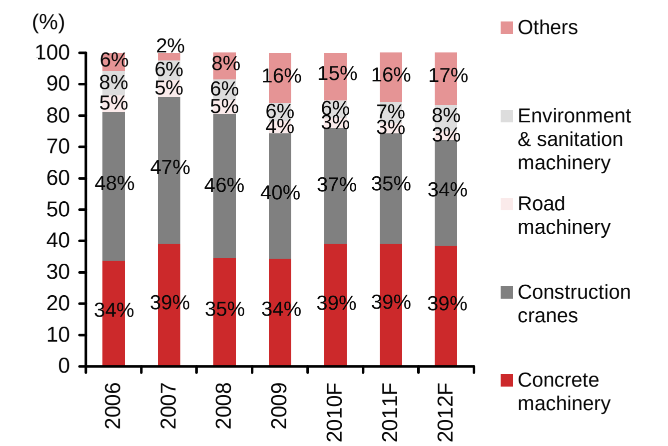
Zoomlion's other business consists mainly of leasing, specialised vehicles, earth-moving machinery, axles, and its material-handling machinery business. Zoomlion has been ramping up its production capacity in earth-moving machinery, notably excavators, following its 2008 acquisition of Shaanxi Xin Huanggong. Our checks show that the first stage of Zoomlion's Weinan Industrial Park will be completed by the end of 2010, which should raise its annual manufacturing capacity in excavators and bulldozers to 8,000–10,000 units. With its sales volume coming off a relatively low base, we expect Zoomlion's earth-moving machinery segment to show explosive growth, with CAGR of 60% in 2011-12F. Overall, we forecast a CAGR of 29% for Zoomlion's other business segments over the coming two years.

Exhibit 141. Zoomlion: revenue overview



Source: Company data, Nomura research

Exhibit 142. Zoomlion: revenue breakdown by segment



Source: Company data, Nomura research

Acquisitions: M&A accelerates expansion

Zoomlion has a track record of expanding into new business segments via acquisitions. In 2003, Zoomlion took over Puyuan Group and Zhongbiao Group one after the other, successfully venturing into the construction-crane and environmental-machinery areas. In 2008 Zoomlion marked another milestone in its history of acquisitions. By acquiring Shaanxi Xin Huanggong and Huatai, Zoomlion expanded its range to include earth-moving and material-handling machinery business, and it furthered its vertical integration by acquiring a hydraulics supplier, Xinchen Hydraulics, and an axle maker, Huaitai Group. Most importantly, in October 2008, Zoomlion acquired a 60% stake in an Italian concrete machinery maker, Compagnia Italiana Forme Acciao Spa (CIFA), for EUR162mn.

CIFA was then the world's third-largest concrete-machinery provider, with revenue and net income reaching RMB3.17bn and RMB179mn, respectively, in FY07 (adjusted to PRC GAAP). Following the acquisition, Zoomlion grew to be the world's largest concrete-machinery player. However, as the majority of its business was in Europe, CIFA was struck heavily by the global financial crisis and recorded a loss of RMB107mn in FY08, while in FY09 this financial loss had expanded to RMB248mn. As the global economy gradually recovers, we believe CIFA is on track to return to profitability, and we expect it to post positive earnings from 2011F onward. We believe that the consolidation of CIFA will create synergy for Zoomlion, as a result of: 1) CIFA's extensive distribution channels and supplier network, which should facilitate Zoomlion's sales in Europe and cut its procurement costs for component outsourcing; and 2) CIFA's sophisticated technology and manufacturing know-how, which we think should enhance Zoomlion's R&D capability and improve its product quality.

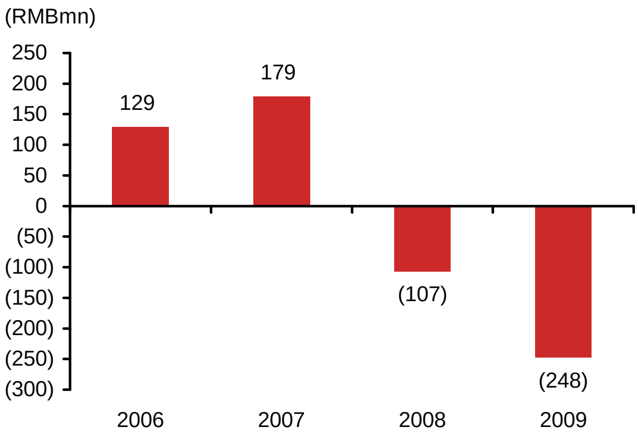
In light of its proven record of M&A, we believe that any potential acquisitions may provide extra support for Zoomlion's future expansion.

Exhibit 143. Zoomlion: major acquisitions in recent years

Acquired companies	Acquisition time	Stake acquired (%)	Major business
Puyuan Group	Aug.2003	100	Construction cranes
Zhongbiao Group	Sep.2003	100	Environmental & sanitation machinery
Shaanxi Xin Huanggong	Mar.2008	100	Earth-moving machinery
Hunan Axles	Apr.2008	84.9	Axles
Huatai Group	Jul.2008	82	Material-handling machinery
CIFA	Aug.2008	60	Concrete machinery
Xinchen Hydraulics	Dec.2008	75	Hydraulic parts

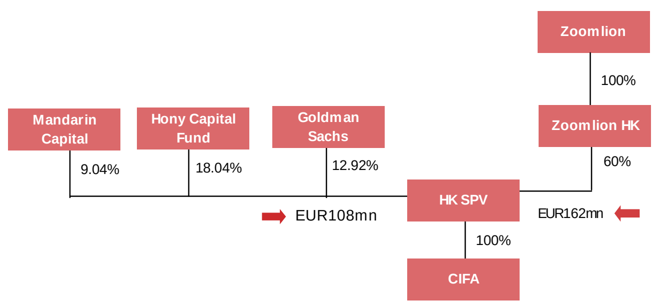
Source: Company data, Nomura research

Exhibit 144. CIFA: net profit overview



Source: Company data, Nomura research

Exhibit 145. Zoomlion: acquisition of CIFA



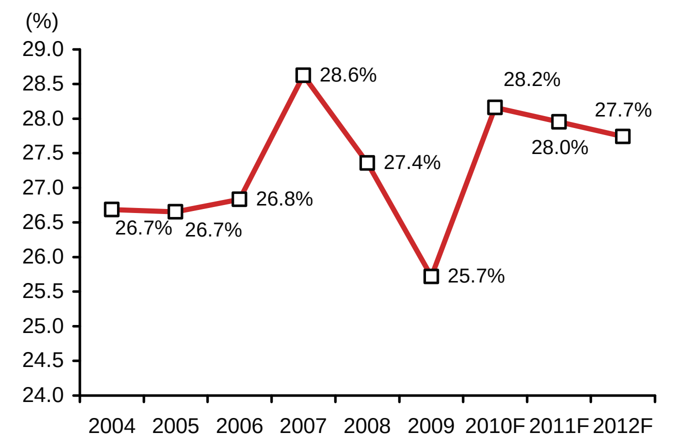
Source: Company data, Nomura research

Gross margin: Stabilising from 2010F onward

Zoomlion's gross margin had been steadily improving and reached a peak of 28.6% in FY07, followed by a decline of 1.2% in FY08. We attribute the decline to: 1) a jump in depreciation costs from RMB67mn in FY07 to RMB811mn in FY08, associated with capex investment in new plant; 2) consolidation of CIFA's financial losses in 4Q08. Zoomlion's gross margin deteriorated further to 25.7% in FY09, suffering from the worsening operations of CIFA. In spite of rising material costs, we expect Zoomlion's gross margin to rebound to 28.2% in 2010F, and stabilise at similar levels in the following two years, based on:

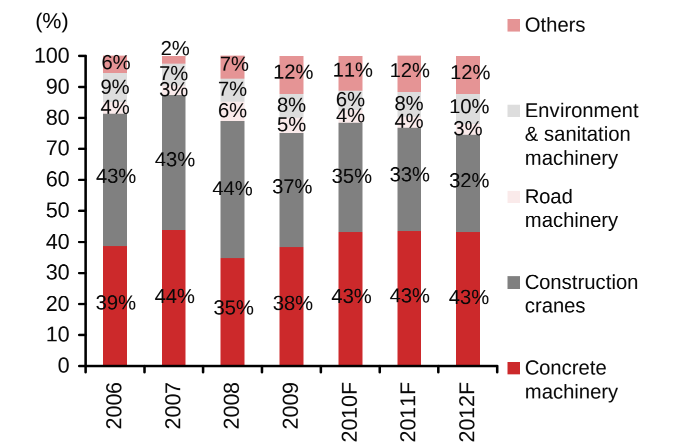
- **Economies of production scale.** Solid unit sales boost utilisation rates of production facilities, thus widening gross margins for most major segments.
- **Upgrading of product mix.** We expect products with higher gross margins, such as concrete machinery and high-tonnage cranes, to keep outgrowing others, hence lifting the overall gross margin.
- **Lowered imported component costs.** By leveraging CIFA's outsourcing channels in Europe, Zoomlion can effectively chop its procurement costs for some key components, such as chasses, hydraulics, and engines, which are still largely reliant on imports now.
- **Improved operation of CIFA.** Our checks indicate that CIFA bottomed out in FY09, and that CIFA is on track to return to profitability. Before the financial crisis CIFA had a gross margin of around 33%, and improving operations there should help to stabilise Zoomlion's profitability, in our view.

Exhibit 146. Zoomlion: gross margin overview



Source: Company data, Nomura research

Exhibit 147. Zoomlion: gross profit breakdown

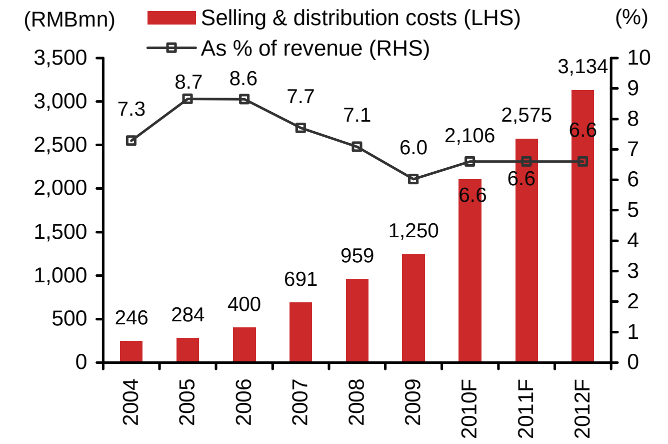


Source: Company data, Nomura research

Expenses: firm control of operating expenses

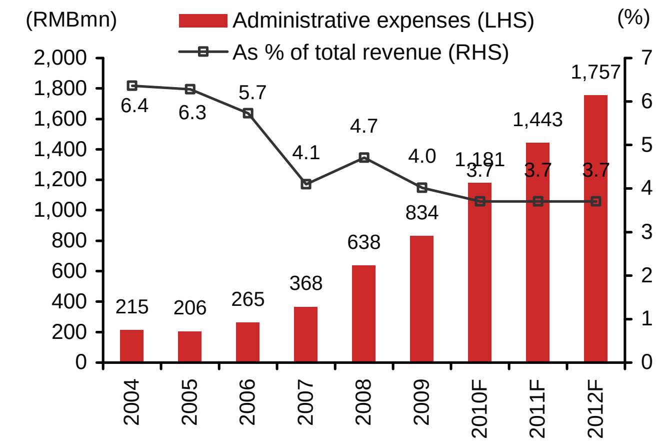
Zoomlion's administrative expenses as a percentage of revenue have consistently fallen over the past few years, reflecting its streamlined operations and its ability to control expenses. We observe a similar trend in its selling and distribution expenses, while we expect these expenses as a share of total revenue to increase by 60bps in FY10F to 6.6%, due to mainly heavier investment in advertising. We expect the two types of operating expenses to stay at reasonably low levels, with their percentages of total revenue remaining constant or declining slightly.

Exhibit 148. Zoomlion: selling expenses overview



Source: Company data, Nomura research

Exhibit 149. Zoomlion: admin expenses overview

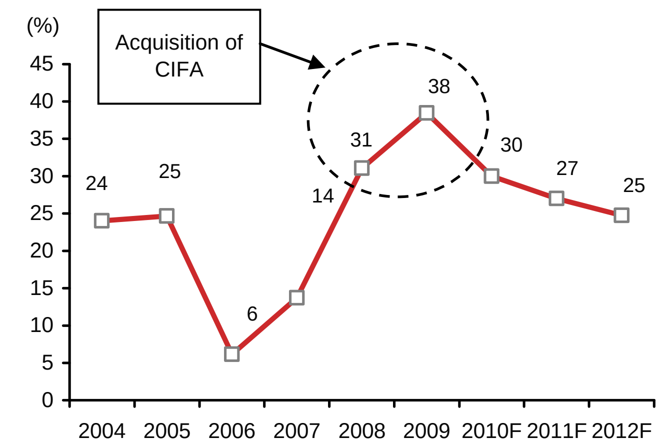


Source: Company data, Nomura research

Strengthened balance sheet and improving cash flow

Zoomlion's debt-to-asset ratio rose to 38% in FY09 from 14% in FY07, following the acquisition of CIFA, for which it borrowed RMB1.4bn with payback terms of three years at an annual interest rate of 6%. We expect Zoomlion's debt-to-asset ratio to drop substantially in FY10F post the RMB5.5bn rights issue in February, and to decline further to 28% and 26% in FY11F and FY12F, respectively, as Zoomlion pays down the CIFA loans. On the cash-flow front, we expect improving operating cash flows from revenue ramp-ups and normalised depreciation costs. Accordingly, we also expect Zoomlion to generate increasing free cash flows from 2010F onward, as its build-up of major production bases nears an end, and as its capital expenditure stabilises.

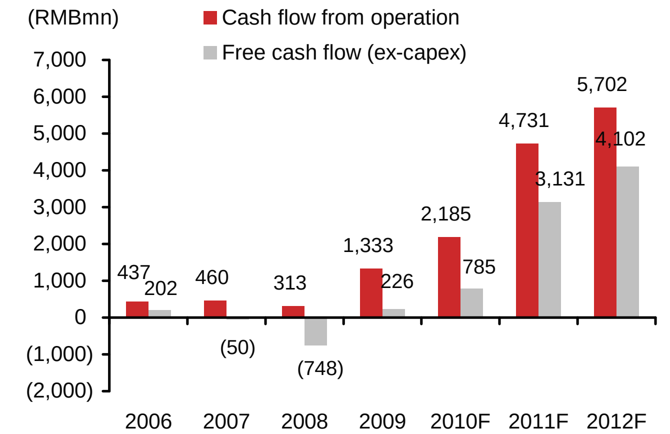
Exhibit 150. Zoomlion: stabilising debt/asset ratio



Note: Debt includes: short-term loans + long-term borrowings

Source: Company data, Nomura research

Exhibit 151. Zoomlion: improving cash-flow positions

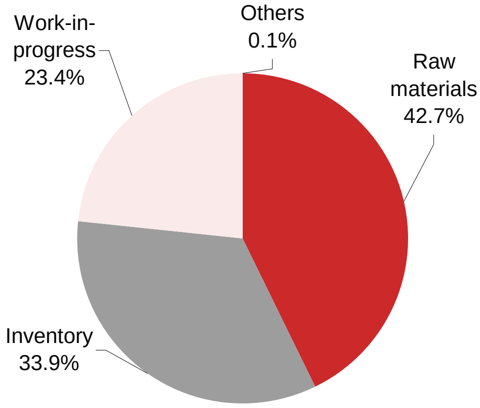


Source: Company data, Nomura research

In 1H10, Zoomlion's inventory balance consisted of raw materials (42.7%), work-in-progress (23.4%), and inventory (33.9%). We consider the relatively high balance of raw materials and the low balance of inventory reasonable, as Zoomlion has witnessed strong purchasing demand this year, while it has started to accumulate raw materials amid rising material costs. Zoomlion's inventory turnover days shortened to 107 days in 1H10, from 135 days in FY09. As we estimate that Zoomlion has the ability to increase its revenue by 20%-plus per annum, we believe that it should be able to keep good control over its inventory turnover days.

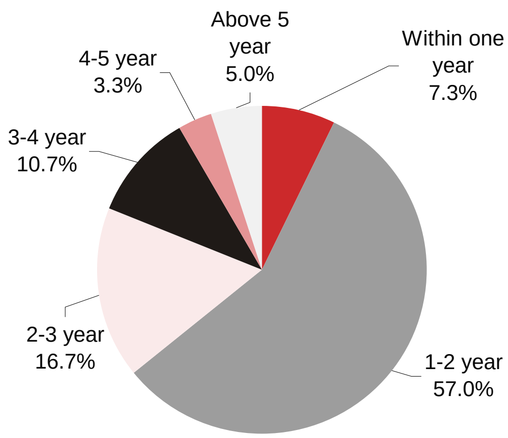
Since Zoomlion has extensively leveraged financial leasing in recent years, the portion of its long-term receivables has increased significantly. As of end-June 2010, a mere 7.3% of Zoomlion's accounts receivable were due within one year. To enhance its liquidity, since FY09 Zoomlion has entered into receivables factoring with several commercial banks. As of September 2010, Zoomlion's factoring loans totalled RMB5.8bn, representing 69% of the total amount of its receivables.

Exhibit 152. Zoomlion: inventory breakdown (1H10)



Source: Company data, Nomura research

Exhibit 153. Zoomlion: receivables breakdown (1H10)



Source: Company data, Nomura research

Financial statements

Income statement (RMBmn)					
Year-end 31 Dec	**FY08**	**FY09**	**FY10F**	**FY11F**	**FY12F**
Revenue	13,549	20,762	31,916	39,012	47,491
Cost of goods sold	(9,842)	(15,422)	(22,928)	(28,107)	(34,317)
Gross profit	**3,707**	**5,340**	**8,988**	**10,906**	**13,175**
SG&A	(1,719)	(2,266)	(3,807)	(4,576)	(5,495)
Employee share expense	-	-	-	-	-
Operating profit	**1,988**	**3,074**	**5,181**	**6,330**	**7,680**
EBITDA	**2,799**	**3,282**	**5,499**	**6,692**	**8,103**
Depreciation	(811)	(208)	(318)	(362)	(423)
Amortisation	-	-	-	-	-
EBIT	**1,988**	**3,074**	**5,181**	**6,330**	**7,680**
Net interest expense	(321)	(344)	(338)	(306)	(294)
Associates & JCEs	-	-	-	-	-
Other income	118	97	40	35	35
Earnings before tax	**1,785**	**2,827**	**4,883**	**6,059**	**7,421**
Income tax	(191)	(409)	(757)	(909)	(1,113)
Net profit after tax	**1,594**	**2,419**	**4,126**	**5,150**	**6,308**
Minority interests	25	46	(83)	(52)	-
Other items	-	-	-	-	-
Preferred dividends	-	-	-	-	-
Normalised NPAT	**1,619**	**2,465**	**4,044**	**5,099**	**6,308**
Extraordinary items	-	-	-	-	-
Reported NPAT	**1,619**	**2,465**	**4,044**	**5,099**	**6,308**
Dividends	(152)	(418)	(421)	(520)	(631)
Transfer to reserves	**1,467**	**2,047**	**3,623**	**4,578**	**5,677**
Valuation and ratio analysis					
FD normalised P/E (x)	13.9	10.1	18.1	14.3	11.6
FD normalised P/E at price target (x)	16.9	12.2	21.9	17.4	14.1
Reported P/E (x)	13.9	10.1	18.1	14.3	11.6
Dividend yield (%)	0.7	1.7	0.6	0.7	0.9
Price/cashflow (x)	72.1	18.6	33.4	15.4	12.8
Price/book (x)	4.4	3.4	4.4	3.4	2.7
EV/EBITDA (x)	11.8	10.9	5.4	4.0	2.8
EV/EBIT (x)	16.6	11.6	5.7	4.2	2.9
Gross margin (%)	27.4	25.7	28.2	28.0	27.7
EBITDA margin (%)	20.7	15.8	17.2	17.2	17.1
EBIT margin (%)	14.7	14.8	16.2	16.2	16.2
Net margin (%)	11.9	11.9	12.7	13.1	13.3
Effective tax rate (%)	10.7	14.5	15.5	15.0	15.0
Dividend payout (%)	9.4	17.0	10.4	10.2	10.0
Capex to sales (%)	7.8	5.3	4.4	4.1	3.4
Capex to depreciation (x)	1.3	5.3	4.4	4.4	3.8
ROE (%)	37.2	39.5	33.6	26.9	26.1
ROA (pretax %)	14.6	12.5	16.1	16.9	18.0
Growth (%)					
Revenue	51.0	53.2	53.7	22.2	21.7
EBITDA	89.2	17.2	67.6	21.7	21.1
EBIT	40.8	54.6	68.5	22.2	21.3
Normalised EPS	(38.5)	38.4	(44.3)	26.1	23.7
Normalised FDEPS	(38.5)	38.4	(44.3)	26.1	23.7
Per share					
Reported EPS (RMB)	1.06	1.47	0.82	1.03	1.28
Norm EPS (RMB)	1.06	1.47	0.82	1.03	1.28
Fully diluted norm EPS (RMB)	1.06	1.47	0.82	1.03	1.28
Book value per share (RMB)	3.34	4.42	3.38	4.33	5.48
DPS (RMB)	0.10	0.25	0.09	0.11	0.13

Source: Nomura estimates

Growth driven by all segments especially concrete machinery

Cashflow (RMBmn)					
Year-end 31 Dec	**FY08**	**FY09**	**FY10F**	**FY11F**	**FY12F**
EBITDA	2,799	3,282	5,499	6,692	8,103
Change in working capital	(587)	(2,898)	(2,745)	(1,235)	(1,473)
Other operating cashflow	(1,900)	949	(570)	(725)	(929)
Cashflow from operations	**313**	**1,333**	**2,185**	**4,731**	**5,702**
Capital expenditure	(1,061)	(1,107)	(1,400)	(1,600)	(1,600)
Free cashflow	**(748)**	**226**	**785**	**3,131**	**4,102**
Reduction in investments	6	7	(95)	(48)	(58)
Net acquisitions					
Reduction in other LT assets	(1,227)	(3,656)	-	-	-
Addition in other LT liabilities	2,208	2,366	883	854	1,047
Adjustments	(5,022)	1,332	(983)	(954)	(1,147)
Cashflow after investing acts	**(4,783)**	**276**	**590**	**2,983**	**3,944**
Cash dividends	(152)	(418)	(421)	(520)	(631)
Equity issue					
Debt issue					
Convertible debt issue					
Others	7,252	1,203	5,570	512	960
Cashflow from financial acts	**7,100**	**785**	**5,149**	**(9)**	**329**
Net cashflow	**2,317**	**1,061**	**5,739**	**2,975**	**4,273**
Beginning cash	1,050	3,367	4,428	10,167	13,141
Ending cash	3,367	4,428	10,167	13,141	17,414
Ending net debt	3,818	6,427	233	(2,779)	(6,845)

Source: Nomura estimates

Free cashflow becomes significant

Balance sheet (RMBmn)					
As at 31 Dec	**FY08**	**FY09**	**FY10F**	**FY11F**	**FY12F**
Cash & equivalents	3,367	4,428	10,167	13,141	17,414
Marketable securities	-	-	-	-	-
Accounts receivable	4,254	5,916	7,871	9,621	11,712
Inventories	5,171	6,272	8,166	10,011	12,222
Other current assets	1,218	3,861	4,158	4,352	4,584
Total current assets	**14,010**	**20,476**	**30,361**	**37,125**	**45,932**
LT investments	86	79	174	221	280
Fixed assets	3,007	3,684	4,665	5,803	6,880
Goodwill	2,160	2,213	2,213	2,213	2,213
Other intangible assets	2,300	2,339	2,391	2,443	2,494
Other LT assets	1,559	5,215	5,215	5,215	5,215
Total assets	**23,122**	**34,006**	**45,019**	**53,020**	**63,014**
Short-term debt	4,618	8,553	6,257	6,634	7,213
Accounts payable	6,730	10,249	11,650	14,204	17,266
Other current liabilities	1,643	632	632	632	632
Total current liabilities	**12,991**	**19,434**	**18,539**	**21,470**	**25,111**
Long-term debt	2,567	2,301	4,143	3,728	3,355
Convertible debt					
Other LT liabilities	2,221	4,587	5,470	6,325	7,372
Total liabilities	**17,779**	**26,323**	**28,152**	**31,523**	**35,839**
Minority interest	261	293	220	168	168
Preferred stock	-	-	-	-	-
Common stock	-	-	-	-	-
Retained earnings	5,082	7,390	16,648	21,329	27,006
Proposed dividends	-	-	-	-	-
Other equity and reserves	-	-	-	-	-
Total shareholders' equity	**5,082**	**7,390**	**16,648**	**21,329**	**27,006**
Total equity & liabilities	**23,122**	**34,006**	**45,019**	**53,020**	**63,014**
Liquidity (x)					
Current ratio	1.08	1.05	1.64	1.73	1.83
Interest cover	6.2	8.9	15.3	20.7	26.1
Leverage					
Net debt/EBITDA (x)	1.36	1.96	0.04	net cash	net cash
Net debt/equity (%)	75.1	87.0	1.4	net cash	net cash
Activity (days)					
Days receivable	84.9	89.4	78.8	81.8	82.2
Days inventory	145.1	135.4	114.9	118.0	118.6
Days payable	189.0	200.9	174.3	167.9	167.8
Cash cycle	40.9	23.9	19.4	32.0	32.9

Source: Nomura estimates

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NOMURA
NOMURA INTERNATIONAL (HK) LIMITED

Maintained

BUY

Closing price on 10 Dec	RMB21.49
Price target	**RMB26.00**
	(from RMB14.29)
Upside/downside	21.0%
Difference from consensus	**36.6%**
FY11F net profit (RMBmn)	7,569
Difference from consensus	**18.3%**

Source: Nomura

Action

Despite slowing construction machinery growth in 2011F, we believe Sany will continue to record-high growth led by robust excavator and concrete machinery sales growth. We expect its excavator sales to grow 60% in 2011F on continuous market-share gains in this fast-growing segment, and forecast gross profit will rise 29% y-y to RMB7.6bn in 2011F. We raise our earnings forecasts by 52% and 61% for FY11/12F to RMB1.50 and RMB1.88, respectively. We raise our target multiple to 17x from 15x to reach our new PT of RMB26 (share-split adjusted).

Catalysts

Better-than-expected sales in 2011F, and new business growth opportunities.

Anchor themes

We believe continuous investment in R&D is a long-term sustainable competitive advantage for Chinese machinery makers. Continued improvements in component localisation also drive competitiveness.

Nomura vs consensus

We are more Bullish on Sany's prospects in new product segments and overseas markets.

Staying in high gear

① Excavators – the crown jewel of Sany

We expect Sany's excavator sales volumes to grow by around 100% y-y to 12,000 units in 2010F, driven by high growth of the excavator segment (+70% y-y) and continuous market-share gains. We forecast Sany will record overall 50% y-y volume growth to 18,000 units in 2011F (vs the industry's 20%), on the back of its aggressive marketing strategy, improving brand image and improving product quality. We expect gross margins on excavators to increase slightly, as: 1) the company has entered into various cooperative contracts with its outsourcing suppliers to ensure effective cost control; 2) selling prices would be modestly hiked to partially absorb steel cost increases and 3) improved economies of scale. We forecast gross profit will increase 29% y-y to RMB7.6bn in 2011F.

② Concrete machinery: robust growth on mechanisation

While maintaining its leading position in the concrete machinery segment, we also expect Sany will further extend its horizon in the newly injected divisions, on the back of its improving product durability and service standards, and marketing capabilities. We expect revenue of the concrete machinery division will rise 22% to RMB20.4bn in 2011F, with a flattish gross margin.

③ Reaffirm BUY; raising PT to RMB26

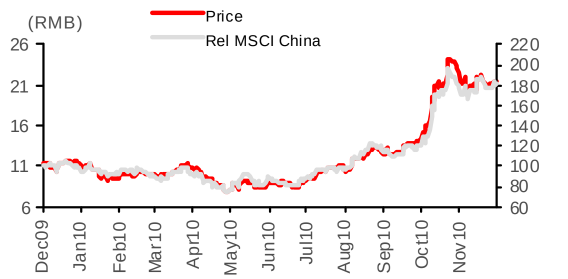
We are revising up our estimates for 2010F and 2011Fdue mainly to: 1) stronger than expected 2H10 sales volumes of most construction machinery in 2010F and 2) more optimistic growth assumptions for the excavator segment and concrete machinery in 2011F. We are raising our FY10F/11F/ 12F EPS estimates to RMB1.16/RMB1.50/ RMB1.88 (after a 21:10 stock split in October). We are revising upward our target multiple to 17x from 15x to reach our new price target of RMB26 (split adjusted), or 17x our FY11F EPS of RMB1.50.

Key financials & valuations

31 Dec (RMBmn)	FY09	FY10F	FY11F	FY12F
Revenue	16,496	34,636	44,703	55,716
Reported net profit	1,963	5,881	7,569	9,522
Normalised net profit	1,963	5,881	7,569	9,522
Normalised EPS (RMB)	1.32	1.16	1.50	1.88
Norm. EPS growth (%)	59.3	(11.9)	28.7	25.8
Norm. P/E (x)	16.3	18.5	14.4	11.4
EV/EBITDA (x)	16.7	6.6	5.1	4.0
Price/book (x)	4.2	8.6	5.6	3.9
Dividend yield (%)	0.8	0.7	0.9	1.1
ROE (%)	29.4	58.1	47.2	40.4
Net debt/equity (%)	net cash	6.4	1.4	net cash
Earnings revisions				
Previous norm. net profit		4,526	4,972	5,930
Change from previous (%)		29.9	52.2	60.6
Previous norm. EPS (RMB)		1.88	2.06	2.46

Source: Company, Nomura estimates

Share price relative to MSCI China



	1m	3m	6m
Absolute (RMB)	(4.7)	70.4	135.0
Absolute (US$)	(5.0)	73.3	141.2
Relative to Index	1.4	64.5	122.6
Market cap (US$mn)			16,343
Estimated free float (%)			39.0
52-week range (RMB)			24.37/7.84
3-mth avg daily turnover (US$mn)			229.9
Stock borrowability			Hard
Major shareholders (%)			
Sany Group Co Ltd			60.7
GF Fund Management			1.3

Source: Company, Nomura estimates

Drilling down

Excavator powers the giant growth

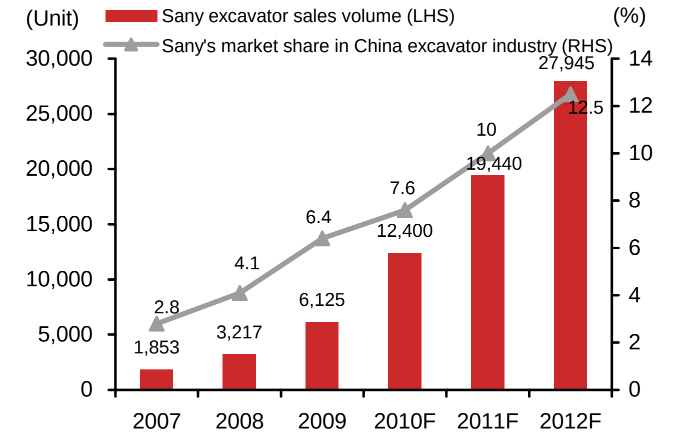
We visited Sany's excavator production base at Kunshan, Jiangsu province, on 25 November, and were impressed by the company's ambitious capacity expansion plans and visionary business strategy for its excavators business.

- **Financials:** management guides for sales revenue of RMB7.4.0-7.5bn for the excavators division in 2010F, with total profit before tax reaching RMB1.2bn. The current gross margin stands at around 30%, which management does not expect to decline next year, as: 1) the company has entered into various cooperative contracts with its outsourcing suppliers to ensure effective cost control; 2) selling prices would be raised moderately, if required, to partially absorb any cost increases, and; 3) improved economies of scale.
- **Capacity ramp-up:** Sany's annual production capacity for excavators reached 30,000 units in October 2010. According to the company, its second excavator plant (located in Shanghai) is expected to commence partial operations by end-2011, with a total production capacity of 40,000 units per year. With another 10,000 units added via facilities upgrades, Sany's annual production capacity for excavators is poised to exceed 50,000 units by 2011F, four-times its sales target for this year (12,000 units).
- **Service upgrades:** according to management, Sany has made significant investments to improve its service quality this year, including shortening the response time, expanding its service network, and training service personnel. Management believes that its premium service will help strengthen Sany's position given the intense competition, and will also enhance its brand equity over time.
- **Key components:** management highlighted that Sany usually places key component (hydraulics, engines) orders one year in advance; hence, capacity bottlenecks being faced by some of its components suppliers, such as Kawasaki and KYB, would not have a significant impact on the company. Also, based on our channel checks, Sany is working on localising hydraulic components by forming partnerships with some foreign companies. Should the company make any key progress on the localisation process, Sany will see further upside to its profitability, in our view.
- **Purchase financing:** according to management, currently above 80% of its excavator sales are financed by mortgage loans, while its dealers resume repurchase obligations for a substantial portion of the loans. Compared with its peers, financial lease merely accounts for 2-3% of Sany's total sales, according to management estimates. We think little leveraging of financial lease provides better liquidity for the company, and dealers' participation in mortgage loans exposes the company to relatively less default risks.

With regard to its growth prospects in 2011F, management guides for an annual sales target of 25,000-30,000 units, representing 100-150% y-y growth. Although this target sounds a bit aggressive to us, we believe 60-70% annual growth is achievable over the next year, based on the following assumptions: 1) we expect China's excavator market size to grow by 20% in 2011F and 2) Sany will continue its strong momentum of market share gains from foreign competitors, as has been seen over the past few years.

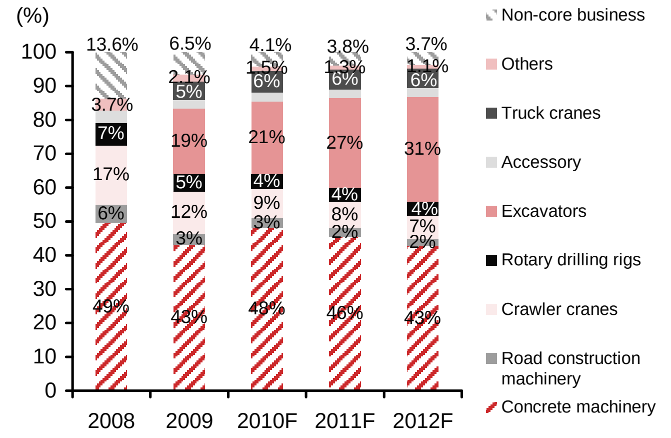
We expect excavators to be the largest growth contributor for Sany over the next several years, accounting for an increasing portion of its total sales. We estimate contribution from excavators to total revenue will exceed 30% in 2012F from around 21% this year.

Exhibit 154. Sany: excavator market share changes



Source: CCMA, Nomura estimates

Exhibit 155. Sany: revenue mix changes



Note: Truck crane and excavator assets injected in 2010; 2009 figures adjusted for the injected segments

Source: Company data, Nomura estimates

Exhibit 156. Sany: segment-wise financial forecasts

(RMBmn)	2008	2009	2010F	2011F	2012F
Concrete machinery	6,791	9,475	16,677	20,382	23,772
y-y growth (%)	*26*	*40*	*76*	*22*	*17*
Gross margin *(%)*	36.1	38.8	41.5	41.0	41.0
Road construction machinery	765	691	967	1,063	1,170
y-y growth (%)	*17*	*(10)*	*40*	*10*	*10*
Gross margin	28.1	28.1	31.5	31.0	31.0
Crawler cranes	2,402	2,738	3,012	3,463	3,983
y-y growth (%)	*172*	*14*	*10*	*15*	*15*
Gross margin (%)	27.0	22.3	26.0	26.0	26.0
Rotary drilling rigs	927	1,117	1,508	1,810	2,172
y-y growth (%)	*115*	*21*	*35*	*20*	*20*
Gross margin *(%)*	52.6	45.4	47.0	46.0	46.0
Excavators		4,255	7,446	11,914	17,275
y-y growth (%)			*75*	*60*	*45*
Gross margin *(%)*			31.5	31.5	31.5
Accessory	482	578	896	1,165	1,514
y-y growth (%)	*56*	*20*	*55*	*30*	*30*
Gross margin *(%)*	31.7	34.3	36.0	36.0	36.0
Truck cranes		1,182	2,186	2,624	3,148
y-y growth (%)			*85*	*20*	*20*
Gross margin *(%)*		20.2	25.5	25.5	25.5

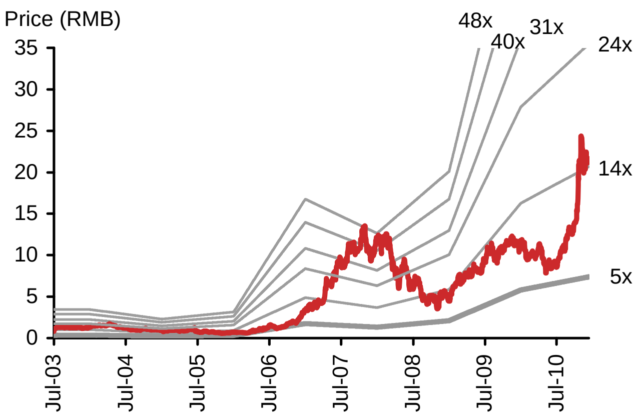
Source: Company data, Nomura estimates

Reaffirm BUY; raising PT to RMB26 (split adjusted)

We are revising up our estimates to factor in the upbeat sales volume this year, and more optimistic growth assumptions for the excavator segment. Our EPS estimates for FY10F, FY11F and FY12F now move up to RMB1.16, RMB1.50 and RMB1.88, respectively (after the 21:10 stock split in October). Sany has mostly been trading at 10-30x 12-month forward P/E for the past three years, with a three-year average forward P/E of 18.1. With the ability to grow net earnings by 25%-plus per annum over the next few years, we consider a target valuation multiple of 17x justified. Thus, our price target moves to RMB26 (split adjusted), or 17x our FY11F EPS of RMB1.50. Sany is currently trading at 14.4x FY11F EPS of RMB1.50. We consider the current valuation attractive and maintain our BUY rating on the stock.

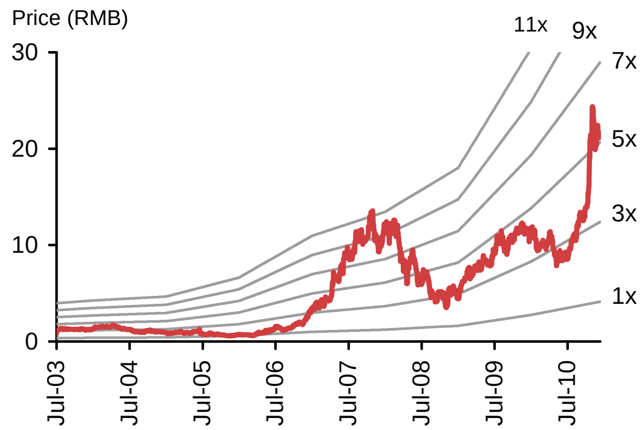
Investment risks. Should demand recovery for construction machinery in China stall or slow significantly, our estimates and price targets may be at risk. On the other hand, should demand recover faster or to a greater extent than we expect, our estimates may prove to be conservative.

Exhibit 157. Sany: forward P/E band



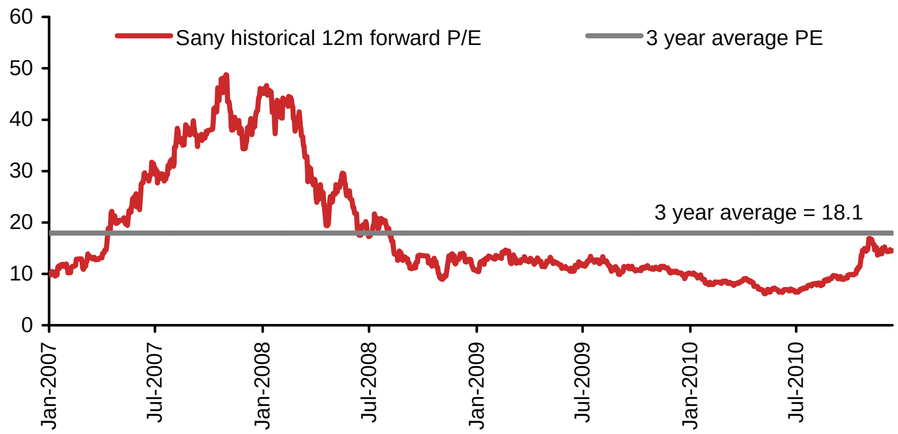
Source: Bloomberg, Nomura estimates

Exhibit 158. Sany: forward P/B band



Source: Bloomberg, Nomura estimates

Exhibit 159. Sany historical forward 12m P/E chart



Source: Bloomberg, Nomura estimates

Financial statements

Income statement (RMBmn)					
Year-end 31 Dec	FY08	FY09	FY10F	FY11F	FY12F
Revenue	13,745	16,496	34,636	44,703	55,716
Cost of goods sold	(9,628)	(11,161)	(21,953)	(28,495)	(35,625)
Gross profit	**4,117**	**5,335**	**12,683**	**16,207**	**20,091**
SG&A	(2,389)	(2,550)	(5,021)	(6,347)	(7,688)
Employee share expense	-	-	-	-	-
Operating profit	**1,728**	**2,785**	**7,662**	**9,861**	**12,403**
EBITDA	**1,931**	**3,071**	**7,994**	**10,247**	**12,839**
Depreciation	(187)	(268)	(315)	(369)	(420)
Amortisation	(16)	(18)	(17)	(17)	(16)
EBIT	**1,728**	**2,785**	**7,662**	**9,861**	**12,403**
Net interest expense	(133)	(89)	(139)	(179)	(223)
Associates & JCEs	9	5	-	-	-
Other income	(64)	(73)	-	-	-
Earnings before tax	**1,540**	**2,629**	**7,523**	**9,682**	**12,180**
Income tax	(66)	(259)	(1,053)	(1,355)	(1,705)
Net profit after tax	**1,474**	**2,370**	**6,470**	**8,326**	**10,475**
Minority interests	(242)	(407)	(589)	(758)	(953)
Other items	-	-	-	-	-
Preferred dividends	-	-	-	-	-
Normalised NPAT	**1,232**	**1,963**	**5,881**	**7,569**	**9,522**
Extraordinary items	-	-	-	-	-
Reported NPAT	**1,232**	**1,963**	**5,881**	**7,569**	**9,522**
Dividends	(268)	(257)	(771)	(992)	(1,248)
Transfer to reserves	**964**	**1,705**	**5,111**	**6,577**	**8,274**
Valuation and ratio analysis					
FD normalised P/E (x)	26.0	16.3	18.5	14.4	11.4
FD normalised P/E at price target (x)	31.4	19.7	22.4	17.4	13.8
Reported P/E (x)	26.0	16.3	18.5	14.4	11.4
Dividend yield (%)	0.8	0.8	0.7	0.9	1.1
Price/cashflow (x)	50.0	12.9	34.0	26.6	21.4
Price/book (x)	5.5	4.2	8.6	5.6	3.9
EV/EBITDA (x)	27.3	16.7	6.6	5.1	4.0
EV/EBIT (x)	30.4	18.5	6.9	5.3	4.1
Gross margin (%)	30.0	32.3	36.6	36.3	36.1
EBITDA margin (%)	14.0	18.6	23.1	22.9	23.0
EBIT margin (%)	12.6	16.9	22.1	22.1	22.3
Net margin (%)	9.0	11.9	17.0	16.9	17.1
Effective tax rate (%)	4.3	9.8	14.0	14.0	14.0
Dividend payout (%)	21.7	13.1	13.1	13.1	13.1
Capex to sales (%)	8.7	6.9	2.9	2.2	1.8
Capex to depreciation (x)	6.4	4.3	3.2	2.7	2.4
ROE (%)	23.3	29.4	58.1	47.2	40.4
ROA (pretax %)	17.7	23.5	45.2	38.7	35.1
Growth (%)					
Revenue	50.3	20.0	110.0	29.1	24.6
EBITDA	(0.3)	59.0	160.3	28.2	25.3
EBIT	(3.2)	61.2	175.1	28.7	25.8
Normalised EPS	(50.8)	59.3	(11.9)	28.7	25.8
Normalised FDEPS	(50.8)	59.3	(11.9)	28.7	25.8
Per share					
Reported EPS (RMB)	0.83	1.32	1.16	1.50	1.88
Norm EPS (RMB)	0.83	1.32	1.16	1.50	1.88
Fully diluted norm EPS (RMB)	0.83	1.32	1.16	1.50	1.88
Book value per share (RMB)	3.92	5.06	2.51	3.83	5.48
DPS (RMB)	0.18	0.17	0.15	0.20	0.25

Source: Nomura estimates

Impressive revenue growth

Cashflow (RMBmn)					
Year-end 31 Dec	FY08	FY09	FY10F	FY11F	FY12F
EBITDA	1,931	3,071	7,994	10,247	12,839
Change in working capital	(1,034)	437	(3,737)	(4,808)	(6,049)
Other operating cashflow	(257)	(1,037)	(1,053)	(1,355)	(1,705)
Cashflow from operations	**640**	**2,471**	**3,204**	**4,083**	**5,085**
Capital expenditure	(1,196)	(1,145)	(1,000)	(1,000)	(1,000)
Free cashflow	**(556)**	**1,326**	**2,204**	**3,083**	**4,085**
Reduction in investments	388	(9)	(2,422)	(1,379)	(1,735)
Net acquisitions					
Reduction in other LT assets	(48)	(47)	-	-	-
Addition in other LT liabilities	(12)	21	(0)	-	-
Adjustments	(100)	76	0	-	-
Cashflow after investing acts	**(328)**	**1,367**	**(218)**	**1,704**	**2,350**
Cash dividends	(66)	(259)	(1,053)	(1,355)	(1,705)
Equity issue					
Debt issue	1,122	(812)	2,706	2,613	3,288
Convertible debt issue					
Others	(395)	(157)	478	616	777
Cashflow from financial acts	**661**	**(1,228)**	**2,131**	**1,874**	**2,360**
Net cashflow	**333**	**139**	**1,913**	**3,578**	**4,710**
Beginning cash	2,605	2,938	3,077	4,990	8,569
Ending cash	2,938	3,077	4,990	8,569	13,278
Ending net debt	1,042	(314)	814	280	(599)

Source: Nomura estimates

Capex stabilising

Balance sheet (RMBmn)					
As at 31 Dec	FY08	FY09	FY10F	FY11F	FY12F
Cash & equivalents	2,938	3,077	4,990	8,569	13,278
Marketable securities	14	3	3	3	3
Accounts receivable	3,102	3,852	6,501	9,911	14,201
Inventories	3,013	2,940	4,962	7,564	10,838
Other current assets	1,009	862	1,455	2,218	3,178
Total current assets	**10,076**	**10,733**	**17,911**	**28,265**	**41,498**
LT investments	186	207	2,629	4,008	5,742
Fixed assets	3,053	3,866	4,551	5,182	5,762
Goodwill	314	631	614	597	581
Other intangible assets	232	248	248	248	248
Other LT assets	106	153	153	153	153
Total assets	**13,967**	**15,837**	**26,106**	**38,452**	**53,984**
Short-term debt	962	941	1,588	2,420	3,468
Accounts payable	2,163	2,222	3,751	5,718	8,193
Other current liabilities	1,449	2,356	2,356	2,356	2,356
Total current liabilities	**4,574**	**5,519**	**7,694**	**10,494**	**14,017**
Long-term debt	2,532	1,336	3,395	5,175	7,415
Convertible debt	486	487	822	1,253	1,796
Other LT liabilities	190	211	211	211	211
Total liabilities	**7,782**	**7,552**	**12,122**	**17,133**	**23,438**
Minority interest	347	758	1,279	1,949	2,793
Preferred stock	-	-	-	-	-
Common stock	-	-	-	-	-
Retained earnings	5,838	7,527	12,705	19,370	27,753
Proposed dividends	-	-	-	-	-
Other equity and reserves	-	-	-	-	-
Total shareholders' equity	**5,838**	**7,527**	**12,705**	**19,370**	**27,753**
Total equity & liabilities	**13,967**	**15,837**	**26,106**	**38,452**	**53,985**
Liquidity (x)					
Current ratio	2.20	1.94	2.33	2.69	2.96
Interest cover	13.0	31.4	55.3	55.1	55.7
Leverage					
Net debt/EBITDA (x)	0.54	net cash	0.10	0.03	net cash
Net debt/equity (%)	17.8	net cash	6.4	1.4	net cash
Activity (days)					
Days receivable	68.8	76.9	54.5	67.0	79.2
Days inventory	101.8	97.3	65.7	80.2	94.5
Days payable	79.8	71.7	49.7	60.6	71.5
Cash cycle	90.8	102.6	70.6	86.6	102.3

Source: Nomura estimates

Lonking Holdings 3339 HK

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Maintained

NEUTRAL

NOMURA INTERNATIONAL (HK) LIMITED

Closing price on 10 Dec	HK$4.87
Price target	**HK$5.30**
	(from HK$3.45)
Upside/downside	8.8%
Difference from consensus	**41.3%**
FY11F net profit (RMBmn)	1,598
Difference from consensus	**16.7%**

Source: Nomura

Action

Although Lonking is on track to meet its FY10F sales target, we expect its growth momentum to moderate in FY11F amid concerns over the outlook of its wheel loader sales. Meanwhile, we believe its excavator segment will continue to grow strongly in FY11F, partially offsetting the sluggishness in the wheel loader segment. Margin pressures from rising material costs may linger into FY11F. We maintain NEUTRAL on Lonking, but lift our price target to HK$5.3, which is based on 12x our revised FY11F EPS of RMB0.37 (post a 2:1 stock split).

Catalysts

Better-than-expected monthly sales and a potential rebound in sales outside of China are potential catalysts for the sector.

Anchor themes

Chinese construction machinery makers will likely become more competitive once a substantial proportion of critical components is localised within two to four years.

Nomura vs consensus

We are more optimistic than the market on the pricing discipline of Lonking and its competitors.

Clouded wheel loader sales

① FY11F: weak wheel loader vs. growing excavator

In our view, 2010F is likely to be a record year for Lonking, with impressive growth observed so far across their major product segments. However, we expect its growth momentum to slow in FY11F, as we remain concerned over the growth prospect of its wheel loader segment (74% of its total sales in FY09), due to: 1) a high base effect; 2) a slowdown in newly-started infrastructure projects; and 3) substitution by excavators. We forecast Lonking's wheel loader sales will increase 5% to 39,000 units in FY11F.

We believe the excavator segment will emerge as the primary growth contributor for the company. We expect Lonking's excavator sales to increase 40% to 5,600 units in FY11F, on new product launches and aggressive financial leasing. However, profitability of Lonking is lower than SANY and Zoomlion's, as Lonking concentrates on low-end products. We are also not confident about the long-term sustainability of excavator growth potential at Lonking due to an increased number of new entrants in low-end excavator manufacturing.

② Cost pressure may linger into FY11F

Hiked steel and tires prices this year have exerted tremendous cost pressure on the company, although Lonking could partially pass on to downstream. With limited pricing power and economies of scales, we believe Lonking, among our coverage, will face the highest negative impact from commodity price hike risk in FY11F.

③ Maintain NEUTRAL, PT at HK$5.3 on 12x FY11F P/E

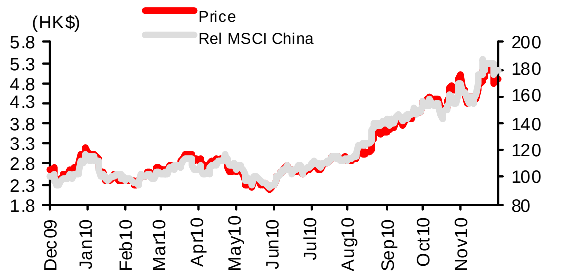
At 11x FY11F P/E, we believe further share price upside is limited and, thus we maintain our NEUTRAL rating. Our 12-month price target is set at HK$5.3, based on 12x our FY11F EPS estimate of RMB0.37.

Key financials & valuations

31 Dec (RMBmn)	FY09	FY10F	FY11F	FY12F
Revenue	6,901	11,224	13,125	15,170
Reported net profit	801	1,460	1,598	1,799
Normalised net profit	801	1,460	1,598	1,799
Normalised EPS (RMB)	0.37	0.34	0.37	0.42
Norm. EPS growth (%)	(53.1)	(6.8)	9.5	12.6
Norm. P/E (x)	11.1	11.9	10.9	9.7
EV/EBITDA (x)	9.3	4.9	4.2	3.5
Price/book (x)	2.3	3.5	2.8	2.3
Dividend yield (%)	1.7	1.7	1.8	2.1
ROE (%)	23.0	33.4	28.6	25.9
Net debt/equity (%)	40.2	26.5	15.3	6.8
Earnings revisions				
Previous norm. net profit		1,312	1,401	1,536
Change from previous (%)		11.2	14.0	17.1
Previous norm. EPS (RMB)		0.56	0.60	0.65

Source: Company, Nomura estimates

Share price relative to MSCI China



	1m	3m	6m
Absolute (HK$)	(1.0)	35.7	119.4
Absolute (US$)	(1.3)	35.5	119.9
Relative to Index	5.4	29.0	104.4
Market cap (US$mn)			2,681
Estimated free float (%)			38.9
52-week range (HK$)			5.14/2.19
3-mth avg daily turnover (US$mn)			11.68
Stock borrowability			Easy
Major shareholders (%)			
China Longgong			30.7
San Yim Li			24.4

Source: Company, Nomura estimates

Drilling down

Momentum slows for FY11F

During our recent visit to Lonking, management reiterated its sales targets for FY10F (wheel loader: 3,800 units; forklift: 10,000 units; excavator: 4,000 units; road roller: 1,800 units). We believe the company is on track to achieve or even exceed its targets, given the strong volume growth rates observed across its major segments this year.

However, we expect its growth momentum to moderate in FY11F, as we remain concerned over the growth prospect of its wheel loader segment, which contributed 74% of total revenue in FY09. Despite its leading position in this segment, we expect Lonking's wheel loader sales growth to halt in FY11F, due mainly to: 1) a high base effect; 2) a slowdown in newly-started infrastructure projects; 3) a prevailing trend of wheal loaders being substituted by excavators. However, thanks to the stable replacement demand from the mining industry, we believe a sharp correction is unlikely. We now expect the wheel loader industry to grow by 5% in FY11F, while Lonking's wheel loader sales to increase by 8% y-y in FY11F.

On the other hand, we expect the excavator segment to emerge as Lonking's primary source of growth. Among all the sub-segments within China's construction machinery space, we are most Bullish on the excavator segment, and forecast 20%-plus annual segment growth from FY11F onward. Moreover, with competitive pricing and improving product quality, we believe Lonking will continue to post market share gains from foreign players going forward. We now forecast a 41% y-y and 45% y-y increase in Lonking's excavator sales in FY11F and FY12F, respectively.

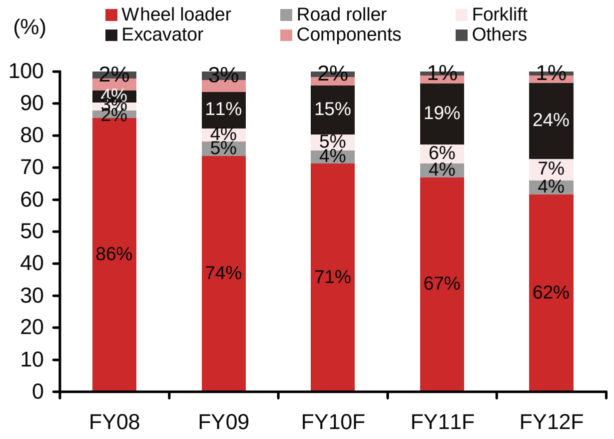
In preparation for fast expansion, Lonking is building another excavator production base in Longyan, Fujian Province, which has a designed annual production capacity of 15,000 units and is expected to be completed by 2012 (Stage I to be completed by end-2011; capacity: 5,000 units per year). In addition, the company plans to upgrade its existing production facilities, adding another 2,500 units annual production capacity by end-2011 (currently 4,500 units).

Exhibit 160. Lonking: sales volume assumption

	1H09	2H09	1H10	2H10	FY08	FY09	FY10F	FY11F	FY12F
Sales units									
Wheel loader industry sales					**165,115**	**143,272**	**217,700**	**228,585**	**240,014**
y-y growth (%)					4	(13)	52	5	5
Lonking's market share (%)					17.6	17.5	17.5	18.0	18.0
Lonking: wheel Loader	13,681	11,375	22,143	15,857	29,084	25,056	38,000	41,145	43,203
y-y growth (%)	(27)	11	62	39	4	(14)	52	8	5
						0	0	0	0
Excavator inudstry sales					**77,851**	**95,820**	**162,000**	**194,400**	**223,560**
y-y growth (%)					17	23	69	20	15
Lonking's market share (%)					0.9	2.1	2.5	2.9	3.7
Lonking: excavator	1,008	1,018	2,474	1,526	675	2,026	4,000	5,638	8,164
y-y growth (%)	181	222	145	50	13	200	97	41	45
Lonking: road roller	568	751	1,175	725	565	1,319	1,900	2,280	2,736
y-y growth (%)	68	232	107	(3)	58	133	44	20	20
			0	0		0	0	0	0
Lonking: forklift	2,198	3,320	5,100	5,400	2,638	5,518	10,500	14,700	19,110
y-y growth (%)	61	161	132	63	142	109	90	40	30

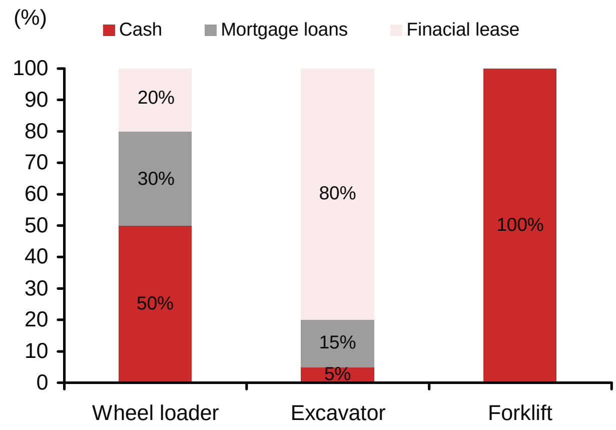
Source: Company data, Nomura estimates

Exhibit 161. Lonking: product mix changes



Source: Company data, Nomura research

Exhibit 162. Lonking: payment methods distribution



Source: Company data, Nomura research

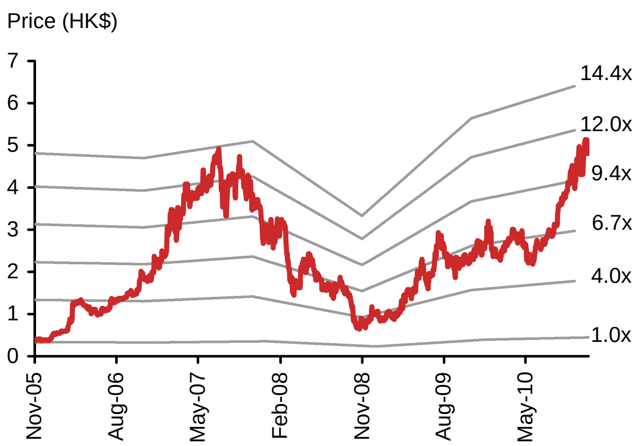
Valuation: Maintain NEUTRAL; PT at HK$5.30

We tune upwards our revenue estimates for FY11F to factor in Lonking's strong sales volume, but adjust down our growth assumption for its wheel loader segment to reflect our concerns on the clouded outlook in this space. Lonking is currently trading at 11x our FY11F EPS estimates of RMB0.37 (post a 2:1 stock split in October), which we believe is fairly priced. The stock has historically been traded at a forward PE range of 7-13x. We estimate an EPS CAGR of 11% over the next two years and hence, we believe a forward P/E multiple of 12x is justified. Our target price of HK$5.30 is set at 12x our FY11F EPS estimate of RMB0.37 (forex assumption: 1RMB=1.2HK$). With less than 10% potential upside, we maintain our NEUTRAL rating on Lonking.

Compared to its peers such as Sany or Zoomlion, we believe Lonking is sitting at a relatively unfavoured position, as: 1) we expect wheel loader to grow at a slower pace than other construction machineries, such as excavator and concrete machinery; and 2) wheel loader has relatively lower technical barriers, and is more highly competitive in terms of pricing. We believe this weaker position harms the company's future growth potential and profitability. Thus, while we give a target P/E multiple of 17x to Sany and Zoomlion, we give only 12x to Lonking to reflect this factor.

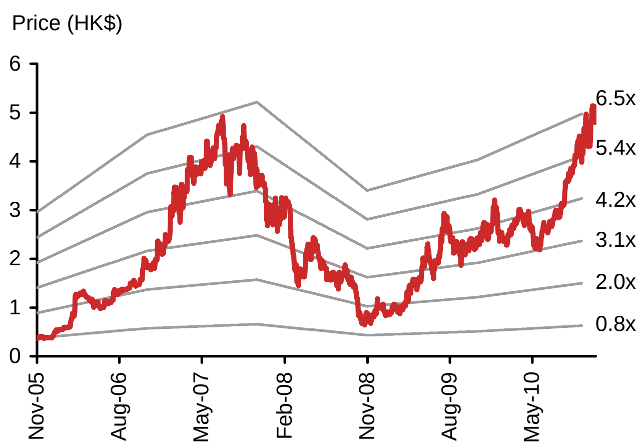
Investment risks. Should economic recovery slow or demand recovery for construction machinery in China stall, our estimates and price target may be at risk. On the other hand, if the wheel loader market demand remains strong, our estimates may be too conservative.

Exhibit 163. Lonking: Forward P/E band



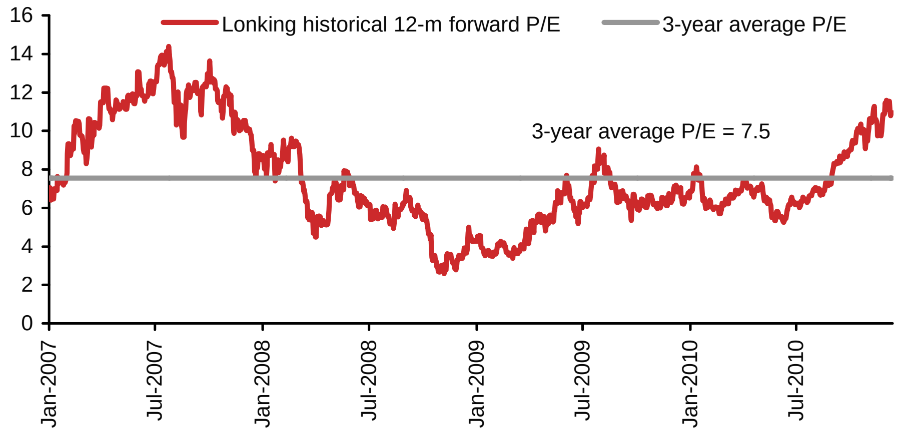
Source: Bloomberg, Nomura estimates

Exhibit 164. Lonking: Forward P/B band



Source: Bloomberg, Nomura estimates

Exhibit 165. Lonking: historical forward 12m P/E chart



Source: Bloomberg, Nomura research

Financial statements

Income statement (RMBmn)					
Year-end 31 Dec	**FY08**	**FY09**	**FY10F**	**FY11F**	**FY12F**
Revenue	6,145	6,901	11,224	13,125	15,170
Cost of goods sold	(4,970)	(5,283)	(8,401)	(9,861)	(11,411)
Gross profit	**1,175**	**1,618**	**2,822**	**3,264**	**3,759**
SG&A	(347)	(658)	(954)	(1,116)	(1,320)
Employee share expense	-	-	-	-	-
Operating profit	**828**	**960**	**1,868**	**2,148**	**2,440**
EBITDA	**923**	**1,099**	**2,020**	**2,307**	**2,605**
Depreciation	(91)	(135)	(147)	(154)	(161)
Amortisation	(4)	(5)	(5)	(5)	(4)
EBIT	**828**	**960**	**1,868**	**2,148**	**2,440**
Net interest expense	(109)	(171)	(278)	(325)	(375)
Associates & JCEs	-	-	-	-	-
Other income	281	117	157	90	90
Earnings before tax	**1,000**	**906**	**1,748**	**1,914**	**2,155**
Income tax	(73)	(106)	(288)	(316)	(355)
Net profit after tax	**928**	**801**	**1,460**	**1,598**	**1,799**
Minority interests	-	-	-	-	-
Other items	-	-	-	-	-
Preferred dividends	-	-	-	-	-
Normalised NPAT	**928**	**801**	**1,460**	**1,598**	**1,799**
Extraordinary items	-	-	-	-	-
Reported NPAT	**928**	**801**	**1,460**	**1,598**	**1,799**
Dividends	(214)	(153)	(292)	(320)	(360)
Transfer to reserves	**714**	**648**	**1,168**	**1,278**	**1,439**
Valuation and ratio analysis					
FD normalised P/E (x)	5.2	11.1	11.9	10.9	9.7
FD normalised P/E at price target (x)	5.7	12.1	13.0	11.8	10.5
Reported P/E (x)	5.2	11.1	11.9	10.9	9.7
Dividend yield (%)	4.4	1.7	1.7	1.8	2.1
Price/cashflow (x)	na	11.2	13.9	12.6	11.2
Price/book (x)	1.5	2.3	3.5	2.8	2.3
EV/EBITDA (x)	11.1	9.3	4.9	4.2	3.5
EV/EBIT (x)	12.4	10.6	5.4	4.5	3.8
Gross margin (%)	19.1	23.4	25.1	24.9	24.8
EBITDA margin (%)	15.0	15.9	18.0	17.6	17.2
EBIT margin (%)	13.5	13.9	16.6	16.4	16.1
Net margin (%)	15.1	11.6	13.0	12.2	11.9
Effective tax rate (%)	7.3	11.7	16.5	16.5	16.5
Dividend payout (%)	23.1	19.1	20.0	20.0	20.0
Capex to sales (%)	17.1	12.3	3.6	2.3	2.0
Capex to depreciation (x)	11.6	6.3	2.7	1.9	1.9
ROE (%)	31.1	23.0	33.4	28.6	25.9
ROA (pretax %)	12.7	12.2	19.2	18.3	17.6
Growth (%)					
Revenue	15.8	12.3	62.6	16.9	15.6
EBITDA	(2.3)	19.1	83.8	14.2	12.9
EBIT	(5.9)	15.9	94.7	15.0	13.6
Normalised EPS	4.2	(53.1)	(6.8)	9.5	12.6
Normalised FDEPS	4.2	(53.1)	(6.8)	9.5	12.6
Per share					
Reported EPS (RMB)	0.78	0.37	0.34	0.37	0.42
Norm EPS (RMB)	0.78	0.37	0.34	0.37	0.42
Fully diluted norm EPS (RMB)	0.78	0.37	0.34	0.37	0.42
Book value per share (RMB)	2.65	1.73	1.16	1.46	1.79
DPS (RMB)	0.18	0.07	0.07	0.07	0.08

Source: Nomura estimates

Growth momentum started to slow down post FY10F

Cashflow (RMBmn)					
Year-end 31 Dec	**FY08**	**FY09**	**FY10F**	**FY11F**	**FY12F**
EBITDA	923	1,099	2,020	2,307	2,605
Change in working capital	697	86	(643)	(704)	(793)
Other operating cashflow	(1,706)	(391)	(129)	(223)	(262)
Cashflow from operations	**(86)**	**794**	**1,248**	**1,380**	**1,550**
Capital expenditure	(1,052)	(846)	(400)	(300)	(300)
Free cashflow	**(1,138)**	**(52)**	**848**	**1,080**	**1,250**
Reduction in investments	-	-	-	-	-
Net acquisitions					
Reduction in other LT assets	(338)	(365)	(193)	(211)	(239)
Addition in other LT liabilities	28	403	132	144	162
Adjustments	1,525	178	7	7	7
Cashflow after investing acts	**76**	**164**	**795**	**1,020**	**1,181**
Cash dividends	(214)	(153)	(292)	(320)	(360)
Equity issue					
Debt issue	998	171	130	232	261
Convertible debt issue					
Others	(444)	(55)	(72)	(98)	(118)
Cashflow from financial acts	**340**	**(38)**	**(234)**	**(186)**	**(218)**
Net cashflow	**417**	**126**	**560**	**834**	**963**
Beginning cash	478	895	1,021	1,582	2,415
Ending cash	895	1,021	1,582	2,415	3,379
Ending net debt	1,581	1,524	1,313	952	520

Source: Nomura estimates

Capex stabilizing

Balance sheet (RMBmn)					
As at 31 Dec	**FY08**	**FY09**	**FY10F**	**FY11F**	**FY12F**
Cash & equivalents	895	1,021	1,582	2,415	3,379
Marketable securities	-	-	-	-	-
Accounts receivable	544	811	1,061	1,335	1,643
Inventories	2,348	2,335	3,054	3,842	4,728
Other current assets	1,355	1,834	2,397	3,014	3,708
Total current assets	**5,142**	**6,001**	**8,094**	**10,605**	**13,457**
LT investments	-	-	-	-	-
Fixed assets	2,060	2,758	3,011	3,157	3,296
Goodwill					
Other intangible assets					
Other LT assets	642	1,007	1,200	1,411	1,649
Total assets	**7,844**	**9,766**	**12,305**	**15,173**	**18,403**
Short-term debt	361	1,401	1,832	2,305	2,837
Accounts payable	1,341	2,082	2,724	3,426	4,216
Other current liabilities	818	896	1,143	1,415	1,720
Total current liabilities	**2,520**	**4,379**	**5,699**	**7,145**	**8,773**
Long-term debt	637	482	400	400	400
Convertible debt	1,477	662	662	662	662
Other LT liabilities	50	453	585	729	892
Total liabilities	**4,684**	**5,976**	**7,346**	**8,937**	**10,727**
Minority interest	1	1	1	1	1
Preferred stock					
Common stock					
Retained earnings	3,159	3,789	4,957	6,236	7,675
Proposed dividends					
Other equity and reserves	-	-	-	-	-
Total shareholders' equity	**3,159**	**3,789**	**4,957**	**6,236**	**7,675**
Total equity & liabilities	**7,844**	**9,766**	**12,305**	**15,173**	**18,403**
Liquidity (x)					
Current ratio	2.04	1.37	1.42	1.48	1.53
Interest cover	7.6	5.6	6.7	6.6	6.5
Leverage					
Net debt/EBITDA (x)	1.71	1.39	0.65	0.41	0.20
Net debt/equity (%)	50.0	40.2	26.5	15.3	6.8
Activity (days)					
Days receivable	42.2	35.8	30.4	33.3	35.9
Days inventory	141.4	161.8	117.1	127.6	137.4
Days payable	89.3	118.2	104.4	113.8	122.6
Cash cycle	94.2	79.4	43.1	47.1	50.8

Source: Nomura estimates

Kobe Steel 5406 JP

STEEL | TOKYO (TSE-1)

NOMURA SECURITIES CO LTD

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Maintained

BUY

Action

We reiterate our BUY rating for Kobe Steel. Margin deterioration at the machinery segment through to 12/3 owing to the strong yen is a concern, but we revise up our projections for Kobelco Construction Machinery as we continue to look for strong overall profit growth in line with our previous forecasts. In the steel businesses, we see longer-term growth potential from the company's new production method.

Catalysts

Better-than-expected construction machinery sales in China and higher capacity utilisation of its first commercial facility in the US are potential catalysts.

Anchor themes

Global demand for construction machinery is strong. In our view, profit growth at construction machinery makers will hinge on their ability to increase production capacity and rein in costs. In the steel sector, market prices have staged a sharp turnaround and look set for a recovery through 11/3 Q4.

Closing price on 10 Dec	¥206.0
Price target	**¥300**
Upside/downside	45.6%
Difference from consensus	34.8%
12/3F net profit (¥bn)	55.0
Difference from consensus	3.8%

Source: Nomura

Nomura vs consensus

We expect stronger sales from its construction machinery division

Construction machinery: largest source of profit

① Most bullish among the blast furnace steelmakers

Recent earnings have been strong and we think the construction machinery business will be the main driver of earnings growth over the near term. Over the longer term, we expect the company's proprietary iron-making process to become a key driver of growth. We are most bullish on Kobe Steel among the blast furnace steelmakers we cover, owing to the strength of near-term earnings and its growth strategy for the longer term, both of which give it an edge over competitors.

② Construction machinery: largest source of profits

Kobe Steel's construction machinery business comprises: 1) Kobelco Construction Machinery (in which Kobe Steel has an 80% stake), which mainly manufactures and sells hydraulic excavators; and 2) Kobelco Cranes (wholly owned), which concentrates mainly on crawler cranes. As a result of growth in Chinese hydraulic excavator sales, we expect the construction machinery business to contribute ¥29bn to recurring profits, or 34% of the company's total recurring profits in 11/3F, making this the largest source of profits, exceeding the earnings contribution from the iron & steel business.

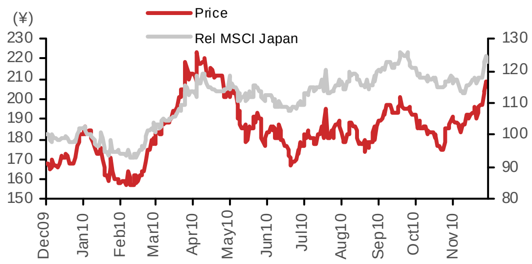
③ We estimate recurring profits of ¥54bn for 14/3

The most notable feature of Kobe Steel's construction machinery business is the rapid growth of Chinese operations at Kobelco Construction Machinery. In recent years, the Chinese operation of Kobelco Construction Machinery has grown even more quickly than the market as a whole, which has itself been expanding rapidly. In its medium-term plan, Kobelco Construction Machinery is targeting 16/3 sales of ¥400bn and recurring profits of more than ¥40bn. We are forecasting recurring profits of ¥49bn in 13/3, rising to ¥54bn in 14/3.

31 Mar (¥bn)	10/3	11/3F	12/3F	13/3F
Sales	1,671	1,880	1,990	2,110
(Company Est)	-	1,910	-	-
Operating Profits	46	125	150	170
(Company Est)	-	115	-	-
Net Profit	6.3	45.0	55.0	65.0
(Company Est)	-	45.0	-	-
EPS (¥)	2.1	15.0	18.3	21.6
(% y-y)	-	7.1x	22.0	18.0
(Company Est)	-	15.0	-	-
BPS (¥)	172.1	180.2	194.8	211.8
PER (x)	98.1	13.7	11.3	9.5
PBR (x)	1.2	1.1	1.1	1.0
EV/EBITDA (x)	8.5	5.7	5.0	4.5
D/E ratio (x)	1.8	1.6	1.3	1.1
ROE (%)	1.3	8.5	9.8	10.6
Earnings revisions				
Previous net profit	-	45.0	55.0	65.0
(Chg from previous, %)	-	na	na	na
Previous EPS (¥)	-	15.0	18.3	21.6
(Chg from previous, %)	-	na	na	na

Source: Company, Nomura estimates

Share price relative to MSCI Japan



	1m	3m	6m
Absolute (¥)	7.9	9.0	13.8
Absolute (US$)	6.0	9.5	24.2
Relative to Index	4.0	1.9	10.2
Market cap (US$mn)			7,680
52-week range (¥)			223.0/157.0

Source: Company, Nomura estimates

Business

BUY, price target ¥300

We are most bullish on Kobe Steel among the blast furnace steelmakers we cover

Recent earnings have been strong and we think the construction machinery business, particularly Chinese operations, will be the main driver of earnings growth over the near term. Over the longer term, we expect the company's proprietary iron-making process to become a key driver of growth (see our report on the Asia-Pacific steel sector published on 16 June 2010). We also like the way the company is laying the foundations for future growth at the iron & steel business, with the announcement of additional production capacity for high-tensile steel in North America (see our Flash Report no. 10-3273 on Kobe Steel, subtitled *Officially announces new automotive steel sheet project in US*, published on 2 December 2010). We are most bullish on Kobe Steel among the blast furnace steelmakers we cover, owing to the strength of near-term earnings and its growth strategy for the longer term, both of which give it an edge over competitors.

We adjust downwards our 11/3F revenue forecast slightly from JPY1,890bn to JPY1,880bn, to factor in our estimates of machinery division sales deceleration and internal sales increase.

Our price target is ¥300

Our price target is ¥300, which we calculate using a DCF model assuming a risk-free rate of 2.0%, a risk premium of 5.2%, and WACC of 4.3%. Our residual value calculation is based on adjusted operating profits of ¥150bn. Adjusted operating profits exclude seconded employees' salaries net of reimbursement, posted as non-operating expenses. Our target price is equivalent to a P/E of 16x our 12/3 EPS estimate.

Construction machinery: largest source of profits

Kobe Steel's construction machinery business comprises Kobelco Construction Machinery (in which Kobe Steel has an 80% stake), which mainly manufactures and sells hydraulic excavators, and Kobelco Cranes (wholly owned), which concentrates mainly on crawler cranes. We forecast the two companies will generate sales of ¥351bn in 11/3, equivalent to 19% of consolidated sales based on our estimates. As a result of growth in Chinese hydraulic excavator sales, we expect the construction machinery business to contribute ¥29bn to recurring profits in 11/3F, or 34% of the company's total recurring profits, making this the largest source of profits, in excess of earnings from the iron and steel business.

Construction machinery in China

Kobelco Construction Machinery in China: growing more rapidly than the overall market

The most notable feature of Kobe Steel's construction machinery business is the rapid growth of Chinese operations at Kobelco Construction Machinery. In recent years the Chinese operation of Kobelco Construction Machinery has grown even more quickly than the market as a whole, which has itself been expanding rapidly. Non-Chinese manufacturers had a market share of around 5% in 2005, but we expect that to increase to 12% in 2010. We forecast 11/3 (the accounting year for Kobelco Construction Machinery's Chinese operation runs Jan-Dec) Chinese sales of around 14,600 units (up 90% y-y), with China accounting for 80% of the company's global hydraulic excavator sales in volume terms.

Steady progress in building up inventories

Sales volumes slowed during summer 2010, but accelerated in September and October and appear to have risen by much more than 50% y-y in October. Although there is some risk in terms of sourcing parts, the company is confident that it will be able to source sufficient volumes to feed growth through 12/3. Parts supplies are tight as always, but the company appears to be making steady progress in building up inventories in preparation for a marketing campaign around Chinese New Year in 2011.

Fuel efficiency: Biggest selling point

We think a company's market share expansion reflects a positive evaluation of the company's products' performance. Kobelco's products stand out for their fuel efficiency and low operating noise. The company has a wide range of other businesses outside construction machinery and its design technology, development-stage analytical techniques and system controls are the key factors setting it apart from competitors, in our view. Key parts for hydraulic equipment and engines are developed in conjunction with Japanese part manufacturers, but Kobelco adds value through its proprietary analytical techniques, enabling it to manufacture fuel-efficient products.

Fuel efficiency is even more important in China than in industrialised countries

In China, fuel efficiency is a major consideration because hydraulic excavators are used much longer than in Japan and other countries, and fuel costs make up a larger proportion of total operating costs because labour costs are so much lower than in industrialised economies. In recent years, Kobelco has seen its share rise in regions outside China. For instance, in Japan, its share of the market for hydraulic excavators has risen by around 5ppt and in 11/3 1H it overtook Hitachi Construction Machinery to achieve the second-largest market share.

China inland production base

Based in Chengdu, it is well placed to tap growing demand

Another key strength of the company's operation is its production base in Chengdu (Sichuan Province), in western China. Kobelco Construction Machinery has production bases in Chengdu and Hangzhou (Zhejiang Province), although some items are imported from Japan and sold in China. The Chengdu site is the main production centre and there are considerable merits to basing the construction machinery business (which incurs substantial distribution costs) in western China, in terms of being able to effectively tap regional demand for equipment used in infrastructure development. Over the next five to 10 years, in particular, there seems to be considerable scope for development in western China, where infrastructure is less established; this should be a positive for Kobelco Construction Machinery's growth in China. Another key feature of the business is the robust sales network that is being established as the company strengthens its relations with local sales agents.

Considerable growth potential

Kobelco Construction Machinery's Chinese production capacity was 10,900 units in 2010 and the company plans to more than double this by 2012. We think any issues surrounding a shortage of hydraulic parts will be eradicated by the middle of 2011 as key suppliers boost production capacity. Given Kobelco's location in western China, where major development is planned, we think this business could be a key driver of Kobe Steel's growth over the medium term.

We estimate recurring profits of ¥54bn in 14/3

In its medium-term plan, Kobelco Construction Machinery is targeting 16/3 sales of ¥400bn and recurring profits of more than ¥40bn. We are forecasting recurring profits of ¥49bn in 13/3, rising to ¥54bn in 14/3.

Risks to our investment view

Risks include rapid appreciation of the Japanese yen given a significant reduction of major manufacturing customers' domestic production activities. In addition, as major material suppliers are increasingly monopolistic, there are also risks of rising material costs if supply tightens.

Financial statements

(¥bn, except where noted)

	08/3	09/3	10/3	11/3E	12/3E	13/3E	14/3E	15/3E	16/3E	11/3E Co's
Sales	2,132	2,177	1,671	1,880	1,990	2,110	2,210	2,080	1,900	1,910
Old segments										
Steel	924	1,022	718	-	-	-	-	-	-	-
Wholesale power supply	72	81	82	-	-	-	-	-	-	-
Aluminum & copper	450	379	262	-	-	-	-	-	-	-
Machinery	302	331	306	-	-	-	-	-	-	-
Construction machinery	335	333	260	-	-	-	-	-	-	-
Kobelco Construction Machinery	282	260	214	-	-	-	-	-	-	-
Domestic	117	103	78	-	-	-	-	-	-	-
Overseas, other	165	157	137	-	-	-	-	-	-	-
Kobelco Cranes	71	85	53	-	-	-	-	-	-	-
Domestic	26	32	20	-	-	-	-	-	-	-
Overseas, other	46	54	33	-	-	-	-	-	-	-
Other	-18	-13	-7	-	-	-	-	-	-	-
Real estate-related businesses	44	37	46	-	-	-	-	-	-	-
Electronic materials, other	61	55	44	-	-	-	-	-	-	-
Eliminations	-56	-61	-46	-	-	-	-	-	-	-
New segments										
Iron & steel			742	850	882	919	973	875	773	870
Welding			76	78	85	87	91	86	77	76
Aluminum & copper			262	310	300	300	300	280	260	300
Machinery			174	160	180	185	190	190	170	160
Natural resources & engineering			66	65	80	90	90	99	113	67
Kobelco Eco-Solutions			83	70	70	75	75	80	75	71
Kobelco Construction Machinery			215	305	360	413	448	430	392	320
Domestic			78	77	84	84	86	81	72	
Overseas, other			137	228	276	329	362	349	320	
Kobelco Cranes			55	48	49	54	57	55	49	48
Domestic			20	18	18	20	22	20	18	
Overseas, other			35	30	31	34	35	35	31	
Other			78	65	70	70	75	70	65	66
Adjustments			-78	-71	-86	-83	-89	-85	-74	-68
Operating profits (old segments)	202	117	46	125	150	170	190	160	130	115
Margin (%)	9	5	3	7	8	8	9	8	7	6
Steel	92	78	-24	-	-	-	-	-	-	
Wholesale power supply	18	17	20	-	-	-	-	-	-	
Aluminum & copper	22	-27	8	-	-	-	-	-	-	
Machinery	31	30	29	-	-	-	-	-	-	
Construction machinery	23	11	8	-	-	-	-	-	-	
Real estate-related businesses	5	2	3	-	-	-	-	-	-	
Electronic materials, other	8	3	-0	-	-	-	-	-	-	
Companywide/eliminations	4	3	3	-	-	-	-	-	-	
Recurring profits (new segments)	158	61	10	85	120	140	160	130	100	80
Iron & steel			-25	21	33	44	58	43	32	21
Welding			2	4	6	6	8	5	2	4
Aluminum & copper			2	14	14	18	20	17	14	13
Machinery			21	13	10	9	12	15	12	12
Natural resources & engineering			5	3	4	5	8	1	9	3
Kobelco Eco-Solutions			2	3	3	4	4	5	3	3
Kobelco Construction Machinery			6	29	42	49	54	49	37	26
Kobelco Cranes			1	0	1	2	3	2	1	0
Other			3	6	6	7	7	5	4	6
Adjustments			-6	-8	1	-3	-13	-12	-14	-7

Note: Data factor in economic slowdown from 15/3.

Source: Company data, Nomura estimates

(¥bn, except where noted)

	08/3	09/3	10/3	11/3E	12/3E	13/3E	14/3E	15/3E	16/3E	11/3E Co's
Factor analysis of change in steel segment										
Total change in recurring profits (new segment)				46	12	11	14	-15	-11	46
Total change in operating profits (old segment)	-3	-14	-102	-	-	-	-	-	-	-
Sales-related factors	27	176	-137	76	23	5	12	-66	-39	96
Prices				53	20	2	5	-60	-29	
Volume				22	3	3	7	-6	-10	
Fuel & raw materials	-22	-235	73	-91	-17	0	-7	48	25	-95
Forex	-1	31	8	11	6	0	0	0	0	12
Inventory valuation (including lower-of-cost-or-market method)	-3	18	-43	50	-24	-0	1	-5	2	50
Cost reduction	8	13	30	17	10	5	5	5	5	16
Increase in fixed costs	-8	-8		0	0	-3	-3	-3	-3	0
Other	-4	-9	-34	-17	15	4	6	6	-1	-32
Impact of one-time costs (including nonsteel businesses)										
Inventory valuation gains/losses		23	-44	21	0	-0	1	-4	-2	
Lower-of-cost-or-market method		-28	17	9	0	0	0	0	0	
Carryovers		17	-30	15	0	0	1	-4	-2	
Operating profits minus impact of inventory valuation gains/losses, lower-of-cost-or-market method		121	73	96	150	170	189	164	132	
Recurring profits minus impact of inventory valuation gains/losses, lower-of-cost-or-market method		65	37	56	120	140	159	134	102	
Impact per tonne of steel shipment volume (¥ '000/t)										
Sales prices			-21.4	8.4	3.2	0.2	0.8	-9.3	-4.7	
Fuel & raw materials	-3.1	-38.1	13.1	-14.3	-2.7	0.0	-1.0	7.4	4.0	
Fuel & raw materials excl carryovers		-40.8	21.5	-21.4	-0.3	0.0	-1.1	8.1	3.6	
Assumptions										
Parent crude steel production volume (mn t)	8.1	7.2	6.6	7.4	7.5	7.6	7.9	7.7	7.3	
Parent steel product shipment volume (mn t)	6.9	6.2	5.6	6.3	6.4	6.5	6.7	6.5	6.2	
Domestic (mn t)	5.4	4.9	3.9	4.5	4.5	4.5	4.6	4.5	4.4	
Exports (mn t)	1.5	1.3	1.7	1.9	1.9	2.0	2.1	2.0	1.8	
Average steel price (¥ '000/t)	77.6	99.5	76.4	82.6	84.8	84.9	85.4	76.3	71.9	
Exchange rate ($/¥)	114.0	101.8	92.9	85.3	81.0	81.0	81.0	81.0	81.0	
Main raw material price assumptions (US$ basis, % y-y)										
Iron ore			-33	121	2	0	3	-29	-10	
Coking coal			-62	72	-0	0	3	-11	-13	
Welding materials sales volume ('000 t)			278	320	335	340	350	345	320	
Domestic			120	135	135	130	135	140	120	
Exports			158	185	200	210	215	205	200	
Rolled aluminum product sales volume ('000 t)		295	271	298	298	304	307	292	277	
Direct reduced iron business in Vietnam										
Sales volume ('000 t)								600	1,200	
Unit sales price ($/t)								485	441	

Note: Data factor in economic slowdown from 15/3.

Source: Company data, Nomura estimates

(¥bn, except where noted)

	08/3	09/3	10/3	11/3E	12/3E	13/3E	14/3E	15/3E	16/3E	11/3E Co's
Income statement										
Sales	**2,132**	**2,177**	**1,671**	**1,880**	**1,990**	**2,110**	**2,210**	**2,080**	**1,900**	**1,910**
Operating profits	**202**	**117**	**46**	**125**	**150**	**170**	**190**	**160**	**130**	**115**
Net interest income	-16	-14	-17	-17	-13	-12	-10	-11	-9	
Equity in net income of affiliates	13	8	2	3	6	8	10	8	6	
Other	-41	-50	-21	-26	-23	-26	-30	-28	-27	
Recurring profits	**158**	**61**	**10**	**85**	**120**	**140**	**160**	**130**	**100**	**80**
Extraordinary gains	2	0	7	3	0	0	0	0	0	
Extraordinary losses	7	33	4	5	5	5	5	5	5	
Pretax profits	153	28	14	83	115	135	155	125	95	
Taxes	60	60	1	24	41	48	57	46	35	
Tax rate (%)	39	215	7	29	36	36	37	37	37	
Minority interests	5	-1	7	14	19	22	24	22	16	
Net profits	**89**	**-31**	**6**	**45**	**55**	**65**	**74**	**57**	**44**	**45**
EPS (¥)	29.6	-10.5	2.1	15.0	18.3	21.6	24.6	19.0	14.7	15.0
% y-y	-16	-	-	8.0x	22	18	14	-23	-23	-
DPS (¥)	7.0	3.5	1.5	3.0	4.0	5.0	6.0	5.0	4.0	
Capex	151	118	129	95	90	115	115	115	105	105
Depreciation	112	129	119	118	110	110	115	115	115	115
Balance sheet										
Current assets	957	1,041	973	990	1,020	1,069	1,109	1,057	983	
Cash & deposits, securities	69	188	132	85	90	95	99	94	86	
Long-term assets	1,372	1,255	1,277	1,226	1,215	1,230	1,243	1,253	1,252	
Total assets	**2,329**	**2,295**	**2,249**	**2,216**	**2,235**	**2,299**	**2,352**	**2,310**	**2,235**	
Liabilities	1,681	1,782	1,692	1,621	1,577	1,568	1,540	1,436	1,315	
Accounts payable	488	480	435	454	481	510	534	503	459	
Interest-bearing debt	823	954	955	840	752	707	646	584	518	
Other	370	349	303	327	344	351	360	349	338	
Net assets	648	513	557	595	658	731	812	874	920	
Shareholders' equity	600	479	517	541	585	636	693	733	763	
Minority interests	48	34	40	54	73	95	119	141	157	
BPS (¥)	199.8	159.6	172.1	180.2	194.8	211.8	230.8	244.1	254.1	
ROE (%)	14.9	-5.8	1.3	8.5	9.8	10.6	11.1	8.0	5.9	
Shareholders' equity to total assets (%)	25.8	20.9	23.0	24.4	26.2	27.7	29.5	31.7	34.1	
D/E ratio (x)	1.4	2.0	1.8	1.6	1.3	1.1	0.9	0.8	0.7	
Cash flow										
Net profits	89	-31	6	45	55	65	74	57	44	
Depreciation	112	129	119	118	110	110	115	115	115	
Change in working capital	-88	23	49	-35	2	-15	-12	16	22	
Other	12	-2	-45	53	32	24	25	6	1	
Operating cash flow	**124**	**118**	**129**	**181**	**199**	**184**	**202**	**194**	**182**	
Investment cash flow	**-187**	**-127**	**-149**	**-97**	**-95**	**-120**	**-120**	**-120**	**-110**	
Free cash flow	**-63**	**-9**	**-20**	**84**	**104**	**64**	**82**	**74**	**72**	
Financial cash flow	**31**	**139**	**-7**	**-121**	**-99**	**-59**	**-78**	**-79**	**-80**	
Other adjustments (changes in scope of consolidation)	1	-10	-29	-10	0	0	0	0	0	
Change in cash & equivalents	-31	120	-56	-47	5	5	4	-5	-8	

Note: Data factor in economic slowdown from 15/3.

Source: Company data, Nomura estimates

Toshiba Machine 6104 JP

MACHINE TOOLS | TOKYO (TSE-1)

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Maintained

BUY

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NOMURA SECURITIES CO LTD

Action

The mainstay molding machinery segment (which we expect to account for 51% of 11/3 sales and 39% of operating profits) now looks more likely to sustain sales and profit growth. The hydraulic equipment business (which mainly makes motors and hydraulic valves that have high entry barriers) is also likely to benefit greatly from demand from the construction machinery industry, especially in China. BUY.

Catalysts

Orders have started to recover in the lucrative machine tool segment and are also rising for hydraulic equipment used in construction machinery, which could become a new cash cow.

Anchor themes

With demand for construction machinery strong, we are focusing on hydraulic equipment for construction machinery, in which Japanese companies have a strong presence.

Closing price on 10 Dec	¥390
Price target	**¥470**
Upside/downside	20.5%
Difference from consensus	**9.6%**
12/3F net profit (¥mn)	2,800
Difference from consensus	**-18.4%**

Source: Nomura

Nomura vs consensus

We forecast 12/3 OP of ¥5.4bn vs Bloomberg consensus (as of 10 December) of ¥6.3bn. We are cautious on earnings improvements in the machine tool segment.

Strong performance in molding machinery, hydraulic equipment

① Rising orders for extrusion machines

Sales and profit growth prospects appear to be improving in the molding machinery segment. Demand is strong for extrusion machinery (which we expect to account for 26% of molding machinery sales in 11/3), used in the manufacture of sheets and films, and orders have been rising from manufacturers of products used in optical devices, lithium-ion batteries and LCD TV film.

② Hydraulic equipment: likely to account for 24% of OP

Hyest, which is responsible for the manufacture and sale of hydraulic equipment, was spun off from Toshiba Machine's hydraulic equipment division in April 2008. Over 80% of its sales are to manufacturers of construction machinery, and it mainly produces hydraulic valves (around 50% of sales at the business), rotation motors (around 40%) and pumps (around 10%). It appears to have the top share of hydraulic equipment used in some small and large hydraulic excavators.

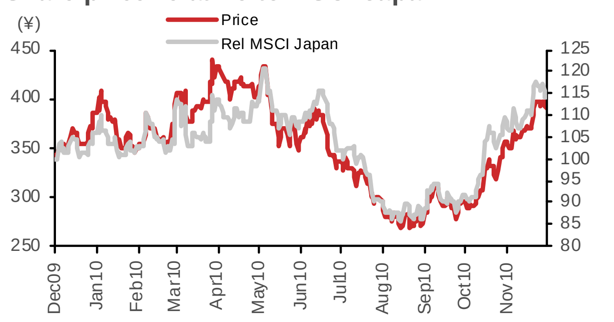
③ Strengthening alliances with Chinese companies

Toshiba Machine has been strengthening alliances with local companies in the strategic Chinese market, and in June 2010, it signed a strategic partnership with Yuchai. Toshiba Machine started supplying hydraulic equipment to Yuchai in 2001, which now accounts for around 10% of the former's sales of hydraulic equipment. We forecast ongoing sales growth now that the two companies have entered into a strategic alliance.

31 Mar (¥mn)	10/3	11/3F	12/3F	13/3F
Sales	74,694	91,700	109,900	122,100
(Company Est)	-	92,000	-	-
Operating Profits	(1,815)	3,300	5,400	7,600
(Company Est)	-	3,200	-	-
Net Profit	(4,531)	1,700	2,800	4,200
(Company Est)	-	1,600	-	-
EPS (¥)	(30)	11.2	18.4	27.6
(% y-y)	na	na	64	50
(Company Est)	-	10.5	-	-
BPS (¥)	416.8	425.6	440.7	462.4
PER (x)	-	34.8	21.2	14.1
PBR (x)	0.9	0.9	0.9	0.8
EV/EBITDA (x)	76.1	10.5	7.9	6.2
Net D/E ratio (x)	(0.2)	(0.2)	(0.1)	(0.1)
ROE (%)	(6.9)	2.7	4.3	6.2
Earnings revisions				
Previous net profit	-	1,700	2,800	4,200
(Chg from previous, %)	-	na	na	na
Previous EPS (¥)	-	11.2	18.4	27.6
(Chg from previous, %)	-	na	na	na

Source: Company, Nomura estimates

Share price relative to MSCI Japan



	1m	3m	6m
Absolute (¥)	9.2	37.3	9.9
Absolute (US$)	7.4	37.9	19.9
Relative to Index	5.3	30.4	5.9
Market cap (US$mn)			779
52-week range (¥)			439.0/269.0

Source: Company, Nomura estimates

Drilling down

Price target of ¥470

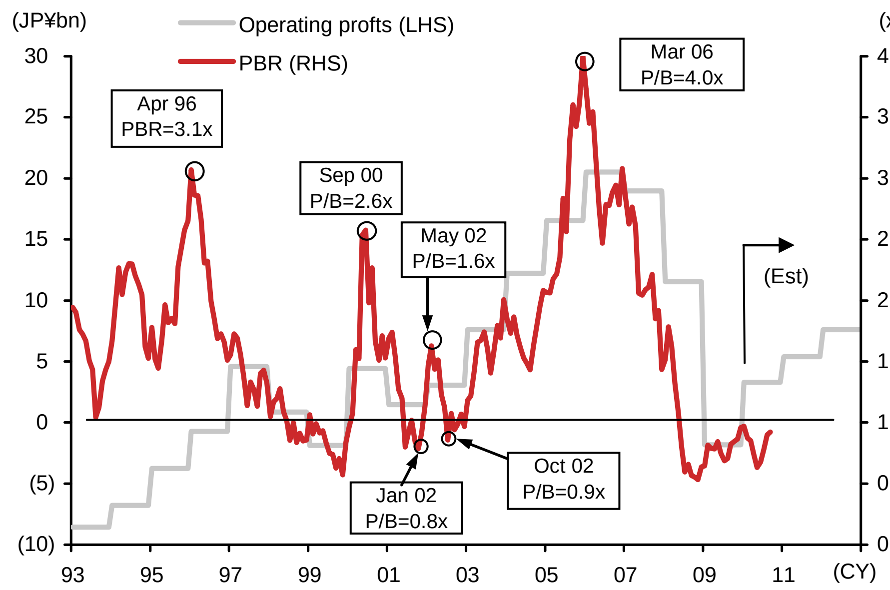
We recommend Toshiba Machine with a BUY rating. The mainstay molding machinery segment (which we expect to account for 51% of 11/3 sales and 39% of operating profits) now looks more likely to sustain sales and profit growth, and demand for hydraulic equipment used in construction machinery (11% of sales, 24% of operating profits) is also strong. We expect profits to recover, driven by molding machinery and hydraulic equipment.

Molding machinery and hydraulic equipment are likely to drive earnings

Profit levels have picked up more quickly than we had expected and this has reduced the risk of losses denting shareholders' equity, in our view. The P/B during the previous period of profit recovery (Jan-Oct 2002) was in the 1.0x to 1.6x range (average of 1.2x; Exhibit below), but because we expect profit levels to remain low in 12/3 (we forecast ROE of 4.3%), we think that the stock deserves to trade at a P/B of around 1.1x our end-11/3 BPS forecast, on which basis we set our target price of ¥470.

Average P/B during previous period of profit recovery (Jan–Oct 2002) was 1.2x

Exhibit 166. Toshiba Machine's operating profits and P/B ratio



Source: Bloomberg, Nomura research

Molding machinery: likely to generate 39% of operating profits; rising orders for extrusion machines

Sales and profit growth prospects are improving in the molding machinery segment. Demand is strong for extrusion machinery (which we expect to account for 26% of molding machinery sales in 11/3), used in the manufacture of sheets and films, and orders have been rising from manufacturers of products used in optical devices, lithium-ion batteries and LCD TV films. Company president Yukio Iimura commented at the 11/3 H1 results briefing that order volumes were almost too much for the company to handle.

Large backlog of orders for injection molding machinery

Meanwhile, orders for injection molding machinery (which we expect to account for 43% of segment sales in 11/3) have been slowing slightly, reflecting inventory corrections in the electronic parts & devices industry, but we think that the healthy order backlog should be able to cover at least half of sales in 11/3 H2. Improvements in macroeconomic indicators suggest to us that inventory corrections for electronic parts will end soon, and as such, we expect orders to pick up again after bottoming in 11/3 H2. We accordingly look for sales and profits to remain on an upward trajectory from 12/3 onward.

Hydraulic equipment: likely to account for 24% of operating profits

Hyest, which is responsible for the manufacture and sale of hydraulic equipment, was spun off from Toshiba Machine's hydraulic equipment division in April 2008. Over 80% of its sales are to manufacturers of construction machinery, and it mainly produces hydraulic valves (around 50% of sales at the business), rotation motors (around 40%), and pumps (around 10%). It appears to have the top share of hydraulic equipment used in some small and large hydraulic excavators.

Healthy demand in China, capacity increases inside and outside Japan

China accounts for around half of the global hydraulic excavator market and is currently exhibiting strong demand. Toshiba Machine has a three-shift, 24-hour production setup at its Sagami plant at present, but even so it cannot keep up with orders, and inquiries appear to be running at over double the level of actual orders. The company commenced mass production of rotation motors at its Shanghai plant from 11/3, with a view to increasing monthly output first from 500 units to 1,000 units and later to 1,500 units in 12/3 and 2,000 units in 13/3. It plans to use resulting spare capacity at the Sagami plant to increase valve output.

Supplying technology to Korean companies with view to mass producing hydraulic equipment

At the same time, Toshiba Machine will be supplying production technology to Korean hydraulic equipment manufacturers with a view to using them to plug production shortfalls. It will be supplying hydraulic valve technology to Daesung Industry, part of Daesung Group Holdings, for mass production from 2013, and rotation motor technology to the Sungbo group, for mass production from 2011.

Strengthening alliances with Chinese companies

Toshiba Machine has been strengthening alliances with local companies in the strategic Chinese market, and in June 2010, it signed a strategic partnership with Yuchai, a Chinese diesel engine manufacturer founded in 1989 that also produces and sells mini excavators and had an 18% share of the Chinese market in Jan–Oct 2010, behind Doosan Infracore with 20%. Having formed a partnership with Toshiba Machine in June 2010, Yuchai went on to form alliances with major US filter manufacturer Donaldson in September and with two Chinese companies, Shantui Construction Machinery and Jining Yongsheng Construction Machinery, in November, in order to ensure a stable supply of parts as it moves into the markets for medium-sized and large hydraulic excavators.

Prospect of ongoing growth in sales to Chinese company

Toshiba Machine started supplying hydraulic equipment to Yuchai in 2001, which now accounts for around 10% of the former's sales of hydraulic equipment. We forecast ongoing sales growth now that the two companies have entered into a strategic alliance.

Risks to our investment view

Risks to our investment view include slower-than-expected improvement in profit, and a dramatic slowdown in global economic growth, as well as customer investment.

Financial statements

(¥mn, except where noted)

	05/3	06/3	07/3	08/3	09/3	10/3	11/3E	12/3E	13/3E	11/3E Co's (as of 10/10)
Income statement										
Orders	139,774	159,013	185,145	155,630	105,372	60,160	98,100	114,600	124,900	99,000
% y-y	19	14	16	-16	-32	-43	63	17	9	65
Molding machinery	73,342	83,574	93,111	86,059	48,148	31,626	54,400	60,200	63,600	54,600
% y-y	19	14	11	-8	-44	-34	72	11	6	73
Injection molding machines	34,000	38,500	40,000	38,000	24,800	14,300	21,200	22,800	24,800	-
% y-y	0	13	4	-5	-35	-42	48	8	9	-
Die-casting machines	22,500	29,000	32,500	28,500	13,800	7,400	15,600	18,200	19,400	-
% y-y	41	29	12	-12	-52	-46	111	17	7	-
Plastic extrusion machines, other	16,842	16,074	20,611	19,559	9,548	9,926	17,600	19,200	19,400	-
% y-y	47	-5	28	-5	-51	4	77	9	1	-
Machine tools	31,082	36,117	39,687	45,414	38,770	16,752	20,700	25,300	28,200	22,000
% y-y	36	16	10	14	-15	-57	24	22	11	31
Semiconductor equipment	19,358	20,575	29,883	-	-	-	-	-	-	-
% y-y	29	6	45	-	-	-	-	-	-	-
Other	15,992	18,747	22,464	24,157	18,454	11,782	23,000	29,100	33,100	22,400
% y-y	-52	17	20	8	-24	-36	95	27	14	90
Hydraulic equipment	6,500	7,000	9,000	10,100	9,000	5,700	10,900	14,300	15,800	10,900
% y-y	-7	8	29	12	-11	-37	91	31	10	91
Other	9,492	11,747	13,464	14,057	9,454	6,082	12,100	14,800	17,300	11,500
Sales	123,573	144,356	164,385	148,779	121,890	74,694	91,700	109,900	122,100	92,000
% y-y	12	17	14	-9	-18	-39	23	20	11	23
Molding machinery	65,756	78,728	85,989	88,152	64,375	30,780	47,200	57,300	63,300	46,700
% y-y	8	20	9	3	-27	-52	53	21	10	52
Injection molding machines	32,000	36,500	39,500	37,000	29,400	14,300	20,500	22,800	25,700	-
% y-y	-3	14	8	-6	-21	-51	43	11	13	-
Die-casting machines	21,000	26,000	28,500	29,500	20,200	7,500	14,500	17,600	18,800	-
% y-y	31	24	10	4	-32	-63	93	21	7	-
Plastic extrusion machines, other	12,756	16,228	17,989	21,652	14,775	8,980	12,200	16,900	18,800	-
% y-y	8	27	11	20	-32	-39	36	39	11	-
Machine tools	24,909	28,332	31,438	37,470	38,266	31,334	23,400	25,100	27,300	23,900
% y-y	34	14	11	19	2	-18	-25	7	9	-24
Semiconductor equipment	16,286	19,084	25,247	-	-	-	-	-	-	-
% y-y	-	17	32	-	-	-	-	-	-	-
Other	16,619	18,211	21,710	23,156	19,248	12,579	22,900	29,300	33,300	23,200
% y-y	-47	10	19	7	-17	-35	82	28	14	84
Hydraulic equipment	-	-	-	-	-	5,700	10,500	13,700	15,600	10,500
% y-y	-	-	-	-	-	-	84	30	14	84
Other	-	-	-	-	-	6,879	12,400	15,600	17,700	12,700
Eliminations			1	1	1	1	-1,800	-1,800	-1,800	-1,800
Operating profits	12,233	16,550	20,506	18,971	11,536	-1,815	3,300	5,400	7,600	3,200
% y-y	61	35	24	-7	-39	SL	SP	64	41	SP
Margin (%)	10	11	12	13	9	NM	4	5	6	3
Molding machinery	5,666	8,209	10,424	10,427	4,157	-4,309	1,300	2,300	3,000	1,000
% y-y	37	45	27	0	-60	SL	SP	77	30	SP
Margin (%)	9	10	12	12	6	NM	3	4	5	2
Machine tools	2,993	3,711	4,434	6,262	6,073	2,941	1,100	1,300	1,900	1,100
% y-y	402	24	19	41	-3	-52	-63	18	46	-63
Margin (%)	12	13	14	17	16	9	5	5	7	5
Semiconductor equipment	1,706	1,696	2,632	-	-	-	-	-	-	-
% y-y	-	-1	55	-	-	-	-	-	-	-
Margin (%)	10	9	10	-	-	-	-	-	-	-
Other	1,974	2,691	2,772	2,246	540	-1,325	1,000	1,900	2,800	1,200
Hydraulic equipment	-	-	-	-	-	-200	800	1,400	1,900	800
% y-y	-	-	-	-	-	-	SP	75	36	SP
Margin (%)	-	-	-	-	-	NM	8	10	12	8
Other	-	-	-	-	-	-1,125	200	500	900	400
Eliminations/companywide	-107	243	244	36	766	877	-100	-100	-100	-100
Recurring profits	10,772	15,604	19,721	18,178	9,891	-2,112	2,500	4,300	6,400	2,400
% y-y	94	45	26	-8	-46	SL	SP	72	49	SP
Margin (%)	9	11	12	12	8	NM	3	4	5	3
Extraordinary gains/losses	-595	1,110	28	2,341	-26	81	0	0	0	-
Pretax profits	10,178	16,714	19,749	20,519	9,866	-2,031	2,500	4,300	6,400	-
Corporation tax	2,939	5,995	8,437	6,609	4,563	2,499	800	1,500	2,200	-
Effective tax rate (%)	29	36	43	32	46	NM	32	35	34	-
Minority interests	10,178	16,714	19,749	20,519	9,866	-2,031	2,500	4,300	6,400	-
Net profits	7,093	10,482	10,828	13,910	5,302	-4,531	1,700	2,800	4,200	1,600
Capex	2,004	3,096	4,192	3,098	5,549	624	1,700	2,500	2,500	1,700
Depreciation	1,824	1,891	2,085	2,170	2,561	2,513	2,200	2,500	2,500	2,200
EPS (¥)	42	63	66	87	34	-30	11	18	28	11
BPS (¥)	288.7	365.0	414.1	445.7	451.9	416.8	425.6	440.7	462.4	-
DPS (¥)	7.0	12.0	12.0	15.0	12.0	4.5	3.0	5.0	8.0	4.5

Note: (1) Company's forex assumptions are $1/¥80 for 11/3 H2 and $1/¥84 for full 11/3. (2) Company estimates that every ¥1 divergence from its dollar/yen exchange rate assumption affects its sales and operating profit forecasts by ¥110mn. (3) Breakdown of molding machinery segment figures based on Nomura estimates. (4) SL = switches to losses; SP = switch to profits.

Source: Company data, Nomura estimates

(¥mn, except where noted)

	10/3				11/3		09/3		10/3		11/3		
	Q1	Q2	Q3	Q4	Q1	Q2	H1	H2	H1	H2	H1	H2E	Co's (as of 10/10)
Income statement													
Orders	10,936	15,662	14,554	19,008	22,142	24,572	72,363	33,009	26,598	33,562	46,714	51,386	52,286
%y-y	-71	-54	-41	2.3x	2.0x	57	-8	-57	-63	2	76	53	56
Molding machinery	4,701	7,872	8,329	10,724	12,781	13,308	34,665	13,483	12,573	19,053	26,089	28,311	28,511
%y-y	-75	-50	-18	3.3x	2.7x	69	-24	-67	-64	41	2.1x	49	50
Machine tools	3,911	4,886	3,544	4,411	4,289	5,537	24,886	13,884	8,797	7,955	9,826	10,874	12,174
%y-y	-70	-59	-66	30	10	13	20	-44	-65	-43	12	37	53
Other	2,324	2,904	2,681	3,873	5,072	5,727	12,812	5,642	5,228	6,554	10,799	12,201	11,601
%y-y	-62	-56	-32	2.3x	2.2x	97	1	-51	-59	16	2.1x	86	77
Hydraulic equipment	-	-	-	-	2,363	2,377	-	-	-	-	4,740	6,160	6,160
% y-y	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	2,709	3,350	-	-	-	-	6,059	6,041	5,441
Order backlog	56,177	51,853	52,772	47,932	52,347	51,300	79,286	62,464	51,853	47,932	51,300	54,077	60,086
% y-y	-32	-35	-33	-23	-7	-1	-48	-61	-35	-23	-1	13	25
Molding machinery	15,514	15,262	17,696	18,709	23,123	23,700	27,957	17,862	15,262	18,709	23,700	25,876	26,576
% y-y	-52	-45	-29	5	49	55	-61	-74	-45	5	55	38	42
Machine tools	36,776	32,702	31,713	26,166	25,296	23,900	45,786	40,748	32,702	26,166	23,900	23,502	24,302
% y-y	-20	-29	-35	-36	-31	-27	-24	-40	-29	-36	-27	-10	-7
Other	3,887	3,889	3,363	3,057	3,928	3,700	5,543	3,854	3,889	3,057	3,700	2,899	1,999
% y-y	-24	-30	-36	-21	1	-5	-73	-83	-30	-21	-5	-5	-35
Hydraulic equipment	-	-	-	-	618	800	-	-	-	-	800	1,166	1,166
% y-y	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	3,310	2,900	-	-	-	-	2,900	1,733	1,733
Sales	17,223	19,986	13,636	23,848	17,726	25,365	72,102	49,787	37,209	37,484	43,091	48,609	43,500
% y-y	-50	-47	-45	-5	3	27	-3	-33	-48	-25	16	30	16
Molding machinery	7,050	8,124	5,895	9,711	8,366	12,699	40,797	23,578	15,174	15,606	21,065	26,135	25,635
% y-y	-66	-59	-55	-8	19	56	-9	-45	-63	-34	39	67	64
Machine tools	7,883	8,959	4,535	9,957	5,160	6,968	19,388	18,878	16,842	14,492	12,128	11,272	11,772
% y-y	4	-24	-39	-13	-35	-22	13	-7	-13	-23	-28	-22	-19
Other	2,290	2,903	3,206	4,180	4,200	5,698	11,917	7,331	5,193	7,386	9,898	13,002	13,302
% y-y	-60	-53	-24	34	83	96	1	-35	-56	1	91	76	80
Hydraulic equipment	1,000	1,200	1,500	2,000	2,052	2,654	-	-	2,200	3,500	4,706	5,794	5,794
% y-y	-	-	-	-	2.1x	2.2x	-	-	-	-	2.1x	66	66
Other	1,290	1,703	1,706	2,180	2,148	3,044	-	-	2,993	3,886	5,192	7,208	7,508
Operating profits	-371	90	-1,167	-367	28	1,559	8,486	3,050	-281	-1,534	1,587	1,713	1,613
% y-y	SL	SP	SL	Losses	SP	17x	-11	-68	SL	Losses	SP	Profits	Profits
Margin (%)	NM	0	NM	NM	0	6	12	6	NM	NM	4	4	4
Molding machinery	-782	-1,183	-1,197	-1,147	-409	673	4,081	76	-1,965	-2,344	264	1,036	736
% y-y	Losses	Losses	Losses	SL	Losses	SP	-25	-98	SL	Losses	SP	Profits	Profits
Margin (%)	NM	NM	NM	NM	NM	5	10	0	NM	NM	1	4	3
Machine tools	636	1,204	8	1,093	366	578	3,272	2,801	1,840	1,101	944	156	156
% y-y	-38	-47	-99	-51	-42	-52	16	-19	-44	-61	-49	-86	-86
Margin (%)	8	13	0	11	7	8	17	15	11	8	8	1	1
Other	-384	-163	-155	-623	-22	316	759	-219	-547	-778	294	706	906
% y-y	Losses	Losses	Losses	Losses	Losses	SP	-35	SL	Losses	Losses	SP	Profits	Profits
Margin (%)	NM	NM	NM	NM	NM	6	6	NM	NM	NM	3	5	7
Hydraulic equipment	-200	-100	0	100	94	203	-	-	-300	100	297	503	503
% y-y	Losses	Losses	Breakeven level	Profits	Profits	Profits	-	-	Losses	SP	Profits	5.0x	5.x
Margin (%)	NM	NM	0	5	5	8	-	-	NM	3	6	9	9
Other	-184	-63	-155	-723	-116	113	-	-	-247	-878	-3	203	403

Note: SL = switch to losses; SP = switch to profits

Source: Company data, Nomura estimates

(¥mn, except where noted)

	05/3	06/3	07/3	08/3	09/3	10/3	11/3E	12/3E	13/3E
Balance sheet									
Current assets	114,229	135,904	147,750	122,881	98,642	83,260	93,500	104,000	113,900
Cash & deposits	26,619	39,409	36,027	17,083	15,194	15,992	14,500	9,900	9,300
Short-term securities	-	-	-	17,500	11,500	16,000	13,500	13,500	13,500
Accounts receivable	52,578	56,142	65,327	53,917	40,989	28,633	37,100	45,800	51,900
Inventories	31,676	36,908	41,648	30,136	26,282	19,686	24,900	30,800	35,200
Other	3,356	3,445	4,748	4,245	4,677	2,949	3,500	4,000	4,000
Long-term assets	30,828	36,572	40,295	35,116	34,090	32,546	32,100	32,100	32,100
Property, plant & equipment	22,208	22,843	25,393	22,443	24,775	23,452	23,000	23,000	23,000
Intangible long-term assets	663	735	824	619	606	480	500	500	500
Other	7,957	12,994	14,078	12,054	8,709	8,614	8,600	8,600	8,600
Total assets	**145,057**	**172,476**	**188,046**	**157,998**	**132,733**	**115,806**	**125,600**	**136,100**	**146,000**
Current liabilities	75,672	87,874	93,401	76,468	46,126	35,626	43,400	51,600	58,200
Accounts payable	34,779	40,992	49,479	37,875	23,858	17,312	22,800	29,100	34,400
Short-term interest-bearing debt	27,213	28,347	22,806	20,150	12,009	10,514	11,000	11,000	11,000
Other	13,680	18,535	21,116	18,443	10,259	7,800	9,600	11,500	12,800
Long-term liabilities	20,952	21,893	23,616	11,526	17,895	16,807	17,500	17,500	17,500
Long-term interest-bearing debt	11,378	9,840	10,150	-	7,500	7,500	7,500	7,500	7,500
Other	9,574	12,053	13,466	11,526	10,395	9,307	10,000	10,000	10,000
Total liabilities	**96,624**	**109,767**	**117,017**	**87,994**	**64,021**	**52,433**	**60,900**	**69,100**	**75,700**
Minority interests	808	2,362	3,095	-	-	-	-	-	-
Shareholders' equity	47,625	60,347	67,934	70,004	68,712	63,373	64,700	67,000	70,300
Cash flow									
Operating cash flow	**8,739**	**13,188**	**10,621**	**7,445**	**2,179**	**10,054**	**-4,300**	**-3,000**	**1,500**
Pretax profits	10,178	16,714	19,749	20,519	9,866	-2,031	2,500	4,300	6,400
Depreciation	1,824	1,891	2,085	2,170	2,561	2,513	2,200	2,500	2,500
Change in accounts receivable	-1,797	-3,564	-9,185	1,248	12,928	12,356	-8,500	-8,700	-6,100
Change in inventory assets	-3,416	-5,233	-4,739	-1,403	3,853	6,595	-5,200	-5,900	-4,400
Change in accounts payable	2,582	6,213	8,487	-2,161	-15,143	-4,940	5,500	6,300	5,300
Tax payments	-1,016	-6,320	-8,743	-8,369	-8,823	-635	-800	-1,500	-2,200
Other	384	3,487	2,967	-4,559	-3,063	-3,804	0	0	0
Investment cash flow	**-1,225**	**1,014**	**-5,076**	**1,724**	**-4,901**	**-1,959**	**-1,700**	**-2,500**	**-2,500**
Acquisition of property, plant & equipment	-1,448	-2,329	-5,173	-2,991	-4,633	-2,028	-1,700	-2,500	-2,500
Other	223	3,343	97	4,715	-268	69	0	0	0
Free cash flow (1 + 2)	7,514	14,202	5,545	9,169	-2,722	8,095	-6,000	-5,500	-1,000
Financial cash flow	**-17,456**	**-1,907**	**-9,084**	**-10,558**	**-3,992**	**-2,900**	**0**	**-600**	**-1,000**
Change in interest-bearing debt	-15,644	-404	-5,230	-2,306	8	-1,510	500	0	0
Dividends	-810	-14	-1,474	-6,325	-1,638	-1	-500	-600	-1,000
Other	-1,002	-1,489	-2,380	-1,927	-2,362	-1,389	0	0	0
Change in cash & equivalents	-9,491	12,790	-3,381	-1,444	-7,888	5,298	-4,000	-4,600	-600
Financial indicators									
Cash & equivalents	26,619	39,409	36,027	34,583	26,694	31,992	28,000	23,400	22,800
Operating assets	72,346	75,636	83,713	69,240	68,794	54,939	62,700	71,000	76,200
= accounts receivable + inventory assets – accounts payable + PPE/intangible long-term assets									
Invested capital	86,216	98,534	100,890	90,154	88,221	81,387	83,200	85,500	88,800
= short-term interest-bearing debt + long-term interest-bearing debt + owners' equity									
Interest-bearing debt	38,591	38,187	32,956	20,150	19,509	18,014	18,500	18,500	18,500
Net interest-bearing debt	11,972	-1,222	-3,071	-14,433	-7,185	-13,978	-9,500	-4,900	-4,300
ROA (%)	7	10	10	14	7	-8	3	4	6
ROE (%)	17	21	19	21	8	-7	3	4	6
Operating profits / total assets (%)	8	10	11	12	9	-2	3	4	5
Operating profits / operating assets (%)	17	22	24	27	17	-3	5	8	10
Operating profits / invested capital (%)	14	17	20	21	13	-2	4	6	9
Operating margin (%)	-1	-1	-0	-1	-1	-0	-1	-1	-1
Recurring margin (%)	9	11	12	12	8	-3	3	4	5
Turnover periods (months)									
Total assets	14.1	14.3	13.7	12.7	13.1	18.6	16.4	14.9	14.3
Operating assets	7.0	6.3	6.1	5.6	6.8	8.8	8.2	7.8	7.5
Cash & equivalents	2.6	3.3	2.6	2.8	2.6	5.1	3.7	2.6	2.2
Accounts receivable	5.1	4.7	4.8	4.3	4.0	4.6	4.9	5.0	5.1
Inventory assets	3.1	3.1	3.0	2.4	2.6	3.2	3.3	3.4	3.5
Purchasing receivables	3.4	3.4	3.6	3.1	2.3	2.8	3.0	3.2	3.4
Working capital	4.8	4.3	4.2	3.7	4.3	5.0	5.1	5.2	5.2
PPE/intangible long-term assets	2.2	2.0	1.9	1.9	2.5	3.8	3.1	2.6	2.3
Net D/E ratio (x)	25	-2	-5	-21	-10	-22	-15	-7	-6
Owners' equity ratio (%)	33	35	36	44	52	55	52	49	48

Source: Company data, Nomura estimates

Nabtesco Corp 6268 JP

OTHER INDUSTRIAL MACHINERY | TOKYO (TSE-1)

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NOMURA
NOMURA SECURITIES CO LTD

Maintained

BUY

Action

The company is highly competitive in hydraulic equipment used in construction machinery, railroad vehicle equipment and precision equipment. We expect the company to achieve record-high profits in 12/3, concentrated mainly in these segments. We regard Nabtesco as a key construction machinery company. BUY.

Catalysts

Establishment of a Chinese joint venture in the railroad vehicle equipment business and winning of a new overseas order.

Anchor themes

With demand for construction machinery strong, we focus on hydraulic equipment for construction machinery, in which Japanese companies have a strong presence.

Closing price on 10 Dec	¥1,596
Price target	**¥1,870**
Upside/downside	17.2%
Difference from consensus	**8.3%**
12/3F net profit (¥mn)	14,800
Difference from consensus	**4.6%**

Source: Nomura

Nomura vs consensus

We are more optimistic on the company's hydraulics sales used for construction machinery.

Record profits

① Booming demand for hydraulics from construction machinery

We forecast record-high profits for the company in 12/3 on its three main businesses. The first key business is aircraft & hydraulic equipment, used in global infrastructure projects and likely to record increased demand for hydraulic equipment for construction machinery. The company is highly competitive even in China, the world's largest construction machinery market, with an estimated share of around 40% in travelling motors.

② A major beneficiary of China's railway build-out plans

The company's second main business is global infrastructure-related transportation equipment, which appears to be headed for earnings growth from Chinese railroad projects. In China's high-speed rail system too, Nabtesco has market share in excess of 40% in brakes and door systems. In the medium term, we think Nabtesco could reap the benefits of orders received for Japan's shinkansen technology from outside Japan and could also stand to gain if China South Locomotive & Rolling Stock exports its high-speed system to the rest of the world.

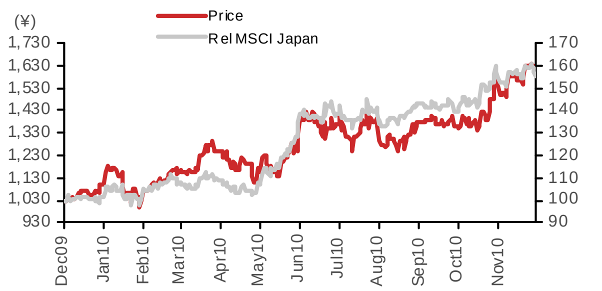
③ Play the theme of factory automation

Precision equipment is the third main business of the company, where Nabtesco has an estimated global share of 60% in reduction gears for robot applications. Nabtesco appears to be receiving a boost from investment in automation by manufacturers in response to mushrooming Chinese labour costs, as well as from investment in increased global production by European and US automakers.

31 Mar (¥mn)	10/3	11/3F	12/3F	13/3F
Sales	126,249	162,500	175,500	185,500
(Company Est)	-	160,000	-	-
Operating Profits	7,964	19,200	22,900	25,600
(Company Est)	-	17,700	-	-
Net Profit	4,017	12,500	14,800	16,600
(Company Est)	-	11,600	-	-
EPS (¥)	31.7	98.9	117.1	131.3
(% y-y)	(9)	3.1x	18	12
(Company Est)	-	91.8	-	-
BPS (¥)	628.3	744.7	829.8	925.1
PER (x)	50.3	16.1	13.6	12.2
PBR (x)	2.5	2.1	1.9	1.7
EV/EBITDA (x)	13.9	7.5	6.2	5.4
D/E ratio (x)	0.2	0.2	0.1	0.1
ROE (%)	4.8	13.9	14.9	15.0
Earnings revisions				
Previous net profit	-	12,500	14,800	16,600
(Chg from previous, %)	-	na	na	na
Previous EPS (¥)	-	98.9	117.1	131.3
(Chg from previous, %)	-	na	na	na

Source: Company, Nomura estimates

Share price relative to MSCI Japan



	1m	3m	6m
Absolute (¥)	2.6	16.0	20.4
Absolute (US$)	0.9	16.5	31.3
Relative to Index	(1.1)	8.9	17.4
Market cap (US$mn)			2,430
52-week range (¥)			1,641/998

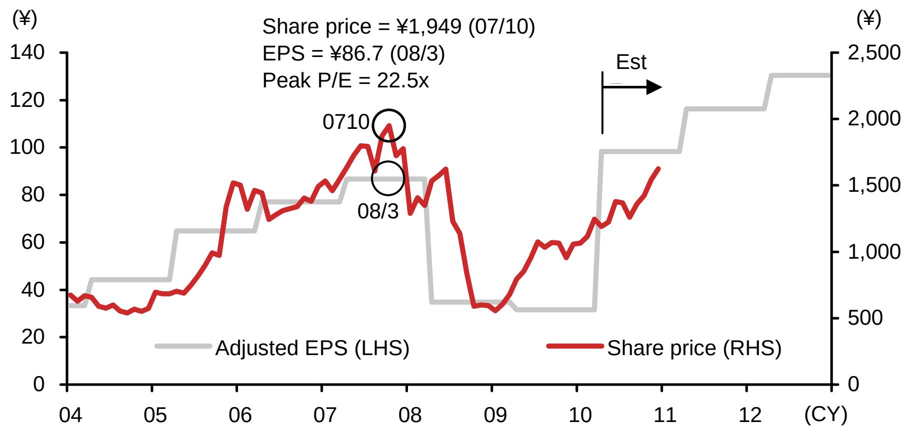
Source: Company, Nomura estimates

Drilling down

BUY, price target of ¥1,870

Our price target is ¥1,870, calculated by multiplying our 12/3 EPS forecast of ¥117 by our target P/E of 16x. The peak P/E during the previous phase of earnings growth was 23x (October 2007, 08/3 peak EPS) (see Exhibit below). We have adjusted this ratio to reflect the decline in overall market P/Es.

Exhibit 167. Nabtesco's EPS and share price: previous peak P/E was 23x (October 2007



Source: Bloomberg, Nomura research

Can withstand rise in yen owing to highly competitive products

We estimate that currency fluctuations will impact operating profits (12/3E) by 3% (¥700mn) if the yen appreciates by ¥10 against the dollar. However, we regard the company's chief products as highly resilient to yen appreciation thanks to their competitiveness.

Three main businesses

First of three main businesses: aircraft & hydraulic equipment

We recommend Nabtesco with a BUY rating. We forecast record-high profits for the company in 12/3 on its three main businesses. Its first key business is aircraft & hydraulic equipment, which is used in global infrastructure projects and, in our view, likely to record increased demand for hydraulic equipment for construction machinery. The company is highly competitive even in China — the world's largest construction machinery market — with an estimated share of around 40% in traveling motors. Of particular note is that Nabtesco is increasing sales to Komatsu, as well as to construction machinery manufacturers in Korea and China. The aircraft business could see an increase in demand for equipment used in civilian aircraft, we believe, resulting in a gradual improvement in margins.

Second main business: transportation equipment

The second main business is global infrastructure-related transportation equipment, which appears to be headed for earnings growth from Chinese railroad projects. In China's high-speed rail system too, Nabtesco has market share in excess of 40% in brakes and door systems, and we expect to see growth in sales as it supplies more rolling stock for China South Locomotive & Rolling Stock's (CSR) high-speed system. Subway networks are also planned for major cities in China, and Nabtesco is considering setting up a subway-related joint venture. In the medium term, we think that Nabtesco could reap the benefits if orders are received for Japan's shinkansen technology from outside Japan and if CSR exports its high-speed system globally.

The third main business is precision equipment, where Nabtesco has an estimated global share of 60% in reduction gears for robot applications. Nabtesco is increasing its sales to Japanese robot manufacturers, particularly Fanuc, as well as German manufacturers KUKA and ABB. Nabtesco appears to be receiving a boost from investment in automation by manufacturers in response to mushrooming Chinese labour costs, as well as from investment in increased global production by European and US automakers.

Third main business: Precision equipment

Hydraulic equipment: Cash cow for the company

Nabtesco's hydraulic equipment operation is the mainstay of its business: it accounted for around 65% of the aircraft & hydraulic equipment business' sales in 10/3 and we expect it to account for over 70% in 11/3F. By our estimate, the business will generate 26% of the company's total sales and just over 20% of its operating profits in 11/3F.

Hydraulic equipment generates over 20% of operating profits

In the hydraulic equipment segment, Nabtesco is involved in travelling motors for construction machinery and control valves. The company offers an extensive line-up of travelling motors for use in products ranging from 3 tonne mini excavators to 250 tonne crawler cranes. Travelling units, which house reduction gears, brakes and valves in a single integrated system, have been well received by many users for their compactness and reliability as a main suspension component. Meanwhile, Nabtesco is looking to maintain its technological edge by 1) securing patents; 2) establishing a five-year lead on rivals in new product development; and 3) maintaining a black box production system for manufacturing processes by keeping production of machine tools in house, for example.

Broad product line-up in travelling motors

Nabtesco has a domestic market share of around 40% in travelling motors for power excavators and a similar share of around 40% in China as well, as it supplies not only Japanese, but also Chinese and Korean construction machinery manufacturers. Besides Japanese manufacturers such as Komatsu and Kobelco Construction Machinery, its major customers include companies such as Sany Heavy Industry and Doosan Infracore. The company also has a large market share in China as a result of increasing sales to overseas construction machinery manufacturers.

Large market share in travelling motors

The business has production bases in China and Thailand. Its Chinese unit, Shanghai Nabtesco Hydraulic, is a major base, generating around half of the hydraulic equipment business' sales. Nabtesco is increasing production capacity in both China and Thailand, and has set its sights on achieving a y-y increase of over 20% in 12/3.

Expanding overseas bases

We expect operating profits to reach 2.8x the 10/3 level in 11/3 and grow another 30% in 12/3 at the aircraft & hydraulic equipment segment on rising demand for construction machinery, particularly in emerging economies. Nabtesco regards hydraulic equipment, railroad vehicle equipment and precision equipment as its medium-term growth drivers. In the hydraulic equipment business, it intends to expand its overseas production base to meet growth in construction machinery demand resulting from infrastructure investment in emerging economies.

Hydraulic equipment is one of Nabtesco's growth businesses

Risks to our investment view

Risks to our investment view include any fluctuations in capital goods spending in aviation hydraulic equipment, precision instruments, etc, as well as any adverse fluctuation in exchange rates, changes in material prices, profit margin and quality issues.

Financial statements

(¥mn, except where noted)

	08/3	09/3	10/3	11/3E	12/3E	13/3E
Sales	174,254	158,170	126,249	162,500	175,500	185,500
% y-y	7.9	-9.2	-20.2	28.7	8.0	5.7
By segment						
Precision equipment	32,912	28,026	15,278	30,000	33,500	35,500
Transportation equipment	48,981	46,765	41,888	47,000	50,000	52,500
Aircraft & hydraulic equipment	56,634	51,390	41,492	57,500	63,000	67,500
Industrial equipment	35,725	31,987	27,589	28,000	29,000	30,000
Operating profits	19,429	12,012	7,964	19,200	22,900	25,600
% y-y	18.3	-38.2	-33.7	141.1	19.3	11.8
Margin (%)	11.1	7.6	6.3	11.8	13.0	13.8
By segment						
Precision equipment	4,682	2,506	603	6,600	7,600	8,100
Transportation equipment	6,060	4,682	3,654	6,000	7,000	7,800
Aircraft & hydraulic equipment	4,554	2,614	1,804	5,000	6,500	7,600
Industrial equipment	4,133	2,209	1,902	1,600	1,800	2,100
Operating margins (%)						
Precision equipment	14.2	8.9	3.9	22.0	22.7	22.8
Transportation equipment	12.4	10.0	8.7	12.8	14.0	14.9
Aircraft & hydraulic equipment	8.0	5.1	4.3	8.7	10.3	11.3
Industrial equipment	11.6	6.9	6.9	5.7	6.2	7.0
Income statement						
Sales	**174,254**	**158,170**	**126,249**	**162,500**	**175,500**	**185,500**
% y-y	7.9	-9.2	-20.2	28.7	8.0	5.7
COGS	132,641	124,040	97,817	122,300	131,400	138,500
Gross profits	41,612	34,129	28,432	40,200	44,100	47,000
Margin (%)	23.9	21.6	22.5	24.7	25.1	25.3
SG&A expenses	22,182	22,117	20,467	21,000	21,200	21,400
As % of sales	12.7	14.0	16.2	12.9	12.1	11.5
Operating profits	**19,429**	**12,012**	**7,964**	**19,200**	**22,900**	**25,600**
% y-y	18.3	-38.2	-33.7	141.1	19.3	11.8
Margin (%)	11.1	7.6	6.3	11.8	13.0	13.8
Net non-operating income	631	986	1,373	1,900	2,000	2,200
Recurring profits	**20,061**	**12,998**	**9,337**	**21,100**	**24,900**	**27,800**
% y-y	18.9	-35.2	-28.2	126.0	18.0	11.6
Margin (%)	11.5	8.2	7.4	13.0	14.2	15.0
Extraordinary gains	130	124	298	100	0	0
Extraordinary losses	1,758	5,191	1,625	400	0	0
Net profits	**11,025**	**4,425**	**4,017**	**12,500**	**14,800**	**16,600**
% y-y	12.7	-59.9	-9.2	211.2	18.4	12.2
Margin (%)	6.3	2.8	3.2	7.7	8.4	8.9
Per-share indicators						
EPS (¥)	86.7	34.8	31.7	98.9	117.1	131.3
CFPS (¥)	127.8	81.0	75.2	144.8	164.6	179.6
DPS (¥)	16.0	13.0	9.0	28.0	32.0	36.0
BPS (¥)	609.1	601.8	628.3	744.7	829.8	925.1
Shares out (mn)	127.1	127.1	126.4	126.4	126.4	126.4

Source: Company data, Nomura estimates

(¥mn, except where noted)

	08/3	09/3	10/3	11/3E	12/3E	13/3E
Balance sheet						
Current assets	99,237	84,306	89,893	102,993	108,265	118,351
Cash & deposits	11,131	9,422	11,040	9,857	9,838	15,855
Accounts receivable	46,641	35,159	36,117	46,488	50,207	53,067
Marketable securities	19,000	18,000	24,499	24,000	24,000	24,000
Inventory assets	18,421	16,492	15,265	19,648	21,220	22,429
Other	4,044	5,233	2,972	3,000	3,000	3,000
Long-term assets	64,079	60,379	59,587	60,602	61,602	62,502
Property, plant & equipment	43,346	45,206	44,102	45,102	46,102	47,002
Investments, other	19,350	13,724	14,292	14,000	14,000	14,000
Intangible long-term assets	1,383	1,449	1,193	1,500	1,500	1,500
Total assets	**163,317**	**144,685**	**149,480**	**163,595**	**169,867**	**180,853**
Current liabilities	58,182	41,209	43,610	48,467	48,984	47,920
Accounts payable	31,462	22,329	24,447	31,467	33,984	35,920
Short-term interest-bearing debt	12,114	8,160	8,920	7,000	5,000	2,000
Other	14,606	10,720	10,243	10,000	10,000	10,000
Long-term liabilities	22,642	21,759	20,702	21,000	16,000	16,000
Long-term interest-bearing debt	11,000	11,000	11,000	11,000	6,000	6,000
Other	11,642	10,759	9,702	10,000	10,000	10,000
Net assets	82,492	81,716	85,167	94,128	104,883	116,933
Total liabilities & shareholders' equity	**163,317**	**144,685**	**149,480**	**163,595**	**169,867**	**180,853**
ROA (%)	11.9	7.8	5.4	12.3	13.7	14.6
ROE (%)	13.8	5.4	4.8	13.9	14.9	15.0
Total capital turnover ratio (x/year)	1.1	1.1	0.8	1.0	1.0	1.0
Net D/E ratio (x)	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3
Owners' equity ratio (%)	50.5	56.5	57.0	57.5	61.7	64.7
Cash flow						
Net profits	11,025	4,425	4,017	12,500	14,800	16,600
Depreciation	5,215	5,867	5,485	5,800	6,000	6,100
Change in working capital	2,284	4,278	2,387	-7,734	-2,774	-2,133
Operating cash flow	**18,524**	**14,570**	**11,889**	**10,566**	**18,026**	**20,567**
Capex	5,601	9,184	4,809	6,800	7,000	7,000
Free cash flow	**12,923**	**5,386**	**7,080**	**3,766**	**11,026**	**13,567**

Source: Company data, Nomura estimates

Komatsu 6301 JP

CONSTRUCTION MACHINERY | TOKYO (TSE-1)

Maintained

BUY

NOMURA
NOMURA SECURITIES CO LTD

Katsushi Saito +81 3 6703 1160 katsushi.saito@nomura.com

Action

Komatsu is the only construction machinery maker that manufactures the bulk of the key components built into its products, such as engine and hydraulic components, in house. We like its solid margins, high sales prices, and premier competitiveness in Asia including China. BUY, with increased PT of ¥3,000.

Catalysts

We think the market consensus forecasts for 11/3 and 12/3 will likely be raised in light of recently firm demand for construction machinery. Caterpillar and Komatsu's 11/3 Q3 results will likely set the direction of forecast revisions, in our view.

Anchor themes

Global demand for construction machinery is strong. In our view, the degree of profit growth at construction machinery manufacturers will likely hinge on their ability to increase production capacity, including parts procurement, and their ability to rein in costs even when output and sales are rising.

Closing price on 10 Dec	¥2,427
Price target	¥3,000
	(from ¥2,800)
Upside/downside	23.6%
Difference from consensus	13.2%
12/3F net profit (¥bn)	171.0
Difference from consensus	13.0%

Source: Nomura

Nomura vs consensus

Our 12/3 operating profit projection of ¥287bn is 13% higher than the Bloomberg consensus forecast (10 December) of ¥253bn.

Lion's share of the market in Asia including China

① Growth in demand for construction machinery

Sales at the construction, mining and utility equipment segment, which we expect will contribute 92% of 11/3F consolidated operating profits, have been firm. In addition to emerging countries such as China, Indonesia (which accounts for around 60% of Southeast Asian sales) and Latin America, among industrialised countries sales have picked up in North America and bottomed out in Europe.

② Manufactures hydraulic equipment, engines in-house

The company manufactures hydraulic equipment and engines in-house, either itself or via affiliates. Also, making full use of ICT technology, it links its agents, Komatsu (China) and its manufacturing plants, smoothly sharing customer information, which it uses in making management decisions. As a result, we believe it is highly capable of responding flexibly to demand in China, which tends to fluctuate substantially.

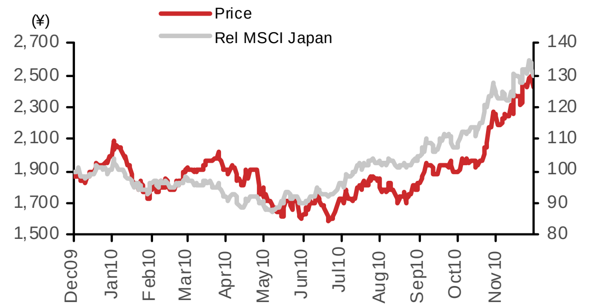
③ Use of ICT technology

Utilising ICT technology and thanks to restructuring implemented mainly through 10/3, the company is highly capable of curbing fixed costs. Thus, growth in sales volume translates directly into growth in marginal profits (marginal profit ratio: 30%) and operating profits. We forecast that the operating margin on construction equipment will rise from 6.5% in 10/3 to 13.1% in 11/3 and 14.7% in 12/3, rising to the highest level among the world's construction machinery makers.

31 Mar (¥bn)	10/3	11/3F	12/3F	13/3F
Sales	1,431.6	1,807.0	2,080.0	2,316.0
(Company Est)	-	1,760.0	-	-
Operating Profits	67.0	213.0	287.0	358.0
(Company Est)	-	200.0	-	-
Net Profit	33.6	126.0	171.0	215.0
(Company Est)	-	120.0	-	-
EPS (¥)	34.7	130.2	176.7	222.2
	(57)	3.8x	36	26
(Company Est)	-	124.0	-	-
BPS (¥)	861.5	955.7	1,083.4	1,243.6
PER (x)	69.9	18.6	13.7	10.9
PBR (x)	2.8	2.5	2.2	2.0
EV/EBITDA (x)	17.9	9.7	7.7	6.4
D/E ratio (x)	0.6	0.6	0.5	0.4
ROE (%)	4.0	13.3	15.8	17.2
Earnings revisions				
Previous net profit	-	126.0	160.0	197.0
(Chg from previous, %)	-	0	7	9
Previous EPS (¥)	-	130.2	165.3	203.6
(Chg from previous, %)	-	0	7	9

Source: Company, Nomura estimates

Share price relative to MSCI Japan



	1m	3m	6m
Absolute (¥)	7.8	32.8	50.7
Absolute (US$)	6.0	33.4	64.5
Relative to Index	3.9	25.9	50.5
Market cap (US$mn)			29,009
52-week range (¥)			2,496/1,591

Source: Company, Nomura estimates

Business

BUY; PT lifted to ¥3,000

BUY reiterated

The 7% upward revision to our 12/3 EPS forecast from ¥165.3 to ¥176.7 lifts our price target from ¥2,800 to ¥3,000. We recommend Komatsu with a BUY rating.

Rating raised on firm sales in China, solid sales of industrial machinery

We raised our profit estimates first because we have lifted our projection for y-y growth in sales of construction machinery in China from 10% to 20%. We think demand for construction machinery in China will likely grow more strongly than previously expected. Second, among industrial machinery, sales of wire saws to solar cell makers have been firm, while sales of large presses and machine tools to customers including automakers in emerging countries have recovered. We think sales and profits will likely pick up substantially in 12/3, beating our previous estimates.

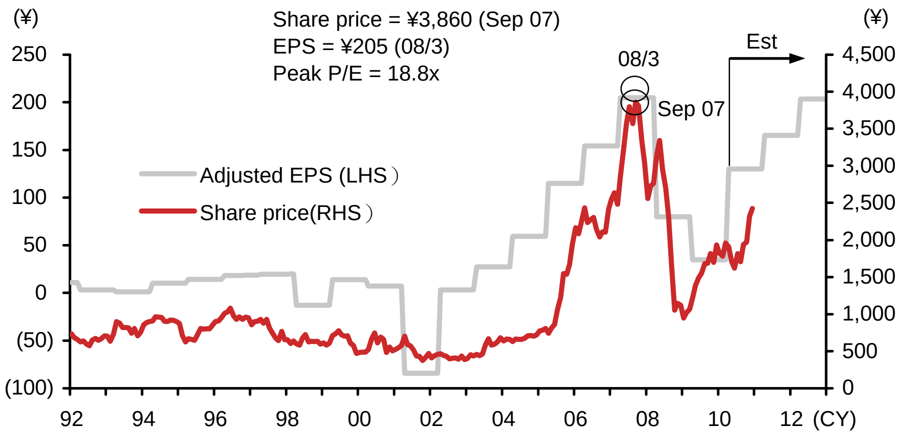
Target price ¥3,000

We have raised our 12/3 EPS forecast from ¥165.3 to ¥176.7, which has lifted our target price from ¥2,800 to ¥3,000. We still calculate our price target using a P/E of 17x our EPS forecast for 12/3. The last time earnings staged a recovery, the share price peaked (month-end price) at ¥3,860 (September 2007), while EPS peaked at ¥205 (08/3) and P/E at 19x, and many other machinery stocks were trading at a peak P/E of around 20x. We have adjusted this multiple to reflect the decline in overall market P/Es.

Forex impact

Based on our 12/3 forecasts, we forecast that every ¥1 move against the dollar impacts full-year recurring profits by 1.3% (¥3.5bn), against the euro by 0.1% (¥250mn) and against the renminbi by 3.1% (¥8.7bn).

Exhibit 168. EPS and share price: previous peak in P/E was 19x (Sep 2007)



Source: Nomura research

Focus point (1): growth in demand for construction machinery

We highlight four focus points as regards Komatsu. First, sales at the construction, mining and utility equipment segment, which we expect will contribute 92% of 11/3F consolidated operating profits, have been firm. In addition to emerging countries such as China, Indonesia (which accounts for around 60% of Southeast Asian sales) and Latin America, among industrialised countries sales have picked up in North America and bottomed out in Europe.

Focus point (2): manufactures hydraulic equipment, engines in house

Second, the company manufactures hydraulic equipment and engines in-house, either itself or via affiliates. Also, making full use of ICT technology, it links its agents, Komatsu (China) and its manufacturing plants, smoothly sharing customer information, which it uses in making management decisions. As a result, it is highly capable of responding flexibly to demand in China, which tends to fluctuate substantially.

Focus point (3): use of ICT technology

Third, utilising ICT technology and thanks to restructuring implemented mainly through 10/3, the company is highly capable of curbing fixed costs. Thus, growth in sales volume translates directly into growth in marginal profits (marginal profit ratio: 30%) and operating profits. We forecast that the operating margin on construction equipment will rise from 6.5% in 10/3 to 13.1% in 11/3, and 14.7% in 12/3, rising to the highest level among the world's construction machinery makers.

Focus point (4): rapid recovery in industrial machinery business

Fourth, we think industrial machinery business (accounting for around 8% of operating profits) will also pick up sharply. Demand for wire saws, which cut silicon for solar cells, has picked up sharply at subsidiary Komatsu NTC (formerly Nippei Toyama). Also, orders from emerging countries for large presses for automobile production have recovered, and we think sales will start to rise from 12/3 H2, one year ahead. We look for operating profits at the industrial machinery segment to rise from ¥3.0bn in 10/3 (operating margin of 1.8%) to ¥18.0bn in 11/3 (8.2%) and ¥33.4bn in 12/3 (11.7%).

Emerging countries account for 68% of construction machinery sales

For 11/3, we expect emerging countries to account for 68% of sales at Komatsu's construction equipment segment, with industrialised countries accounting for 32%. Thus, while we think emerging countries will account for a large proportion of sales, we expect sales to be well distributed worldwide. We expect China to account for the largest proportion among emerging countries at 20%, followed by Asia (17%, of which Indonesia should account for 60%), Latin America (13%, with Chile followed by Brazil accounting for large proportions), Oceania (8%, mining equipment accounting for a large proportion), Africa (4%), Russia and the rest of the CIS (3%) and the Middle East (3%). We think China will account for a large proportion of sales, but a special feature of Komatsu's business is that sales are also distributed among other emerging countries.

Emerging countries indirectly impacted by China

However, demand in emerging countries other than China is also impacted to a large extent by the following chain of events: growth in demand in China drives up resource prices, resulting in firm demand in other emerging countries due to growth in sales of mining machinery and economic growth. Economic trends in China are keys as they are the epicenter.

Industrialised countries account for 32% of sales

Among industrialised countries, Japan accounts for 15% of sales, North America for 11% and Europe for 6%. In all these areas, demand for construction machinery has started to recover from major declines. In volume terms, y-y demand for the seven main types of construction machinery rose 36% in Jul–Sep 2010 and 50% in October in Japan; rose 32% and 15% in North America (preliminary estimates); and rose 27% and 22% in Europe (preliminary estimates).

Organisation in China

The structure of Komatsu's construction, mining and utility equipment business in China is as follows. Komatsu (China), located in Shanghai and wholly owned by Komatsu, is the head office. Komatsu Shantui Construction Machinery (located in Shandong, 60% owned by Komatsu) is the production company, which manufactures hydraulic shovels and other types of construction equipment. Komatsu (Changzhou) Construction Machinery (Jiangsu, 85%) makes hydraulic shovels, wheel loaders and dump trucks. Komatsu Utility (China) Machine (Shandong) makes small hydraulic shovels, mini-excavators (less than 6t) and forklifts.

Also many cylinder and other component manufacturing companies

In components, Komatsu also has numerous production companies that manufacture items such as foundry products, endless track and hydraulic cylinders. In October 2010, Komatsu (China) hived off its mining business division and established Komatsu China Mining, which is engaged in mining equipment sales and services.

Has 32 agents, based on one-agent-per-province policy

The company has 32 agents in China, based on its policy of establishing one agent per province. At one time the company had several agents in individual provinces, but it has since rationalised. As a rule, agents are set up by local Chinese investors.

Leader in hydraulic shovels bigger than 6t since 2006

Komatsu has been the leader in the Chinese market for hydraulic shovels weighing more than 6t since 2006. From 2002 to 2004, Hyundai Heavy Industry was in first place, then in 2005, Hitachi Construction Machinery took the lead.

Sales prices 20% higher than Sany, 20–30% higher than Korean makers

We estimate that Komatsu's products are priced broadly on a par with those of Caterpillar, slightly higher than sales prices at Hitachi Construction Machinery and Kobelco Construction Machinery (the construction equipment maker in the Kobe Steel group), around 20% higher than prices at Sany and around 25-30% higher than prices at Doosan and Hyundai.

Strengths of Chinese business (1): in-house production of core components

The special features and strengths of Komatsu's business in China are, first, that it manufactures core components of construction machinery such as hydraulic equipment and engines in-house (including at affiliates). As regards hydraulic equipment, the company mainly procures valves from its own production plants in Japan, motors from Nabtesco's Chinese subsidiary (in which Komatsu has a 15% stake) and its own plants in Japan, pumps from its plants in Japan, and cylinders from its own plants in China. It manufactures valves from material castings made by subsidiary Komatsu Castex, which also sells foundry products to companies such as Kawasaki Heavy Industries.

Able to respond flexibly to demand swings

For other construction machinery makers, we believe skill in terms of procuring components is now key to steadily expanding production. With heavy sales volumes after the Lunar New Year holidays, flexible production planning is necessary. As Komatsu manufactures core components in-house, we think it can respond flexibly to changes in demand.

Strengths of Chinese business (2): use of ICT, typified by Komtrax

Another special feature/strength of the company's Chinese business is its use of ICT (information and communications technology). The company uses ICT systems to link its agents, Komatsu (China) and its plants and to smoothly obtain data about customers and the state of its machinery where it is being used, and utilises this data in management decision making. Komtrax, a machinery operation management system that the company started fitting to its equipment as standard in February 2004, is one such system. Rivals have similar systems, but we think Komatsu makes the fullest use of them. Capacity utilisation data obtained via Komtrax is obtained by machine type and by region in real time and is supplied to senior management in Japan. Capacity utilisation trends are key in relation to parts orders, and appear to help forecast demand two to three months ahead.

Sales staff at agents enter client data via Komics system

Komics, an ICT system the company introduced in January 2007, allows sales staff at agents to input client data such as by-type inquiries, via a mobile phone, which is sent to agents, Komatsu (China) and the company's production plants. Based on data obtained via Komtrax, Komics and other ICT systems, management revises sales and production plans at meetings held twice a month.

Accurately forecasting demand 10 weeks ahead is vital

Sales volumes in China are heavy after the Lunar New Year holidays. Key to success, therefore, is accurate demand forecasting and optimum production levels. Parts from Japan have to be ordered around 10 weeks ahead of the sale of completed equipment in China. Thus, forecasting demand 10 weeks ahead as accurately as possible is vital, and we think that forecasting accuracy has been increasing thanks to the use of ICT systems.

Strengths of Chinese business (3): input of management resources in China

A third special feature/strength of the company's Chinese business is its inputting of human resources at the managerial level in China. Senior executive officer and deputy representative of all China operations Nobukazu Kotake was previously chief of the development division and is now responsible for development, product planning and quality assurance in China. Senior executive officer and deputy representative of all China operations Tetsuro Kajiya was previously head of the purchasing division and is now responsible for production and procurement. Mr Kotake and Mr Kajiya have been stationed in China since April 2010.

Progress in switching to local procurement

The input of such human resources should ensure that the company makes progress in switching to local procurement. Komatsu (China) has set up an SVC (standard variable cost) improvement project office, and is striving to boost local procurement and reduce manufacturing costs in China. The local procurement rate was around 50% previously, and we estimate that it has risen to 50–60% on mass produced hydraulic shovels in the 20t class. Components procured in Japan include engines, hydraulic valves, pumps and some motors.

Localisation

Senior executive officer and representative of all China operations Taizo Kayata has considerable experience doing business in China. Strategy meetings at Komatsu (China) are run by Mr Kayata, Mr Kotake, Mr Kajiya and Mr Wang. Decisions are made swiftly in coordination with Japan, in our opinion. This reflects the company's way of thinking with regard to localisation.

Strengths of Chinese business (4): expanding sales of components

A fourth special feature/strength of the company's Chinese business is that as part of its value chain strategy, it is striving to boost sales of parts and services after the sale of new machinery. In industrialised countries, customers bear costs broadly on a par with the purchase cost of new equipment over around 10 years of use, comprising regular inspections, maintenance and parts replacement. In the case of mining equipment, the costs are double the purchase cost, as key components have to be overhauled. Margins on parts are high. If Komatsu could garner costs paid by its customers as sales, its profits as a construction machinery maker would be kept in a stable fashion, we believe.

Rise in filter share from 10% to 70%

Komatsu has been putting effort into expanding parts sales in China, too. For example, it has offered extended warranties to customers that use its oil filters. As a result, we estimate its share of filter sales for its hydraulic shovels to have risen from 10% to 70%. Previously, many customers used cheaper third-party filters rather than Komatsu products. We think it will likely adopt the same technique in other areas.

Advent of Komtrax Parts

The company has also been evolving Komtrax, aiming to bring Komtrax Parts, which will enable remote monitoring of parts usage status, replacement history and other data via IC tags attached to consumable components, on stream in 2011. It appears that the company plans to fit this as standard to 20t class hydraulic shovels in China, too.

Annual utilisation 2,000hrs in China, versus 800hrs in Japan, 1,200–1,500hrs in Europe and US

Annual utilisation of hydraulic shovels is comparatively long in China at around 2,000hrs, versus 1,200–1,500hrs in Europe and the US, and 800hrs in Japan. Consumable components are changed often, presumably making it easy to leverage new systems.

Expanding into environmental business such as used equipment sales and recycling

Komatsu plans to open a techno center in Changzhou, Jiangsu Province in January 2011. It plans to use the center as a demonstration and testing center, as a location for downstream value chain business such as recycling of old machinery and auctions of used equipment, and for training of staff and executives. It will be the company's third such center after one in Japan and one in the US, and we think demonstrates the company's commitment to China.

Risks to our investment view

Risks to our investment view include worse-than-expected economic conditions in the region, including China. A sharp fall in commodity prices may also result in a decline in sales of equipment used for mining, which accounts for a large portion of the company’s sales.

Financial statements

(¥bn, except where noted)

	07/3	08/3	08/3 (Note)	09/3	10/3	Nomura latest 11/3E	Nomura latest 12/3E	Nomura latest 13/3E	Co's 11/3E (10/10)	Nomura prev 11/3E	Nomura prev 12/3E	Nomura prev 13/3E
	Old segments ←		→ New segments									
$/¥	117	114	114	101	93	85	81	81	85	84.7	81	81
% y-y	3	-2	-2	-12	-8	-9	-4	0	-8	-9	-4	0
€/¥	150	162	162	143	131	112	112	112	113	112	112	112
% y-y	9	8	8	-11	-8	-14	0	0	-13	-14	0	0
¥/RMB	14.8	15.3	15.3	14.7	13.6	12.6	12.2	12.2	12.7	13	12	12
% y-y	6	3	3	-4	-8	-7	-3	0	-7	-7	-3	0
Sales by division												
Construction & mining equipment	1,568	1,898	2,049	1,745	1,269	1,588	1,803	2,005	1,541	1,588	1,771	1,950
% y-y	21	21		-15	-27	25	14	11	21	25	12	10
Domestic	283	289	371	310	229	240	240	240	240	240	240	240
% y-y	3	2		-16	-26	5	0	0	5	5	0	0
Overseas	1,285	1,609	1,678	1,435	1,040	1,348	1,563	1,765	1,301	1,348	1,531	1,710
% y-y	26	25		-14	-28	30	16	13	25	30	14	12
Industrial machinery, other	298	345	194	277	163	219	285	311	219	219	260	275
% y-y	-1	6		43	-41	34	30	9	34	34	19	6
Total	1,893	2,243	2,243	2,022	1,432	1,807	2,088	2,316	1,760	1,807	2,031	2,225
% y-y	11	18	18	-10	-29	26	16	11	23	26	12	10
Operating profits by segment												
Construction & mining equipment	220.6	304.4	317.9	180.5	83.1	208	264.6	330.8	195	208	255	314
% y-y	54	38		-43	-54	150	27	25	135	150	23	23
Industrial machinery, other	29.6	33.7	19.9	12.9	3	18	33.4	38.2	18	18	26	28
% y-y	22	3		-35	-77	500	86	14	500	500	44	8
Eliminations	-2.6	-3.5	-3.2	-4.7	-5.3	-7	-7	-7	-7	-7	-7	-7
Total	249.7	334.6	334.6	188.7	80.7	219	291	362	206	219	274	335
% y-y	42	34	34	-44	-57	171	33	24	-18	171	25	22
Other operating revenues	-5	-1.7	-1.7	-36.7	-13.7	-6	-4	-4	-6	-6	-4	-4
of which, restructuring costs	0		0	-32.3	-12	-4	0	0	-4	-4	0	0
Operating profits (US GAAP)	244.7	332.9	332.9	151.9	67	213	287	358	200	213	270	331
% y-y	38	36	36	-54	-56	218	35	25	-40	218	27	23
Margin (%)	12.9	14.8	14.8	7.5	4.7	11.8	13.7	15.5	11.4	11.8	13.3	14.9
Operating margin (%)	13.2	14.9	14.9	9.3	5.6	12.1	13.9	15.6	11.7	12.1	13.5	15.1
Construction & mining equipment	14.1	16	15.5	10.3	6.5	13.1	14.7	16.5	12.7	13.1	14.4	16.1
Industrial machinery, vehicles & other	9.9	9.8	10.3	4.7	1.8	8.2	11.7	12.3	8.2	8.2	10	10.2
Net interest income	-7	-6.4		-6	-2.3	-4	-6	-7		-4	-6	-7
Other nonoperating income	-1.3	-4.2		-17.2	0.3	-4	-4	-4		-4	-4	-4
Pretax profits	236.5	322.2		128.8	65	205	277	347	192	205	260	320
Corporation tax, etc	79.7	115.8		42.3	25.4	72.8	98.3	123.2	66	73	92	114
Corporation tax, etc/pretax profits (%)	34	36		33	39	36	36	36	34	36	36	36
Minority interests	-6.6	-9.4		-8.1	-7.6	-9	-12	-14	-9	-9	-12	-14
Equity in profits/losses of affiliates	3.1	6.8		0.4	1.6	3	4	5	3	3	4	5
Net profits (cont. operations only)	153.3	203.8		78.8	33.6	126	171	215	120	126	160	197
Net profits/pretax profits (%)	65	63		61	52	61	62	62	63	61	62	62
Depreciation	65.4	74.6		97	90	90	95	100		90	95	100
Capex	130	146		163	96	93	103	108		93	103	108
EPS (¥)	154.3	204.9		80	34.7	130.2	176.7	222.2	124	130.2	165.3	203.6
BPS (¥)	782	892		842	862	956	1,083	1,244		956	1,075	1,222
DPS (¥)	31	42		40	16	36	49	62	36	36	46	57
Payout ratio (%)	20	20		50	46	28	28	28	29	28	28	28
ROE (%)	20	23		10	4	13	16	17		13	15	16

10/3 figures include one-time gain of ¥2.6bn (reversal of loan loss provisions)

Note: (1) The forklift business is being shifted from the industrial machinery segment to the construction & mining equipment segment in 09/3. Y-y comparisons for 09/3 are for areas where comparisons are possible. (2) For 11/3 we estimate the operating profit impact of each ¥1 change is ¥3.5bn against the dollar, ¥ 0.25bn against the euro, and ¥8.7bn against the renminbi. (3) For 11/3, we estimate the sales impact of each ¥1 change against the dollar at ¥6.0bn, against the euro at ¥1.0bn and against the renminbi at ¥23.0bn.

Source: Company data, Nomura estimates

(¥bn, except where noted)

	08/3	08/3 (Note)	09/3	10/3	11/3E	12/3E	13/3E	11/3E as % of sales	10/3 Q1	10/3 Q2	10/3 Q3	10/3 Q4	11/3 Q1	11/3 Q2	10/3 H1	10/3 H2	11/3 H1	11/3 H2E	11/3E Co's latest H2	11/3E Co's latest Full	11/3E	12/3E	13/3E
	Old segments ←	→ New segments			Nomura latest																Nomura prev		
$/¥	114	114	101	93	85	81	81		97	94	90	91	91	85.7	95	90	88	81	82	85	85	81	81
% y-y	-2	-2	-12	-8	-9	-4	0		-7	-13	-6	-3	-7	-8	-10	-5	-7	-10	-9	-8	-9	-4	0
€/¥	162	162	143	131	112	112	112		133	134	133	125	115	111	133	129	113	112	114	113	112	112	112
% y-y	8	8	-11	-8	-14	0	0		-20	-16	5	3	-13	-17	-18	4	-15	-13	-12	-13	-14	0	0
¥/RMB	15.3	15.3	14.7	13.6	12.6	12.2	12.2		14.2	13.7	13.1	13.2	13.4	12.6	14	13.2	13	12.2	12.3	12.7	12.6	12.2	12.2
% y-y	3	3	-4	-8	-7	-3	0		-5	-13	-7	-5	-6	-8	-9	-5	-7	-8	-7	-7	-7	-3	0
Sales	1,898	2,049	1,745	1,269	1,588	1,803	2,005	100	285	285	317	382	405	358	570	699	764	824	777	1,541	1,588	1,771	1,950
% y-y	21		-15	-27	25	14	11		-47	-45	-16	21	42	26	-46	1	34	18	11	21	25	12	10
Sales by region																							
Jap	289	371	310	229	240	240	240	15	52	55	61	61	54	63	107	122	117	123	123	240	240	240	240
% y-y	2		-16	-26	5	0	0		-35	-33	-28	-4	5	15	-34	-18	10	0	0	5	5	0	0
Overseas (1) + (2) + (3) + (4) + (5)	1,609	1,678	1,435	1,040	1,348	1,563	1,765	85	233	230	256	321	351	295	463	577	646	702	655	1,301	1,348	1,531	1,710
% y-y	25		-14	-28	30	16	13		-49	-47	-13	27	51	28	-48	6	40	22	13	25	30	14	12
Americas (1)	481	511	462	306	370	411	456	23	73	70	76	87	98	92	143	163	190	180	170	360	370	411	456
% y-y	0		-9	-34	21	11	11		-44	-49	-26	-3	35	31	-47	-15	33	10	4	18	21	11	11
North America	297	323	248	136	167	184	206	11	36	32	32	36	41	42	68	68	83	84	82	165	167	184	206
% y-y	-12		-23	-45	23	10	12		-49	-56	-43	-28	15	30	-52	-36	23	24	21	22	23	10	12
Middle & South America	184	188	215	171	203	227	250	13	37	38	45	50	57	50	75	95	107	96	88	195	203	227	250
% y-y	31		14	-21	19	12	10		-39	-43	-7	29	53	31	-41	9	42	1	-8	14	19	12	10
Europe/CIS (2) (note)	414	427	273	122	155	178	202	10	32	27	30	33	40	32	59	63	72	83	78	150	155	178	202
% y-y	33		-36	-55	27	15	13		-70	-68	-36	-1	23	20	-69	-21	22	32	24	23	27	15	13
Western & Eastern Europe (note)	337	341	184	90	100	108	118	6	22	21	23	24	27	22	43	47	49	51	46	95	100	108	118
% y-y	24		-46	-51	11	8	9		-73	-62	-7	1	22	5	-68	-3	13	8	-2	5	11	8	9
CIS (Russia, etc) (note)	77	86	89	32	55	70	84	3	10	6	7	9	13	10	16	16	23	32	32	55	55	70	84
% y-y	88		3	-64	74	28	20		-63	-80	-68	-9	28	72	-72	-50	45	103	103	74	74	28	20
Asia, Oceania (3)	317	329	310	282	395	464	526	25	54	63	74	91	93	89	117	165	182	213	193	375	395	464	526
% y-y	38		-6	-9	40	17	13		-43	-37	13	81	71	41	-40	43	55	30	17	33	40	17	13
Asia	175	186	188	169	270	324	373	17	32	36	46	56	63	61	67	102	124	146	126	250	270	324	373
% y-y	55		1	-10	60	20	15		-46	-45	25	101	100	71	-45	58	84	44	24	48	60	20	15
Oceania	141	143	122	113	125	140	153	8	23	27	28	35	30	28	50	63	58	67	67	125	125	140	153
% y-y	21		-14	-7	10	12	9		-38	-21	-3	57	31	2	-30	24	15	7	7	11	10	12	9
China (4)	176	182	179	245	320	384	442	20	55	49	56	84	98	54	105	140	153	167	157	310	320	352	387
% y-y	62		-1	36	31	20	15		-11	25	132	57	77	11	3	80	46	19	12	27	31	10	10
Middle East, Africa (5)	221	230	210	86	108	126	139	7	18	21	21	26	21	28	39	46	50	58	56	106	108	126	139
% y-y	43		-9	-59	26	17	10		-69	-71	-62	1	18	34	-70	-42	27	26	21	24	26	17	10
Middle East	116	123	126	32	48	58	64	3	6	7	7	13	10	12	13	20	21	27	25	46	48	58	64
% y-y	40		2	-74	50	20	10		-84	-86	-76	3	70	71	-85	-53	70	36	25	43	50	20	10
Africa	105	107	85	53	60	68	75	4	13	14	13	14	12	16	27	27	28	32	32	60	60	68	75
% y-y	45		-21	-37	13	13	10		-45	-40	-48	3	-5	16	-43	-30	6	19	19	13	13	13	10
(Ref) Emerging markets	975	1,015	1,003	814	1,081	1,271	1,441	68	175	177	202	260	283	232	352	462	514	567	527	1,041	1,081	1,239	1,386
%y-y	39		-1	-19	33	18	13		-42	-42	-6	46	61	31	-42	18	46	23	14	28	33	15	12
Advanced economies (Japan, US, Europe)	923	1,034	742	454	507	532	564	32	109	108	115	122	122	127	217	237	249	258	251	500	507	532	564
% y-y	7		-28	-39	12	5	6		-53	-48	-30	-12	12	18	-51	-22			-71	-46	12	5	6
Operating profits	304.4	317.9	180.5	83.1	208	264.6	330.8		7.4	13.4	23.3	38.9	54.3	48	20.8	62.3	102.3	105.7	93	195	208	255	314
% y-y	38		-43	-54	150	27	25		-91	-81	-41	-	630	260	-86	96	392	70	49	135	150	23	23
(Ref) Forex impact	1		-17	-19	-45	-9	0		-16	-18	-12	-	-	-							-45	-9	0
Operating margin (%)	16	15.5	10.3	6.5	13.1	14.7	16.5		2.6	4.7	7.4	10.2	13.4	13.4	3.6	8.9	13.4	12.8	11.9	12.7	13.1	14.4	16.1

Note: (1) Segmentation is being revised from 09/3, with the forklift business included within the construction & mining equipment segment. Y-y comparisons are for areas where comparisons are possible. (3) We estimate the operating profit (11/3 estimates) impact of each ¥1 change is ¥3.5bn against the dollar, ¥0.25bn against the euro, and ¥8.7bn against the renminbi. (4) We estimate the sales impact of each ¥1 change is ¥6.0bn against the dollar, ¥1.0bn against the euro, and ¥23.0bn against the renminbi.

Source: Company data, Nomura estimates

(¥bn, except where noted)

	09/3				10/3				11/3		09/3		10/3		11/3		11/3E Co's	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	H1	H2	H1	H2	H1	H2E	H2	Full
	→ New segments										→ New segments							
$/¥	105	107	96	94	97	94	90	91	91	86	106	95	95	90	88	81	82	85
% y-y	-14	-8	-15	-10	-7	-13	-6	-3	-7	-8	-11	-13	-10	-5	-7	-10	-9	-8
€/¥	165	160	127	122	133	134	133	125	115	111	162	124	133	129	113	112	114	113
% y-y	1	-1	-23	-23	-20	-16	5	3	-13	-17	0	-23	-18	4	-15	-13	-12	-13
Sales	607	604	431	379	320	326	358	428	447	413	1,211	810	646	786	860	947	900	1,760
% y-y	12	12	-21	-38	-47	-46	-17	13	40	27	12	-30	-47	-3	33	21	15	23
Construction & mining equipment	534	516	378	316	285	285	317	382	405	358	1,050	695	570	699	764	824	777	1,541
% y-y	6	6	-24	-43	-47	-45	-16	21	42	26	6	-34	-46	1	34	18	11	21
Domestic	80	81	84	64	52	55	61	61	54	63	161	148	107	122	117	123	123	240
% y-y	-4	-9	-16	-34	-35	-33	-28	-4	5	15	-7	-25	-34	-18	10	0	0	5
Overseas	454	435	294	252	233	230	256	321	351	295	889	546	463	577	646	702	655	1,301
% y-y	9	9	-26	-45	-49	-47	-13	27	51	28	9	-37	-48	6	40	22	13	25
Industrial machinery, other	73	88	53	63	36	41	41	46	42	54	161	116	76	87	96	123	123	219
% y-y	86	71	9	14	-51	-54	-22	-28	17	33	78	12	-53	-25	26	42	42	34
Operating profits	81.7	77.7	41.6	-12.3	8.5	12.9	20.8	38.5	54.3	50.8	159.4	29.3	21.4	59.3	105.1	113.9	100.9	206
% y-y	0	-3	-47	-113	-90	-83	-50	-413	542	293	-1	-83	-87	103	391	92	-37	-18
Construction & mining equipment	78.4	70.4	39.3	-7.6	7.4	13.4	23.3	38.9	54.3	48	148.7	31.7	20.8	62.3	102.3	105.7	92.7	195
	Q4: Inventory valuation loss of ¥5bn, transfer to reserve of ¥3bn																	
% y-y	0	-6	-47	-108	-91	-81	-41	-611	630	260	-3	-81	-86	96	392	70	49	135
Industrial machinery, other	4.8	9.2	2.4	-3.4	2.9	0.8	-1.4	0.7	2	4.1	13.9	-1.1	3.7	-0.7	6.1	11.9	11.9	18
		Q4: Transfer to loan-loss reserve of ¥3.4bn			Q1: Gain on reversal of loan-loss reserve of ¥1.7bn													
% y-y	25	43	-52	-	-40	-91	-	-	-29	-	37	-	-74	-	-	-	-	500
Eliminations	-1.5	-1.8	-0.1	-1.3	-1.8	-1.2	-1.1	-1.1	-2	-1.3	-3.3	-1.4	-3.1	-2.3	-3.3	-3.7	-3.7	-7
Other operating revenue	1.6	-1.3	-1.1	-35.9	-0.2	-1.4	-4.5	-7.6	-0.3	-1	0.3	-37	-1.6	-12.1	-1.2	-4.8	-4.8	-6
Operating profits (US GAAP)	83.3	76.4	40.5	-48.2	8.3	11.5	16.3	30.9	54.1	49.8	159.7	-7.7	19.8	47.3	103.9	109.1	96.1	200
Operating margin (%)	13.5	12.9	9.6	-3.2	2.6	4	5.8	9	12.2	12.3	13.2	3.6	3.3	7.6	12.2	12	11.2	11.7
Construction & mining equipment	14.7	13.6	10.4	-2.4	2.6	4.7	7.4	10.2	13.4	13.4	14.2	4.6	3.6	8.9	13.4	12.8	11.9	12.7
Industrial machinery, other	6.6	10.4	4.4	-5.4	8.1	2	-3.4	1.6	4.9	7.6	8.7	-0.9	4.8	-0.8	6.4	9.7	9.7	8.2

Source: Company data, Nomura estimates

(¥mn, except where noted)

SEC basis	07/3	08/3	09/3	10/3	11/3E	12/3E	13/3E
Balance sheet							
Cash & deposits	92,253	102,107	90,607	83,561	100,300	120,400	156,500
Short-term marketable securities	0	0	0	0	0	0	0
Accounts receivable	551,732	613,319	476,870	598,665	755,668	873,180	968,527
Inventory assets	437,894	518,441	507,357	396,416	440,145	491,190	544,826
Other current assets	135,535	129,505	131,374	112,451	127,196	137,086	144,571
Property, plant & equipment	388,393	491,146	525,462	525,100	527,885	540,670	558,455
Other	238,175	250,628	237,389	242,862	242,862	242,862	242,862
Total assets	**1,843,982**	**2,105,146**	**1,969,059**	**1,959,055**	**2,194,057**	**2,405,388**	**2,615,741**
Accounts payable	365,065	387,104	214,375	207,024	261,317	301,954	334,926
Short-term borrowings	174,734	216,818	307,749	229,394	299,591	334,125	343,926
Long-term borrowings	174,340	235,277	292,106	356,985	356,985	356,985	356,985
Other	353,126	378,821	339,888	331,677	331,677	331,677	331,677
Owners' equity	776,717	887,126	814,941	833,975	944,487	1,080,647	1,248,227
Interest-bearing debt	349,074	452,095	599,855	586,379	656,576	691,110	700,911
Net interest-bearing debt	256,821	349,988	509,248	502,818	556,276	570,710	544,411
Financial indicators							
ROIC (%)	22.2	25	13.3	5.7	13.7	16.4	18.6
OROA (%)	24.7	27.1	14.6	6.1	15	18.2	20.8
ROA (%)	13.5	15.9	9.6	4.1	10	12.1	13.8
ROE (%)	19.7	23	9.7	4	13.3	15.8	17.2
Operating margin (%)	13.2	14.9	9.3	5.6	12.1	13.9	15.6
Recurring margin (%)	12.5	14.4	6.4	4.5	11.3	13.3	15
Invested capital (owners' equity + interest-bearing debt)	1,125,791	1,339,221	1,414,796	1,420,354	1,601,063	1,771,758	1,949,138
Turnover periods (months)							
Invested capital	7.1	7.2	8.4	11.9	10.6	10.2	10.1
Total assets	11.7	11.3	11.7	16.4	14.6	13.8	13.6
Operating assets	6.4	6.6	7.7	11	9.7	9.2	9
Cash & equivalents	0.6	0.5	0.5	0.7	0.7	0.7	0.8
Accounts receivable	3.5	3.3	2.8	5	5	5	5
Inventories	2.8	2.8	3	3.3	2.9	2.8	2.8
Accounts payable	2.3	2.1	1.3	1.7	1.7	1.7	1.7
Working capital	4	4	4.6	6.6	6.2	6.1	6.1
Property, plant & equipment	2.5	2.6	3.1	4.4	3.5	3.1	2.9
Net D/E ratio (x)	0.33	0.39	0.62	0.6	0.59	0.53	0.44
Owners' equity ratio (%)	42.1	42.1	41.4	42.6	43	44.9	47.7
Cash flow							
Operating cash flow (1)	**104,507**	**164,389**	**148,973**	**124,492**	**55,030**	**123,405**	**181,719**
Net profits	153,264	203,826	78,797	33,559	126,000	171,000	215,000
Depreciation	65,421	74,628	97,241	90,215	90,215	90,215	90,215
Change in working capital	-114,178	-114,065	-27,065	718	-161,185	-137,810	-123,496
Accounts receivable	-80,890	-61,587	136,449	-121,795	-157,003	-117,511	-95,347
Inventories	-67,820	-80,547	11,084	110,941	-43,729	-51,045	-53,636
Accounts payable	60,289	22,039	-172,729	-7,351	54,293	40,636	32,972
Other current assets	-25,757	6,030	-1,869	18,923	-14,745	-9,890	-7,485
Investment cash flow (2)	**-130,375**	**-164,139**	**-157,251**	**-89,537**	**-93,000**	**-103,000**	**-108,000**
L-T asset (PPE/intangible) acquisition (capex)	-129,600	-177,381	-131,557	-75,853	-93,000	-103,000	-108,000
Change in investments, other assets	-775	13,242	-25,694	-13,684	0	0	0
Free cash flow (3) = (1) + (2)	**-25,868**	**250**	**-8,278**	**34,955**	**-37,970**	**20,405**	**73,719**
Financial cash flow (4)	**-45,690**	**73,234**	**107,899**	**-38,772**	**54,709**	**-305**	**-37,619**
Dividends	-17,869	-30,802	-41,783	-25,625	-15,488	-34,839	-47,420
Change in interest-bearing debt	-28,839	103,021	147,760	-13,476	70,197	34,535	9,801
Change in capital stock, legal reserves	1,018	1,015	1,922	329	0	0	0
(3) + (4)	**-71,558**	**73,484**	**99,621**	**-3,817**	**16,739**	**20,100**	**36,100**
Change in other	93,760	-63,630	-111,121	-3,229	0	0	0
Change in cash & equivalents	22,202	9,854	-11,500	-7,046	16,739	20,100	36,100

Note: 07/3 includes impact of sale of silicon wafer business.

Source: Company data, Nomura estimates

Hitachi Construction Machinery

6305 JP

CONSTRUCTION MACHINERY | TOKYO (TSE-1)

Maintained

NEUTRAL

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NOMURA SECURITIES CO LTD

Action

We are NEUTRAL on Hitachi Construction Machinery because it does not look undervalued on profit-based metrics such as P/E, but we expect profits to recover and momentum is positive. The company generates 62% of sales from emerging economies, including those in Asia, with China accounting for 26% of total sales.

Catalysts

Investment appeal is likely to increase if there are prospects of profit growth in excess of our forecasts on the back of a further rise in demand, market share expansion or margin improvement.

Anchor themes

Global demand for construction machinery is strong. Demand also appears to have bottomed out in industrialised nations in North America and Europe. Profit growth at construction machinery manufacturers is likely to hinge on their ability to increase capacity and rein in costs even when output and sales are rising.

Closing price on 10 Dec	¥1,973
Price target	¥2,160
	(from ¥1,950)
Upside/downside	9.5%
Difference from consensus	6.0%
12/3F net profit (¥mn)	21,900
Difference from consensus	-0.4%

Source: Nomura

Nomura vs consensus

We forecast 12/3 operating profits of ¥59.0bn, which is 4% higher than the Bloomberg consensus estimate of ¥56.5bn (as of 10 December).

Earnings on recovery track

① Emerging economies account for 62% of sales

On our 11/3 forecasts, 62% of Hitachi Construction Machinery's sales are from emerging economies and 38% from industrialised nations. The emerging economy figure is the sum of 26% for China, 17% for Southeast Asia (7% for India and 10% for other markets), 10% for Oceania, 4% for Africa, 2% for the CIS (Russia, etc), 2% for the Middle East and 1% for Latin America.

② Management aims to lift sales volume around 20% a year from 12/3

Hitachi Construction Machinery (Shanghai) projects that its sales volume (including mini excavators) will rise 38% from 11,880 units (9,640 of 6t and over and 2,240 of less than 6t) in 10/3 to 16,400 units (13,800 and 2,600) in 11/3, and it is aiming for average annual growth of 22% to 30,000 units by 14/3 (although we note that sales projections can change depending on demand).

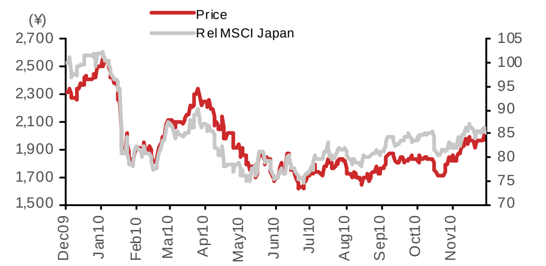
③ Key is steady shipments of core parts from Japan

Output at manufacturing subsidiary Hitachi Construction Machinery (China) is currently steady, and we see little risk of bottlenecks forming. As to production for the sales season following the Lunar New Year holidays in 2011, we think the key will be whether or not the plant receives sufficient shipments of core parts from Japan, both those produced in-house and those procured from third parties.

31 Mar (¥mn)	10/3	11/3F	12/3F	13/3F
Sales	605,788	752,000	849,000	938,000
(Company Est)	-	750,000	-	-
Operating Profits	19,669	41,000	59,000	74,000
(Company Est)	-	40,000	-	-
Net Profit	4,019	10,700	21,900	29,400
(Company Est)	-	10,000	-	-
EPS (¥)	19.3	50.6	103.6	139.1
(Company Est)	-	47.3	-	-
EPS (Excl Amortization, ¥)	-	73.8	126.8	162.2
(% y-y)	-	-	72	28
BPS (¥)	1,441.7	1,472.3	1,555.9	1,675.0
PER (x)	102.0	39.0	19.0	14.2
PER (Excl Amortization, ¥)	-	26.7	15.6	12.2
PBR (x)	1.4	1.3	1.3	1.2
EV/EBITDA (x)	17.3	10.4	4.2	3.7
D/E ratio (x)	0.8	0.8	0.8	0.7
ROE (%)	1.3	3.4	6.6	8.3
Earnings revisions				
Previous net profit	-	10,700	19,300	25,600
(Chg from previous, %)	-	0	13	15
Previous EPS (¥)	-	50.6	91.3	121.1
(Chg from previous, %)	-	0	13	15
Previous EPS (Excl Amortization, ¥)	-	73.8	114.5	144.3
(Chg from previous, %)	-	0	11	12

Source: Company, Nomura estimates

Share price relative to MSCI Japan



	1m	3m	6m
Absolute (¥)	7.5	12.0	17.7
Absolute (US$)	5.6	12.5	28.4
Relative to Index	3.6	5.0	14.4
Market cap (US$mn)			5,079
52-week range (¥)			2,566/1,612

Source: Company, Nomura estimates

Business

NEUTRAL; PT at ¥2,160

We have raised our 12/3 forecasts for operating profit and Chinese sales

We have hiked our 12/3 forecast for EPS (excluding amortisation of goodwill for the company's Indian subsidiary) by 11% from ¥114.5 to ¥126.8, and our price target from ¥1,950 to ¥2,160. We maintain our NEUTRAL rating. The upward revision to our profit estimate reflects an increase in our forecast for Chinese sales growth from 10% y-y to 20%. We think that demand for hydraulic excavators in China is likely to rise more than we previously expected.

Momentum is recovering

Demand for construction machinery is strong in China and other emerging economies in Asia, and we think that it will continue to recover in industrialised nations. We also see earnings momentum improving at Hitachi Construction Machinery: we expect sales to grow 24% y-y and operating profits to reach 2.1x the year-earlier level in 11/3, and project growth of 13% for sales and 44% for operating profits in 12/3. That said, we find the stock does not look particularly undervalued on profit-based metrics such as P/E.

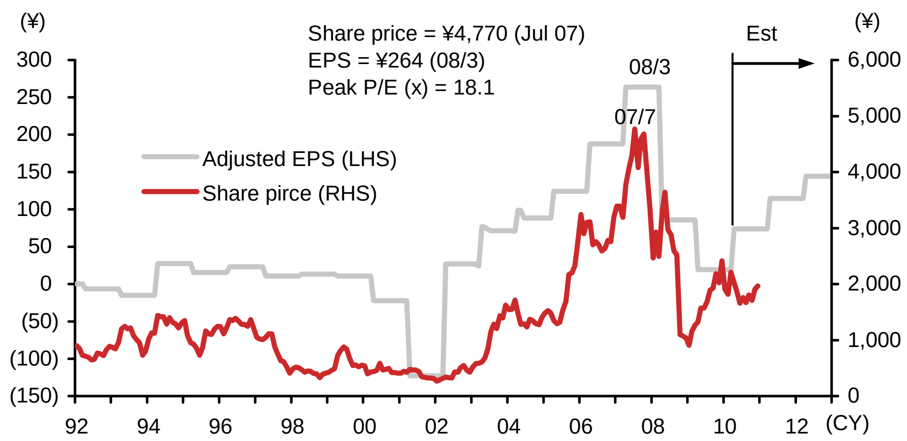
Upgraded profit outlook probably would boost stock's appeal

We think investment appeal probably would increase if there were prospects of profit growth in excess of our forecasts on the back of a further rise in demand, market share expansion or margin improvement.

Our new price target is ¥2,160

We have raised our 12/3 forecast for EPS (excluding goodwill amortisation) from ¥114.5 to ¥126.8, and in turn lifted our price target from ¥1,950 to ¥2,160. We still calculate our price target using a P/E of 17x our EPS forecast for 12/3. During the previous earnings recovery, the share price peaked at ¥4,770 (month-end basis) in July 2007, making for a peak P/E of 18x peak EPS of ¥264 (in 08/3), while many other machinery stocks were trading at peak P/Es of around 20x (Exhibit below). We have adjusted this ratio to reflect the decline in overall market P/Es.

Exhibit 169. EPS and share price: previous peak P/E was 18x (July 2007)



Source: Bloomberg, Nomura estimates

Forex impact on profits

Based on our 12/3 forecasts, we estimate that the impact on full-year recurring profits of each ¥1 move against the dollar, euro and renminbi comes to 2.3% (¥1.2bn), 0.8% (¥400mn) and 11.3% (¥6.0bn), respectively.

Emerging economies account for 62% of sales

On our 11/3 forecasts, 62% of Hitachi Construction Machinery's sales are from emerging economies and 38% from industrialised nations. The emerging economy figure is the sum of 26% for China, 17% for Southeast Asia (7% for India and 10% for other markets), 10% for Oceania, 4% for Africa, 2% for the CIS (Russia, etc), 2% for the Middle East and 1% for Latin America.

Hitachi Construction Machinery has a higher weighting of sales to China and India than Komatsu, and it has the top share of the Indian market for hydraulic excavators, according to our channel checks. It does not sell much to Latin America, however. In that region, it entrusts sales of products other than mining machinery to John Deere, as in North America, but John Deere is not proactive in construction machinery sales in Latin America.

Highly exposed to Chinese and Indian markets

The weighting of sales to industrialised economies includes a high weighting of 23% for the Japanese market. This is because the company includes revenues from rental operations at consolidated dealer subsidiaries, as well as new vehicle sales and service revenues. Western Europe accounts for 9% of total sales and North America for 7%. In North America, Hitachi Construction Machinery supplies products to John Deere, and most sales in the region are via John Deere resellers under the John Deere brand.

Industrialised economies account for 38% of sales

Suppliers of core parts

In terms of core components, Hitachi Construction Machinery mostly sources diesel engines from Isuzu Motors and purchases large engines from Cummins. For hydraulic equipment, we think that its main suppliers are Kayaba Industry for cylinders and Kayaba Industry and Kawasaki Heavy Industries for valves and pumps. It manufactures some valves and pumps in-house, and most of its motors are produced in-house, too, although it gets some from Kayaba Industry and Nachi-Fujikoshi.

Business in China

Hitachi Construction Machinery's organisation in China consists mainly of sales company Hitachi Construction Machinery (Shanghai) (54% stake) and assembly subsidiary Hitachi Construction Machinery (China) (81%) in Hefei, Anhui province. The former sells products made by the latter. This accounts for some 80% of the sales volume in China of Hitachi Construction Machinery brand products.

The remaining 20% or so consists of hydraulic excavators assembled at the Tsuchiura plant in Japan, which are then shipped to reseller Elle Construction Machinery (China) (19% stake), which then sells them all over China.

Some 80% of Chinese sales are Chinese made, 20% Japanese made

Hitachi Construction Machinery (Shanghai), which sells Chinese-made hydraulic excavators, has 27 resellers, and Elle Construction Machinery, which sells Japanese-made hydraulic excavators, has 28 resellers in China, for a total of 50, factoring in that five resellers offer products from both companies.

50 resellers

Focus point (1): Broad lineup of hydraulic excavators

Here we outline the features, strengths and strategies of Hitachi Construction Machinery's Chinese operations. Our first point is that Hitachi Construction Machinery is a global supplier with particular strengths in hydraulic excavators, where it has a broad lineup ranging from mini excavators to ultra-large equipment. It also has a long track record in global sales and product support. We think that the company has a strong competitive edge that gives it a firm foundation. According to our channel checks, it has the leading share of the global market for ultra-large excavators used in mining (100t and over), beating Komatsu.

Focus point (2): New products capable of running on low-grade fuel for Chinese market

Our second point is that the launch of new models designed for emerging economies has helped it start to regain some lost market share in China. Through 2009, Hitachi Construction Machinery's sales in China were of Tier-3 emission regulation-compliant machinery, in contrast to other manufacturers. However, low-grade fuels (containing impurities, partly due to poor storage) are often used in China, which can result in mechanical failures, such as the clogging up of delicate fuel injection systems.

In view of this, Hitachi Construction Machinery has reverted to Tier 2-compliant engines and since March 2010 has launched a string of products focused on durability. In July, it launched a new 20t class hydraulic excavator (around 30% of demand volume for 6t and over is for this class), and its share of sales of non-Chinese 20t class excavators in China moved from 14.8% in 09/3 to 15.8% in 10/3, 14.3% in 11/3 Q1, and 15.6% in 11/3 Q2, according to the company.

Regaining share of 20t class market

It also launched a 24t class model in July (22% of demand), and its share of that market moved from 15.4% in 09/3 to 15.0% in 10/3, 12.9% in 11/3 Q1, and 16.8% in 11/3 Q2, according to the company.

Regaining market share in 24t class too

The company launched new products in the 30-35t class (20% of demand) in March, and its market share went from 15.7% in 09/3 to 12.8% in 10/3 and 13.7% in 11/3 Q1, although shortages for some parts caused its share to dip back to 11.8% in 11/3 Q2, according to the company.

Sharp recovery in 30–35t class equipment has led to part shortages

Focus point (3): Change of management at sales subsidiary in October

Third, we note a change in management at sales subsidiary Hitachi Construction Machinery (Shanghai) in October. The new head is executive officer Akihiko Hiraoka, who has been resident in China since 2004, when he was in charge of marketing. We think that Mr Hiraoka will come up with even more aggressive measures for regaining market share. We think that rather than involving cuts in sales prices, the new policies will focus on further tailoring products to the specific requirements of the Chinese market, such as providing excavators with bigger scoops, shortening delivery lead times through production efficiency gains, and strengthening on-site marketing and service capabilities.

Mr Hiraoka, in his earlier comments to us, stated that he expects demand in China to increase at least 10-15% in 12/3.

For 12/3, new head sees 10–15% demand growth

Focus point (4): Management aims to lift sales volume around 20% a year from 12/3

Our fourth point is that Hitachi Construction Machinery (Shanghai) projects that its sales volume (including mini excavators) will rise 38% from 11,880 units (9,640 of 6t and over and 2,240 of less than 6t) in 10/3 to 16,400 units (13,800 and 2,600) in 11/3. The company is aiming for average annual growth of 22% to 30,000 units by 14/3 (although we note that sales projections can change depending on demand).

The sales subsidiary has come up with specific strategies for achieving unit sales of 30,000 in 14/3. These include raising the number of sales and service bases at resellers and increasing their marketing and service headcount, sending personnel from Hitachi Construction Machinery (Shanghai) to key regions (Beijing, Shenyang, Hefei, Chengdu, Nanning, and Inner Mongolia), working to retain major customers with a broad geographical reach, under guidance from Hitachi Construction Machinery Shanghai, and strengthening sales to the mining industry via the establishment of a mining division in April 2010.

Aiming for sales of 30,000 units in 14/3

Focus point (5): Key is steady shipments of core parts from Japan

Fifth, we note that output at manufacturing subsidiary Hitachi Construction Machinery (China) is currently steady, and we see little risk of bottlenecks forming. As to production for the sales season following the Lunar New Year holidays in 2011, we think the key will be whether or not the plant receives sufficient shipments of core parts from Japan, both those produced in-house and those procured from third parties.

Our visit to manufacturing subsidiary

We visited Hitachi Construction Machinery (China) in late November 2010. The plant is located in Hefei, Anhui province, some three and a half hours from Shanghai via high-speed rail. The subsidiary is located in an economic and technological development zone and is surrounded by suppliers of components such as steel sheet and worked metal parts, as well as the forklift plant of Hitachi Construction Machinery subsidiary TCM. We were told by executive Masaki Kanehara that production was progressing steadily, in line with projections.

Makes hydraulic excavators ranging from 6t class through 87t class

Hitachi Construction Machinery (China) manufactures one 6t class mini excavator (6t or less) and 28 models of hydraulic excavator (6t or more), ranging from 7t through 87t. It also makes cranes (both crawler and wheel type), albeit in small volumes, with two models for the Chinese market and four for export. It has made a total of 152 cranes since 06/3.

Plans to have setup to produce 30,000 excavators by 14/3

Management expects to produce 3,160 mini excavators and 15,460 hydraulic excavators in 11/3, for a total of 18,620 units (although this may change depending on demand trends). This represents an 86% increase over the total of around 10,000 that it produced in 09/3–10/3. Over the medium term, the company plans to increase output 18% y-y to 22,000 units in 12/3, 14% to 25,000 units in 13/3 and 20% to 30,000 units in 14/3.

Output currently is steady

On the day that we visited the plant, the company was planning to assemble 75 excavators (including mini excavators). A simple calculation based on 22 working days a month gives monthly output of 1,650 units, which looks steady to us.

Production setup

At the plant, vehicle assembly is on a one-shift system, metalwork (welding steel plate to form parts such as scoops, arms, and booms) is on a two-shift system, and cutting work (cutting steel plate for metalwork processes) is on a 24-hour three-shift system.

Increasing number of welding robots from 35 to 52

To boost production capacity in metalworking processes, the company plans to increase the number of welding robots from the current 35 by 49% to 52 by end-2010. This is also to stabilise welding quality and factors in the difficulty of training up workers sufficiently for a rapid increase in output.

Steel plate cutters from Koike Sanso Kogyo

In the cutting process, the plant has 42 steel plate cutters. The majority of these are made in Japan, primarily from Koike Sanso Kogyo and Tanaka Sanso Industry (unlisted).

Aiming to increase local procurement from 45% to 60%

Currently, the plant procures around 45% of parts and materials locally, but over the medium term, the aim is to raise this to 60%. To achieve this, management is considering procuring costly hydraulic cylinders and transmissions from China, including from Chinese plants of Japanese manufacturers. In the future, it may even procure parts from Chinese hydraulic cylinder manufacturers such as Jiangsu Hengli Highpressure Oil Cylinder (unlisted) if it can meet the company's quality and lead time requirements. Meanwhile, we think that it will continue to procure hydraulic valves, pumps and motors from Japan.

Risks to our investment view

Risks to our call include worse-than-expected economic conditions in the region, including China. A sharp fall in commodity prices may also result in a decline in sales of mining equipment, which accounts for a large portion of the company's sales.

Financial statements

(¥mn, except where noted)

	08/3 (a)	08/3 (b) adjusted	09/3 vs (b)	10/3	11/3E	12/3E	13/3E	11/3E As % of total	Co's As of 10/10	Nomura prev (as of 10/11) 11/3E	12/3E	13/3E
$/¥	113.8	113.8	101	92.2	84.8	81	81		84	85	81	81
% y-y	-3	-3	-11	-9	-8	-5	0		-9	-8	-5	0
€/¥	160.9	160.9	156	129	113	112	112		113	113	112	112
% y-y	8	8	-3	-17	-12	-1	0		-12	-12	-1	0
RMB/¥	15.3	15.3	14.6	13.6	12.6	12.2	12.2		12.5	12.6	12.2	12.2
% y-y	3	3	-4	-7	-7	-3	0		-8	-7	-3	0
Sales	**940,537**	**903,623**	**744,167**	**605,788**	**752,000**	**849,000**	**938,000**	**100**	**750,000**	**752,000**	**830,000**	**906,000**
% y-y	24	19	-18	-19	24	13	10		24	24	10	9
Domestic	248,733	248,733	213,703	171,657	171,000	171,000	171,000	23	168,300	171,000	171,000	171,000
% y-y	4	4	-14	-20	-0	0	0		-2	-0	0	0
Overseas	691,804	654,890	530,464	434,131	581,000	678,000	767,000	77	581,700	581,000	659,000	735,000
% y-y	34	26	-19	-18	34	17	13		34	34	13	12
China	127,323	126,459	119,295	158,681	196,000	235,000	270,000	26	195,000	196,000	216,000	238,000
% y-y	79	77	-6	33	24	20	15		23	24	10	10
Asia, Australia	184,021	169,666	151,148	141,238	202,000	236,000	267,000	27	202,600	202,000	236,000	267,000
% y-y	46	34	-11	-7	43	17	13		43	43	17	13
Asia	95,621	81,266	82,848	75,638	126,000	151,000	174,000	17	125,800	126,000	151,000	174,000
% y-y	76	49	2	-9	67	20	15		66	67	20	15
India (stake in affiliate raised from 40% to 60% in 11/3, making it a subsidiary)			12,100	6,400	50,000	60,000	69,000		50,000	50,000	60,000	69,000
% y-y				-47	681	20	15		681	681	20	15
Asia (ex India)			70,748	69,238	76,000	91,000	105,000		75,800	76,000	91,000	105,000
% y-y				-2	10	20	15		9	10	20	15
Australia	88,400	88,400	68,300	65,600	76,000	85,000	93,000	10	76,800	76,000	85,000	93,000
% y-y	23	23	-23	-5	16	12	9		17	16	12	9
Europe, CIS, Middle East, Africa	291,942	274,713	180,843	96,967	127,000	145,200	160,900	17	128,100	127,000	145,200	160,900
% y-y	50	41	-34	-46	31	14	11		32	31	14	11
Western Europe	167,242	159,542	99,738	63,504	67,000	72,000	78,000	9	70,100	67,000	72,000	78,000
% y-y	45	38	-37	-36	6	7	8		10	6	7	8
CIS (Russia, etc)	55,600	55,600	26,100	5,800	17,600	23,600	28,800	2	17,600	17,600	23,600	28,800
% y-y	62	62	-53	-78	203	34	22		203	203	34	22
Middle East	29,700	29,700	25,700	10,900	14,800	17,800	19,400	2	12,800	14,800	17,800	19,400
% y-y	8	8	-13	-57	36	20	9		17	36	20	9
Africa	39,400	29,900	29,300	16,700	27,600	31,800	34,700	4	27,600	27,600	31,800	34,700
% y-y	116	64	-2	-42	65	15	9		65	65	15	9
The Americas	88,518	84,063	79,178	37,245	56,000	61,800	69,100	7	56,000	56,000	61,800	69,100
% y-y	-29	-33	-6	-53	50	10	12		50	50	10	12
North America	73,100	72,000	69,500	30,800	51,300	56,300	63,100	7	51,300	51,300	56,300	63,100
% y-y	-36	-37	-3	-56	67	10	12		67	67	10	12
Latin America	15,400	12,000	9,700	6,445	4,700	5,500	6,000	1	4,700	4,700	5,500	6,000
% y-y	50	17	-19	-34	-27	17	9		-27	-27	17	9
(Ref) Emerging economy total	451,444	423,296	361,248	339,827	462,700	549,700	625,900	62	460,300	462,700	530,700	593,900
% y-y	57	47	-15	-6	36	19	14		35	36	15	12
(Ref) Advanced economy total (Japan, US, Europe)	489,075	480,275	382,941	265,961	289,300	299,300	312,100	38	289,700	289,300	299,300	312,100
% y-y	4	-2	-20	-31	9	3	4		-41	9	3	4
Operating profits	**108,458**	**105,212**	**48,836**	**19,669**	**41,000**	**59,000**	**74,000**		**40,000**	**41,000**	**55,000**	**68,000**
% y-y	38	34	-54	-60	108	44	25		103	108	34	24
Margin (%)	11.5	11.6	6.6	3.2	5.5	6.9	7.9		5.3	5.5	6.6	7.5
Margin before goodwill amortisation (%)					6.1	7.5	8.4			6.1	7.2	8.0
Equity in net income of affiliates (India, etc)	3,337	3,337	147	-977	800	900	1,000			800	900	1,000
Recurring profits	**100,564**	**97,588**	**47,805**	**19,166**	**36,000**	**53,000**	**68,000**		**35,000**	**36,000**	**49,000**	**62,000**
% y-y	44	39	-51	-60	88	47	28		83	88	36	27
Margin (%)	10.7	10.8	6.4	3.2	4.8	6.2	7.2		4.7	4.8	5.9	6.8
Pretax profits	100,564		44,142	18,333	35,000	53,000	68,000			35,000	49,000	62,000
Tax rate (%)	35		46	44	40	37	37			40	37	37
Minority interests	10,952	9,425	5,605	5,865	8,300	10,000	12,000			8,300	10,000	12,000
Net profits	**55,985**	**54,458**	**18,253**	**4,019**	**10,700**	**21,900**	**29,400**		**10,000**	**10,700**	**19,300**	**25,600**
Goodwill amortisation (stake in Telco Construction Equipment 40%→60%, making it into subsidiary)					-4,900	-4,900	-4,900		-4,900	-4,900	-4,900	-4,900
Shares out (FY-avg, mn)	206.6	206.6	212.8	207.9	211.4	211.4	211.4			211	211	211
EPS (¥)	271.0	263.6	85.8	19.3	50.6	103.6	139.1		47.3	50.6	91.3	121.1
EPS before goodwill amortisation (¥)					73.8	$\boxed{126.8}$	162.2			73.8	114.5	144.3
BPS (¥)	1,447		1,423	1,442	1,472	1,556	1,675			1,472	1,544	1,645
DPS (¥)	42.0		44.0	10.0	20.0	20.0	20.0		20.0	20.0	20.0	20.0
Payout ratio (%)	15		51	52	40	19	14		42	40	22	17
ROE (ex extraordinary gains/losses, %)	18.1		6.2	1.3	3.4	6.6	8.3			3.4	5.9	7.3
Capex (incl rental assets)	78,187		53,992	27,500	32,000	33,800	34,800			32,000	33,800	34,800
Capex (ex rental assets)	63,374		43,041	14,671	19,300	20,800	21,800			19,300	20,800	21,800
Depreciation (incl rental assets)	30,162		35,117	37,022	36,600	36,600	37,600			36,600	36,600	37,600
Depreciation (ex rental assets)	18,104		22,432	24,107	27,600	27,600	28,600			27,600	27,600	28,600

Note: (1) We estimate that each ¥1 move against dollar will affect 11/3 H2 and full-year operating profits by ¥1.2bn and ¥700mn, respectively, with corresponding figures for euro of ¥400mn and ¥200mn and for renminbi of ¥6.0bn and ¥4.0bn (2) For 08/3, figures marked (a) are as announced, reflecting 15-month accounting periods at some subsidiaries owing to changes to their FY-ends, while those marked (b) are adjusted to reflect 12-month contributions from these subsidiaries. Source: Company data, Nomura estimates

(¥mn, except where noted)

	09/3				10/3				11/3		10/3		11/3		11/3E Co's (as of 10/10)	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	H1	H2	H1	H2E	H2	Full
$/¥	102	108	96	94	97	94.5	89.3	90	91.6	85.7	96	90	89	81	80	84
% y-y	-14	-9	-15	-11	-5	-12	-7	-4	-5	-9	-9	-6	-7	-10	-11	-9
€/¥	161	165	127	122	131	135	132	125	118	111	133	129	115	112	112	113
% y-y	0	2	-23	-23	-19	-18	5	2	-9	-18	-19	4	-14	-13	-13	-12
RMB/¥	15	15.7	14.1	13.7	14.2	13.7	13.1	13.2	13.4	12.7	14	13.2	13.1	12.2	12	12.5
% y-y	-4	1	-7	-7	-5	-13	-7	-4	-6	-7	-9	-5	-6	-8	-9	-8
Sales	233,881	220,171	146,109	144,006	132,302	140,015	141,432	192,039	167,339	178,761	272,317	333,471	346,100	405,900	403,900	750,000
% y-y	13	5	-32	-47	-43	-36	-3	33	26	28	-40	15	27	22	21	24
Domestic	49,123	60,059	50,327	54,194	34,243	45,758	42,653	49,003	34,397	45,422	80,001	91,656	79,819	91,181	88,481	168,300
% y-y	-4	-8	-19	-23	-30	-24	-15	-10	0	-1	-27	-12	0	-1	-3	-2
Overseas	184,758	160,112	95,782	89,812	98,059	94,257	98,779	143,036	132,942	133,339	192,316	241,815	266,281	314,719	315,419	581,700
% y-y	19	11	-37	-56	-47	-41	3	59	36	41	-44	30	38	30	30	34
China	40,025	30,225	19,443	29,602	34,372	27,896	36,955	59,458	51,611	37,597	62,268	96,413	89,208	106,792	105,792	195,000
% y-y	17	72	-30	-37	-14	-8	90	101	50	35	-11	97	43	11	10	23
Asia, Australia	45,900	44,888	31,397	28,963	31,639	34,178	30,257	45,164	42,973	51,982	65,817	75,421	94,955	107,045	107,645	202,600
% y-y	26	10	-23	-56	-31	-24	-4	56	36	52	-28	25	44	42	43	43
Asia	23,400	23,300	17,782	18,366	17,239	17,878	16,900	23,621	26,973	30,682	35,117	40,521	57,655	68,345	68,145	125,800
% y-y	54	31	-22	-28	-26	-23	-5	29	56	72	-25	12	64	69	68	66
India					1,400	900	1,800	2,300	9,700	10,400	2,300	4,100	20,100	29,900	29,900	50,000
% y-y									593	1,056			774	629	629	681
Asia (ex India)					15,839	16,978	15,100	21,321	17,273	20,282	32,817	36,421	37,555	38,445	38,245	75,800
% y-y									9	19			14	6	5	9
Australia	22,500	21,600	13,615	10,585	14,400	16,300	13,357	21,543	16,000	21,300	30,700	34,900	37,300	38,700	39,500	76,800
% y-y	6	-6	-25	-59	-36	-25	-2	104	11	31	-30	44	21	11	13	17
Europe, CIS, Africa, Middle East	71,917	65,883	27,122	15,921	21,152	23,310	23,698	28,807	27,328	31,972	44,462	52,505	59,300	67,700	68,800	128,100
% y-y	21	-5	-59	-84	-71	-65	-13	81	29	37	-68	22	33	29	31	32
Western Europe	38,361	32,539	16,081	12,757	15,298	15,499	15,010	17,697	16,100	15,449	30,797	32,707	31,549	35,451	38,551	70,100
% y-y	0	-20	-56	-71	-60	-52	-7	39	5	0	-57	13	2	8	18	10
CIS (Russia, etc)	14,900	12,900	-1,057	-643	300	1,300	2,200	2,000	2,500	4,300	1,600	4,200	6,800	10,800	10,800	17,600
% y-y	51	-5	-107	-104	-98	-90	-308	-411	733	231	-94	-347	325	157	157	203
Middle East	8,700	7,800	6,415	2,785	2,500	2,665	1,900	3,835	3,800	3,700	5,165	5,735	7,500	7,300	5,300	12,800
% y-y	55	-6	-4	-69	-71	-66	-70	38	52	39	-69	-38	45	27	-8	17
Africa	9,900	12,700	5,721	979	3,000	3,900	4,600	5,200	5,000	8,491	6,900	9,800	13,491	14,109	14,109	27,600
% y-y	74	92	-25	-90	-70	-69	-20	431	67	118	-69	46	96	44	44	65
The Americas	26,916	19,159	17,777	15,326	10,896	8,873	7,869	9,607	11,030	11,748	19,769	17,476	22,778	33,222	33,222	56,000
% y-y	6	17	1	-47	-60	-54	-56	-37	1	32	-57	-47	15	90	90	50
North America	23,116	16,884	15,649	13,851	9,000	6,800	6,300	8,700	9,900	10,600	15,800	15,000	20,500	30,800	30,800	51,300
% y-y	9	19	2	-35	-61	-60	-60	-37	10	56	-61	-49	30	105	105	67
Latin America	3,800	2,300	2,128	1,472	1,896	2,073	1,569	907	1,200	1,078	3,969	2,476	2,278	2,422	2,422	4,700
% y-y	-10	5	-7	-55	-50	-10	-26	-38	-37	-48	-35	-31	-43	-2	-2	-27
Operating profits	24,352	22,777	9,618	-7,911	-2,438	3,383	887	17,837	4,300	7,961	945	18,724	12,261	28,739	27,739	40,000
% y-y	5	-18	-52	-	-	-85	-91	-	-	135	-98	997	1,197	53	48	103
Margin (%)	10.4	10.3	6.6	-5.5	-1.8	2.4	0.6	9.3	2.6	4.5	0.3	5.6	3.5	7.1	6.9	5.3
Margin before goodwill amortization (%)									3.3	5.1			4.3	7.7	7.5	6
Recurring profits	26,994	18,458	9,337	-6,984	-4,098	1,465	1,729	20,070	4,093	7,890	-2,633	21,799	11,983	24,017	23,017	35,000
% y-y	23	-25	-50	-120	-115	-92	-81	-	-	439	-	826	-	10	6	83
Margin (%)	11.5	8.4	6.4	-4.8	-3.1	1	1.2	10.5	2.4	4.4	-1	6.5	3.5	5.9	6	5

Source: Company data, Nomura estimates

(¥mn, except where noted)

	08/3	09/3	10/3	11/3E	12/3E	13/3E
Balance sheet						
Cash & deposits	53,264	40,109	57,327	57,327	57,327	57,327
Accounts receivable	238,851	175,854	162,961	202,293	228,387	252,328
Short-term marketable securities	0	0	0	0	0	0
Inventories	206,972	268,312	205,953	211,795	224,964	240,730
Other current assets	58,884	54,498	123,229	138,100	147,007	154,712
PPE/intangible long-term assets	223,899	253,190	287,075	282,475	279,675	276,875
Investments, other assets	51,226	49,390	46,502	46,502	46,502	46,502
Total assets	**833,096**	**841,353**	**883,047**	**938,492**	**983,862**	**1,028,475**
Accounts payable	166,517	100,372	122,027	151,479	171,018	188,946
Short-term borrowings	125,184	234,885	139,844	148,285	151,297	148,425
Other current liabilities	97,369	78,618	78,141	87,571	93,219	98,105
Bonds	15,000	2,320	50,280	49,780	49,280	48,780
Long-term borrowings	50,466	63,421	116,120	116,120	116,120	116,120
Other	69,201	68,291	71,827	71,827	71,827	71,827
Shareholders' equity	309,359	293,446	304,808	313,429	331,101	356,272
Financial indicators						
ROIC (%)	21.7	8.2	3.2	6.5	9.1	11.1
ROA (%)	13.0	5.8	2.2	4.4	6.0	7.2
OROA (%)	17.7	9.0	4.0	7.2	9.4	10.9
ROE (%)	18.1	6.2	1.3	3.4	6.6	8.3
Operating margin (%)	11.5	6.6	3.2	5.5	6.9	7.9
Recurring margin (%)	10.7	6.4	3.2	4.8	6.2	7.2
Invested capital (interest-bearing debt + shareholders' equity)						
Turnover periods (months)	500,009	594,072	611,052	627,615	647,797	669,597
Invested capital	6.4	9.6	12.1	11.7	10.9	10.2
Total assets	10.6	13.6	17.5	17.5	16.5	15.7
Cash & equivalents	0.7	0.6	1.1	0.9	0.8	0.7
Accounts receivable	3.0	2.8	3.2	3.2	3.2	3.2
Inventories	2.6	4.3	4.1	3.4	3.2	3.1
Accounts payable	2.1	1.6	2.4	2.4	2.4	2.4
Working capital	3.6	5.5	4.9	4.2	4.0	3.9
PPE/intangible long-term assets	2.9	4.1	5.7	4.5	4.0	3.5
Operating assets	6.4	9.6	10.6	8.7	7.9	7.4
Interest-bearing debt	190,650	300,626	306,244	314,185	316,697	313,325
Net interest-bearing debt	137,386	260,517	248,917	256,858	259,370	255,998
D/E ratio (x)	0.62	1.02	1.00	1.00	0.96	0.88
Net D/E ratio (x)	0.44	0.89	0.82	0.82	0.78	0.72
Owners' equity ratio (%)	37.1	34.9	34.5	33.4	33.7	34.6
Cash flow						
Operating cash flow (1)	**6,506**	**-25,483**	**68,740**	**26,137**	**35,517**	**42,401**
Net profits	55,985	18,253	4,019	10,700	21,900	29,400
Depreciation	30,162	35,117	37,022	36,600	36,600	37,600
Change in working capital	-79,641	-78,853	27,699	-21,163	-22,983	-24,599
Change in accounts receivable	-44,671	62,997	12,893	-39,332	-26,094	-23,942
Change in inventories	-33,637	-61,340	62,359	-5,842	-13,169	-15,766
Change in accounts payable	6,988	-66,145	21,655	29,452	19,539	17,928
Change in other current assets	-8,321	-14,365	-69,208	-5,441	-3,259	-2,819
Investment cash flow (2)	**-80,042**	**-63,482**	**-64,483**	**-32,000**	**-33,800**	**-34,800**
L-T asset (PPE/intangible) acquisition (capex)	-86,000	-64,408	-70,907	-32,000	-33,800	-34,800
Change in investments, other assets	5,958	926	6,424	0	0	0
Free cash flow (3) = (1) + (2)	**-73,536**	**-88,965**	**4,257**	**-5,863**	**1,717**	**7,601**
Financial cash flow (4)	**97,167**	**101,299**	**-359**	**5,863**	**-1,717**	**-7,601**
Dividends	-5,455	-8,677	-9,361	-2,079	-4,229	-4,229
Change in interest-bearing debt	24,740	109,976	5,618	7,941	2,511	-3,372
Change in legal capital, capital surplus	77,882	0	3,384	0	0	0
(3) + (4)	23,631	12,334	3,898	-0	-0	0
Change in other	-11,446	-25,489	13,320	0	0	-0
Change in cash & equivalents	12,185	-13,155	17,218	0	0	0

Source: Company data, Nomura estimates

Kawasaki Heavy Industries 7012 JP

SHIPBUILDING & HEAVY MACHINERY | TOKYO (TSE-1)

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NOMURA
NOMURA SECURITIES CO LTD

Maintained

BUY

Closing price on 10 Dec	¥272
Price target	**¥310**
Upside/downside	14.0%
Difference from consensus	9.0%
12/3F net profit (¥bn)	37.0
Difference from consensus	25.8%

Source: Nomura

Action

We remain bullish on the stock; Kawasaki Heavy Industries is the world's leading manufacturer of valves, the component with the highest barriers to entry among hydraulic equipment used in construction machinery. We think the company will benefit from construction equipment demand, including from China, and expect profits on hydraulic equipment to account for around half of total profits in 11/3.

Catalysts

We think operating profits will likely rise above the market consensus forecast in 12/3, thanks to a rebound in motorcycle sales and growth in sales of hydraulic equipment for construction machinery.

Anchor themes

With demand for construction machinery strong, we are focusing on hydraulic equipment for construction machinery, in which Japanese companies have a strong presence.

Nomura vs consensus

We are more optimistic on sales from China demand as well as hydraulic equipment sales.

Highly competitive in hydraulic equipment segment

① Strong growth in hydraulic equipment

Our visit to China confirmed the competitiveness of Kawasaki's hydraulic equipment for use in construction machinery. We expect such equipment to account for roughly half of total operating profits in 11/3. We also think the decline in retail motorcycle sales in the US will gradually come to a halt in the coming quarters as US consumer sentiment recovers. Strong growth in sales of hydraulic equipment for use in construction machinery and no further decline in motorcycle sales in the US should support strong profit growth through 12/3, in our view.

② More than 70% of sales to Chinese users

We estimate Kawasaki has over a 70% share of valve sales among Chinese construction machinery makers. In 11/3 1H, about 40% of the company's hydraulic equipment sales were in the Chinese market. Inquiries have been very firm, especially from the Chinese market, and we think the company is unable to keep up with demand. We estimate that its share of sales of hydraulic equipment for use in construction machinery to local Chinese companies has grown to about 35%, versus about 40% to Japanese companies and around 15% to Korean companies operating in China.

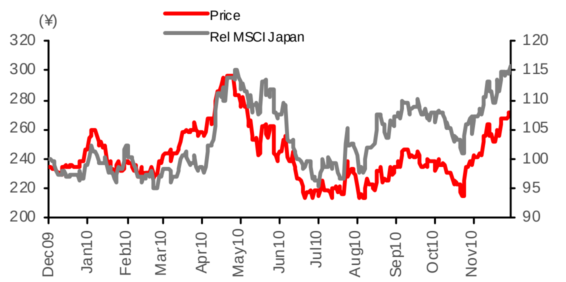
③ Stepping up efforts to tap emerging markets

The company has been stepping up its efforts to expand its motorcycle operations in emerging markets to make up for the slightly late start it got compared with competitors; sales in recent quarters have been strong in Brazil (mostly models with engine displacements of 250cc or more), Indonesia (mostly 125cc or less) and other emerging markets. Sales have also been firm in Thailand (mainly 110cc and 250cc models) and in the Philippines (125cc or less).

31 Mar (¥bn)	10/3	11/3F	12/3F	13/3F
Sales	1,174	1,284	1,368	1,427
(Company Est)	-	1,280	-	-
Operating Profits	(1)	36	50	56
(Company Est)	-	32	-	-
Net Profit	(10.9)	24.0	37.0	40.0
(Company Est)	-	20.0	-	-
EPS (¥)	(6.5)	14.1	21.8	23.6
(% y-y)	na	na	55	8
(Company Est)	-	12.0	-	-
BPS (¥)	166.1	176.9	192.7	209.3
PER (x)	na	19.3	12.5	11.5
PBR (x)	1.6	1.5	1.4	1.3
EV/EBITDA (x)	16.9	10.1	8.7	8.0
Net D/E ratio (x)	1.4	1.4	1.3	1.2
ROE (%)	(3.8)	8.0	11.3	11.3
Earnings revisions				
Previous net profit	-	24	37	40
(Chg from previous, %)	-	na	na	na
Previous EPS (¥)	-	14.1	21.8	23.6
(Chg from previous, %)	-	na	na	na

Source: Company, Nomura estimates

Share price relative to MSCI Japan



	1m	3m	6m
Absolute (¥)	15.3	15.7	12.4
Absolute (US$)	13.3	16.2	22.6
Relative to Index	11.3	8.7	8.7
Market cap (US$mn)			5,438
52-week range (¥)			296.0/213.0

Source: Company, Nomura estimates

Business

BUY, price target of ¥310

Strong growth in hydraulic equipment

Our visit to China confirmed the competitiveness of the company's hydraulic equipment for use in construction machinery. We expect such equipment to account for roughly half of total operating profits in 11/3. We also think the decline in retail sales of motorcycles for the US will come to a halt in coming quarters as US consumer sentiment recovers. We rate the company BUY, as we think that strong growth in sales of hydraulic equipment for use in construction machinery and the halt in the decline in motorcycle sales in the US will support strong profit growth through 12/3.

Our price target is ¥310

The basis for our price target is the average P/E for the NOMURA 400 based on our 12/3 EPS estimates. Thanks in part to growth in sales of hydraulic equipment, we forecast 12/3 EPS of ¥22, to which we apply the average P/E for the NOMURA 400 (14x), giving a price target of ¥310.

Firm sales of hydraulic equipment

Peripheral surveys at the Bauma China international construction machinery exhibition confirmed for us that Kawasaki Heavy Industries' (KHI) competitive position in the field of hydraulic equipment and the effect of its expansion of production capacity in terms of sales growth could be greater than we previously thought. We think the company has the potential to increase production capacity for hydraulic equipment used in construction machinery from ¥100bn sales equivalent in 10/3 to around ¥140bn over the next year. KHI has been increasing production capacity at its Nishi Kobe Works, which makes valves (an area of strength for the company), and at motor and pump factories in Suzhou and Zhejiang provinces, respectively.

Has more than 70% share of sales of valves to Chinese construction equipment makers

We estimate Kawasaki has over a 70% share of valve sales among Chinese construction machinery makers. In 11/3 H1, about 40% of the company's hydraulic equipment sales were in the Chinese market. Inquiries have been very firm, especially from the Chinese market, and we think the company is unable to keep up with demand. Based on our meetings with KHI customers and suppliers, Lonking Holdings and Sany Heavy Industry are two of the company's main customers in China, we estimate that its share of sales of hydraulic equipment for use in construction machinery to Chinese companies has grown to about 35%, versus about 40% to Japanese companies and around 15% to Korean companies operating in China.

Its edge in valves will likely continue

Valves are technically more difficult to make than other hydraulic equipment components such as pumps, motors and cylinders. Valves must be developed to the specifications of customers, which are construction machinery makers, and requires a strong understanding of how to control pressure. We think it will take two to three years for Dongyang Mechatronics of Korea, Jiangsu Hengli Highpressure Oil Cylinder (unlisted) of China, and other local Chinese and Korean parts makers to catch up. Sales of hydraulic equipment overseas are mostly denominated in yen, and thus the direct risk from yen appreciation is small.

Motorcycle: efforts in emerging markets

We look for North American motorcycle demand to bottom

Retail sales volume of motorcycles in the US declined by single digits y-y in October and November, indicating that declines are slowing from the 10% or so fall seen in Jul-Sep. Indicators such as US manufacturing ISM and CPI also appear to be bottoming, indicating to us that the risk of a sharp decline in demand through 12/3 has diminished. Inventory in distribution channels, including KHI's own inventory, is still somewhat excessive, but we think the company is steadily paring this in line with its plan.

The company has been stepping up its efforts to expand motorcycle operations in emerging markets in order to make up for the slightly late start it got compared with competitors; sales in recent quarters have been strong in Brazil (mostly models with engine displacements of 250cc or more), Indonesia (mostly 125cc or less) and other emerging markets. Sales have also been firm in Thailand (mainly 110cc and 250cc models) and in the Philippines (125cc or less).

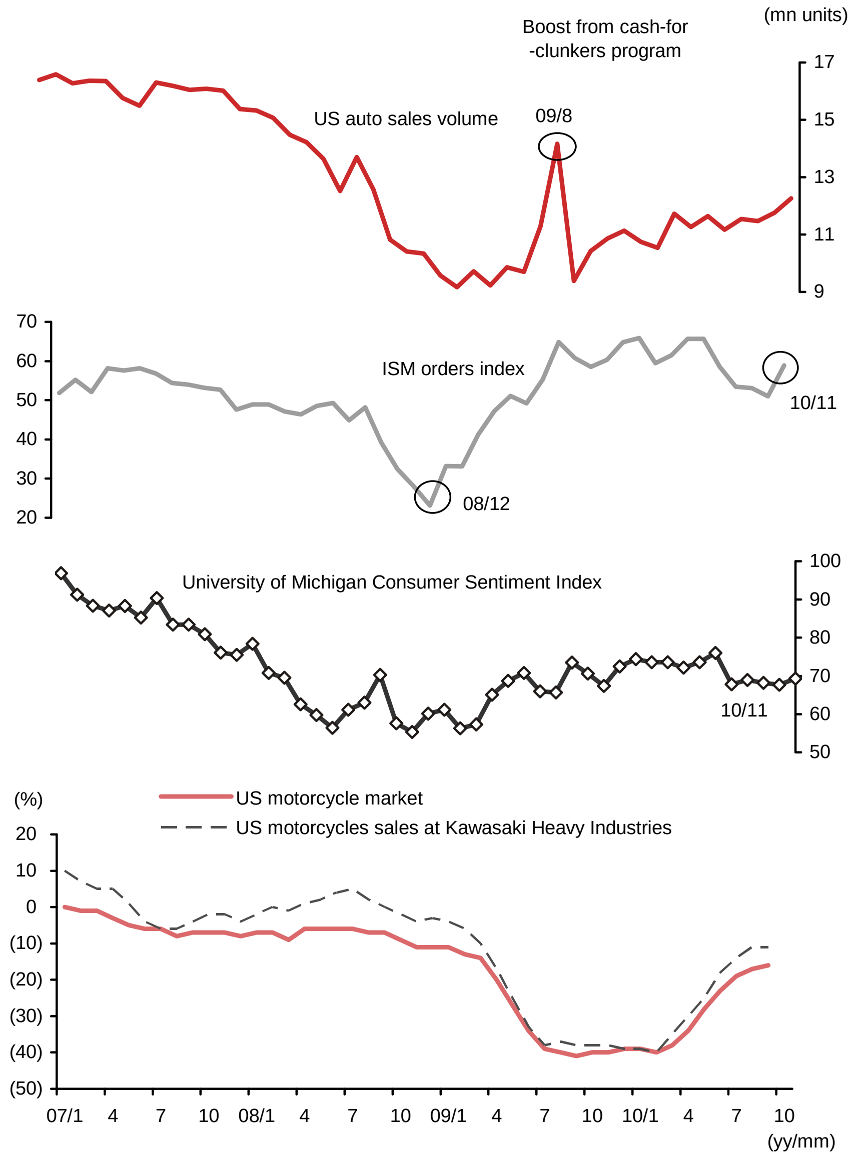
Stepping up efforts to tap emerging markets

Opportunity: NYC subway car order

We expect the rolling stock segment to receive a new order, worth about ¥40bn, for R188 NYC subway cars.

NYC subway car order looks likely in H2

Exhibit 170. KHI motorcycle sales volume and US economic indicators: improving trend



Source: Nomura research, University of Michigan Consumer Sentiment Index

Profit forecasts and currency risk

We forecast 38% growth in operating profits in 12/3

We expect the company to move into the black at the operating level in 11/3 with profits of ¥36bn, thanks to cost improvements for motorcycles and engines, as well as rapid growth in sales of hydraulic equipment. In 12/3, we expect operating profits to increase 38%, as earnings from hydraulic equipment continue to expand and those from the motorcycle & engine segment improve.

Greatest risk is a stronger yen, in our view

The greatest risk to our outlook is yen appreciation impacting the motorcycle & engine segment. We estimate that every ¥1 rise versus our dollar/yen assumption for 12/3 would have the effect of lowering our operating profits by about ¥1.9bn.

Risks to our call

Risks to our call include 1) slower-than-expected motorcycle sales in Europe and Asia due to recession; 2) further appreciation of the Japanese Yen; 3) engine business earnings fall short; and 4) intensifying competition in the domestic marine business.

Financial statements

(¥mn, except where noted)

						Co's E				
						11/3				
	09/3	10/3	11/3F	12/3F	13/3F	Latest	Prev	13/3F	21/3F	$/¥ sensitivity
Total orders	1,540,500	1,001,200	1,334,000	1,414,000	1,503,500	1,340,000	1,240,000			
Ship & offshore structure	71,500	16,100	90,000	100,000	110,000	100,000	90,000			
Rolling stock	219,700	66,200	200,000	200,000	220,000	180,000	130,000			
Aerospace	239,100	171,300	200,000	220,000	240,000	210,000	200,000			
Gas turbine & machinery	355,500	226,200	220,000	225,000	230,000	220,000	220,000			
Plant & infrastructure	98,900	135,600	130,000	130,000	140,000	130,000	120,000			
Motorcycle & engine	303,700	203,000	243,100	268,600	282,600	250,000	260,000			
Precision machinery	116,800	84,900	140,000	170,000	180,000	140,000	110,000			
Hydraulic machinery	84,100	71,000	110,000	135,000	140,000	110,000				
Industrial robots	32,700	13,900	30,000	35,000	40,000	30,000				
Other	135,300	97,900	110,900	100,400	100,900	110,000	110,000			
Total sales	**1,338,597**	**1,173,473**	**1,284,000**	**1,368,000**	**1,427,000**	**1,280,000**	**1,280,000**	**1,400,000**	**2,000,000**	
Ship & offshore structure	126,400	151,800	120,000	120,000	110,000	120,000	120,000	110,000	140,000	
Rolling stock	135,600	150,000	145,000	149,000	163,500	145,000	145,000	160,000	300,000	
Aerospace	200,400	188,800	215,000	230,000	240,000	215,000	215,000	240,000	300,000	
Gas turbine & machinery	195,100	191,300	210,000	220,000	230,000	210,000	210,000	230,000	450,000	
Plant & infrastructure	124,400	107,500	100,000	110,000	120,000	100,000	110,000	140,000	250,000	
Motorcycle & engine	303,700	203,000	243,100	268,600	282,600	250,000	260,000	290,000	300,000	
Precision machinery	117,600	82,700	140,000	170,000	180,000	130,000	110,000	130,000	260,000	
Hydraulic machinery	84,900	68,800	110,000	135,000	140,000	100,000				
Industrial robots	32,700	13,900	30,000	35,000	40,000	30,000				
Other	135,397	98,373	110,900	100,400	100,900	110,000	110,000	100,000	0	
Total operating profits	**28,713**	**-1,316**	**36,000**	**49,500**	**56,000**	**32,000**	**32,000**	**52,000**		**1,900**
Ship & offshore structure	-900	1,500	0	0	-2,000	1,000	2,000	0		200
Rolling stock	11,600	8,700	7,000	6,500	8,500	7,000	8,000	8,000		300
Aerospace	-4,100	3,700	1,000	0	2,000	2,000	4,000	7,000		500
Gas turbine & machinery	11,000	8,900	9,000	8,000	6,000	9,000	10,000	8,000		300
Plant & infrastructure	9,900	7,900	9,000	11,000	12,000	8,000	6,000	9,000		0
Motorcycle & engine	-10,400	-27,000	-4,000	1,000	5,000	-4,000	0	8,000		600
Precision machinery	8,800	3,400	20,000	27,000	28,500	15,000	8,000	11,000		0
Other	2,813	-8,416	-6,000	-4,000	-4,000	-6,000	-6,000	1,000		0
Operating margin (companywide, %)	2.1	-0.1	2.8	3.6	3.9	2.5	2.5	3.7		
Ship & offshore structure	-0.7	1.0	0.0	0.0	-1.8	0.8	1.7	0.0		
Rolling stock	8.6	5.8	4.8	4.4	5.2	4.8	5.5	5.0		
Aerospace	-2.0	2.0	0.5	0.0	0.8	0.9	1.9	2.9		
Gas turbine & machinery	5.6	4.7	4.3	3.6	2.6	4.3	4.8	3.5		
Plant & infrastructure	8.0	7.3	9.0	10.0	10.0	8.0	5.5	6.4		
Motorcycle & engine	-3.4	-13.3	-1.6	0.4	1.8	-1.6	0.0	2.8		
Precision machinery	7.5	4.1	14.3	15.9	15.8	11.5	7.3	8.5		
Other	2.1	-8.6	-5.4	-4.0	-4.0	-5.5	-5.5	1.0		
Nonoperating items	10,005	15,609	0	4,500	5,000	0	0	4,000		
Loss on differences	10,373	10,955	-3,000	0	0					
Gains/losses on sales	-1,255	1,739	0	0	0					
Equity-method	8,709	6,522	10,000	11,500	12,000					
Other	-7,822	-3,607	-7,000	-7,000	-7,000					
Total recurring profits	**38,718**	**14,293**	**36,000**	**54,000**	**61,000**	**32,000**	**32,000**	**56,000**	**100,000**	
Total net profits	**11,727**	**-10,863**	**24,000**	**37,000**	**40,000**	**20,000**	**20,000**	**35,000**		
EPS (¥)	7.0	-6.5	14.1	21.8	23.6	11.9	11.9	20.8		
$/¥ rate	101	93	86	81	81	87	90	90	90	
€/¥ rate	142	130	114	112	112	116	115	125	125	

Note: Forex sensitivity is estimated negative impact on 12/3 operating profits of ¥1 rise in value of yen versus US dollar over full year. Every ¥1 fall in the value of the yen against the euro will boost operating profits by ¥300mn (entirely at the consumer products & machinery segment). In addition, we see the risk of provisioning losses being booked. In 11/3 H2, we estimate operating profits will be depressed by ¥2.4bn for every ¥1 strengthening against the US dollar, including the effect of provisioning. This breaks down to ¥700mn in the ship & offshore structure segment, ¥600mn in the aerospace segment, ¥600mn in the motorcycle & engine segment, ¥200mn in the rolling stock segment, ¥200mn in the gas turbine & machinery segment, and smaller amounts for other segments (the company's H2 forex assumptions are $1/¥83 and €1/¥115, versus our assumptions of $1/¥81 and €1/¥112). Partial hedging means that a ¥1 rise in the value of the yen against the US dollar will dent 11/3 recurring profits by ¥2.3bn, while a ¥1 rise in the value of the yen against the euro will dent profits by ¥200mn. KHI has changed segment data disclosure basis from 11/3, moving crushers from rolling stock to plant & infrastructure, and robots from the consumer products & machinery segment to the hydraulic machinery segment. Furthermore, head office costs previously allocated to each business have not been reallocated in line with the application of new classifications from 11/3 (these costs are included in other items). Figures for 10/3 adjusted for comparison purposes.

Source: Company data, Nomura estimates

Kawasaki Heavy Industries [7012]: sales and operating profits in the motorcycle & engine business

(¥mn, except where noted)

	06/3	07/3	08/3	09/3	10/3	11/3F	12/3F	11/3E Co's		10/3				11/3	
								Latest	Prev	Q1	Q2	Q3	Q4	Q1	Q2
Sales				303,700	203,000	243,100	268,600	250,000	260,000	58,000	42,900	58,200	43,900	65,100	48,031
North America (motorcycles/all-terrain vehicle)	159,500	183,700	177,100	134,300	56,300	71,600	75,200	78,300	87,000	17,900	13,200	11,000	14,200	20,800	16,800
Europe (motorcycles)	68,000	80,900	110,700	73,200	56,200	46,400	47,600	46,700	58,800	18,800	10,200	10,100	17,100	16,100	7,500
Domestic (motorcycles)	17,100	15,900	15,200	14,700	12,900	11,700	13,000	11,700	12,200	4,700	3,300	2,200	2,700	2,900	3,400
Asia (motorcycles)	33,400	32,600	39,800	44,900	45,100	72,000	90,400	71,900	62,300	8,300	10,800	12,800	13,200	14,400	14,200
Other (engines for US market)				36,600	32,500	41,400	42,400	41,400	39,700						
% y-y															
North America	-	15	-4	-24	-58	27	5	39	55	-45	-55	-67	-63	16	27
Europe	-	19	37	-34	-23	-17	3	-17	5	-36	-38	10	-6	-14	-26
Asia, other	-	-2	22	13	0	60	26	-9	-5	-16	-7	0	25	73	31
Operating profits/losses				-10,400	-27,000	-4,000	1,000	0	0						
North America (motorcycles/all-terrain vehicle)				-11,100	-21,000	-7,000	-5,500								
Europe (motorcycles)				-5,000	-7,700	-5,000	-3,500								
Domestic (motorcycles)				500	500	500	500								
Asia (motorcycles)				3,000	3,100	6,000	7,500								
Other (engines for US market)				2,200	-1,900	1,500	2,000								
Margin (%)				-3.1	-12.4	-1.6	0.4								
North America (motorcycles/all-terrain vehicle)				-8.3	-37.3	-9.8	-7.3								
Europe (motorcycles)				-6.8	-13.7	-10.8	-7.4								
Domestic (motorcycles)				3.4	3.9	4.3	3.8								
Asia (motorcycles)				6.7	6.9	8.3	8.3								
Volume of sales to dealerships ('000s)				7	-11	8	8								
North America	240	254	230	197	80	113	123	118	126	25	19	16	20	27	12
Motorcycles	120	140	124	118	49	60	63	65	66	19	11	7	12	15	12
ATV, other	120	114	106	79	31	53	60	53	60	6	8	9	8	12	12
Europe	88	97	118	97	72	68	71	68	72	24	12	13	23	22	12
Domestic	26	21	20	19	17	16	17	16	16	6	4	3	4	4	4
Asia, other (motorcycles)	174	130	151	210	228	279	350	279	296	46	53	60	69	66	59
Motorcycles total	408	388	413	444	366	423	501	428	450	95	80	83	108	107	87
(Advanced economy total)	234	258	262	234	138	144	151	149	154	49	27	23	39	41	28
% y-y															
North America, motorcycles	-	17	-11	-5	-58	22	5	33	35	-14	-42	-78	-73	-21	9
North America, other		-5	-7	-25	-61	71	13	71	94	-71	-60	-55	-56	100	50
Europe, motorcycles	-	10	22	-18	-26	-6	4	-6	0	-23	-43	-19	-21	-8	0
Asia, other		-25	16	39	9	22	25	22	30	28	4	-6	17	43	11
$/¥ rate	112	117	115	101	93	86	81	87	90	97	95	93	87	93	87
€/¥ rate	139	152	161	142	130	114	112	116	115	132	134	130	124	122	110
% y-y															
$/¥ rate		4	-2	-12	-8	-8	-5	-6	-3	-7	-12	-7	-3	-4	-8
€/¥ rate		9	6	-12	-8	-12	-2	-11	-12	-16	-16	8	3	-8	-18

Note: (1) All breakdowns of sales and operating profits/losses, including historical figures, are Nomura estimates. (2) There have been some changes to business classifications from 11/3, but above figures are adjusted to enable comparison with figures for 10/3 and before.

Source: Company data, Nomura estimates

(¥mn, except where noted)

	09/3				10/3				11/3	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Old segment classification										
Total orders	389,371	327,895	370,026	453,208	191,733	211,267	246,900	351,300		
Shipbuilding	20,628	37,815	5,674	7,383	1,844	856	7,784	5,616		
Rolling stock & construction machinery	98,200	37,898	50,399	78,103	28,075	16,425	18,565	14,035		
Aerospace	27,517	30,849	29,371	151,363	11,460	35,040	33,450	91,350		
Gas turbines & machinery	59,148	60,221	159,947	76,184	52,334	47,466	38,789	87,611		
Plant & infrastructure engineering	28,751	20,281	12,597	21,971	13,253	19,247	58,731	33,469		
Consumer products & machinery	94,006	83,615	70,223	88,556	60,256	45,944	46,180	64,520		
Other (hydraulic machinery, etc)	61,117	57,220	41,815	29,648	24,507	46,293	43,401	54,699		
Total sales	302,531	350,392	302,039	383,635	256,757	259,343	281,960	375,413		
Shipbuilding	19,091	34,643	42,071	30,595	39,403	25,797	46,525	40,075		
Rolling stock & construction machinery	36,103	47,575	48,123	54,599	40,843	39,257	42,239	44,761		
Aerospace	39,563	55,727	31,194	73,916	26,696	46,604	46,068	69,432		
Gas turbines & machinery	44,984	46,806	47,045	56,265	44,753	38,647	45,458	62,442		
Plant & infrastructure engineering	20,283	26,409	19,430	38,978	13,199	22,501	11,495	43,205		
Consumer products & machinery	94,006	83,615	70,223	88,556	60,256	45,944	46,180	64,520		
Other (hydraulic machinery, etc)	48,497	55,621	43,953	40,726	31,604	40,596	43,995	50,978		
Total operating profits	8,246	16,107	-9,647	14,007	-5,374	-763	-7,909	12,730		
Shipbuilding	24	233	-2,834	1,577	-661	2,061	-621	621		
Rolling stock & construction machinery	2,381	4,683	643	3,593	1,610	1,590	1,454	3,046		
Aerospace	218	341	-4,892	233	-2,152	4,752	-3,217	2,317		
Gas turbines & machinery	2,258	2,527	1,955	4,260	946	-346	2,197	3,803		
Plant & infrastructure engineering	1,695	2,998	635	3,572	-611	1,611	-1,158	6,358		
Consumer products & machinery	-1,834	2,135	-8,053	-2,348	-5,680	-10,920	-9,053	-5,947		
Other (hydraulic machinery, etc)	3,504	3,190	2,899	3,120	1,265	398	2,489	2,532		
Operating margin (companywide, %)	2.7	4.6	-3.2	3.7	-2.1	-0.3	-2.8	3.4		
Shipbuilding	0.1	0.7	-6.7	5.2	-1.7	8.0	-1.3	1.5		
Rolling stock & construction machinery	6.6	9.8	1.3	6.6	3.9	4.1	3.4	6.8		
Aerospace	0.6	0.6	-15.7	0.3	-8.1	10.2	-7.0	3.3		
Gas turbines & machinery	5.0	5.4	4.2	7.6	2.1	-0.9	4.8	6.1		
Plant & infrastructure engineering	8.4	11.4	3.3	9.2	-4.6	7.2	-10.1	14.7		
Consumer products & machinery	-2.0	2.6	-11.5	-2.7	-9.4	-23.8	-19.6	-9.2		
Other (hydraulic machinery, etc)	7.2	5.7	6.6	7.7	4.0	1.0	5.7	5.0		
New segment classification										
Total orders					191,733	211,267	246,900	351,300	329,488	283,912
Ship & offshore structure					1,844	856	7,784	5,616	1,662	34,738
Rolling stock					25,514	13,986	16,000	10,700	101,583	16,117
Aerospace					11,460	35,040	33,450	91,350	36,594	51,306
Gas turbine & machinery					52,334	47,466	38,789	87,611	33,080	32,220
Plant & infrastructure					15,814	21,686	61,200	36,900	32,061	45,239
Motorcycle & engine					58,077	42,823	43,100	59,000	65,169	48,031
Precision machinery					13,167	19,633	22,000	30,100	35,065	32,935
Other					13,523	29,777	24,577	30,023	24,274	23,326
Total sales					256,757	259,343	281,960	375,413	277,387	294,313
Ship & offshore structure					39,403	25,797	46,525	40,075	28,659	32,541
Rolling stock					37,507	34,993	38,000	39,500	26,680	36,320
Aerospace					26,696	46,604	46,068	69,432	34,211	48,789
Gas turbine & machinery					44,753	38,647	45,400	62,500	49,906	49,294
Plant & infrastructure					16,535	26,765	15,700	48,500	20,456	18,344
Motorcycle & engine					58,077	42,823	43,100	59,000	65,169	48,031
Precision machinery					16,506	17,694	21,200	27,300	27,854	33,046
Other					17,280	26,020	26,060	29,013	24,452	27,948
Total operating profits					-5,374	-763	-7,909	12,730	11,657	9,243
Ship & offshore structure					-661	2,061	-600	700	3,318	-1,318
Rolling stock					1,900	1,800	1,500	3,500	1,779	1,621
Aerospace					-1,900	5,200	-3,000	3,400	-1,857	757
Gas turbine & machinery					1,200	200	2,500	5,000	4,057	2,043
Plant & infrastructure					-500	2,200	-1,000	7,200	285	3,215
Motorcycle & engine					-3,900	-9,400	-7,800	-5,900	774	-1,874
Precision machinery					-300	-300	1,300	2,700	3,958	4,642
Other					-1,213	-2,524	-809	-3,870	-657	157
Operating margin (companywide, %)					-2.1	-0.3	-2.8	3.4	4.2	3.1
Ship & offshore structure					-1.7	8.0	-1.3	1.7	11.6	-4.1
Rolling stock					5.1	5.1	3.9	8.9	6.7	4.5
Aerospace					-7.1	11.2	-6.5	4.9	-5.4	1.6
Gas turbine & machinery					2.7	0.5	5.5	8.0	8.1	4.1
Plant & infrastructure					-3.0	8.2	-6.4	14.8	1.4	17.5
Motorcycle & engine					-6.7	-22.0	-18.1	-10.0	1.2	-3.9
Precision machinery					-1.8	-1.7	6.1	9.9	14.2	14.0
Other					-7.0	-9.7	-3.1	-13.3	-2.7	0.6
$/¥ rate	104	108	100	92	97	95	93	90	93	87
€/¥ rate	158	160	120	130	132	134	130	124	122	110

Source: Company data, Nomura estimates

(¥mn, except where noted)

	04/3	05/3	06/3	07/3	08/3	09/3	10/3	11/3F	12/3F	13/3F
Income statement										
Sales	**1,160,252**	**1,241,591**	**1,322,487**	**1,438,618**	**1,501,097**	**1,338,597**	**1,173,473**	**1,284,000**	**1,368,000**	**1,427,000**
% y-y	-6.4	7.0	6.5	8.8	4.3	-10.8	-12.3	9.4	6.5	4.3
Operating profits	**22,249**	**24,744**	**41,794**	**69,141**	**76,910**	**28,713**	**-1,316**	**36,000**	**49,500**	**56,000**
% y-y	-27.2	11.2	68.9	65.4	11.2	-62.7	-	-	37.5	13.1
Recurring profits	**12,140**	**21,044**	**30,885**	**49,052**	**63,972**	**38,718**	**14,293**	**36,000**	**54,000**	**61,000**
% y-y	-25.4	73.3	46.8	58.8	30.4	-39.5	-63.1	151.9	50.0	13.0
Net profits	**6,332**	**11,478**	**16,467**	**29,771**	**35,141**	**11,727**	**-10,863**	**24,000**	**37,000**	**40,000**
% y-y	-51.4	81.3	43.5	80.8	18.0	-66.6	-	-	54.2	8.1
Capex	41,501	29,691	41,700	39,200	50,500	82,400	59,200	70,000	60,000	58,000
Depreciation	32,589	31,554	30,551	30,200	37,400	44,300	51,400	51,000	54,000	56,000
EPS (¥)	4.4	7.9	11.2	18.9	21.1	7.0	-6.5	14.1	21.8	23.6
CFPS (¥)	27.0	29.8	30.2	35.9	43.5	33.6	24.3	44.2	53.6	56.6
BPS (¥)	131.8	139.7	152.5	177.1	187.7	174.1	166.1	176.9	192.7	209.3
DPS (¥)	2.0	2.5	3.0	5.0	5.0	3.0	3.0	4.0	6.0	7.0
Payout ratio (%) (30% target)	46	32	27	26	24	43	-46	28	28	30
Balance sheet										
Cash & deposits	43,064	44,628	37,650	39,350	39,875	31,955	34,745	34,700	34,700	34,700
Short-term securities	0	0	0	0	0	0	0	0	0	0
Accounts receivable	365,376	402,254	422,551	428,588	417,934	402,341	400,264	438,000	466,700	486,800
Inventories	335,064	332,233	383,016	427,934	439,309	476,440	418,222	434,700	463,100	483,100
Other current assets	55,976	57,889	72,682	66,045	85,164	85,060	78,447	78,400	78,400	78,400
Property, plant and equipment	248,922	243,166	246,219	253,819	259,927	284,117	284,407	303,400	309,400	311,400
Intangible fixed assets	15,881	14,773	15,795	15,128	16,053	19,573	20,718	20,700	20,700	20,700
Other assets	92,621	99,529	106,172	127,115	120,507	100,284	115,636	115,600	115,600	115,600
Total assets	**1,156,904**	**1,194,472**	**1,284,085**	**1,357,979**	**1,378,769**	**1,399,770**	**1,352,439**	**1,425,500**	**1,488,600**	**1,530,700**
Accounts payable	286,116	348,388	409,942	412,501	430,999	358,478	302,739	331,300	353,000	368,200
Interest-bearing debt	399,470	353,883	319,801	304,216	276,446	388,787	427,964	455,200	469,800	468,600
Other liabilities	277,288	286,046	311,246	345,885	352,287	357,260	338,683	338,700	338,700	338,700
Minority interests	3,855	4,691	5,508	-	-	-	-	-	-	-
Net assets	190,175	201,464	237,588	295,377	319,037	295,245	283,053	300,300	327,100	355,200
Financial indicators										
ROIC (%)	3.8	4.5	7.5	11.5	12.9	4.2	-0.2	4.8	6.2	6.8
ROA (%)	1.9	2.1	3.3	5.1	5.6	2.1	-0.1	2.5	3.3	3.7
ROE (%)	3.3	5.7	6.9	10.1	11.0	4.0	-3.8	8.0	11.3	11.3
Operating margin (%)	1.9	2.0	3.2	4.8	5.1	2.1	-0.1	2.8	3.6	3.9
Recurring margin (%)	1.0	1.7	2.3	3.4	4.3	2.9	1.2	2.8	3.9	4.3
Invested capital (interest-bearing debt + owners' equity)	589,645	555,347	557,389	599,593	595,483	688,992	711,017	755,500	796,900	823,800
Turnover period (months)										
Invested capital	6.10	5.37	5.06	5.00	4.76	6.18	7.27	7.06	6.99	6.93
Total capital	11.97	11.54	11.65	11.33	11.02	12.55	13.83	13.32	13.06	12.87
Cash & equivalents	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3
Accounts receivable	3.8	3.9	3.8	3.6	3.3	3.6	4.1	4.1	4.1	4.1
Inventories	3.5	3.2	3.5	3.6	3.5	4.3	4.3	4.1	4.1	4.1
Accounts payable	3.0	3.4	3.7	3.4	3.4	3.2	3.1	3.1	3.1	3.1
Working capital	4.3	3.7	3.6	3.7	3.4	4.7	5.3	5.1	5.1	5.1
Net interest-bearing debt	356,406	309,255	282,151	264,866	236,571	361,792	393,219	420,500	435,100	433,900
Net interest-bearing debt / cash flow	6.50	5.49	3.90	2.67	2.07	4.96	7.85	4.83	4.20	3.87
D/E ratio (x)	2.10	1.76	1.35	1.03	0.87	1.33	1.51	1.52	1.44	1.32
Net D/E ratio (x)	1.87	1.54	1.19	0.90	0.74	1.23	1.39	1.40	1.33	1.22
Owners' equity ratio (%)	16.4	16.9	18.5	21.8	23.1	21.1	20.9	21.1	22.0	23.2
Free cash flow	16,942	41,541	9,250	2,547	26,675	-132,773	-33,099	-28,600	-12,400	5,100
EBITDA	54,838	56,298	72,345	99,341	114,310	73,013	50,084	87,000	103,500	112,000
Shares out (mn)	1,443	1,442	1,558	1,668	1,668	1,668	1,668	1,697	1,697	1,697
Cash flow										
Operating cash flow	**42,810**	**71,422**	**45,760**	**45,859**	**75,765**	**-41,256**	**30,178**	**41,400**	**47,600**	**63,100**
Pretax profits/losses	11,241	20,564	23,300	45,297	58,055	23,625	-3,821	36,000	54,000	61,000
Depreciation	32,589	31,554	30,551	30,200	37,400	44,334	51,423	51,000	54,000	56,000
Other	-1,020	19,304	-8,091	-29,638	-19,690	-109,215	-17,424	-45,600	-60,400	-53,900
Investment cash flow	**-25,868**	**-17,714**	**-36,510**	**-43,312**	**-49,090**	**-72,283**	**-63,277**	**-70,000**	**-60,000**	**-58,000**
Spending on property, plant and equipment	-41,501	-29,691	-41,700	-39,200	-50,500	-68,059	-61,198	-70,000	-60,000	-58,000
Other	15,633	11,977	5,190	-4,112	1,410	-4,224	-2,079	0	0	0
Free cash flow	**16,942**	**53,708**	**9,250**	**2,547**	**26,675**	**-113,539**	**-33,099**	**-28,600**	**-12,400**	**5,100**

Note: Actuarial difference arising from change in accounting standards for retirement benefit obligations was ¥29.0bn (10% of net assets) as of end-10/3.

Source: Company data, Nomura estimates

Volvo B VOLVB SS

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NOMURA INTERNATIONAL PLC LONDON

Maintained

NEUTRAL

Action

Despite slowing growth of construction machinery in 2011F, we believe Volvo will continue posting high growth in its CE business thanks to its North America and Asia operations. For FY11F, we expect CE to grow 17% y-y for sales of SEK63bn (20% of group turnover). In this context, we look for operating profit to reach SEK6,967mn (operating margin of 11%), or 28% of group EBIT. NEUTRAL.

Catalysts

The next catalyst is likely to be the release of FY10 earnings on 4 February, 2011.

Anchor themes

Global demand for construction machinery is strong. In our view, the degree of profit growth at construction machinery manufacturers will likely hinge on their ability to increase production capacity, including parts procurement, and their ability to rein in costs even when output and sales are rising.

Closing price on 10 Dec	SEK109.3
Price target	**SEK96.0**
Upside/downside	-12%
Difference from consensus	**-15%**
FY11F net profit (SEKmn)	15,407
Difference from consensus	**-9.9%**

Source: Nomura

Nomura vs consensus

Our FY11F operating profit projection of SEK24,813mn is slightly below Bloomberg consensus of SEK25,797mn. Difference comes from a stronger increase of fixed

Positioning in excavator segment

① CE division: second-largest contributor to group sales and OP

Volvo comprises five activities all geared to transport. Following the truck segment, the number two contributor to sales and operating profit is Volvo Construction Equipment (20% of sales and 33% of operating profit in FY10F). Volvo is among the biggest CE manufacturers worldwide behind industry leaders Caterpillar and Komatsu. The company also designs and markets buses, engines for leisure boats and aerospace parts. The operating margin averaged 5.2% between 2000 and 2008 (ie, excluding crisis).

② China operation: 30% of group revenue

Volvo's business in China is mainly done via the truck division and the construction equipment division. VT (Volvo Truck) remains quite small in China, and we believe the company would have found better partners in the region. Nonetheless, Volvo Construction Equipment (VCE) has managed to seize a good chunk of local growth thanks to both in-house products and acquisitions. In total, Volvo generated 47% of its revenues in Asia in 1H10, with a significant portion from China (30% of overall sales; 64% of Asian sales).

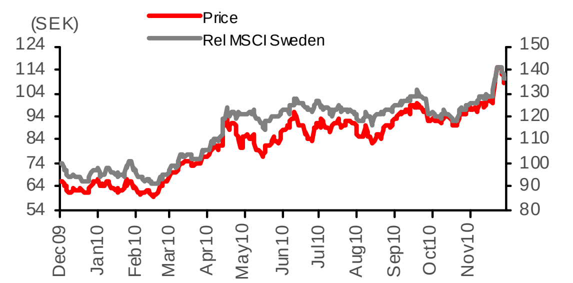
③ China CE operation: acquisition of Lingong

Volvo's bold move in China started at end 2006/beginning 2007 when the company bought a 70% stake (raised to 85% in 2008) in Lingong, a Chinese leader in the wheel loader and excavator segment. We think China will remain Volvo's primary country to drive its CE equipment growth. In this regard, we believe Lingong will continue to support growth at VCE. Moreover, we view Lingong as a trigger not only for growth in China but also for growth in all emerging markets where Volvo operates, especially BRICs.

31 Dec (SEKmn)	FY09	FY10F	FY11F	FY12F
Revenue	218,361	270,817	318,681	340,360
Reported net profit	(14,718)	10,767	15,407	18,298
EPS (SEK)	(7.26)	5.31	7.60	9.03
EPS growth (%)	na	na	43	19
P/E (x)	na	20.6	14.4	12.1
EV/EBITDA (x)	na	8.6	6.7	5.6
BPS (SEK)	28.9	34.1	39.7	45.0
Price/book (x)	3.8	3.2	2.8	2.4
Dividend yield (%)	0	2	3	4
ROE (%)	(25)	16	19	20
Net debt/equity (%)	61	41	20	3
Earnings revisions				
Previous norm. net profit		10,767	15,407	18,298
Change from previous (%)		na	na	na
Previous norm. EPS (SEK)		5.3	7.6	9.0
Change from previous (%)		na	na	na

Source: Company, Nomura estimates

Share price relative to MSCI Sweden



	1m	3m	6m
Absolute (SEK)	10.3	16.0	18.9
Absolute (US$)	8.3	22.2	37.7
Relative to Index	9.0	10.8	14.9
Market cap (US$mn)			210,048
52-week range (SEK)			114.6/60.0

Source: Company, Nomura estimates

Drilling down

NEUTRAL, price target SEK96.0

Over the past few years, Volvo has strongly increased its business in China with some successes and failures. The disappointment, in our view, would be the lack of a strong partnership in the truck division. In contrast, however, the acquisition of Lingong (a Chinese construction equipment company) could be viewed as the best recent move of Volvo in the construction machinery segment. Despite this exposure, we maintain our NEUTRAL rating on Volvo. We appreciate the restructuring work done by the company during the crisis and believe it will continue to benefit from the recovery of both the truck market and the CE market. Nevertheless, the current valuation fully discounts this recovery, in our view. Volvo currently trades on 2011/2012 EV/sales of 72% (slightly above the average of around 70%) and EV/EBITDA of 6.7x/5.6x.

Our earnings multiple-based price target stands at SEK96, based on a normalised total profit margin of 7.5%, turnover of SEK305bn and a P/E multiple of 14x (long-term average). Worsening of the economies of the US and emerging markets, such as China, would be the main risk to our target price. We believe investors continue to see Volvo as a good proxy to North America (around 16% of sales) among the truck manufacturers in Europe. As a result, slow growth of the truck market in the US could hurt the share price. As for China, the company's main exposure is the construction equipment market. Upside risk to our price target would be higher-than-expected growth in the US and China markets.

Company overview

Volvo comprises five activities all geared to transport. Following the disposal of Volvo Cars in 1999 and the acquisition of Renault Véhicules Industriels (RVI) in 2001 and Nissan Diesel (UD) in 2007, Volvo is the world's number-two truck maker by market share thanks to its four brands (Mack, Renault, Volvo and UD). After trucks (66% of sales), the number two contributor to sales and operating profit is Volvo Construction Equipment (20% of 2010 sales and 33% of 2010 operating profit). Volvo is among the biggest CE manufacturers in the world, behind industry leaders Caterpillar and Komatsu. Volvo also designs and markets buses, engines for leisure boats and aerospace parts. The company's operating margin averaged 5.2% between 2000 and 2008 (ie, excluding the crisis).

Business in China

Volvo's business in China is conducted mainly via its truck and construction equipment divisions. VT (Volvo Truck) remains quite small in China, and we believe the company's success has been limited by its choice of partners. In total, Asia accounted for 32% of 2009 sales (contributing SEK25bn), but only 4% of that total was from China, or only slightly more than 1% of VT's revenues. When it comes to Volvo Construction Equipment (VCE), the situation is quite different, and the company has managed to seize a good chunk of the local growth thanks to both in-house products and acquisitions. In total, Volvo generated 47% of its revenues in Asia in H1 2010, with a significant portion from China (30% of total sales; 64% of Asian sales).

The bold move in China started at end-2006/early 2007 when Volvo bought a stake (70% increased to 85% in 2008) in Lingong, a Chinese leader on the wheel loader and excavator segment. According to data provided by the company, Volvo/Lingong owns 8.3% of the Chinese VE market, making it the fourth largest player in the region after Liugong (13.2% market share), Longong (11.1%) and Xiegong (10%). However, the share of Volvo on the specific excavator segment is smaller. According to data collected by Nomura, Volvo's excavator market share was 4.3% in the period January to October 2010, up from 3.2% in FY2009. Lingong is better known in China under the brand SDLG. The brand has a good dealership network with 107 sales agents and a sales force of 1,620. Lingong was established in 1972 and moved to brand new facilities in 2005.

Going forward, China will continue to represent the main growth region for CE equipment. In this regard Lingong will continue to support the growth of VCE. Moreover, we see Lingong not only as a trigger for growth in China but also for growth in every emerging country that Volvo operates in, especially BRICs. The SDLG brand is likely to be Volvo's entry product offer wherever there is demand for relatively inexpensive products. This is already the case in Brazil where we think Chinese manufacturers are gaining market share.

Financial statements

P&L Group (SEKmn)	07	08	09	10F	11F	12F
Net Group Sales	285,405	303,667	218,361	270,817	318,681	340,360
chg yoy	*15.0%*	*397.5%*	*205.6%*	*296.1%*	*276.9%*	*19.3%*
Operating Profit	22,421	17,161	-12,974	18,330	24,813	29,382
op. profit margin	*7.9%*	*5.7%*	*-5.9%*	*6.8%*	*7.8%*	*8.6%*
Profit Before Tax	21,557	14,010	-20,573	15,808	22,764	27,833
pre-tax profit	*7.6%*	*4.6%*	*-9.4%*	*5.8%*	*7.1%*	*8.2%*
Net Profit	14,932	9,942	-14,718	10,767	15,407	18,298
Number of Shares (millions)	2026	2026	2026	2026	2026	2026
Dividend per share (SEK)	5.50	2.00	0.00	2.00	3.80	4.52
EPS (SEK)	7.37	4.91	-7.26	5.31	7.60	9.03

Industrial Cash Flow (SEKmn)	07	08	09	10F	11F	12F
Cash Flow from operations	24,400	9,700	-1,600	16,567	28,457	32,600
CAPEX	10,300	13,000	10,500	8,000	12,000	12,000
in % of sales	*3.6%*	*4.3%*	*4.8%*	*3.0%*	*3.8%*	*3.5%*
FCF	14,300	-2,900	-11,900	7,567	16,457	20,600
Net Change in Cash	-27,381	-25,491	-11,700	7,367	12,405	12,896
Net Debt (cash)	-5,441	20,549	35,506	28,146	15,741	2,844

Industrial Balance Sheet (SEKmn)	07	08	09	10F	11F	12F
Total Non current assets	114,091	137,070	131,278	129,178	126,778	127,378
Cash & equivalents	13,538	16,671	20,749	28,116	40,521	53,417
Total Current asset	129,715	127,199	114,272	140,719	158,970	182,596
Total Financial liabilities	168,677	189,226	187,065	200,745	205,241	218,872
Book Value	75,129	75,046	58,485	69,152	80,507	91,101

Divisional Details (SEKmn)	07	08	09	10F	11F	12F
Trucks	187,892	203,235	138,939	170,500	204,275	223,412
Operating margin	8.1%	6.3%	-5.2%	5.9%	7.5%	8.5%
Buses	16,608	17,312	18,465	21,202	21,290	22,025
Operating margin	1.4%	0.2%	-1.9%	3.7%	3.9%	4.3%
Construction Equipment	53,633	56,079	35,658	54,048	63,337	63,229
Operating margin	8.2%	3.9%	-10.1%	11.2%	11.0%	11.0%
Volvo Penta	11,719	11,433	8,159	8,869	9,879	10,758
Operating margin	10.0%	9.0%	-2.8%	7.8%	9.0%	9.5%
Volvo Aero	7,646	7,448	7,803	8,017	8,599	8,899
Operating margin	6.9%	4.8%	0.6%	5.3%	7.0%	7.7%
Financial Services	7,705	8,485	11,712	10,180	11,300	12,035
Operating margin	21.4%	16.5%	-5.8%	1.2%	6.2%	10.3%

Source: Company data, Nomura estimates

Any Authors named on this report are Research Analysts unless otherwise indicated

Analyst Certification

We, Yankun Hou, Katsushi Saito, Wenjie Ge, Yuji Matsumoto, Ryo Tazaki, Shigeki Okazaki and Alexis Albert, hereby certify (1) that the views expressed in this Research report accurately reflect our personal views about any or all of the subject securities or issuers referred to in this Research report, (2) no part of our compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this Research report and (3) no part of our compensation is tied to any specific investment banking transactions performed by Nomura Securities International, Inc., Nomura International plc or any other Nomura Group company.

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A rating of '**Reduce'**, indicates that the analyst expects the stock to underperform the Benchmark over the next 12 months.
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Explanation of Nomura's equity research rating system in Japan published prior to 6 January 2009 (and ratings in Europe, Middle East and Africa, US and Latin America published prior to 27 October 2008)

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Explanation of Nomura's equity research rating system for Asian companies under coverage ex Japan published prior to 30 October 2008

STOCKS

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A **'Buy'** recommendation indicates that upside is between 10% and 20%.
A **'Neutral'** recommendation indicates that upside or downside is less than 10%.
A **'Reduce'** recommendation indicates that downside is between 10% and 20%.
A **'Sell'** recommendation indicates that downside is more than 20%.

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