

**UBS Investment Research**
**Q-Series®: China Manufacturing Sector**

China

Equity Strategy

Q-Series

## Can China transform from a manufacturing centre into an R&D powerhouse?

25 September 2013

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### ■ From 'made in China' to 'created in China'?

China-made products are well known globally, and the country has been renowned as the world's manufacturing centre for decades. With rising wages, an ageing population, and limited R&D investment in the past 10 years, can China maintain its competitiveness in global export markets? Will Chinese companies be able to improve their positioning in the global industry value chain?

### ■ Strong application, weak fundamental R&D; lack of patent protection

We based our analysis on surveys and interviews with executives and R&D managers at more than 30 companies in 10 industries. Our analysis suggests China's R&D is biased towards market research for product development and promotion, while fundamental research is insufficient. We believe the lack of patent protection limits R&D investment and is a potential risk for mass exports.

### ■ The scale of China's R&D has long been underestimated

China's R&D inputs rose at a CAGR of 21% in the past decade, reaching Rmb1.02trn in 2012—the third highest in the world. China was also No.3 globally in terms of the number of patent applications to WIPO in 2011. Meanwhile, we believe China's R&D spending is significantly underestimated, as: 1) China has benefited from a technology spillover from other countries; 2) substantial R&D expenses are assumed by consumers and society; and 3) it has relatively high R&D efficiency.

### ■ Thematic investment: our preferred sectors

We believe 'made in China' will evolve into 'created in China' on sustained government investment and ample scientific research personnel. From a long-term R&D improvement perspective and based on industry growth potential, we believe investment opportunities lie in energy equipment, electronic components, telecom equipment, healthcare, and environmental engineering.

**Yankun Hou**

Analyst

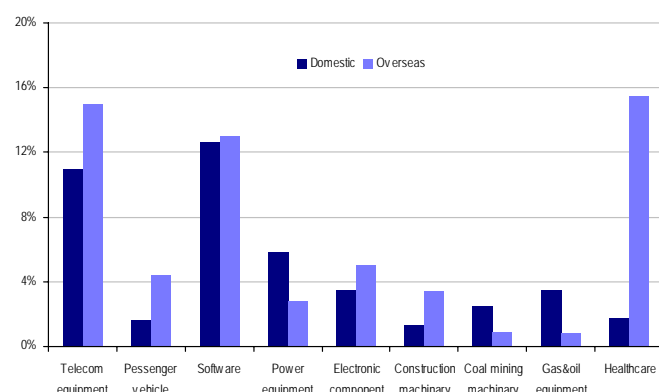
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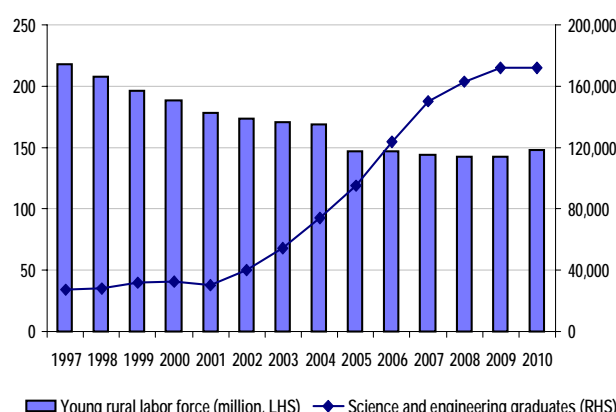
**UBS China Research Team**

#### Global comparison: R&D as a % of revenue



Note: Software, coal machinery and oil & gas equipment sectors have higher figures due to low absolute R&D spending. Source: Bloomberg, Wind, UBS

#### Blue-collar labour force versus China's R&D talent



Source: CEIC

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## Investment summary

We believe that China's manufacturing industries will have to change from being capacity-driven to product-driven, and that the previous unrestrained growth will need to give way to high-quality production due to ever slower GDP growth and increasing overcapacity pressure. Meanwhile, we expect exports to become a major solution to domestic overcapacity. Quality products come from prolonged R&D investment, while the market generally believes China has weak R&D capacity. Will China transform from being a global manufacturing centre into an R&D powerhouse? Are Chinese manufacturers capable of developing competitive products? Will the Chinese manufacturing sector maintain its current competitiveness when its demographic dividend gradually fades, while a Lewis turning point is approaching? During this process, which companies/industries will emerge as winners, capable of competing in international markets?

To answer these questions, we conducted a top-down macro R&D spending analysis and a bottom-up R&D capacity analysis by sector. We conducted in-depth interviews and surveys with the senior executives and R&D heads of over 30 companies in 10 industries, as well as R&D staff at universities and research institutes. This is a joint effort by our H-share, A-share China analysts and the UBS global research team. Our main conclusions include:

- (1) In terms of absolute spending, China's total R&D spending amounted to Rmb1.024trn in 2012, the third highest in the world. In terms of R&D output, China submitted 118,000 invention patent applications to the World Intellectual Property Organization (WIPO) in 2011, also the third highest globally. China's R&D-to-GDP ratio was 1.97% in 2012, still substantially lower than the average of developed countries (2.8%). Even assuming 10%+ growth in R&D spending (compared with the 21% CAGR in the past decade), we estimate China's R&D-to-GDP ratio will surpass 2.5% by 2020, which is the average of developed countries' R&D expenditure.
- (2) We believe China's R&D capacity is rapidly improving. In the past decade, its annual R&D spending growth averaged 21%; we believe this rapid growth will continue. Given the cumulative effect, we believe significant incremental R&D spending will gradually enhance China's overall R&D capacity. Benefitting from the government's sustained investment and ample supply of scientific research personnel, we believe 'made in China' may gradually evolve to become 'created in China' if China strengthens patent protection.
- (3) Our analysis suggests Chinese companies' R&D spending is biased towards application and development rather than fundamental research. This can be partly explained by Chinese companies' short-term-orientated R&D philosophy—that they must commit limited resources to application research, which has low risk and fast returns. Indeed, we believe such an R&D model is beneficial for a company's rapid growth in the initial development stage. In addition, Chinese manufacturers have also committed significant resources to market research to ensure their products meet market demand and consumer preferences. This is also a major reason why they have steadily gained market share from major international companies in the past 10 years.

Change in strategy from 'capacity driven' to 'product driven' is a must for China's manufacturing industries

- (4) However, we believe this 'market follower' strategy means Chinese companies will encounter bottlenecks if they want to continue to expand their market share and improve profit margins after they attain a certain business scale.

The results of our survey also suggest the R&D expenses listed in financial statements fail to reflect actual R&D spending. We believe R&D spending by major manufacturers is underestimated by at least 1ppt, mainly because:

- (1) As a follower, China has benefited from the spillover of developed countries' technological expertise. An 'exchange market for technology' strategy has enabled Chinese companies to acquire advanced technology. From a financial point of view, China has obtained the technology at low cost; although it has simultaneously given up a substantial market opportunity to foreign enterprises. Moreover, driven by strategic government investment, China has purchased technology (such as high-speed railway and power equipment), recruited domestic/overseas R&D staff (in sectors such as auto and machinery) and conducted M&A. In general, Chinese companies have relatively high R&D efficiency.
- (2) Many companies have launched products before they were fully developed, due to strong market demand and inadequate consumer rights protection, and then upgraded the products over a period of time based on market feedback. Many manufacturers treat the domestic market as a testing ground, due to low compensation and penalty costs. Therefore, substantial expenses, which should have been booked as R&D spending items, have been booked under items such as after-sales service instead, and some have even been borne by consumers.
- (3) There is an emerging dividend from China's R&D talent, in our view. The government's strong support for education should result in an abundant supply of science and engineering talent in the future, and help keep China's R&D costs sustainably lower than overseas markets.
- (4) Our calculations show that on average more than 50% of R&D is capitalised among Chinese manufacturers, while US and Japanese companies have zero capitalised R&D cost because of US GAAP requirements. Adding capitalised cost to expensed cost shows that the proportion of investment Geely allocates to R&D is similar to developed and mature automakers such as GM, VW and Toyota (around 4-5%).

As there is still a lack of social awareness in China about patent protection and due to restrictions on the disciplinary action that can be taken, penalties for intellectual property infringement still fail to effectively protect the interests of innovative enterprises. The mismatch between risk and return reduces companies' motivation to invest in fundamental and innovative R&D—they would rather choose projects yielding a quick return and with a higher cost-benefit ratio. We believe the lack of legislative patent protection is a major reason for the insufficient investment in fundamental research. We think this will restrict the long-term competitiveness of the Chinese manufacturing sector and pose a risk for mass exports.

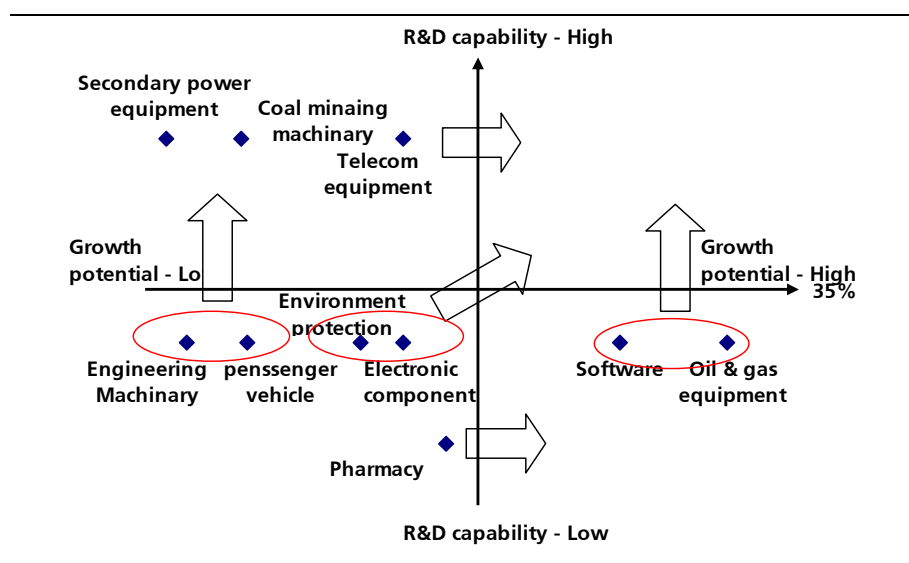
We believe there has now been sufficient investment in Chinese R&D so that 'made in China' will evolve into 'created in China'. We have compared all the sectors covered in this report using two measures: R&D capability and market growth potential (the CAGR over the next three years). We believe investment opportunities lie in the sectors that meet both the requirements of high R&D capability and fast growth potential. Our analysis suggests that no industry currently meets these criteria. At the same time, we believe some industries with the potential for quick improvement in R&D capacity and/or some sub-sectors with higher growth potential, such as energy equipment, electronic components, telecom equipment, healthcare, and environmental engineering, could provide attractive investment opportunities.

From a growth perspective we are positive on the oil & gas equipment and software sectors, for which UBS analysts forecast CAGRs of 25% and 30%, respectively, for the next three years; however, from an R&D capacity perspective, we only rank oil & gas equipment and software as level 2 (level 4 represents R&D capability comparable with global peers). Although there is still a gap between Chinese manufacturers and overseas market leaders in terms of R&D capacity, we believe this may narrow in the future if Chinese manufacturers continue to invest in R&D. Moreover, we prefer energy equipment rather than software. In general, Chinese software companies are quite small compared with global peers and therefore lack global competitiveness, although their R&D investment as a percentage of revenue is high.

We believe the R&D capability of the telecom equipment, secondary power equipment and coal machinery sectors is very competitive in the global market (we rank these at level 4), but the growth potential of those industries has slowed since 2010 due to the heavy government stimulus during the global financial crisis period. We are positive on telecom sectors, as domestic companies may develop overseas markets with a better performance/price ratio while domestic demand remains stable. The outlook for the construction- and coal-machinery sectors is unremarkable, in our view, as domestic demand has declined substantially.

We prefer the telecom equipment sector for its leading R&D position; environmental protection and electronic components have the greatest potential

Chart 1: Manufacturing industry positioning: R&D capability versus growth potential



Source: UBS estimates

Among the passenger vehicle, environmental protection, medical device and electronic components sectors in the third quadrant, we are most positive on the outlook for electronic components and environmental engineering. This is because domestic companies are rapidly increasing their R&D spending, thus narrowing the gap with industry leaders. The sector is also shifting from low-value-added and low-margin products to high-value-added and high-margin products, we believe some sub-sectors, such as wastewater purification, smartphone and tablet computer should have higher than industry average growth, with the potential to further improve their R&D capability. At the same time, we think the machinery and auto industries are already past the high growth phase, while R&D capability is still far below the global average.

We believe the China healthcare industry has fairly weak R&D capability, but with the high growth potential of some sub-sectors (such as medical equipment and Chinese traditional medicine) and a unique entry barrier, we still believe the healthcare industry in China provides an attractive investment opportunity.

## Preferred companies

We have chosen companies from the sectors covered in this report for our list of preferred stocks. They are ZTE Corporation (ZTE), Zhuzhou CSR Times Electric (Zhuzhou CSR), Yantai Jereh Oilfield Services (Jereh), Yonyou Software (Yonyou), Weifu High-Technology (Weifu), Chongqing Chang'an Automobile (Changan), Beijing Originwater Technology (Originwater), Jiangsu Hengrui Medicine (Hengrui), Zhengzhou Coal Mining Machinery (ZMJ), CSPC Pharmaceutical Group (CSPC), Zoomlion Heavy Industry Science & Tech (Zoomlion), Geely Automobile (Geely) and Sunny Optical Technology (Sunny Optical). For recommendation rationale, please refer to the company report section.

Our most preferred companies are ZTE, Zhuzhou CSR, Jereh, Yonyou, Weifu, Changan, Originwater, Hengrui, ZMJ, CSPC, Zoomlion, Geely and Sunny Optical

### — ZTE

ZTE ranks fifth in the global telecommunications equipment sector in terms of revenue. As at end-2012, the company had 29,000 R&D employees, the second-highest of all telecom equipment manufacturers globally, following Huawei. ZTE's strengths lie in CDMA, TD-SCDMA and TD-LTE products, with world-leading market shares. We think ZTE is likely to remain the leader in the wireless master device market, as in the 3G era, and to be a major beneficiary of China's 4G development.

### — Zhuzhou CSR

Zhuzhou CSR actively develops traction systems for 8-axle 9,600kw locomotives, highland locomotives, 160km/hour passenger locomotives and intercity high-speed EMU (electrical multiple unit) trains on the basis of its in-house developed traction system, to meet new demand and to seize market share in China. After acquiring Dynex, Zhuzhou CSR is absorbing the core technologies of high power insulated gate bipolar transistor (IGBT) and cooperating with the former to develop IGBT series for the domestic market. The 8-inch IGBT plant, scheduled to begin production in 2014, is likely to increase Zhuzhou CSR's IGBT revenue by several times.

#### — Jereh Oil Service

Jereh has the strongest technical strength in China's oil & gas equipment sector. In early 2013, the company launched the most advanced high volume large horsepower fracturing equipment in the world with around 180 patents. It plans to expand its product line to special drilling rigs, coiled tubing blowout preventer and downhole tools, among others. We think Jereh has the following advantages when extending along the industry chain: 1) sector-leading R&D and manufacturing strength, rapidly launching new products via in-house R&D and cooperation; and 2) sales synergy in the well cementing and fracturing equipment segment, achieved by its reputation and channels.

#### — Yonyou Software

Yonyou spent Rmb329m on R&D in H113, up 35.9% YoY and mainly on cloud: 1) Yonyou has completed R&D and verification of platform product UAP6.3 and signed contracts with more than 60 partners, finishing initial deployment along the industry chain; 2) Yonyou has finished developing the cloud service platform (CSP) and the technical architecture design of the supporting system; 3) subscribers to Yonyou's financial and tax cloud platform *Accountant Home* have exceeded 260,000, with 180,000 subscribers having participated in online interactions or watched online programmes; and 4) Yonyou launched its 'cloud + terminal' product *T+VII.5* in May, indicating a breakthrough in the social application of mobile software and social network services.

#### — Weifu Hi-Tech

Weifu began co-operate with Bosch as early as 1984. The localisation ratio of BADS's high-pressure common rail (HPCR) products has now reached 30% and is likely to rise to 50% in the future. Weifu has also developed an economically efficient Weifu accumulator pump system (WAPS) fuel injection system that is complementary to HPCR, further optimising and completing its product mix. The company is also a leader in the after-treatment system sector.

#### — Chang'an Auto

Changan's R&D expenditure was Rmb1.6bn/Rmb1.7bn in 2011/2012, 6.1%/5.7% of its annual revenue. This was higher than the average of self-owned brands and the same as foreign vehicle producers. In the long term, we expect Changan's R&D expenses/revenue ratio to remain around 5%. As at end-2012, Changan had more than 6,000 R&D employees, 200 senior experts, and 300 foreign experts. China's National Development and Reform Commission (NDRC) and other four ministries jointly classified the company's R&D strength as excellent and identified Changan as a national-level innovative enterprise. Due to robust *CS35* and *Eado* sales, Changan's sales volume rose 35% YoY to 360,000 units in H113.



#### — Beijing Originwater Technology

Originwater has consolidated its leading position in China's membrane bioreactor (MBR) sector. The company's major MBR R&D achievements include: 1) membrane materials (solving hydrophilic and strength problems); and 2) MBR units (including three generations of products) and integrated process (integrated MBR process for removal of nitrogen and phosphorus), which improve membrane output, project costs, and effluent water quality. Meanwhile, by accumulating experience from projects and operating a wastewater treatment plant (Mentougou sewage treatment plant), the company continues to strengthen its leadership position. In the long term, the weighting of membrane technology in wastewater and tap water treatment is likely to continue to increase; in the short term, investment in the 12th Five Year Plan could be low at the beginning and then gradually rise, meaning the peak would come in 2013-15.

#### — Hengrui Pharmacy

The leader in the domestic anti-tumour drug sector, Hengrui has a market share around 12%, which we think indicates a stable leading position. In recent years, Hengrui has been successful in the fields of surgical drugs and contrast medium through the rapid growth of Sevoflurane, Dexmedetomidine, and Ioversol, among others, and has continued to enrich its product lines. The company is actively developing diabetes and cardiovascular drugs and should become a full-range innovative drug maker in the future. With a focus on R&D, Hengrui's annual R&D expenses account for nearly 10% of its sales revenue. We expect the company's R&D investment to start to bear fruit from H213 on a rich product pipeline, and think Hengrui is likely to have six or seven newly approved drugs annually over the next five years. In terms of generic drugs, Febuxostat and Capecitabine are nearly ready to be launched; for novel drugs, Apatinib and long-acting GCSF are likely to be approved before year-end and a first-of-its-kind diabetes drug has received US approval for phase 1 trials. Hengrui is upgrading to be an innovative enterprise.

#### — Zhengzhou Coal Mining Machinery

ZMJ's R&D expenses grew at 37% pa from Rmb60m in 2009 to Rmb152m in 2012, from 1.2% to 1.5% as a percentage of revenue. The company has been taking advantage of its strong R&D capability to capture first-mover advantage, including its invention of the largest hydraulic roof support in 2010. With the planned establishment of research centres in Germany and the United States, we expect ZMJ to import new technologies into China and further differentiate its products. Despite slower demand growth, we expect machine replacement to provide demand support as machine overloading is common in China. We believe ZMJ can protect its market share with high technology and capex barriers for the high-end segment.



#### — CSPC

CSPC has strategically changed its focus to differentiated pharmaceutical product R&D and marketing and sales (product-driven market) from API manufacturing (economies of scale and cost-driven market) in 2012. With a leading R&D team of around 900 R&D staff, as well as its cooperation and jointly building research labs with domestic research institutions, we believe CSPC is poised for industry-leading R&D achievements. We expect new products from the R&D pipeline to be the key drivers for CSPC's sustained growth. Currently, the company has 167 product candidates in various stages of development for the treatment of cardio- and cerebrovascular (CCV), central nervous system (CNS), antibiotics, cancer and metabolic diseases among others. CSPC expects to obtain production approval for 53 products that are either exclusive or first-to-market generic products.

#### — Zoomlion

The company stems from Changsha Construction Machinery Research Institute, which was one of the first institutions to focus on industrial technology R&D in China. Zoomlion's technological advantage, commercialisation capacity and high R&D expenditure (3.58% of total revenue), have helped it establish a leading position in the market with a high gross margin. Zoomlion's product upgrades, such as longer-arm pump trucks (101m) and larger cranes (3200t carrying capacity), have helped it increase its market share. New products, such as mixer trucks and tower cranes, have been the profit growth generators. We expect Zoomlion to develop more new products in the environmental and sanitation machinery sector, which could become growth drivers.

#### — Geely Auto

Geely's R&D input has been around 4% of its revenue for years, higher than domestic firms' self-owned brands and similar to foreign car makers. The company's R&D system won the National Science & Technology Progress Award in 2010. Geely accelerated its R&D consolidation with Volvo in 2013 and a former Volvo executive is now in charge of Geely's daily R&D work. Geely has set up a joint research institute with Volvo in Sweden to develop small vehicle platforms and we expect it to launch products based on the platform in 2016. Geely has also hired a former Volvo chief designer as the head of its new car design team.

#### — Sunny Optical

Sunny Optical has a superior R&D capability with its technological abilities across the optical product range. Its expertise in design and production from lens set to camera modules helps enhance its capability to integrate optical, mechanical, and electronic technological know-how. It is therefore capable of producing products with more complicated designs, such as camera modules with 13mpx resolution, big aperture design, or OIS (optical image stabiliser) functions.

Table 1: Comparables

|                 | Reuters<br>code | Rating    | Share<br>price<br>(local) | Market<br>cap<br>US\$m | PE    |       |       | P/BV  |       |       | EV/EBITDA |       |       | ROE   |       |       |
|-----------------|-----------------|-----------|---------------------------|------------------------|-------|-------|-------|-------|-------|-------|-----------|-------|-------|-------|-------|-------|
|                 |                 |           |                           |                        | 2013E | 2014E | 2015E | 2013E | 2014E | 2015E | 2013E     | 2014E | 2015E | 2013E | 2014E | 2015E |
| ZTE             | hk0763          | Buy       | 15.64                     | 8,975                  | 22.8  | 12.8  | 9.4   | 1.9   | 1.7   | 1.5   | 12.0      | 8.9   | 7.3   | 8.6   | 13.8  | 16.6  |
| Zhuzhou CSR     | hk3898          | Buy       | 24.9                      | 3,482                  | 17.4  | 13.4  | 11.1  | 3.0   | 2.6   | 2.2   | 16.6      | 12.7  | 10.6  | 18.7  | 21.0  | 21.6  |
| Yantai Jereh    | sz002353        | Buy       | 71.2                      | 6,945                  | 42.9  | 30.0  | 23.2  | 10.7  | 8.1   | 6.2   | 33.2      | 23.4  | 17.9  | 28.0  | 30.7  | 30.2  |
| Yonyou Software | ss600588        | Neutral   | 14.44                     | 2,263                  | 30.4  | 20.3  | 14.3  | 4.3   | 3.8   | 3.2   | 46.2      | 21.3  | 13.8  | 14.6  | 19.7  | 24.2  |
| Weifu Hi-Tech   | sz000581        | Buy       | 24.89                     | 3,930                  | 23.3  | 15.5  | 12.5  | 2.5   | 2.3   | 2.0   | 17.8      | 12.2  | 10.5  | 11.2  | 15.5  | 17.3  |
| Chang'an Auto   | sz000625        | Buy       | 10.67                     | 8,128                  | 15.2  | 11.8  | 10.6  | 2.7   | 2.2   | 1.9   | 40.2      | 23.9  | 19.6  | 19.2  | 20.7  | 19.3  |
| Originwater     | sz300070        | Buy       | 41.6                      | 6,020                  | 42.8  | 30.9  | 22.8  | 7.9   | 6.3   | 5.0   | 39.8      | 26.9  | 19.0  | 20.1  | 22.6  | 24.4  |
| Hengrui         | ss600276        | Buy       | 34.39                     | 7,642                  | 36.3  | 29.8  | 24.6  | 7.6   | 6.2   | 5.1   | 25.9      | 21.2  | 16.5  | 22.9  | 23.0  | 22.9  |
| ZMJ             | hk0564          | Buy       | 4.76                      | 1,730                  | 5.2   | 4.9   | 4.4   | 0.6   | 0.6   | 0.5   | 3.8       | 3.8   | 3.4   | 12.5  | 12.0  | 12.2  |
| SCPC            | hk1093          | Buy (CBE) | 3.91                      | 1,374                  | 12.4  | 15.7  | 12.4  | 3.1   | 2.7   | 2.3   | 5.8       | 3.7   | 2.7   | 13.9  | 18.4  | 19.9  |
| Zoomlion        | hk1157          | Buy       | 6.72                      | 7,186                  | 8.7   | 7.6   | 6.9   | 0.9   | 0.8   | 0.8   | 6.1       | 5.3   | 4.7   | 11.2  | 11.6  | 11.6  |
| Geely           | hk0175          | Buy       | 3.99                      | 4,250                  | 10.0  | 8.6   | 7.5   | 1.7   | 1.5   | 1.3   | 5.6       | 4.5   | 3.6   | 18.6  | 18.3  | 17.9  |
| Sunny Optical   | hk2382          | Buy       | 8.13                      | 1,012                  | 12.6  | 8.3   | 7.0   | 2.7   | 2.1   | 1.7   | 8.6       | 5.9   | 4.8   | 23.1  | 28.6  | 27.4  |

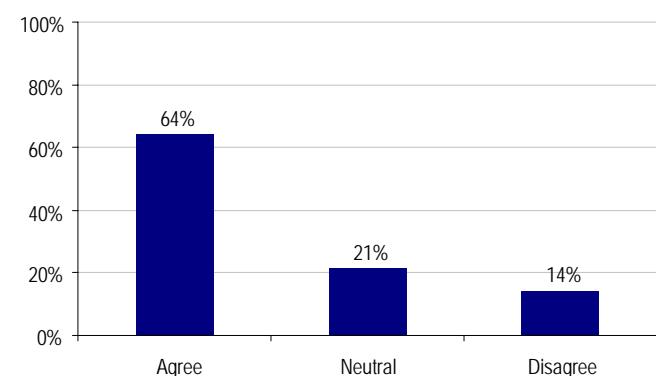
|                 |          | EBITDA margin |       |       | Enterprise FCF yield |       |       | Net debt/equity |       |       | Quick ratio |       |       | Dividend yield |       |       |
|-----------------|----------|---------------|-------|-------|----------------------|-------|-------|-----------------|-------|-------|-------------|-------|-------|----------------|-------|-------|
|                 |          | 2013E         | 2014E | 2015E | 2013E                | 2014E | 2015E | 2013E           | 2014E | 2015E | 2013E       | 2014E | 2015E | 2013E          | 2014E | 2015E |
| ZTE             | hk0763   | 4.8           | 6.4   | 7.2   | -2.1                 | 2.3   | 4.3   | 18.2            | 11.9  | 3.6   | 1.1         | 1.1   | 1.1   | 1.1            | 2.0   | 2.7   |
| Zhuzhou CSR     | hk3898   | 19.5          | 19.4  | 19.1  | 5.9                  | 2.5   | 3.9   | -43.1           | -38.0 | -35.0 | 2.2         | 2.1   | 2.0   | 1.9            | 2.5   | 3.0   |
| Yantai Jereh    | sz002353 | 31.5          | 30.0  | 29.5  | 0.2                  | 0.4   | 1.6   | -16.1           | -14.5 | -19.6 | 1.5         | 1.4   | 1.5   | 0.3            | 0.3   | 0.5   |
| Yonyou Software | ss600588 | 6.6           | 12.0  | 15.5  | 3.1                  | 3.8   | 6.0   | -16.8           | -23.7 | -32.7 | 1.2         | 1.3   | 1.5   | 1.4            | 1.7   | 2.4   |
| Weifu Hi-Tech   | sz000581 | 16.3          | 15.3  | 12.0  | 2.9                  | 1.8   | 2.5   | -26.8           | -24.4 | -18.9 | 2.2         | 1.8   | 1.5   | 1.4            | 2.2   | 2.7   |
| Chang'an Auto   | sz000625 | 2.6           | 3.8   | 4.0   | 6.0                  | 6.7   | 8.8   | 3.5             | 8.4   | 10.3  | 0.5         | 0.5   | 0.5   | 1.1            | 1.4   | 1.5   |
| Originwater     | sz300070 | 30.4          | 30.6  | 30.2  | 2.6                  | 2.9   | 4.0   | -52.0           | -53.6 | -56.7 | 2.3         | 2.4   | 2.5   | 0.1            | 0.2   | 0.3   |
| Hengrui         | ss600276 | 26.6          | 26.3  | 27.4  | 1.7                  | 1.9   | 2.2   | -31.8           | -34.1 | -34.9 | 10.1        | 10.8  | 11.7  | 0.4            | 0.6   | 1.7   |
| ZMJ             | hk0564   | 17.4          | 17.9  | 19.2  | -4.1                 | -2.1  | 4.5   | -35.2           | -27.4 | -26.2 | 2.4         | 2.3   | 2.4   | 3.5            | 3.7   | 4.1   |
| SCPC            | hk1093   | 17.6          | 22.1  | 23.6  | 8.1                  | 12.6  | 15.6  | -2.6            | -13.7 | -24.2 | 1.0         | 1.2   | 1.4   | 0.0            | 0.0   | 0.0   |
| Zoomlion        | hk1157   | 19.2          | 19.3  | 19.3  | 7.5                  | 5.1   | 4.8   | -6.3            | -8.8  | -10.5 | 1.7         | 1.8   | 1.8   | 2.3            | 2.6   | 2.9   |
| Geely           | hk0175   | 13.8          | 14.0  | 13.8  | 3.7                  | 6.4   | 7.1   | -15.6           | -20.5 | -24.4 | 1.2         | 1.2   | 1.2   | 1.4            | 1.6   | 1.9   |
| Sunny Optical   | hk2382   | 11.3          | 11.8  | 11.7  | -2.3                 | 1.6   | 8.4   | 4.4             | 5.2   | -4.1  | 1.5         | 1.3   | 1.4   | 1.7            | 2.4   | 3.6   |

Note: Data as at 24 September 2013

Source: Bloomberg, UBS estimates

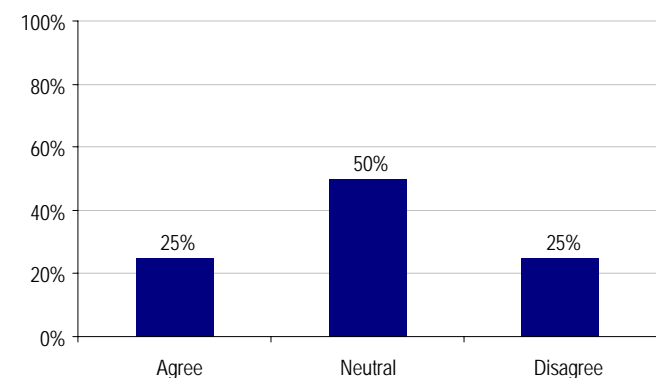
## Summary of survey results

**Chart 2: Q1: Do you think China's policy/market environment encourages companies to increase R&D spending?**



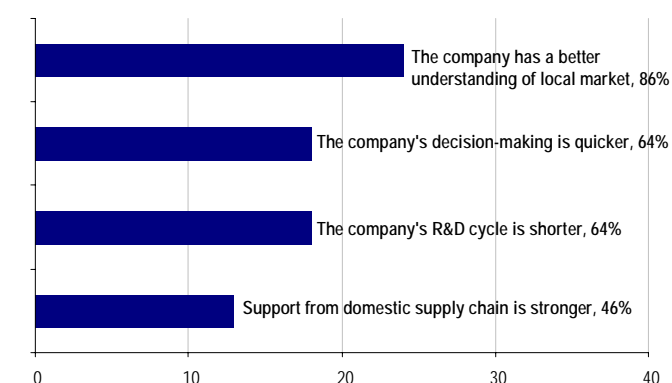
Source: UBS

**Chart 4: Q3: Do you think the weighting of R&D spending in revenue will sharply increase over the next 5-10 years?**



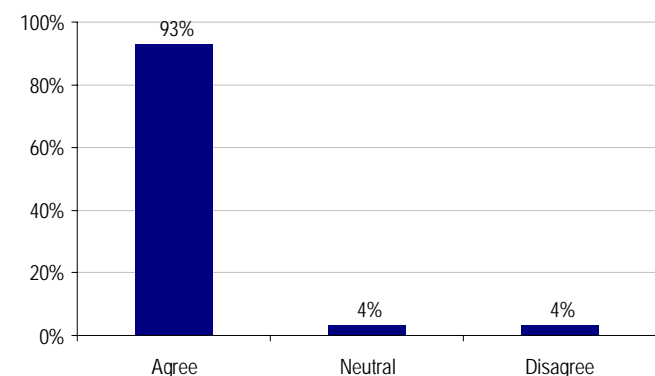
Source: UBS

**Chart 6: Respondents' understanding on competitiveness of Chinese companies' R&D advantages**



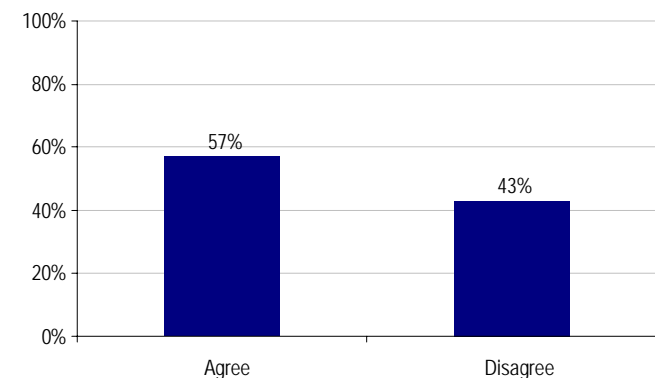
Source: UBS

**Chart 3: Q2: Do you think R&D capacity improvement is critical for a company's further development?**



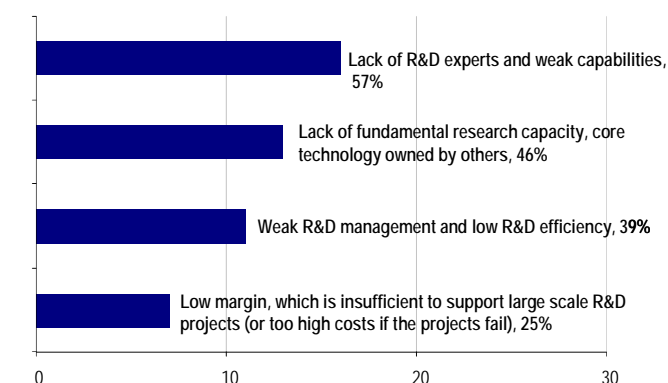
Source: UBS

**Chart 5: Q4: Do you agree that R&D expenses listed on financial statements understate the real investment?**



Source: UBS

**Chart 7: Respondents' understanding of R&D disadvantages**



Source: UBS

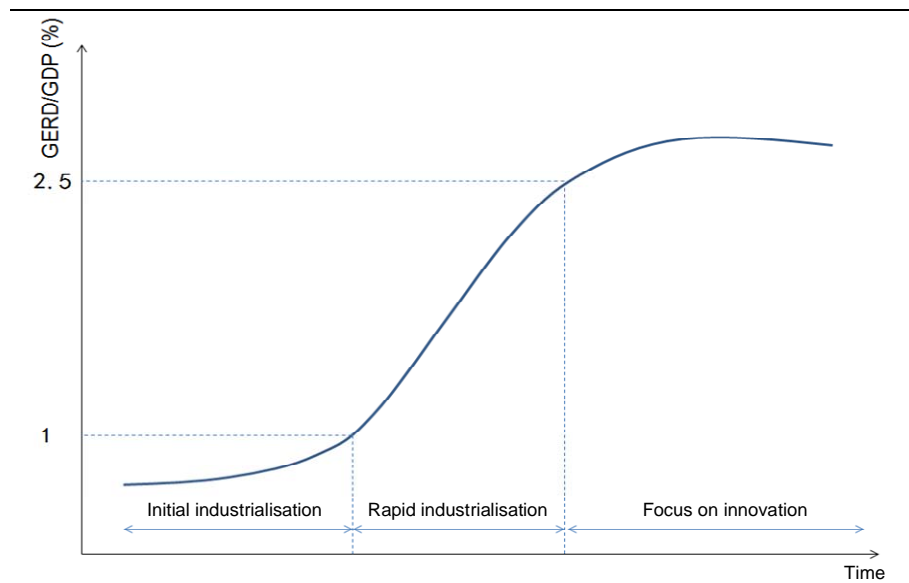
## Better-than-expected R&D capacity

Two types of indicators are generally used to assess a company's R&D capacity: inputs, which mainly include total nationwide R&D spending, the R&D-to-GDP ratio and the total number of R&D personnel; and outputs, which mainly refer to the number of patent applications. The rapid R&D capacity increase started in 2001 in China, when China joined the World Trade Organization (WTO). Total R&D spending reached US\$12.6bn and the R&D-to-GDP ratio exceeded 1% for the first time. In the following decade, China's R&D spending rose quickly (at a 21% CAGR). By 2012, China's R&D spending was US\$162.5bn, the third highest in the world, next to the US and Japan; and the R&D-to-GDP ratio was 1.97%, moderately lower than the average of developed countries (2.8%).

In terms of outputs, China submitted 118,000 invention patent applications to the World Intellectual Property Organization in 2011, also the third highest in the world (after to the US and Japan). These indicators demonstrate that China's R&D capacity is among the largest in the world.

We agree with an academic study suggesting that when a country's R&D-to-GDP ratio is below 1%, the level of its science & technology expertise is relatively low and technological advancement is rather slow; when a country's R&D-to-GDP ratio is in the range of 1%-2.5%, its R&D investment growth is stable and its economy is undergoing rapid industrialisation; and when the R&D-to-GDP ratio is above 2.5%, this generally marks a later stage of industrialisation and R&D is mainly focused on innovation. In general, when the R&D-to-GDP ratio reaches 1%, this suggests a country's science & technology capability is set to rise, while a R&D-to-GDP ratio of 2.5% marks the entry to an innovation-driven stage.

**Chart 8: China's aggregate R&D-to-GDP ratio has reached 1.97%, and Chinese manufacturing is quickly evolving into innovation-focused 'created in China'**

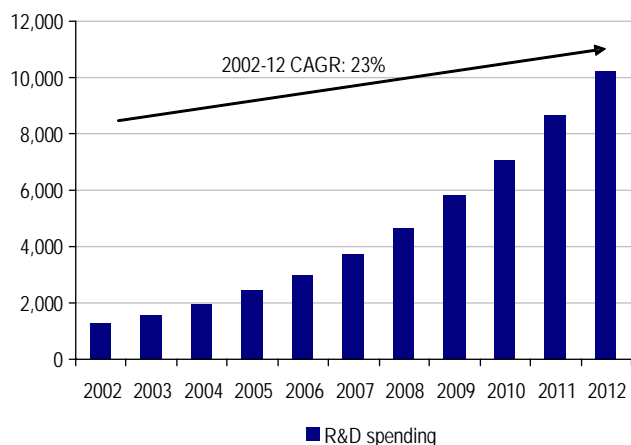


Source: UBS

China's aggregate R&D-to-GDP ratio has reached 1.97%, and Chinese manufacturing is quickly evolving into innovation-focused 'created in China'

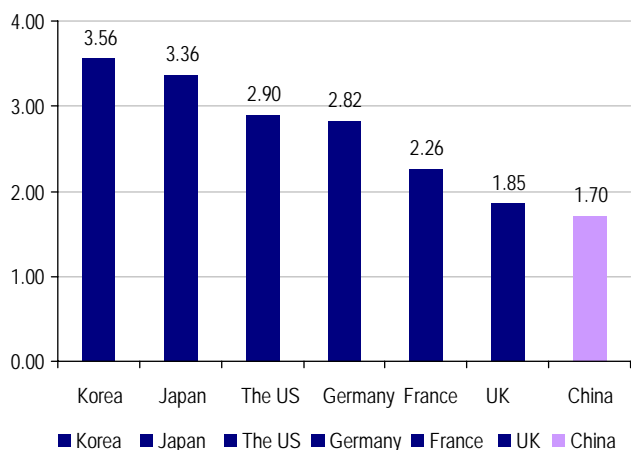
We believe China completed the early stage of rapid industrialisation when its R&D-to-GDP ratio rose from 1% to 2% during 2001-12 and that it is currently at the threshold of the innovation-driven stage. In the past decade, China's total R&D spending CAGR was 21%, 11ppt higher than its GDP CAGR of 10%. If China's total R&D spending maintains 20%+ growth, its R&D-to-GDP ratio should reach 2.5% in 2014, making China a world leader in R&D innovation and industrial manufacturing. Even if its R&D investment growth rate slows to 10% from 2013, China's R&D-to-GDP ratio should still surpass 2.5% in 2020.

**Chart 9: China recorded a 21% R&D spending CAGR in the past decade**



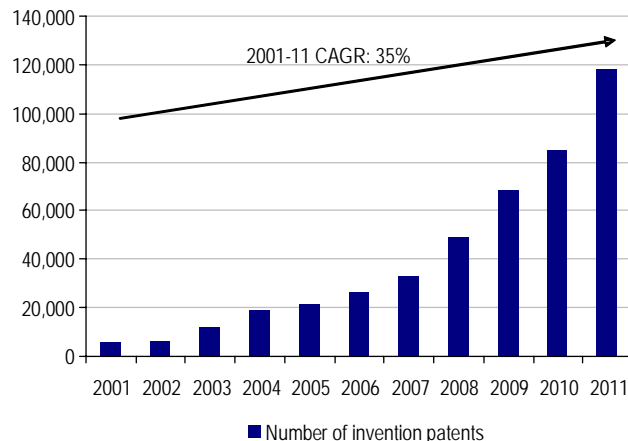
Source: [www.sts.org.cn](http://www.sts.org.cn)

**Chart 11: International comparison of R&D-to-GDP ratios (2009)**



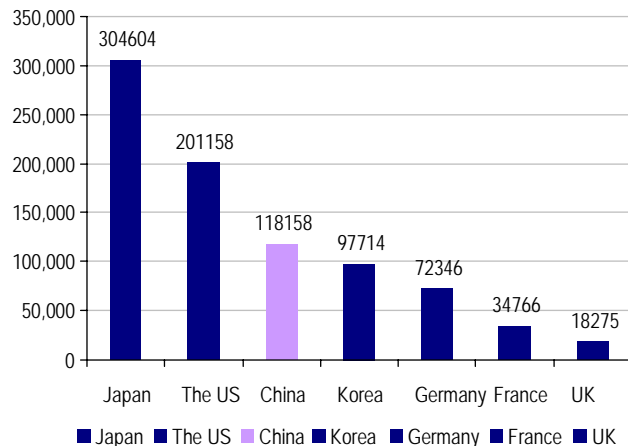
Note: Source: OECD

**Chart 10: China recorded a 35% invention patent application CAGR in the past decade**



Source: WIPO

**Chart 12: Comparison of number of patents by country**



Source: WIPO

# Evolving into a powerful manufacturing country

## Government R&D spending targets

The State Council set a series of targets in its *Medium- and Long-Term Science and Technology Development Plan* promulgated in 2006: to increase the proportion of total R&D spending to GDP to above 2.5% by 2020; to improve the contribution rate from progress in science and technology to above 60%; and to reduce the foreign technology dependence ratio to under 30%.

The results of our survey of listed companies show that 75% of firms believe their R&D-to-revenue ratios will continue to rise in the next 5-10 years. We believe that if the rapid industrialisation process is maintained, China may achieve its target to increase the proportion of total R&D spending to GDP to above 2.5% by 2020, ahead of schedule. In fact, we believe that as China's R&D spending is underestimated, the actual R&D-to-GDP ratio may already be close to 2.5%.

With this growth trend continuing and progress in science and technology, Chinese companies may be able to improve their positioning in the global industry chain—from low value-added manufacturing, such as import processing, to high value-added manufacturing—on proprietary innovation capabilities, to compete globally. We believe China is positioned to enter a new innovation-driven 'created by China' era.

## Government subsidies to drive company spending

We believe generous government subsidies are another major driver for enterprises to increase R&D spending. These are mainly provided in two ways:

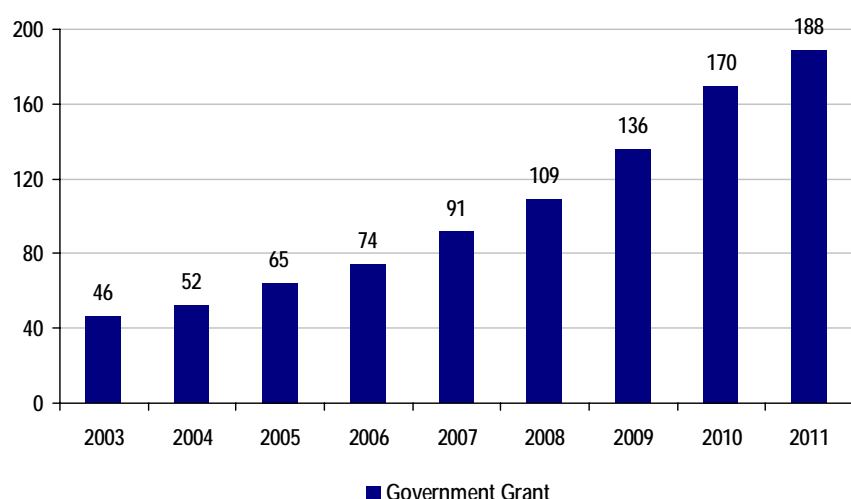
- (1) Direct subsidy for companies' R&D
- (2) Indirect subsidy, via tax preferential treatment

There are many types of government subsidy and we believe the R&D subsidy is the most important. Of all the direct subsidy programmes, the most important is the 863 Program (State High-Tech Development Plan), which aims to boost China's innovation capacity in major high-tech areas related to the country's long-term development and state security. 863 Program is focused on the development of advanced technologies, integrated high-tech applications and technology commercialisation, and plays a leading role in shaping future development using high technology. China earmarked Rmb33.0bn spending for the 863 Program during 1986-2005, and nearly 1,000 companies benefitted.

According to China's Enterprise Income Tax Law implemented on 1 January 2008, high-tech companies are entitled to a preferential tax rate of 15%. To be considered a high-tech company, a firm not only needs to provide products and/or services in high-tech areas, but to own proprietary intellectual property for its products and/or services, and its R&D spending to revenue ratio should be no less than 6%/4%/3% at revenue levels of less than Rmb50m/Rmb50m-Rmb200m/over Rmb200m. This preferential tax treatment provides a strong motivation for companies to increase their R&D spending.

Government support and a rich talent pool are key to underpin R&D growth in future

Chart 13: Substantial government investment to support R&amp;D projects (Rmb bn)

Source: [www.sts.org.cn](http://www.sts.org.cn)

## Emerging dividend from China's R&D talent

The market generally believes China's demographic dividend is fading and that its labour supply will decline as the country has an ageing population. While China's demographic structure is undergoing change, unlike market consensus, we believe the country has an abundant supply of inexpensive R&D talent—science and engineering graduates—due to the government's strong support for education. We expect this to keep China's R&D costs below overseas levels. We believe a China R&D talent dividend is just emerging. Moreover, with relatively low remuneration for R&D employees, China has a higher R&D input efficiency than developed countries

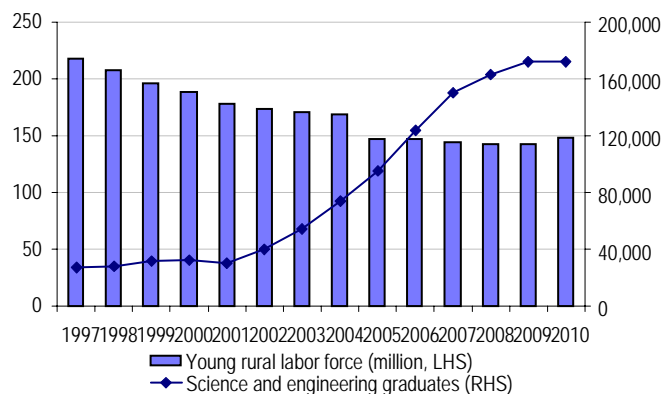
Labour cost is a visible advantage for domestic companies. The large number of science and engineering graduates and overseas returnees means there is an adequate supply of technical talent in China. The number of R&D personnel per 10,000 employees increased from 10 in 2000 to 38 in 2011, implying a more optimised talent structure. In terms of the total number of R&D personnel, in 2011 alone there were 329,000 new R&D employees in China. The number of R&D personnel reached 1.906m by end-2011 in China, making it No.1 in the world in terms of absolute numbers.

During 2000-09, the number of graduates with a bachelor's degree and above grew at an annual rate of 20%+, with the number of postgraduates rising at a faster pace. Of these, science and engineering graduates accounted for over 60%, and we expect 400,000 more engineers each year over the next three years. However, there are far more science and engineering graduates every year than R&D jobs; the R&D talent pool is therefore in severe oversupply. This means China's R&D labour cost should remain lower than developed countries', which would support high R&D efficiency.



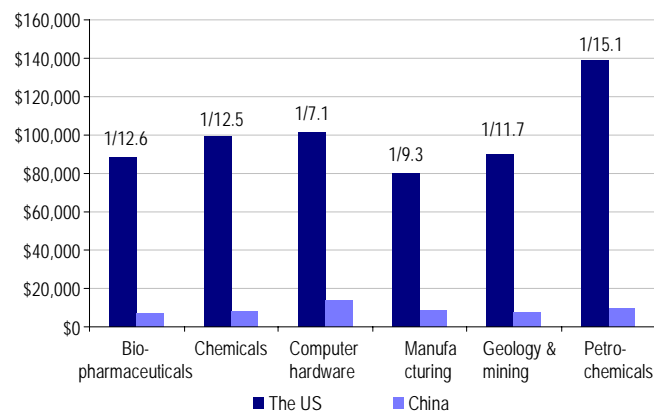
The average remuneration for R&D personnel in research institutes and companies was Rmb52,000 and Rmb60,000, respectively, in 2011. This is only around 1/15 of the remuneration level in developed countries (about US\$150,000 per year for an engineer), implying a saving of around US\$50bn each year. China's demographic dividend is changing from 'inexpensive workers' to 'inexpensive engineers'.

Chart 14: China R&D talent versus working population



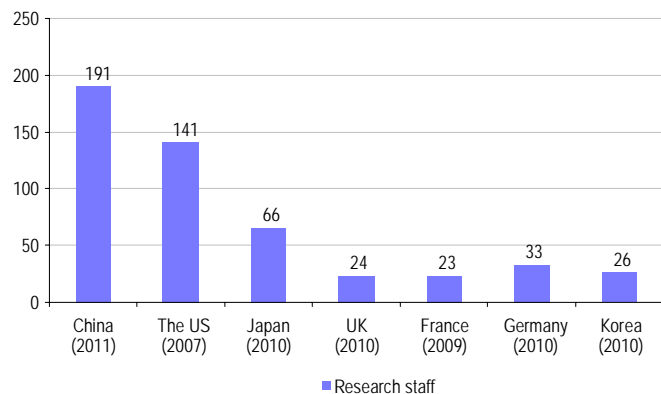
Source: CEIC

Chart 15: Chinese R&D salaries are 1/7-1/15 of US peers



Source: China Statistical Yearbook on Science and Technology, United States Department of Labor

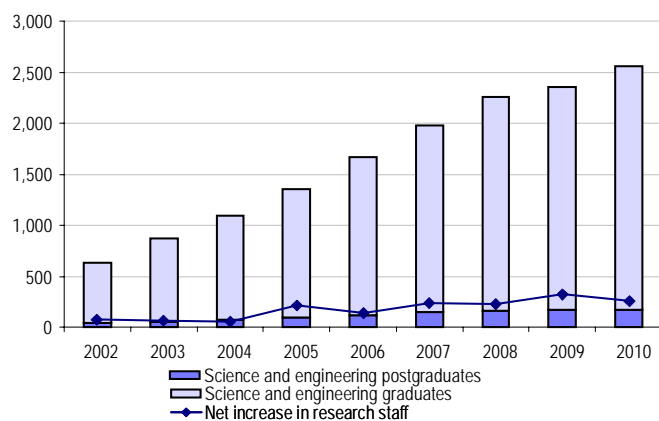
Chart 16: China has the highest number of R&D personnel globally



Note: unit=10,000

Source: CEIC

Chart 17: Supply of Chinese science and engineering graduates far outpaces demand for engineers



Source: CEIC

## R&D spending is understated

Unlike market consensus, we believe China's R&D capacity is underestimated. We believe the R&D expenditure shown in companies' financial statements does not fully represent their total R&D spending.

Unlike market consensus, we believe China's R&D capacity is underestimated

Our survey results support our conclusion: 93% of respondents believe an improvement in R&D capacity plays a critical role in a company's further development; while 57% believe the R&D expenditure reported on financial statements does not include all R&D spending (as shown in Chart 3 and Chart 5, respectively). We believe China's R&D spending is underestimated for the following reasons:

- (1) China has benefitted from a technology spillover from foreign countries
- (2) A substantial amount of non-R&D expenditure is actually spent on R&D
- (3) Government subsidies

### Technology spillover from developed countries

The R&D of Chinese companies is often a 'catch-up' effort—they are not trying to innovate, but rather shorten the gap with leading international companies for commercial benefit. As such, they generally have a clear technology roadmap. In the 1980s, the Chinese government started implementing an 'exchange market for technology' strategy to keep down R&D costs and close the gap between Chinese manufacturers and global competitors. Chinese manufacturers have been booking very low R&D expenses while gaining R&D expertise, but at the expense of giving up a significant market opportunity to foreign competitors. Since 2000, domestic manufacturers have been recruiting overseas returnees, which we believe has saved substantial compensation and penalty costs.

China benefits from the technology spillover from developed countries

#### Exchange market for technology

The government's 'exchange market for technology' strategy involved encouraging foreign manufacturers to set up joint ventures with Chinese producers to take advantage of the opportunities provided by the country's opening up in the late 80s. As a result, domestic producers obtained the technology provided by the foreign manufacturers, thus saving significant R&D costs. A typical example of R&D cost is royalties—the fees technology users have to pay to technology providers.

Taking JVs in the auto industry as an example, royalties account for 3% of overall auto sales. JVs in China may use certain technologies, but do not actually own the rights. Therefore, the royalties cannot be considered R&D expenses. Nevertheless, access to such world-leading technologies can provide the R&D personnel in these JV with the capability to imitate and recreate them.

Due to the above strategy, we estimate China manufacturers have given up a 70% domestic market share to foreign producers. It is open to discussion whether abandoning 70% of the market and only obtaining some technologies indirectly is an efficient way to develop an industry. But we can still draw the conclusion that the R&D spending in the auto industry is far higher than the 1.5% level indicated in companies' financial statements.

In addition, some JV contracts require foreign automakers to transfer some non-core technologies to China and also train auto R&D engineers. This has indirectly driven the development of the Chinese auto industry and self-owned brands, and is not reflected in companies' financial statements.

### **Introduction of technical talent from overseas**

During the period of technological advancement, Chinese enterprises benefitted from foreign technology spillover via the recruitment of a large number of staff with core technology expertise from leading overseas manufacturers. These employees gained their technological expertise as a result of heavy R&D spending by their previous employers, and we believe the total cost to Chinese companies of obtaining expertise in this manner is much lower than if they had to start from scratch.

### **Some expenses are not booked as R&D items**

Chinese companies have fairly low compensation and penalty expenses in the local market, which has become their 'test field'. This has resulted in a substantial amount of what is actually R&D expenditure being booked under items such as after-sales service instead, or even being borne by consumers. In addition, the acquisition of technology companies and patents by Chinese companies has contributed to the underestimation of total R&D spending. This is because the acquired patents and production lines are beneficial for China's technological advancement, but were not reflected in R&D expenditure. Moreover, in some cases, for example in the high speed train sector, most of the technology acquisition costs have been borne by the government rather than manufacturers.

**R&D cost item does not reflect all R&D investments**

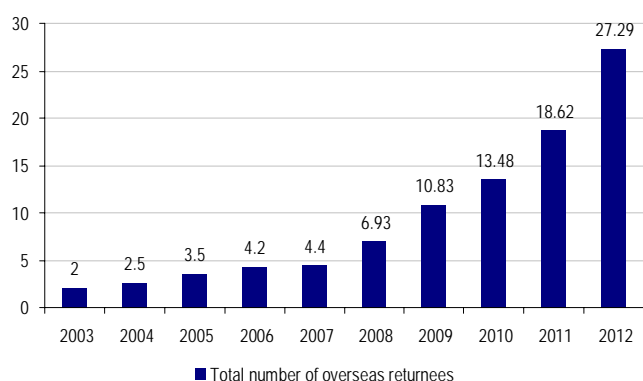
### **Some R&D expenditure has been assumed by consumers**

As China is in the process of rapid industrialisation, government inspection of industrial goods is relatively lax compared with developed nations and penalties for quality issues are less severe. In addition, during the past two decades, demand has generally exceeded supply, resulting in relatively weak consumer bargaining power. We believe a proportion of what should have been recorded as companies' R&D expenditure has actually been assumed by consumers in China, as some enterprises rely on customer feedback, rather than their own R&D testing procedures to alert them to product defects. Chinese products have a notably higher return rate than international brands. As such, we believe after-sales service expenses due to immature technologies or design defects should also be included in R&D expenditure.

Again using the auto industry as an example, unlike some developed countries, China's auto industry does not have a hundred years of history, or any advanced inspection technology. After a new model is designed, it is inspected before it goes on sale; however, due to the limits of domestic inspection technology, some design defects may not be discovered that later lead to malfunctions. If this occurs, automakers need to recall the defective product, replace the problematic parts for free or compensate consumers for losses incurred. Design defects identified will be rectified in later models. We believe such after-sales service expenses should be regarded as R&D costs, but they are not recorded as such. It is difficult to quantify this cost, but after conducting a simple analysis on after-sales service expenses and accrued recall-related expenses, we estimate this accounts for 1% of total turnover. In other words, we believe R&D expenses for self-owned brands are underestimated by 1ppt, so the actual R&D-to-revenue ratio should be 2.5% (1% plus the 1.5% shown on the financial statements).

This does not just happen in the auto industry, a number of examples can be found in other sectors, including truck, machinery and home appliance. As a proportion of after-sales service expenses that should be listed as R&D expenses is not, we believe China's R&D spending is underestimated.

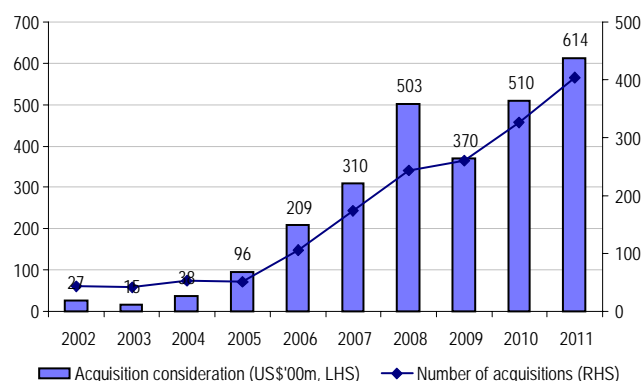
**Chart 18: Sharp rise in overseas returnees in recent years**



Note: unit=10,000

Source: Ministry of Education

**Chart 19: Chinese enterprises' M&A**



Source: Dealogic

### Acquisition of technology companies

Another example of the technology spillover from developed nations, Chinese enterprises may obtain the ownership and rights to use certain assets through the acquisition of technology companies. This includes intangible assets, such as patents, and fixed assets, including production lines). Such acquired technologies can provide incremental R&D capacity, but no R&D expenditure is recorded as a result. Therefore, this also contributes to the underestimation of China's R&D spending, in our view.

As shown in the chart above, during and after the financial crisis, acquisitions of overseas small and medium-sized technology companies by Chinese electronics and information companies (for the purpose of R&D and patents) increased sharply. The acquisition costs are directly related to R&D, but are not listed under R&D expenditure.

## Purchase of technology patents

Similar to the acquisition of technology companies, Chinese enterprises also sign technology transfer/purchase agreements with overseas companies that own advanced technologies to obtain equipment ownership and the right to use certain technologies. In the case of technology patent purchase, intangible assets increase but there are no changes to R&D expenses. However, the purchase, absorption and localisation of patents provide incremental R&D capacity, and China's R&D spending is also underestimated in this way.

Taking the rapidly growing high-speed railway system as an example, China's Ministry of Railways purchased the core technologies for high-speed railway construction for a total of just Rmb2.3bn from leading international companies, including Kawasaki in Japan, Bombardier in Canada, Siemens in Germany and Alstom in France. Some patent purchases were not paid for on a one-off basis, but in instalments. Thereafter, Chinese companies assimilated, absorbed and re-processed the purchased technologies. They not only effectively localised high-speed railway production, but created 'Chinese technology' by combining the technologies of the leading international companies and applied for up to 946 patents (as at 2009). Peers have developed multiple new models using the purchased technologies and successfully exported products to countries such as Bangladesh.

The whole process played a major role in boosting China's high-speed railway technology, but the manufacturers' R&D costs were actually borne by the Ministry of Railways.

## R&D spending efficiency also underestimated

Domestic companies R&D generally follows a three-stage model:

- (1) The first stage is mainly focused on imitation, with reference to mature products in overseas markets.
- (2) The second stage is partial redesign in accordance with domestic end-user demand and issues found during the use of foreign equipment.
- (3) The third stage is new product development with the help of domestic engineers or overseas experts.

We believe this 'Chinese model' evolved due to the weak basis and lack of capital of most Chinese enterprises when they started. They had to focus on low-end markets and then gradually gained market share in high-end markets to compete with mature enterprises and quality products in foreign countries.

## Reverse R&D

Simply put, reverse R&D refers to the purchase of an existing leading product to dismantle, assimilating relevant technologies in the process, then manufacturing an imitation of the original to sell as the company's own product. We do not believe reverse R&D is simply plagiarism, as imitation itself needs a certain technical capacity and the producer must improve its R&D and engineering capabilities to produce an eligible similar product. In addition, reverse R&D also needs to circumvent technological barriers and avoid technical patents. However, at the same time, we do believe reverse R&D undermines long-term R&D competitiveness, and could be a risk for mass exports in the future.

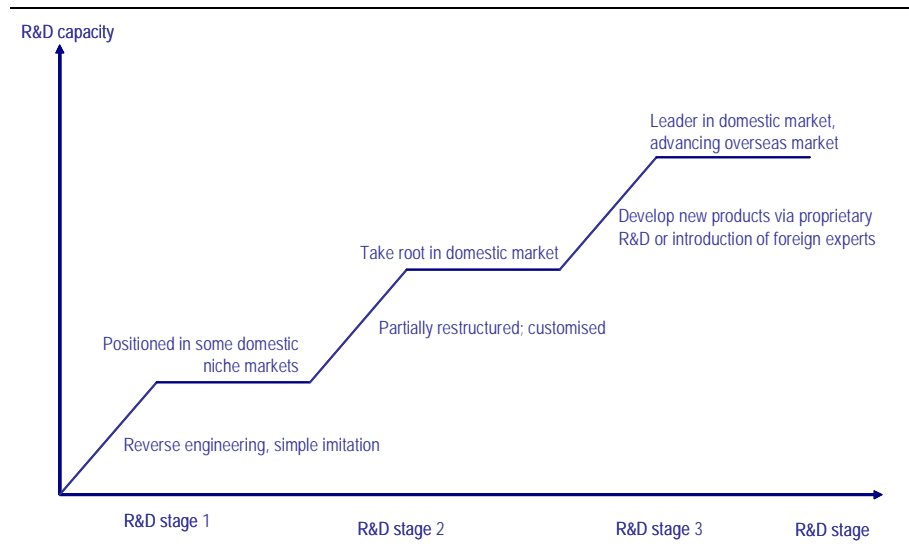
R&D spending efficiency is another underestimated item

Based on the history of developed industrialised nations we believe most companies go through a reverse R&D phase, which is very useful for them to gain R&D expertise and develop technical talent. After the reverse R&D learning stage, they may continue to innovate, achieve technological breakthroughs and gradually form their own core competencies.

### 'Market conducive' method

The 'market conducive' method refers to a situation where a company produces goods based on market demand. As this method directly targets client demand, it thus avoids the inefficient use of resources during the R&D process and saves compensation and penalty costs. This method forces companies to continually innovate during the R&D process and improve their R&D capabilities. The shortcoming is that companies can only become market followers instead of market leaders.

Chart 20: Development path for R&D capabilities of domestic enterprises



Source: UBS

We believe the Chinese R&D model, as described above, has proved its effectiveness over a prolonged period with several apparent advantages, namely, it is market-oriented, with rapid upgrades and low-cost marketing. Chinese companies are more familiar with the domestic market than overseas enterprises, and an understanding of the local market is essential for a company to build an advantage. Taking the domestic beverage market as an example, Coca-Cola and Pepsi basically dominated the market in the last century. In recent years, however, various tea products have emerged and gained popularity. Tea drinks, including black tea, green tea, milk tea and herbal tea, quickly gained market share from soda drinks and became mainstream products. As a 'national drink', European and US companies are at a natural disadvantage competing with Chinese enterprises in the tea market. Chinese companies are beating leading international companies with this niche product.

## Accounting policy: expenditure versus capitalisation

Here we use the auto industry as an example to analyse the impact on R&D expenditure (as well as the impact on margins) of different accounting treatments. We believe one of the major causes of the underestimation of Chinese automakers' R&D investment is the capitalisation of R&D investment. However, it could be argued that Chinese automakers margins are overstated.

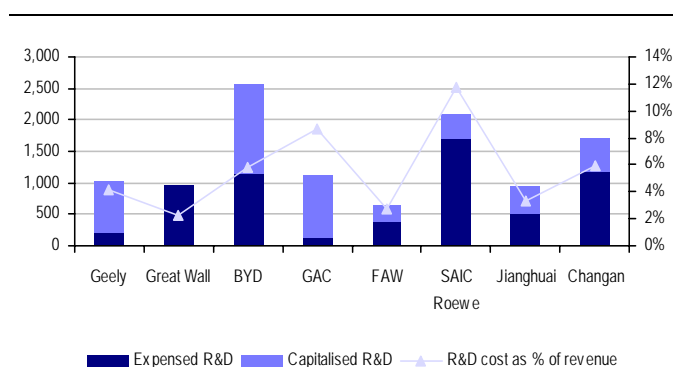
Chinese OEMs, whether listed in Hong Kong or mainland China, share the same accounting policy for R&D under IFRS, which is: all research expenditure is expensed as incurred; and development cost is capitalised as intangible assets if it satisfies the following conditions:

- (1) It is technically feasible that the intangible asset can be used or sold upon completion
- (2) There is an intention to complete the intangible asset for use or sale
- (3) The group has the ability to use or sell the intangible asset
- (4) The intangible asset will generate future economic benefits
- (5) Sufficient technical, financial and other resources are available for completion
- (6) The expenditure attributable to the intangible asset during the development can be reliably measured

However, the demonstration of an intangible asset's feasibility and ability to generate economic benefits can be subjective, causing big differences in companies' capitalisation rates. Geely has capitalised the majority (80% in 2012, 88% in 2011) of R&D expenditure while Great Wall has expensed the most (99.6% in 2012, 99.1% in 2011).

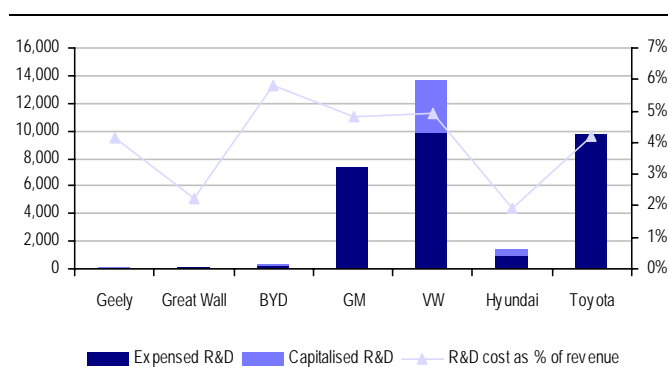
US and Japanese companies have zero capitalised R&D cost because they both use US GAAP, which prohibits capitalising development costs (development costs for software and website are the only exceptions, but this does not apply to automakers) because 'future economic benefits' are very difficult to project and guarantee.

Chart 21: R&D expenditure of Chinese OEMs (Rmb m, 2012)



Source: Company data

Chart 22: Global OEMs' R&D expenditure is much higher (US\$ m, 2012)



Source: Company data

An example of how accounting policy impacts real R&D expense



After adding capitalised cost to expensed cost, we found that the proportion of Geely's investment in R&D is at the same level as developed and mature automakers such as GM, VW and Toyota (around 4%-5%). BYD's total R&D expenditure as a percentage of revenue is higher than its foreign peers, at 5.8% and 6% in 2012 and 2011, respectively.

**Table 2: Total R&D expenditure of Hong Kong-listed Chinese OEMs**

| (Rmb m)                  | Geely  |        | Great Wall |        | BYD    |        | GAC    |
|--------------------------|--------|--------|------------|--------|--------|--------|--------|
|                          | 2012   | 2011   | 2012       | 2011   | 2012   | 2011   |        |
| Expensed R&D cost        | 206    | 106    | 957        | 635    | 1,150  | 1,374  | 139    |
| Capitalised R&D cost     | 817    | 747    | 3          | 6      | 1,426  | 1,396  | 987    |
| Capitalisation rate      | 79.8%  | 87.6%  | 0.4%       | 0.9%   | 55.3%  | 50.4%  | 87.7%  |
| Total R&D cost           | 1,023  | 853    | 960        | 641    | 2,576  | 2,770  | 1,126  |
| Revenue                  | 24,628 | 20,965 | 43,160     | 30,089 | 44,381 | 46,312 | 12,964 |
| Net profit               | 2,050  | 1,716  | 5,722      | 3,511  | 213    | 1,595  | 1,134  |
| R&D cost as % of revenue | 4.2%   | 4.1%   | 2.2%       | 2.1%   | 5.8%   | 6.0%   | 8.7%   |

Source: Company data

**Table 3: Total R&D expenditure of A-Share domestic OEMs**

| (Rmb m)                  | FAW    |        | SAIC Roewe |        | Jianghuai |        | Changan |        |
|--------------------------|--------|--------|------------|--------|-----------|--------|---------|--------|
|                          | 2012   | 2011   | 2012       | 2011   | 2012      | 2011   | 2012    | 2011   |
| Expensed R&D cost        | 376    | 375    | 1,699      | 1,886  | 505       | 556    | 1,163   | 1,189  |
| Capitalised R&D cost     | 261    | 246    | 398        | 119    | 447       | 194    | 531     | 422    |
| Capitalisation rate      | 40.9%  | 39.7%  | 19.0%      | 5.9%   | 46.9%     | 25.8%  | 31.3%   | 26.2%  |
| Total R&D cost           | 637    | 621    | 2,097      | 2,005  | 952       | 750    | 1,694   | 1,611  |
| Revenue                  | 23,385 | 32,653 | 17,811     | 15,853 | 28,465    | 30,306 | 28,703  | 26,014 |
| Net profit               | -756   | 217    | -3,687     | -3,409 | 495       | 621    | 28,703  | 1,446  |
| R&D cost as % of revenue | 2.7%   | 1.9%   | 11.8%      | 12.6%  | 3.3%      | 2.5%   | 5.9%    | 6.2%   |

Source: Company data

**Table 4: Total R&D expenditure of global OEMs**

| (US\$ m)                 | GM        |           | VW        |           | Hyundai  |          | Toyota    |           |
|--------------------------|-----------|-----------|-----------|-----------|----------|----------|-----------|-----------|
|                          | 2012      | 2011      | 2012      | 2011      | 2012     | 2011     | 2012      | 2011      |
| Expensed R&D cost        | 7,368.0   | 8,124.0   | 9,857.1   | 7,098.7   | 899.0    | 741.6    | 9,747.6   | 9,129.3   |
| Capitalised R&D cost     | 0.0       | 0.0       | 3,735.7   | 2,135.9   | 569.5    | 559.2    | 0.0       | 0.0       |
| Capitalisation rate      | 0.0%      | 0.0%      | 27.5%     | 23.1%     | 38.8%    | 43.0%    | 0.0%      | 0.0%      |
| Total R&D cost           | 7,368.0   | 8,124.0   | 13,592.9  | 9,234.6   | 1,468.5  | 1,300.7  | 9,747.6   | 9,129.3   |
| Revenue                  | 152,256.0 | 150,276.0 | 275,251.4 | 204,278.2 | 76,022.7 | 70,018.1 | 232,295.7 | 237,421.1 |
| Net profit               | 6,136.0   | 9,287.0   | 31,262.9  | 20,255.1  | 8,150.6  | 7,294.4  | 4,603.8   | 5,818.6   |
| R&D cost as % of revenue | 4.8%      | 5.4%      | 4.9%      | 4.5%      | 1.9%     | 1.9%     | 4.2%      | 3.8%      |

Source: Company data

## Risks: low inputs in fundamental R&D, weak patent protection

Even though Chinese R&D capacity has been improving rapidly, we believe there are structural defects in China's R&D. Most R&D spending is targeted at applications and testing, while fundamental research seems insufficient compared with developed countries. A lack of patent protection has hampered innovation at Chinese companies. We believe these two deficiencies pose a challenge for both product upgrade in China and Chinese companies' competitiveness and need to be rectified.

**Key risks of Chinese R&D are low inputs in fundamental research and weak patent protection**

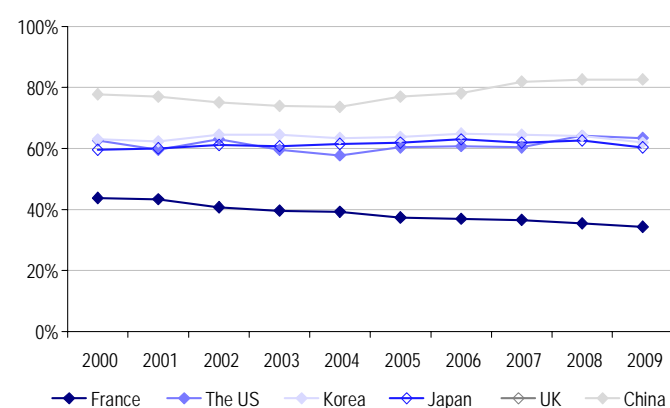
### Fundamental research accounts for a relatively low percentage

According to international standards, research activities can be divided into three areas: fundamental research, application research and testing research (similar to marketing research). Fundamental research and application research are innovative research, the difference being that fundamental research is not targeting specific applications and the similarity being that both types of research have certain risks and uncertainties. Testing research targets improvement on the basis of the results of fundamental research and application research, including improvements on products and processes.

**Ratio of fundamental research is significantly lower than developed countries**

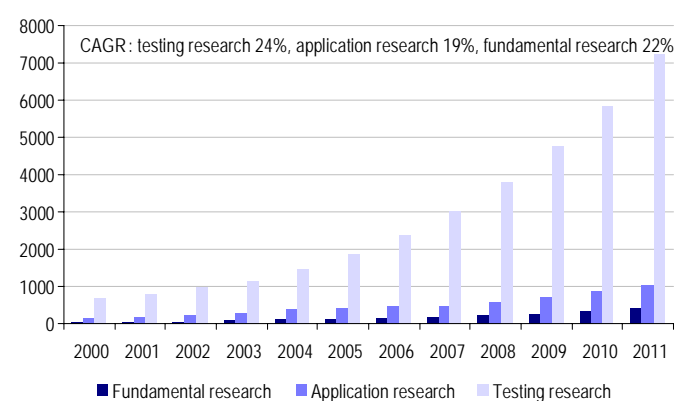
As shown in the charts below, comparing the structure of research between China and developed nations, the proportion of China's inputs in testing research is significantly higher than other countries and has shown an uptrend in recent years. We believe this is partly explained by the fact that most R&D entities are companies in China (which tend to conduct testing research rather than fundamental research). The other reason might be that China has not done enough in patent protection.

**Chart 23: Proportion of inputs in testing research in China is significantly higher than developed nations**



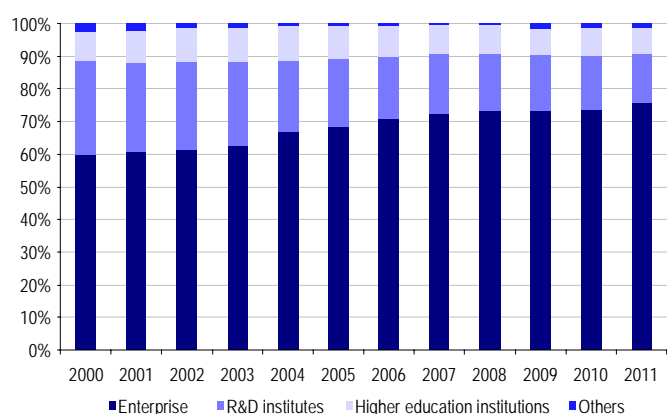
Source: OECD

**Chart 24: Testing research has been growing at a faster pace than fundamental research and application research in China**



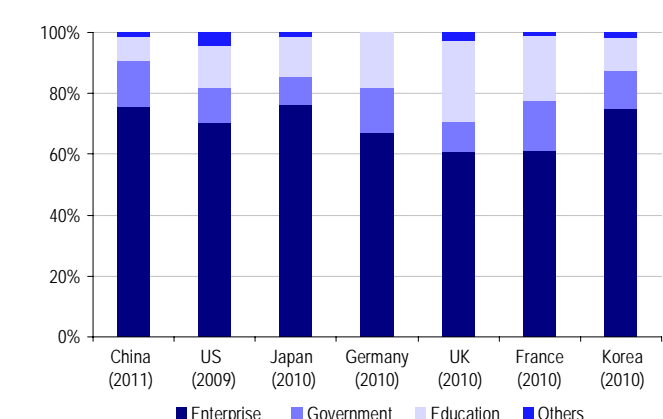
Source: OECD

Chart 25: Increasing proportion of R&amp;D spending by companies



Source: China Statistical Yearbook on Science and Technology

Chart 26: R&amp;D mainly committed by companies in China



Source: OECD

## Lack of patent protection reduces R&D motivation

In China, R&D is mainly focused on reverse R&D which is biased towards market research for product development and promotion, while the inputs in fundamental research are insufficient. Although Chinese companies have made substantial progress in patent applications in the past decade, there is still a lack of awareness on patent protection. In addition, due to implementation restraints, the penalties for intellectual property infringements are still not sufficiently severe to protect the interests of intellectual property owners. The mismatch between risk and return limits companies' motivation to invest in fundamental and innovative R&D—they would rather choose projects yielding quick returns and with a higher cost-benefit ratio. We believe the lack of legislative patent protection is a major cause of insufficient investment in elementary research, which will restrain the Chinese manufacturing sector's long-term competitiveness and pose a risk for mass exports.

Chinese companies are still generally small and weak, and their R&D efforts are fairly segmented. Due to the absence of intellectual property protection awareness in China, there are a significant number of similar products. This means resources are wasted, as many companies conduct the same R&D. In comparison, in other countries, after many years of M&A, an industry generally becomes an oligopoly. Companies in the oligopoly have evident resource advantages and complete R&D systems, and are capable of undertaking fundamental research projects that will not generate an immediate profit.

**Lack of patent protection dampens companies' R&D motivation**

## Sector comparison

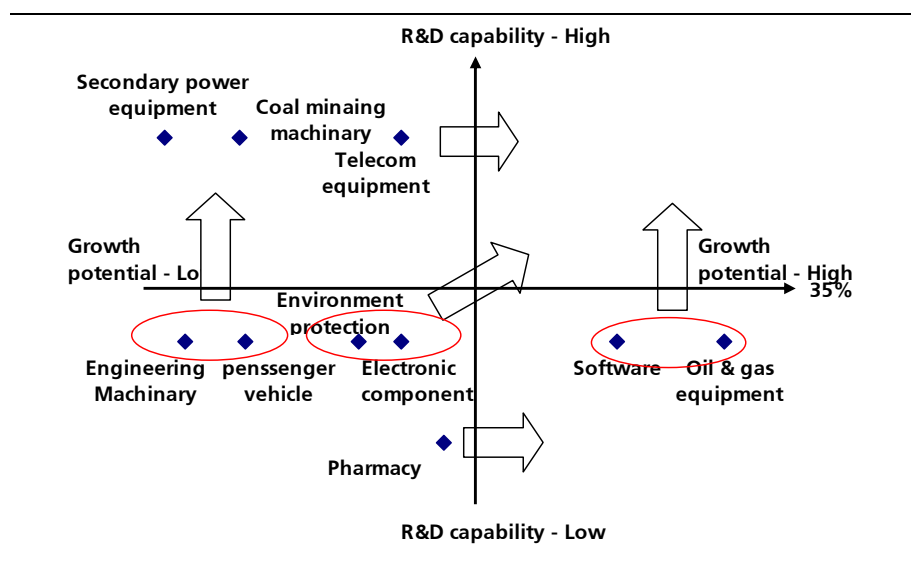
We believe there has now been sufficient investment in Chinese R&D so that 'made in China' may evolve into 'created in China'. We have compared all the sectors covered in this report using two measures: R&D capability and market growth potential (the CAGR over the next three years). We believe investment opportunities lie in the sectors meeting both the requirements of high R&D capability and fast growing potential. Our analysis suggests that no industry currently meets these criteria.

We use two parameters to gauge the potential of the sectors: R&D capability; and industry growth rate

From a growth perspective we are positive on the oil & gas equipment and software sectors, for which UBS analysts forecast CAGRs of 25% and 30%, respectively, for the next three years; however, from an R&D capacity perspective, we only rank oil & gas equipment and software as level 2 (level 4 represents R&D capability comparable with global peers). Although there is still some gap between Chinese manufacturers and overseas market leaders in terms of R&D capacity, we believe this may narrow in the future as domestic vendors' R&D-to-GDP ratio has surpassed that of overseas competitors.

We believe the R&D capability of the telecom equipment, secondary power equipment and coal machinery sectors is very competitive in the global market (we rank these at level 4), but the growth potential of those industries has slowed since 2010 due to the heavy government stimulus during the global financial crisis period. At the same time, we think the machinery and auto industries have already passed the high growth phase, but their R&D capability is still far below global average. We are positive on telecom sectors, as domestic companies may develop overseas markets with a better performance/price ratio while domestic demand remains stable. The outlook for the construction- and coal-machinery sectors is unremarkable as domestic demand has declined substantially.

Chart 27: China's aggregate R&D-to-GDP ratio has reached 1.97%, and Chinese manufacturing is quickly evolving into innovation-focused 'created in China'



Source: UBS estimates

Among passenger vehicle, environmental protection, medical devices and electronic components sectors in the third quadrant, we are most positive on the outlook for electronic components and environmental engineering, as domestic companies are rapidly increasing their R&D spending and narrowing the gap with industry leaders. The sector is also shifting from low-value-added and low-margin products to high value-added and high margin products, we believe that some sub-sectors such as waster water purification, smartphone and tablet computer should have higher than industry average growth, with potential to further improve their R&D capability.

We believe China's healthcare industry has fairly weak R&D capability; at the same time, with high growth in some sub-sectors (such as medical equipment and Chinese traditional medicine) and a unique entry barrier, we still believe the healthcare industry in China provides a good investment opportunity.

We have chosen companies from each of the sectors covered in this report for our most preferred list. They are ZTE, Zhuzhou CSR, Jerih, Yonyou, Weifu, Changan, Originwater, Hengrui, ZMJ, CSPC, Zoomlion, Geely and Sunny Optical. For recommendation rationale, please refer to the company pages later in this report.

Our most preferred companies are ZTE, Zhuzhou CSR, Jerih, Yonyou, Weifu, Changan, Originwater, Hengrui, ZMJ, CSPC, Zoomlion, Geely and Sunny Optical

Table 5: Comparables

|                 | Reuters<br>Code | Rating    | Share<br>price<br>(local) | Market<br>cap<br>US\$ m | PE    |       |       | P/BV  |       |       | EV/EBITDA |       |       | ROE   |       |       |
|-----------------|-----------------|-----------|---------------------------|-------------------------|-------|-------|-------|-------|-------|-------|-----------|-------|-------|-------|-------|-------|
|                 |                 |           |                           |                         | 2013E | 2014E | 2015E | 2013E | 2014E | 2015E | 2013E     | 2014E | 2015E | 2013E | 2014E | 2015E |
| ZTE             | hk0763          | Buy       | 15.64                     | 8,975                   | 22.8  | 12.8  | 9.4   | 1.9   | 1.7   | 1.5   | 12.0      | 8.9   | 7.3   | 8.6   | 13.8  | 16.6  |
| Zhuzhou CSR     | hk3898          | Buy       | 24.9                      | 3,482                   | 17.4  | 13.4  | 11.1  | 3.0   | 2.6   | 2.2   | 16.6      | 12.7  | 10.6  | 18.7  | 21.0  | 21.6  |
| Yantai Jereh    | sz002353        | Buy       | 71.2                      | 6,945                   | 42.9  | 30.0  | 23.2  | 10.7  | 8.1   | 6.2   | 33.2      | 23.4  | 17.9  | 28.0  | 30.7  | 30.2  |
| Yonyou Software | ss600588        | Neutral   | 14.44                     | 2,263                   | 30.4  | 20.3  | 14.3  | 4.3   | 3.8   | 3.2   | 46.2      | 21.3  | 13.8  | 14.6  | 19.7  | 24.2  |
| Weifu Hi-Tech   | sz000581        | Buy       | 24.89                     | 3,930                   | 23.3  | 15.5  | 12.5  | 2.5   | 2.3   | 2.0   | 17.8      | 12.2  | 10.5  | 11.2  | 15.5  | 17.3  |
| Chang'an Auto   | sz000625        | Buy       | 10.67                     | 8,128                   | 15.2  | 11.8  | 10.6  | 2.7   | 2.2   | 1.9   | 40.2      | 23.9  | 19.6  | 19.2  | 20.7  | 19.3  |
| Originwater     | sz300070        | Buy       | 41.6                      | 6,020                   | 42.8  | 30.9  | 22.8  | 7.9   | 6.3   | 5.0   | 39.8      | 26.9  | 19.0  | 20.1  | 22.6  | 24.4  |
| Hengrui         | ss600276        | Buy       | 34.39                     | 7,642                   | 36.3  | 29.8  | 24.6  | 7.6   | 6.2   | 5.1   | 25.9      | 21.2  | 16.5  | 22.9  | 23.0  | 22.9  |
| ZMJ             | hk0564          | Buy       | 4.76                      | 1,730                   | 5.2   | 4.9   | 4.4   | 0.6   | 0.6   | 0.5   | 3.8       | 3.8   | 3.4   | 12.5  | 12.0  | 12.2  |
| SCPC            | hk1093          | Buy (CBE) | 3.91                      | 1,374                   | 12.4  | 15.7  | 12.4  | 3.1   | 2.7   | 2.3   | 5.8       | 3.7   | 2.7   | 13.9  | 18.4  | 19.9  |
| Zoomlion        | hk1157          | Buy       | 6.72                      | 7,186                   | 8.7   | 7.6   | 6.9   | 0.9   | 0.8   | 0.8   | 6.1       | 5.3   | 4.7   | 11.2  | 11.6  | 11.6  |
| Geely           | hk0175          | Buy       | 3.99                      | 4,250                   | 10.0  | 8.6   | 7.5   | 1.7   | 1.5   | 1.3   | 5.6       | 4.5   | 3.6   | 18.6  | 18.3  | 17.9  |
| Sunny Optical   | hk2382          | Buy       | 8.13                      | 1,012                   | 12.6  | 8.3   | 7.0   | 2.7   | 2.1   | 1.7   | 8.6       | 5.9   | 4.8   | 23.1  | 28.6  | 27.4  |

|                 |          | EBITDA margin |       |       | Enterprise FCF yield |       |       | Net debt/equity |       |       | Quick ratio |       |       | Dividend yield |       |       |
|-----------------|----------|---------------|-------|-------|----------------------|-------|-------|-----------------|-------|-------|-------------|-------|-------|----------------|-------|-------|
|                 |          | 2013E         | 2014E | 2015E | 2013E                | 2014E | 2015E | 2013E           | 2014E | 2015E | 2013E       | 2014E | 2015E | 2013E          | 2014E | 2015E |
| ZTE             | hk0763   | 4.8           | 6.4   | 7.2   | -2.1                 | 2.3   | 4.3   | 18.2            | 11.9  | 3.6   | 1.1         | 1.1   | 1.1   | 1.1            | 2.0   | 2.7   |
| Zhuzhou CSR     | hk3898   | 19.5          | 19.4  | 19.1  | 5.9                  | 2.5   | 3.9   | -43.1           | -38.0 | -35.0 | 2.2         | 2.1   | 2.0   | 1.9            | 2.5   | 3.0   |
| Yantai Jereh    | sz002353 | 31.5          | 30.0  | 29.5  | 0.2                  | 0.4   | 1.6   | -16.1           | -14.5 | -19.6 | 1.5         | 1.4   | 1.5   | 0.3            | 0.3   | 0.5   |
| Yonyou Software | ss600588 | 6.6           | 12.0  | 15.5  | 3.1                  | 3.8   | 6.0   | -16.8           | -23.7 | -32.7 | 1.2         | 1.3   | 1.5   | 1.4            | 1.7   | 2.4   |
| Weifu Hi-Tech   | sz000581 | 16.3          | 15.3  | 12.0  | 2.9                  | 1.8   | 2.5   | -26.8           | -24.4 | -18.9 | 2.2         | 1.8   | 1.5   | 1.4            | 2.2   | 2.7   |
| Chang'an Auto   | sz000625 | 2.6           | 3.8   | 4.0   | 6.0                  | 6.7   | 8.8   | 3.5             | 8.4   | 10.3  | 0.5         | 0.5   | 0.5   | 1.1            | 1.4   | 1.5   |
| Originwater     | sz300070 | 30.4          | 30.6  | 30.2  | 2.6                  | 2.9   | 4.0   | -52.0           | -53.6 | -56.7 | 2.3         | 2.4   | 2.5   | 0.1            | 0.2   | 0.3   |
| Hengrui         | ss600276 | 26.6          | 26.3  | 27.4  | 1.7                  | 1.9   | 2.2   | -31.8           | -34.1 | -34.9 | 10.1        | 10.8  | 11.7  | 0.4            | 0.6   | 1.7   |
| ZMJ             | hk0564   | 17.4          | 17.9  | 19.2  | -4.1                 | -2.1  | 4.5   | -35.2           | -27.4 | -26.2 | 2.4         | 2.3   | 2.4   | 3.5            | 3.7   | 4.1   |
| SCPC            | hk1093   | 17.6          | 22.1  | 23.6  | 8.1                  | 12.6  | 15.6  | -2.6            | -13.7 | -24.2 | 1.0         | 1.2   | 1.4   | 0.0            | 0.0   | 0.0   |
| Zoomlion        | hk1157   | 19.2          | 19.3  | 19.3  | 7.5                  | 5.1   | 4.8   | -6.3            | -8.8  | -10.5 | 1.7         | 1.8   | 1.8   | 2.3            | 2.6   | 2.9   |
| Geely           | hk0175   | 13.8          | 14.0  | 13.8  | 3.7                  | 6.4   | 7.1   | -15.6           | -20.5 | -24.4 | 1.2         | 1.2   | 1.2   | 1.4            | 1.6   | 1.9   |
| Sunny Optical   | hk2382   | 11.3          | 11.8  | 11.7  | -2.3                 | 1.6   | 8.4   | 4.4             | 5.2   | -4.1  | 1.5         | 1.3   | 1.4   | 1.7            | 2.4   | 3.6   |

Note: Data as at 24 September 2013

Source: Bloomberg, UBS estimates

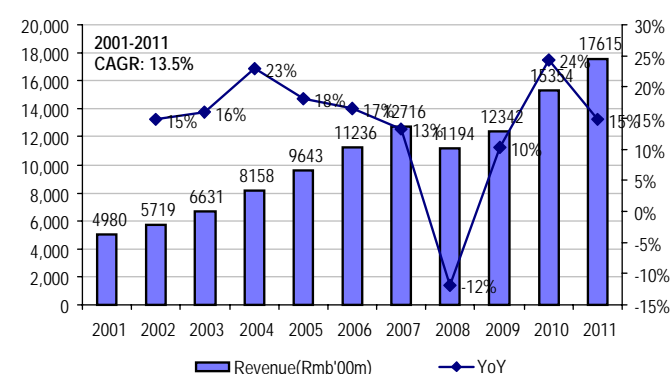
## The electronics sector

The R&D-to-revenue ratio of China's electronics sector has risen continuously, and has tended to increase sharply after an economic crisis. In 2011, the overall R&D-to-revenue ratio of the top 100 electronics companies in China reached the average of international high-tech companies, while the R&D-to-revenue ratios of the China industry leaders are on a par with international leaders.

China electronics sector's R&D-to-revenue ratio has been continuously on the rise

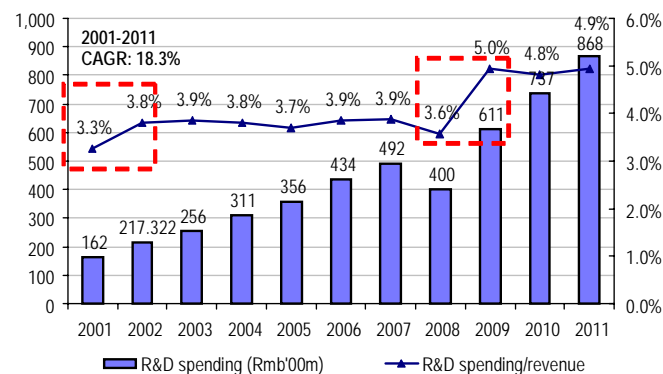
- (1) **Revenue growth sharply outpaced GDP growth.** According to the China Electronics Industry Yearbook, total revenue of the top 100 companies in the electronics sector rose from Rmb498.0bn in 2001 to Rmb1.7615trn in 2011, at a CAGR of 13.5%; in 2011, 34 companies generated revenue over Rmb10.0bn, 32 more than in 2006. The top three companies (Huawei, Lenovo and Haier) each generated revenue over Rmb100.0bn.
- (2) **Overall R&D-to-revenue ratio has continued to increase.** R&D spending increased from Rmb16.2bn to Rmb86.8bn in 2001-11, at a CAGR of 18.3%, significantly higher than the revenue CAGR; the proportion of R&D spending to revenue also increased from 3.3% to around 5%. According to China's tax laws, companies with an R&D-to-revenue ratio over 3% and revenue above Rmb200m are eligible to be classified as 'High-Tech Companies' and may benefit from a 15% preferential income tax rate. Therefore, the overall R&D-to-revenue ratio of electronic companies has been around 3%, with that of the top 100 companies 2% higher than the average.
- (3) **R&D-to-revenue ratio has tended to rise significantly after an economic crisis.** Since 2000, it appears that each economic crisis has served as a catalyst for the R&D-to-revenue ratio to rise. After a crisis, companies have tended to proactively increase R&D inputs to survive, develop and increase their competitiveness, which has boosted their R&D-to-revenue ratio.
- (4) **R&D-to-revenue ratios of industry leaders are on a par with international leaders.** In 2011, of the top 100 electronics companies, 19 committed over Rmb1.0bn R&D spending, six more than in 2010. Huawei had the highest R&D spending at Rmb22.8bn, accounting for 11% of its operating revenue. 30 companies reported 5%+ R&D-to-revenue ratios, which is largely in line with international high-tech companies.

Chart 28: Top 100 electronics companies in China posted a 13.5% revenue CAGR in 2001-11



Source: China Electronics Industry Yearbook

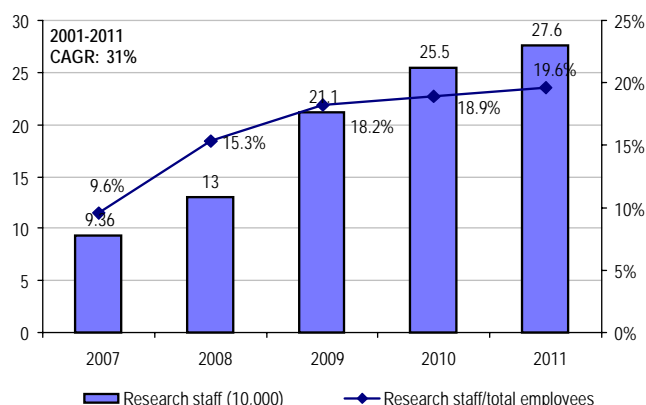
Chart 29: R&D-to-revenue ratio has tended to rise sharply after an economic crisis



Source: China Electronics Industry Yearbook

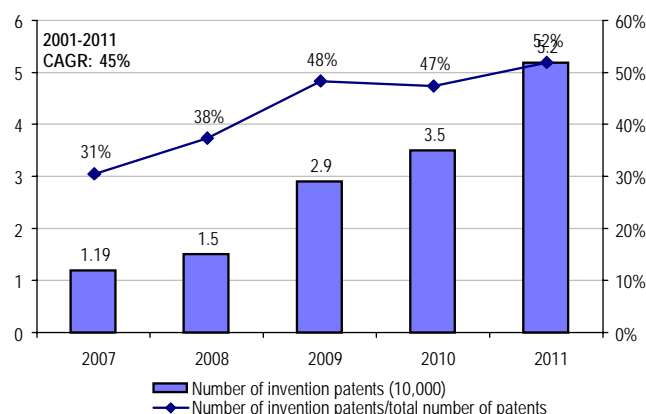


Chart 30: R&amp;D staff make up around 20% of total employees



Source: China Electronics Industry Yearbook

Chart 31: Number of invention patents increased at a CAGR of 45% during 2007-11



Source: China Electronics Industry Yearbook

- (1) **Apart from explicit R&D expenditure such as for apparatus, R&D staff remuneration and raw materials, there is also implicit R&D expenditure that should not be overlooked: M&A, royalties, maintenance costs**

**Major explicit R&D expenditure includes:** apparatus, R&D staff remuneration and raw materials. For R&D targeting production, apparatus/employee remuneration may account for 60-80%/10-20% of total R&D spending; for fundamental R&D, apparatus/employee remuneration may account for 30-40%/40-50% of the total. In practice, the definition of R&D staff is relatively flexible. As such, R&D staff remuneration is the most flexible part of R&D spending. At an early stage of R&D, staff remuneration accounts for a higher proportion of total R&D spending, while apparatus accounts for a higher proportion at a later stage.

Apart from explicit R&D expenditure such as for apparatus, R&D staff remuneration and raw materials, there is also implicit R&D expenditure: M&A, royalties and maintenance costs

#### Some implicit R&D costs should not be overlooked:

- (1) **Acquisition of small and medium-sized technology companies:** After the financial crisis, the number of acquisitions of overseas small and medium-sized technology companies by Chinese electronics and information companies (for the purpose of R&D and patents) increased sharply. The acquisition costs are directly related to R&D, but could not be listed as R&D expenditure;
- (2) **Payment of royalties:** As an example, royalties are paid to Qualcomm for the use of CDMA mobile phones, which cannot be reflected in R&D expenses;
- (3) **Maintenance costs due to technology or design defects:** Chinese enterprises tend to sell products while they are still in R&D as consumer electronics products generally have a lifecycle of less than one year. Defects found in one generation of products are then corrected in the next. In China, electronics products have a notably higher return rate than international brands. As such, we believe maintenance costs due to technology or design defects should also be included in R&D expenditure.

**China's electronics companies are still in a 'catch-up' phase. They have late-mover advantage and their R&D efficiency might be systematically underestimated:**

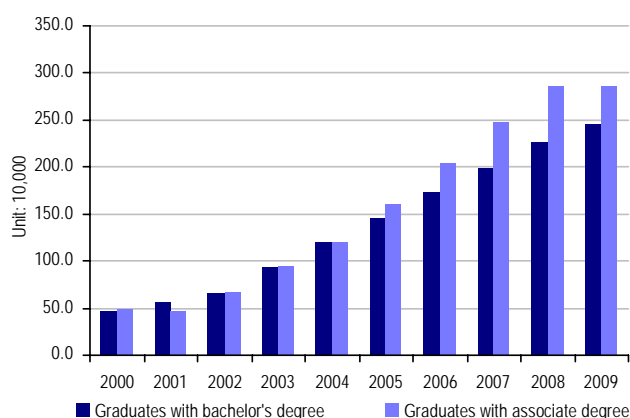
- (1) **Substantial compensation and penalty costs are saved.** The R&D of Chinese companies is generally a 'catch-up' effort; the aim is not to find an alternative path, but rather narrow the gap with leading companies. As such, they generally have a clear technology roadmap and save substantial consumer compensation and penalty costs;

China's electronics companies are still in a catch-up phase and have late-mover advantage

**Recruitment of technical talent from overseas.** During the technology advancement, Chinese companies generally recruited a large number of technical employees from overseas. These staff gained their technological expertise as a result of heavy R&D spending by their previous employers, and we believe the total cost to Chinese companies of obtaining expertise in this manner is much lower than if they had to start from scratch.

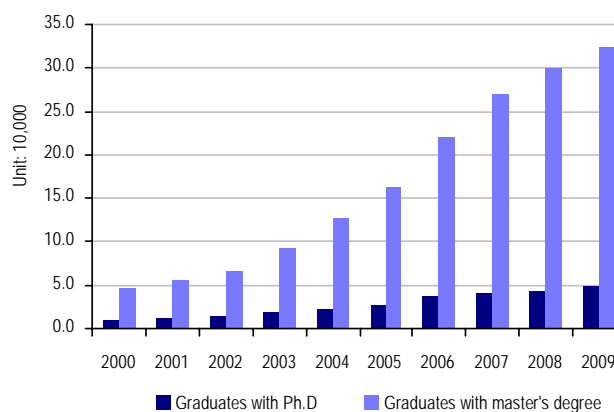
- (2) **Inexpensive engineers.** We believe China's demographic dividend is changing from 'inexpensive workers' to 'inexpensive engineers'. During 2000-09, the number China graduates with a bachelor's degree and above increased at an annual pace of 20%+, and the number of postgraduates rose at an even faster pace. Among these, science and engineering graduates accounted for over 60%, and we expect 400,000 more engineers each year over the next three years. However, their remuneration is just about 1/15 of the remuneration level in developed countries (about US\$150,000 per year for an engineer), implying a saving of around US\$50bn each year.

**Chart 32: Number of graduates with bachelor's and associate degrees recorded a 20%+ CAGR in 2000-09**



Source: China Statistical Yearbook

**Chart 33: Postgraduates have increased at the fastest pace recently, with science and engineering postgraduates accounting for over 60% of total postgraduates**



Source: China Statistical Yearbook

**We believe electronics stocks meeting the following criteria may maintain and even improve ROE, while keeping rapid revenue growth through leading R&D capacity and achieving better medium- and long-term investment returns. .**

1) Shorter technology upgrade cycles (less than 12 months) and a potential market size above Rmb100bn; 2) the technology gap with overseas leader is 8-12 months, so it will be easier to attract talent from market leaders, and as a result, absorb their technology, thus improving technology catch-up efficiency; 3) a leading position in domestic sub-sectors, so profit margins will not be overly squeezed by damaging competition from peers with homogeneous products.

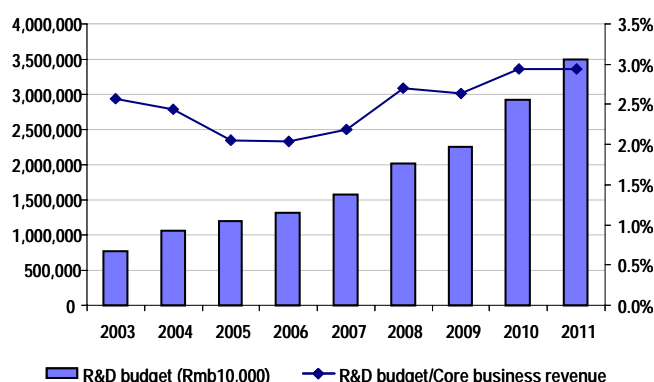
## The telecom equipment sector

China's telecom equipment sector has a relatively long R&D history. China already had a telecom equipment sector in the 1980s, represented by Great Dragon Telecom, Datang Telecom, ZTE and Huawei Technologies. With the development of telecommunication technology, China has gradually established a cluster of telecom equipment makers covering almost all sub-sectors, with Huawei and ZTE as top tier manufacturers. These domestic manufacturers have not only gradually taken market share from overseas peers, but also expanded into developed markets on a strong price-performance advantage.

Telecom equipment is one of the few sectors where China companies have similar R&D capability as leading global peers

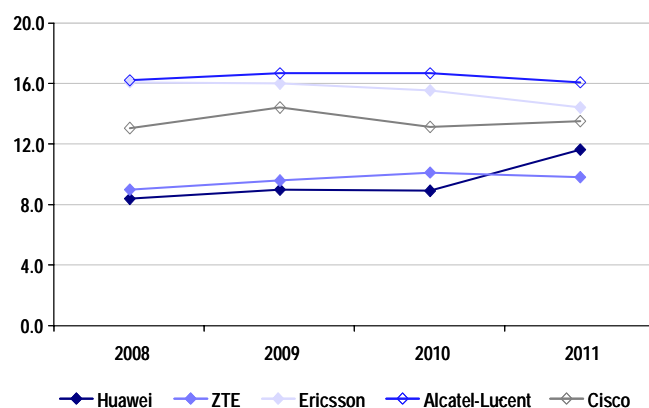
We attribute the success of Chinese telecom equipment producers to their appreciation of the importance of R&D and continuous R&D investment. In 2003-11, the R&D expenses of medium and large Chinese telecom equipment manufacturers rose 21% each year on average, always accounting for more than 2% of their core business revenue.

Chart 34: R&D expenses of Chinese telecom equipment producers rise each year



Source: China Statistical Yearbook

Chart 35: Huawei and ZTE's R&D expenses/revenue ratios (%) are close to global leaders



Source: Company data

The leading manufacturers in China's telecom equipment sector, Huawei and ZTE continue to invest 10% of their sales revenue in R&D, which is close to the proportion of global leaders, such as Cisco, Ericsson and Alcatel-Lucent. Huawei has established *2012 Lab* for the R&D of world-leading technologies. We believe this indicates that its R&D has gone beyond imitation or simple innovation and that it has begun to lead the technical advance and development of the whole sector.

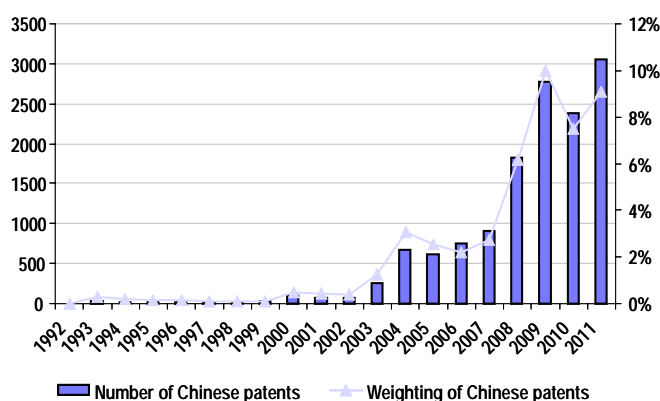
The R&D capabilities of domestic telecom equipment producers are reflected by their patents. In 2011, Chinese telecom equipment vendors obtained 3,056 patents, or 9% of those gained by telecom equipment manufacturers globally, Huawei and ZTE each have 7% of the core patents for LTE equipment, the latest 4G wireless telecommunications. Few Chinese companies have such a high proportion of patents in global cutting-edge technologies.

We believe Chinese telecom equipment producers can be world-leading product researchers and developers for the following reasons:

## Opportunities provided by rapid growth in the domestic telecom industry

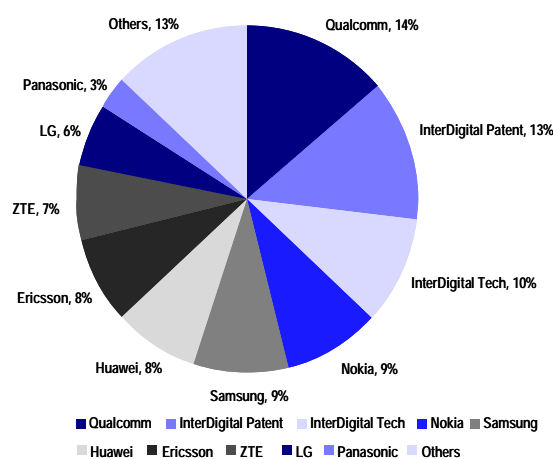
China's telecom industry has been growing rapidly over the past 20 years, with mobile phone penetration rate rising from 0.02% in 1992 to 83% in 2012, which has boosted the development of the telecom equipment sector. Economic development varies from region to region in China, resulting in relatively big differences in demand, but providing the telecom equipment sector with ample opportunities. Many telecom equipment producers start their businesses in rural markets, then enter urban areas and gradually complete their product lines, from low-end to high-end. Overseas peers are much slower than domestic telecom equipment producers to adapt to the rapidly changing Chinese market as their R&D operations (especially basic R&D) are located outside China. Chinese telecom equipment manufacturers have strengthened their capabilities in the domestic market, and due to numerous users and complex telecommunications environment in China, many domestic telecom equipment products are even superior to those made by leading overseas companies in terms of traffic capacity and flexibility.

**Chart 36: Number of patents obtained by Chinese telecom equipment producers and the percentage in the global telecom equipment sector**



Source: WIPO

**Chart 37: Huawei & ZTE's core patents in the LTE sector**



Source: ETSI

## Substantial profits and cluster advantage

Telecom equipment manufacturing is a high-profit sector with relatively high added value. The Chinese telecom equipment sector does not significantly lag behind international peers in terms of starting point, as manufacturers benefitted from the opportunity of China converting its telecom infrastructure from analog to digital. The telecom equipment sector attracts entrepreneurs from the private sector as it does not require much capital and resources to make telecom equipment and telecom operators are relatively open to new telecom equipment producers. Companies such as Huawei and ZTE identified R&D as their long-term core competitive strength when they were established and continue to invest in R&D. Led by the two top manufacturers, companies along the industry chain have grown together, resulting in cluster effect and advantages of scale.

## Ample talent in China

China's output of engineers over the past 20 years is one of the main reasons that Chinese telecom equipment producers have relatively strong R&D capability. Rapid growth and high profits in the telecommunications sector has attracted talented students to choose telecom as their major and then work in the sector; superior talent entering the sector brings more intense competition and more rapid development, thus leading to a virtuous cycle. For example, the average income of telecom engineers is much higher than that of other sectors.

## Underestimated R&D expenses

The actual R&D investment made by telecom equipment producers is not only the R&D expenses on their profit and loss statements, it also includes patent authorisation and R&D outsourcing expenses, among others. In 2011, Huawei paid around US\$300m in patent license fees, accounting for around 1% of the company's revenue. Huawei's outsourcing expenses were even higher, totalling Rmb3bn or 1.5% of the company's revenue. Patent license fees and outsourcing expenses were not included in its R&D expenditure. Moreover, China's telecom operators help domestic telecom equipment producers improve their products in a real network environment. We think such after-sale service related expenses can also be considered as a type of R&D expenditure and we estimate that these expenses account for over 1% of Huawei's revenue.

## Weakness of Chinese telecom equipment producers

The gap between the Chinese telecom equipment sector and leading foreign producers is reflected by product performance and product delivery capability, which becomes a barrier for Chinese products to enter developed markets:

**Product stability is poor, failure rate is high:** As foreign labour costs are relatively high, overseas telecom operators require relatively high product stability and a low failure rate. Operators usually consider both procurement costs and future maintenance expenses when they buy telecom equipment. While prices of Chinese products are lower than foreign ones, their competitive position is unfavourable as their maintenance expenses are higher due to poor stability and a high failure rate.

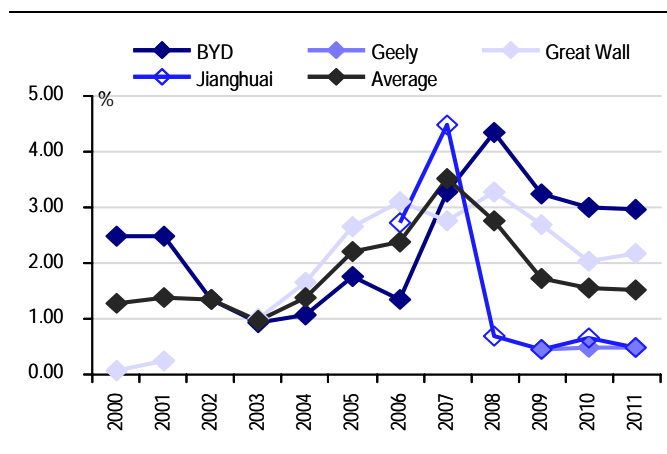
**Product delivery capability is weak:** Unlike domestic telecom operators, most foreign telecom operators use turnkey projects, requiring telecom equipment producers to take the entire network construction process, including planning, site selection, installation and turnover. Foreign operators' requirements on product quality and delivery time are stricter than those of Chinese operators; and foreign operators also set high standards for project management and process control for telecom equipment producers. Chinese telecom equipment producers lag far behind overseas competitors, and it is usually more costly for them to meet client requirements, which means some high-end clients refrain from contacting Chinese producers.

## The passenger vehicle sector

2001-11 was a boom period for the Chinese auto sector. The auto sales volume CAGR in China was 24% during the 10 years and exceeded 18m units in 2011, making China the world's largest auto market. However, increasing output and sales have not improved Chinese auto producers' core competitive strength. China's auto market is largely occupied by foreign brands (automotive joint ventures need to buy the rights to use foreign brands and intellectual property rights from overseas companies), and domestic brands have little bargaining power in the Chinese auto market, especially the medium- to high-end market. Meanwhile, as labour costs continue to rise, domestic brands have been losing the competitive advantage they achieved through low cost. In our view, this means Chinese auto producers will not obtain core technologies and will therefore be in an unfavourable position. Therefore, it is necessary for Chinese auto brands to ramp up R&D investment and strive for innovation.

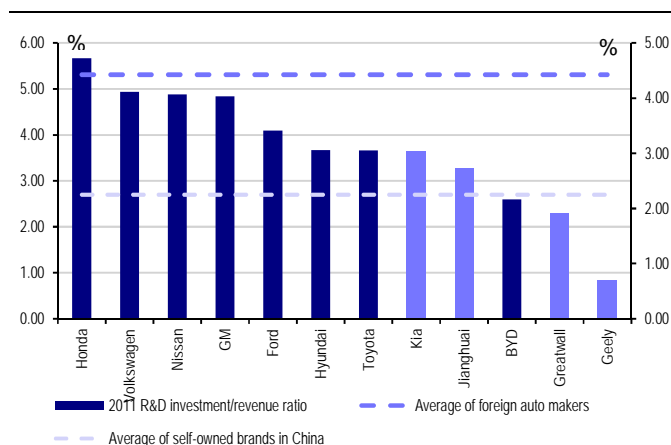
In 2001-11, the average R&D investment/revenue ratio of Chinese auto brands largely remained 1-3%, with an uptrend before the global financial crisis. After the financial crisis, foreign auto producers stepped up their expansion in China as overseas economies were weak. Joint ventures continued to take medium- to low-end market share from domestic brands by downgrading their products, resulting in lower profit for Chinese auto makers and constraining their R&D investment to some extent.

Chart 38: R&D investment/revenue ratios of major Chinese auto brands



Source: Bloomberg

Chart 39: Compared with foreign auto producers, the R&D investment/revenue ratios of major Chinese auto brands are low (2011)



Source: Bloomberg, UBS estimates

### Low R&D inputs compared with global peers

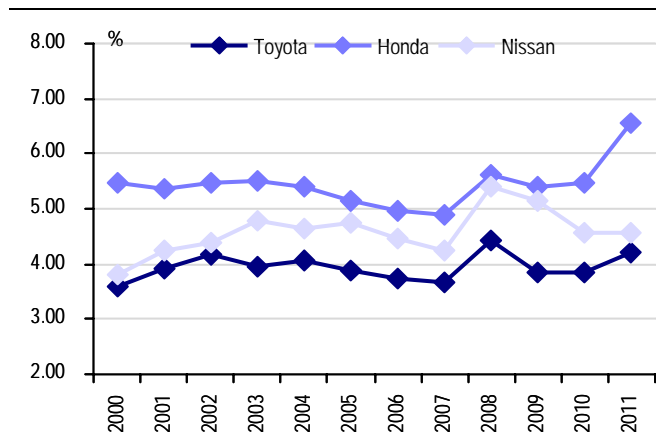
In terms of the R&D investment/revenue ratio, Chinese auto producers, especially domestic brands, are increasingly lagging behind mature foreign auto producers that had R&D investment/revenue ratios between 3% and 7% in 2001-11; and in sharp contrast to Chinese auto makers, foreign brands, including Toyota, Honda, Hyundai, Kia and GM, continued to ramp up R&D efforts after the financial crisis.

Passenger vehicle sector: big gap with global leaders



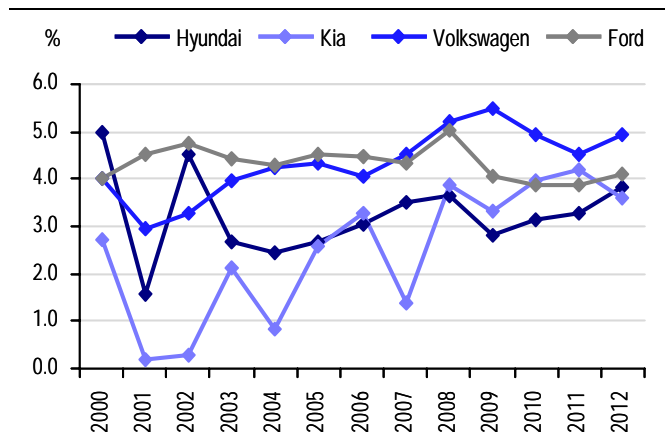
In terms of R&D results, the cumulative number of patents held by Chinese auto brands is much less than mature auto makers overseas because Chinese auto producers have weak R&D fundamentals, insufficient motivation to carry out R&D and lower R&D investment over the past two years. BYD leads other domestic brands in terms of the number of patents as the company was an early starter and aggressively expanded in the field of batteries, hybrid vehicles and electric vehicles.

**Chart 40: R&D investment/revenue ratios of major Japanese auto producers**



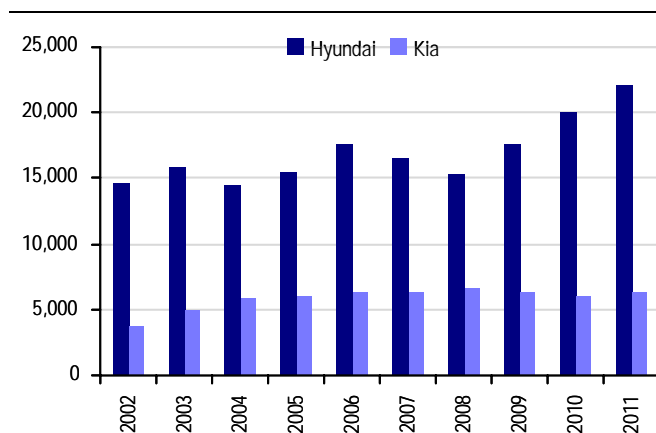
Source: Bloomberg

**Chart 41: R&D investment/revenue ratios of major South Korean and German auto producers**



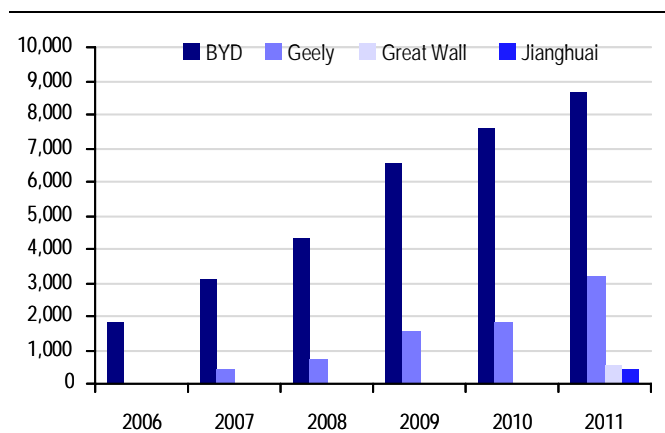
Source: Bloomberg

**Chart 42: Cumulative number of patents held by Hyundai and Kia**



Source: Bloomberg

**Chart 43: Cumulative number of patents held by major Chinese brands**



Source: Bloomberg

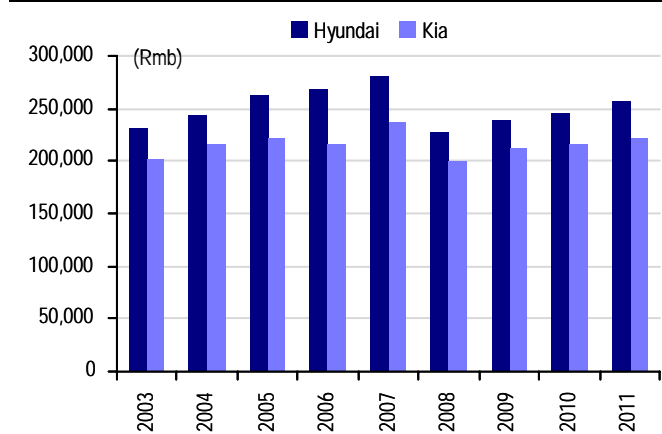
## Automakers' R&D investment underestimated

While the R&D investment/revenue ratios of Chinese auto makers are far behind those of foreign mature auto producers, we think Chinese auto companies' R&D investment is underestimated, mainly as:

Salaries of R&D employees in Chinese auto producers are still lower than their foreign counterparts; for example an R&D employee's salary at a Chinese brand is about 50% of that of an employee at a South Korean auto maker. Labour costs account for the majority of R&D expenses of foreign auto producers, while they represent only about 10% of Chinese auto companies' R&D spending.

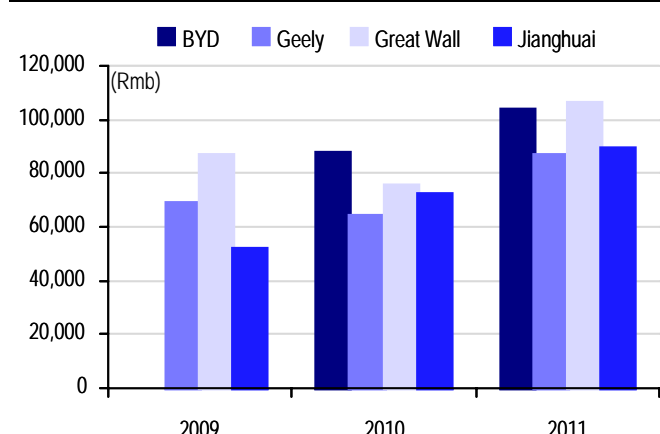
**Automakers' R&D investment is significantly underestimated**

Chart 44: R&amp;D employee annual salary at Hyundai and Kia



Source: Company data, UBS estimates

Chart 45: R&amp;D employee annual salary at major Chinese brands



Source: Company data, UBS estimates

For a long time, consumers generally did not pay much attention to the product quality of Chinese brands as they had the advantage of a high price-performance ratio in the low- to medium-end market. This resulted in a relatively short R&D cycle and low R&D expenses for Chinese brands.

### Rising R&D spending to put pressure on future profits

In the future we expect the R&D investment/revenue ratio of Chinese brands to rise, mainly because: 1) as China improves its recall system, we believe defective products will cause higher recall costs for the entire auto sector; and 2) competition in the Chinese auto market is increasingly intense, and the one way for auto producers to survive is to continue to roll out competitive products, which requires continuous growth in R&D investment.

Table 6: Recent recalls in the China auto market

| Date       | Producer             | Detail   |
|------------|----------------------|--|
| 2011-9-5   | Guangzhou Honda      | Recall some Fit, CITY and CR-V models, totalling 255,766 units       |
| 2012-5-12  | Shanghai GM          | Defective brake fluid reservoir, recall nearly 50,000 units of AVEO  |
| 2012-8-9   | Tianjin FAW Toyota   | Recall some RAV4 due to potential hazards                            |
| 2012-9-10  | Southeast Motor      | Recall 2,470 units of Lingyue due to fuel pipe problems              |
| 2012-9-18  | Shanghai VW          | Recall 7,544 units of Santana due to potential steering failure      |
| 2012-11-9  | Dongfeng Automobile  | Recall 24,146 units of Sunny due to improperly installed skylights   |
| 2012-11-16 | Zhejiang Haoqing     | Recall 255,958 units of Jingang and Jinying due to potential hazards |
| 2013-3-19  | Jianghuai Automobile | Recall 117,072 units of Tongyue due to car body rust                 |

Source: www.12365auto.com

# The environmental engineering sector

As China increasingly attaches importance to environmental protection, related authorities have continued to roll out environmental plans and standards for industries and municipal governments in recent years. Enforcement of these plans and standards requires substantial investment in air pollution control, sewage and solid waste treatment and has encouraged the establishment of a number of environmental engineering companies.

**Environmental engineering: high R&D investment ratio despite a low absolute level**

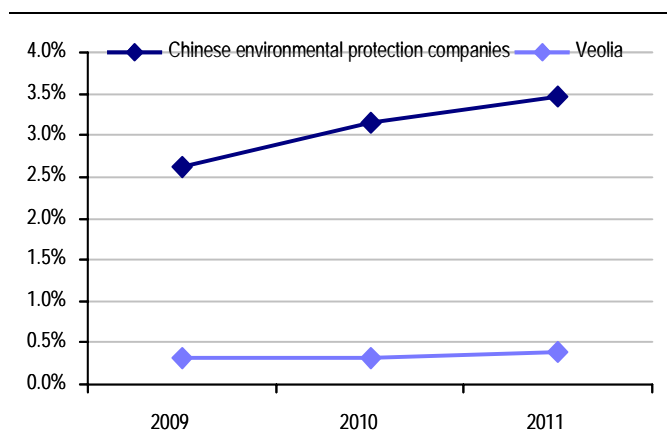
## R&D investment trends up

As a whole, Chinese environmental engineering companies pay relatively more attention to R&D investment, resulting in a relatively high R&D investment/revenue ratio that is trending up. Taking listed environmental engineering companies as an example, their R&D investment/revenue ratio rose from 2.6% in 2009 to 3.5% in 2011.

We think this is driven by sector demand and competition, namely:

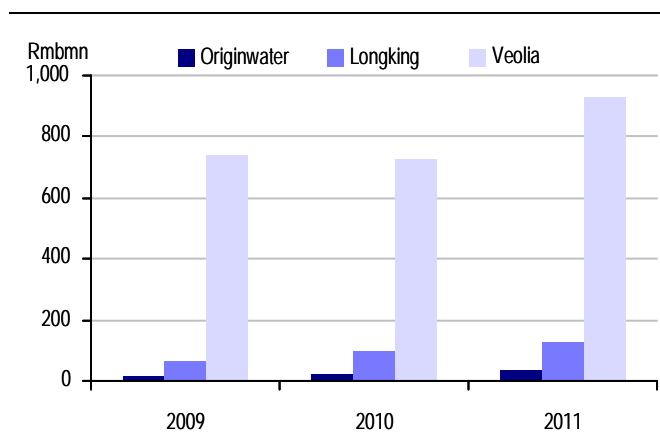
- China attaches increasing importance to the environmental protection sector, and the Chinese government continues to launch stricter environmental regulations that cover more and more sectors. For environmental engineering companies, this means they must penetrate new markets with new products from R&D.
- For both government institutions and corporations, environmental projects usually mean costs without revenue; therefore, owners are relatively sensitive to the operating costs of such projects (for example, dust removal equipment at thermal power plants, or sewage treatment plants in cities). As long as environmental protection standards are met, environmental engineering companies with low construction and operating costs are more successful than others.

**Chart 46: R&D investment comparison: Chinese environmental protection companies versus Veolia**



Source: Company data

**Chart 47: R&D investment: China's leading companies versus Veolia**



Source: Company data

- Moreover, listed environmental protection companies have more resources to invest in R&D with their IPO proceeds. Many environmental protection companies, including Yonker Environmental Protection, Tianjin Motimo Membrane Technology, Nanjing CEC Environmental Protection, and Jiangsu Welle Environmental, plan to build R&D centres with their IPO proceeds.

Compared with foreign sector leaders, China's environmental protection companies are still in the start-up stage; they are smaller and have substantially lower R&D expenditure. For example, China's air pollution control sector leader Fujian Longking, and Beijing Originwater Technology, a leading company in China's water treatment sector, invested Rmb126m and Rmb38m, respectively, in R&D in 2011, while international environmental protection giant Veolia Environment's R&D investment in 2011 was Eur112m.

However, Chinese companies' R&D investment/revenue ratio is much higher than international leaders. We believe the main reasons include:

- The environmental sectors in developed countries are relatively mature. China's environmental sector is facing a dynamic market and changing policies, and needs more R&D investment to deal with changes in the market.
- In terms of operating model, project operation, rather than project construction, has become the major revenue source for international leaders as the market is stable; therefore they have high revenue and relatively low requirements for R&D. However, engineering companies, have more need for R&D as each project could be different from others in terms of technology, conditions and the owner's requirements.

### Focus on applied R&D

Development followed by pollution control is a common experience for developed countries; therefore, they have accumulated advanced science and technological expertise to control pollution. Taking wastewater treatment as an example, wastewater treatment plants using activated sludge process, which is now the most common type of wastewater treatment plant, first appeared as early as 1916; the membrane bioreactor (MBR), which does a better job in wastewater treatment was invented in the 1960s and put into large-scale commercial operation in the 1990s.

Chinese environmental protection companies generally do not need to invent new technologies, but to absorb existing technologies and develop their own processes. In terms of R&D, they need to do less basic R&D, but a substantial amount of applied R&D. Constrained by their scale, it is also difficult for domestic environmental protection companies to find manpower and material resources for basic R&D. Applied R&D includes:

**From principles to technologies.** For some environmental protection technologies, while academics may understand the principle, environmental protection companies, including those in China, have no relevant engineering projects or experience. Usually, this kind of growth from scratch appears when environmental protection companies have just established or entered a new area. Domestic environmental protection companies mainly obtain their technologies from:

Focused more on applied R&D rather than fundamental research

- Science & technology institutions, other enterprises, overseas talent or in-house R&D. For example, Beijing Originwater Technology's MBR technologies originally came from the company's founder who acquired the expertise when he studied abroad and improved by continuing to introduce talent.
- Learning directly from foreign companies or buying them from other enterprises. For example, when Jiangsu Welle Environmental was just established, it bought domestic assets from its predecessor—a wholly-owned subsidiary of a German company—and obtained exclusive authorisation to use the German company's technologies.
- Industry-university-research institute cooperation: Through cooperation with universities, using projects as a platform and research jointly; or asking universities or related research institutions to undertake a research project and paying the research costs, usually the environmental protection company will then have the right to apply for the patent.

**Table 7: Environmental protection companies and their cooperating universities/science & technology institutions**

| Environmental engineering company | Main cooperating universities/science & technology institutions   |
|-----------------------------------|---|
| Originwater Technology            | Tsinghua University, Chinese Academy of Sciences and the Commonwealth Scientific and Industrial Research Organisation |
| Motimo Membrane Technology        | Tianjin Polytechnic University  |
| CEC Environmental Protection      | Nanjing University, Environmental Science Research Institute of Jiangsu Province                                      |
| Welle Environmental               | Nanjing University, Environmental Science Research Institute of Jiangsu Province                                      |
| Yonker Environmental Protection   | Changsha University of Science and Technology, Hunan University   |

Source: Company data

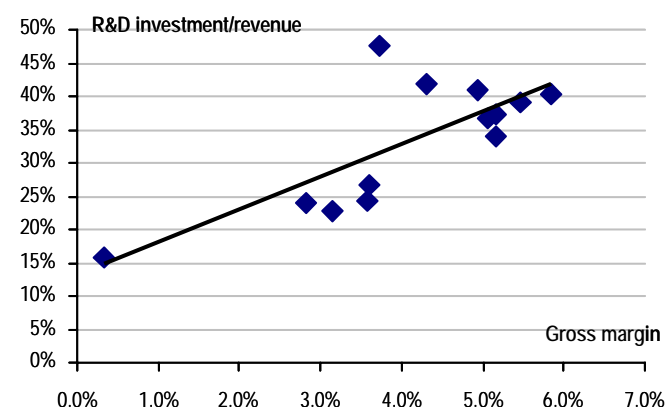
**Upgrade and improvement of technologies.** China's environmental protection companies and environmental protection market are relatively young, and these companies often need to improve their technologies according to the characteristics of the domestic market and clients, as well as past engineering experience. Some breakthroughs result in patents or proprietary technologies, and data accumulation should help subsequent R&D, including undertaking scientific and technical projects from the government or drafting sector technical standards. This works should help these companies build their reputation and prestige in the sector, and make their marketing easier.

## R&D and company earnings

Empirical studies, which take the R&D investment/operating revenue ratio as the indicator measuring companies' R&D efforts, show that R&D investment is positively correlated with gross margins. Based on our understanding of relevant companies, we think this is mainly because:

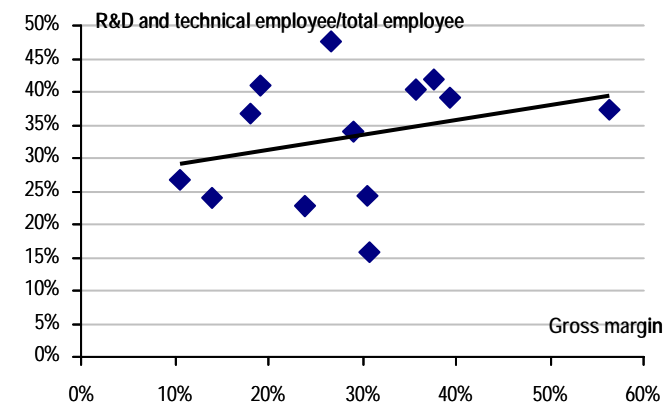
- Markets with relatively high gross margins usually have fewer competitors, that is, only a few companies that have leading R&D capabilities and technologies can be participants
- Companies lower their construction costs via R&D projects

**Chart 48: Environmental companies' R&D investment and their gross margins are closely related**



Source: Originwater Technology, Motimo Membrane Technology, CEC Environmental Protection, Safbon Water Service, Water Business Doctor, Welle Environmental, Fujian Longking, Feida Environmental Science and Technology, Kelin Environmental Protection Equipment, Yonker Environmental Protection, SPC Environment Protection, Longyuan Power Technology, and Sound Environmental Resources

**Chart 49: The number of technical employees at environmental protection companies relates to their gross margins**



Source: Originwater Technology, Motimo Membrane Technology, CEC Environmental Protection, Safbon Water Service, Water Business Doctor, Welle Environmental, Fujian Longking, Feida Environmental Science and Technology, Kelin Environmental Protection Equipment, Yonker Environmental Protection, SPC Environment Protection, Longyuan Power Technology, and Sound Environmental Resources

Measured by R&D employee/total employee ratio, companies' R&D investment is somewhat positively correlated with their gross margins, but the correlation is relatively weak. Based on our understanding of relevant companies, we think the conclusion may be distorted by the following factors:

- Companies responsible for project operations need a significant number of on-site employees, which reduces the weighting of R&D employees. However, the gross margin for project operation is usually higher than for engineering work.
- Environmental protection companies combine R&D employees with technical employees in their financial statements, that is, some 'R&D technical employees' are actually providing technical support for their projects. They belong to the project building team and do not participate in R&D.

## The software sector

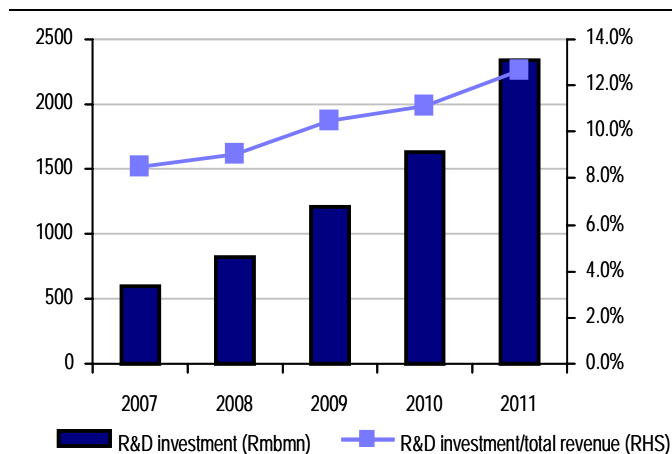
China's software service companies have continued to increase their R&D investment over the past five years, with growth in both absolute investment and R&D investment/revenue ratios. Stronger R&D improves employee productivity. However, the R&D investment of domestic companies is still behind that of major foreign companies. For China's software service companies, we think utilising this key period of technological evolution in the software sector and taking advantage of China's demographic and technological dividend will help increase their innovation potential and effectively narrow the gap between Chinese and overseas companies in terms of R&D strength.

**Software sector: a laggard but with significant potential**

### Increasing R&D inputs lead to improving productivity

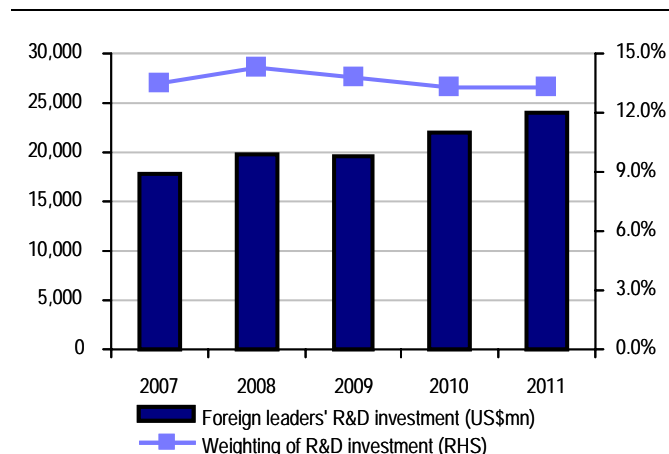
We selected 37 listed software service companies that have consecutive data and see growth in absolute R&D investment, the weighting of R&D investment, and the scale of their R&D teams. In 2007, these companies only invested Rmb590m in R&D, accounting for 8.4% of their aggregated operating revenue; in 2011, their R&D investment increased to Rmb1.62bn, or 12.6% of their aggregated operating revenue. Meanwhile, the number of R&D employees in China's listed companies almost doubled in the same period, indicating a continuous improvement in domestic enterprises' R&D strength.

**Chart 50: R&D investment and R&D investment/revenue ratio of China's software service companies are rising**



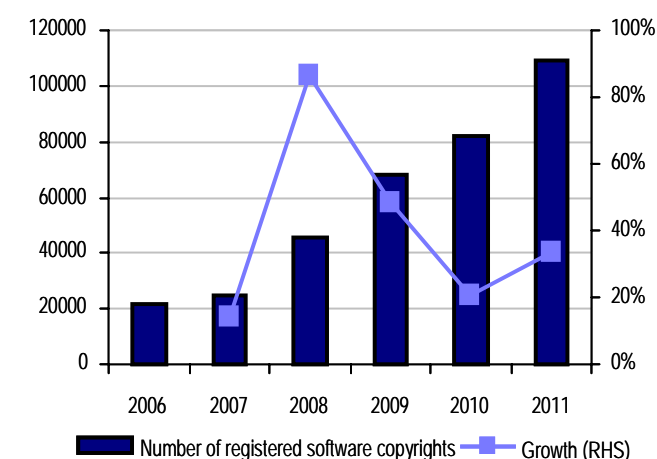
Source: Company data, UBS estimates

**Chart 51: Foreign leaders' R&D investment/revenue ratio is high and relatively stable**

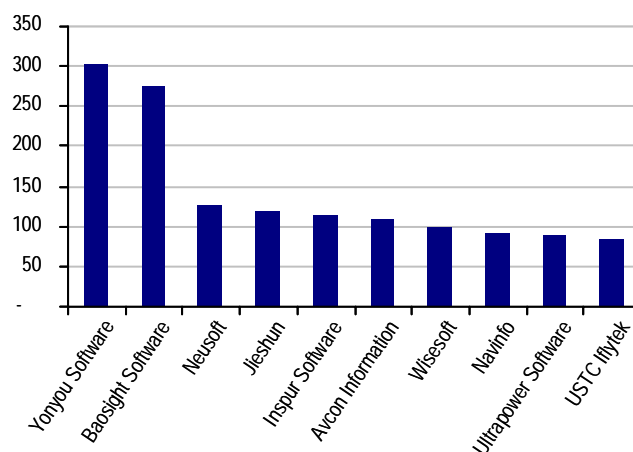


Source: Company data (we choose 23 companies that have consecutive data from 91 listed companies)

As R&D efforts have ramped up, China's registered software copyrights have risen rapidly to over 100,000, with a CAGR of 38% in 2007-11. Domestic software companies' patent applications are closely related to their R&D efforts. Sector leaders, such as Yonyou, not only have higher R&D investment, but also more R&D output. As at January 2013, Yonyou had applied for 304 patents, ranking first among listed software producers, while China's listed software companies had applied for over 2,600 patents, with nearly 2,000 (74% of total applications) invention patents, indicating that innovation accounts for a large part of these companies' R&D.

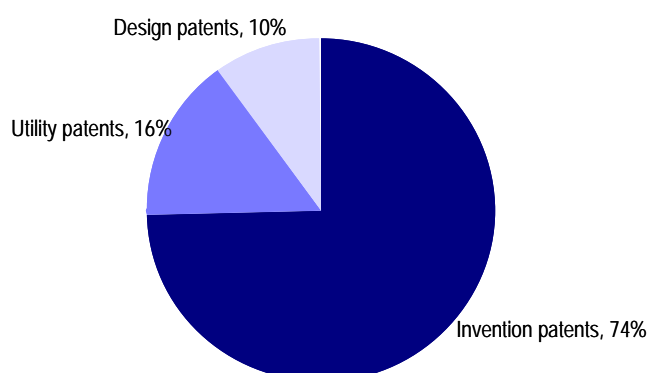
**Chart 52: China's software copyrights rise rapidly to over 100,000 in 2011**

Source: Company data, Copyright Protection Center of China

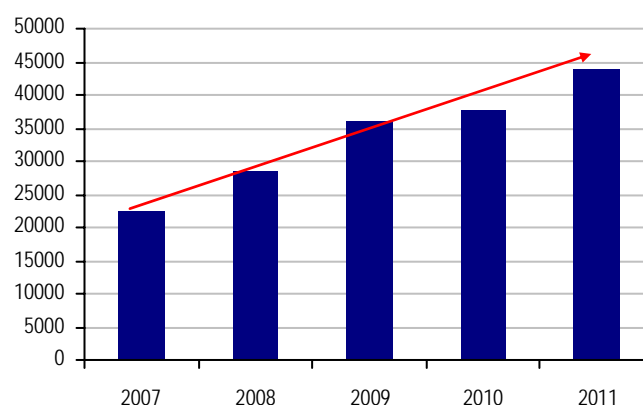
**Chart 53: Domestic leaders, such as Yonyou, have more patent applications**

Source: Company data, State Intellectual Property of China

Led by robust R&D, employee productivity at China's listed software producers has improved, with per capita net profit rising from Rmb49,000 in 2007 to Rmb61,000 in 2011.

**Chart 54 Patents applied by China's listed software producers are mainly invention patents**

Source: State Intellectual Property of China (as at January 2013)

**Chart 55: China's listed software service companies continue to improve their R&D strength and increase R&D staff**

Source: Company data (Unit: Rmb10,000)

### Still significant gap with global leaders, from both an absolute and relative perspective

For leading software service providers overseas (we selected 38 companies in Europe and the US), the R&D investment/total operating revenue ratio has remained steady at around 13%, with significant absolute investment. For example, Microsoft's R&D investment/total operating revenue ratio was 13.8% in 2007-11, with R&D investment in 2011 of US\$9.8bn (around Rmb60.8bn), while the aggregated R&D investment of China's listed software service companies was around Rmb4bn, implying a noticeable gap between foreign and domestic companies in terms of the absolute value of R&D investment. However, the absolute value and weighting of Chinese companies' R&D investment has continued to rise over the past five years, which is narrowing the gap between domestic companies and foreign sector leaders.



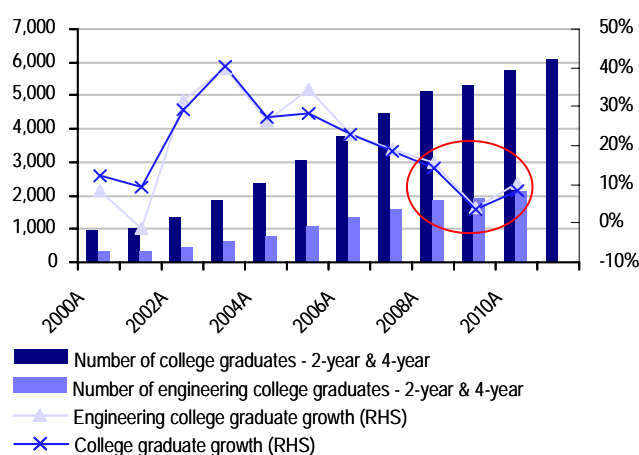
Chinese companies are also lagging major overseas firms in terms of employee productivity. This is mainly because domestic companies are mostly engaged in system integration and customised development, which requires more human resources and has lower productive efficiency, while big overseas companies which are mainly engaged in standardised software distribution and service. However, some domestic companies have begun to try the business model of 'standardised software distribution + maintenance service' as their products are maturing, which should help improve their employee productivity.

### Technology evolution and demographic dividend likely to narrow the R&D gap

The software sector is currently undergoing a transformation from the traditional business model of providing software packages to cloud platform and services. If Chinese companies can direct their investment correctly, they should be able to narrow the R&D gap with foreign sector leaders against the background of new technologies. Meanwhile, domestic talent supply is relatively sufficient and low cost. While salaries have risen, the average annual salary in China's software sector was only Rmb108,000 in 2011. We think domestic software producers are likely to improve their R&D strength by utilising the demographic dividend in the technology sector.

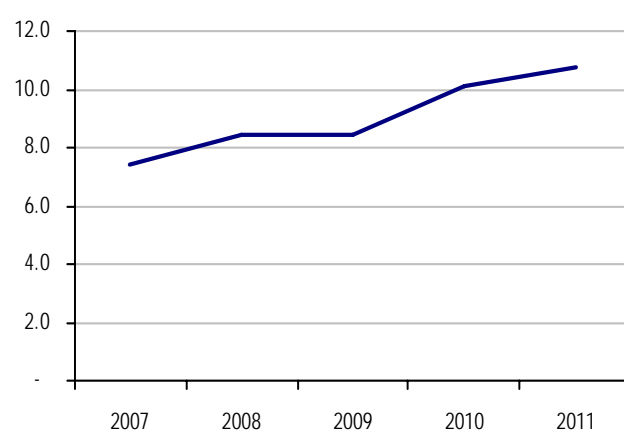
Now in a transformation period

**Chart 56: Growth in engineering college graduates is slightly higher than that of 2-year and 4-year college graduates, becoming an important talent source for the software sector**



Source: CEIC, UBS estimates (Unit: '000 people)

**Chart 57: Talent costs in China's software sector are relatively low, which should help domestic companies' R&D investment maintain high cost performance**



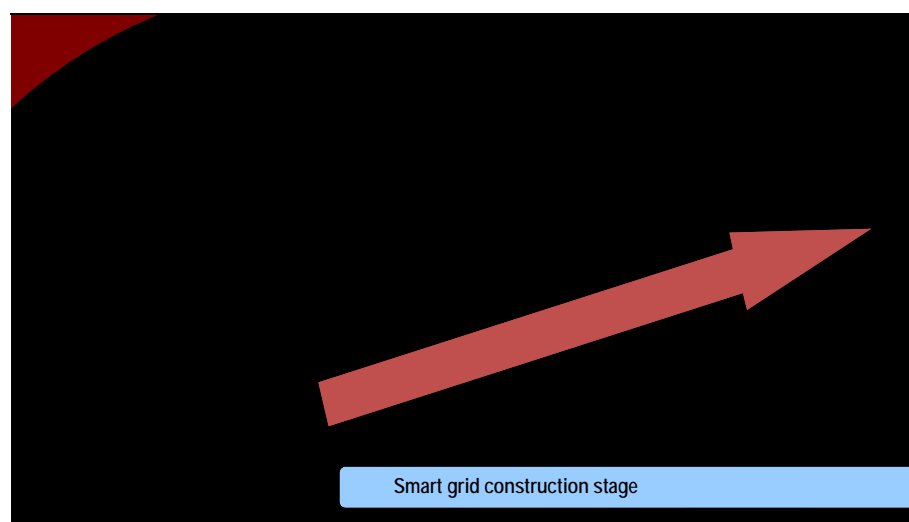
Source: Company data (Unit: Rmb10,000)

## The power equipment sector

**Further technology upgrades by Chinese secondary power equipment producers likely.** After building a traditional grid, China has begun large-scale smart grid construction, which requires new technology and a better performance from secondary equipment. We expect China to invest around Rmb65bn in secondary equipment each year during the 12th Five Year Plan (FYP) period (including the integration of primary and secondary equipment), 160% more than the Rmb25bn in the 11th FYP. We think China's secondary equipment producers will further improve their technical strength and innovation and R&D abilities when China's smart grid construction is fully underway. We expect China's secondary technology in some fields to have more technical advantages and better competitive strength after technology upgrades by Chinese producers over the next 10 years. We also think the technology upgrades are likely to help Chinese manufacturers gradually gain market share in a high value-added and profitable market that is dominated by developed countries, helping Chinese companies expand in overseas markets via the 'technology for market share' strategy.

Power equipment sector: unique R&D strength in secondary power equipment industry

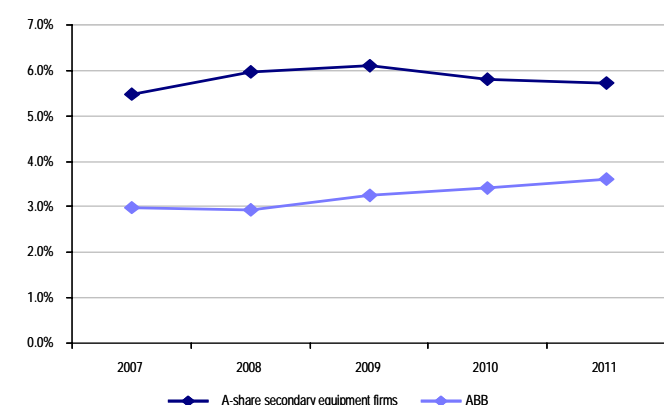
Chart 58: China's large-scale construction of smart grid in full swing



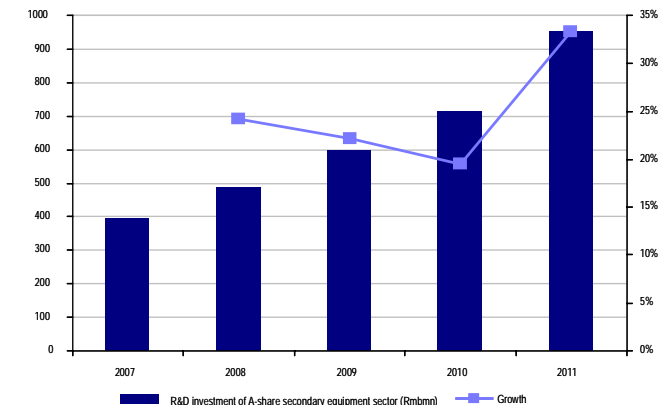
Source: UBS estimates

### Heavy R&D investment in secondary power equipment

**The R&D investment/revenue ratio in China's secondary equipment sector is higher than leading multi-national companies.** The R&D investment/revenue ratio of A-share listed secondary equipment producers remained stable (at around 5%-6%) in 2007-11, slightly higher than the 3%-4% of ABB, the foreign sector leader.

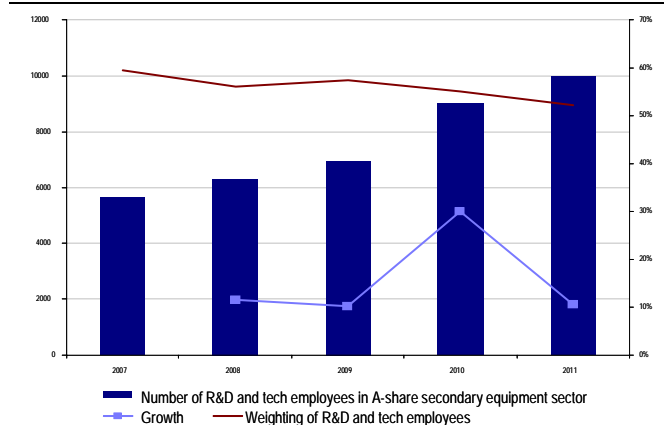
**Chart 59: R&D investment/revenue ratio of A-share listed secondary equipment producers was higher than that of ABB**

Source: Wind, Bloomberg

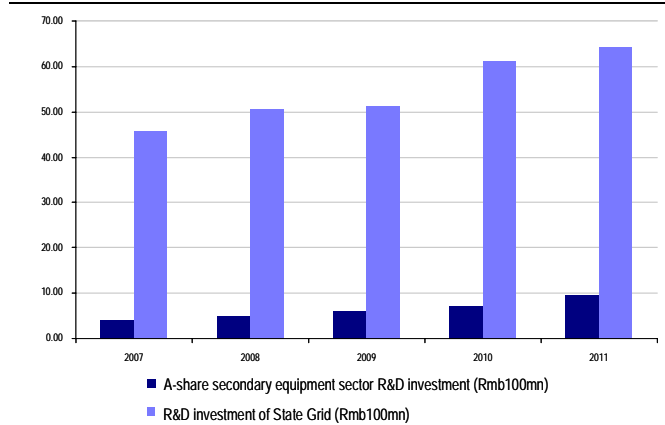
**Chart 60: R&D investment of A-share listed secondary equipment producers rose faster**

Source: Wind

**Constrained by scale, the aggregate R&D investment of China's secondary equipment sector is relatively small, but with higher growth.** In 2011, the R&D investment of A-share listed secondary equipment producers was only Rmb950m, much lower than ABB's US\$1.37bn. We think this is mainly because the scale of Chinese companies' business is smaller. However, we believe Chinese secondary equipment producers' R&D investment grew 25% annually in 2007-11, indicating significant upside potential as these companies grow.

**Chart 61: Over 50% of employees at secondary equipment producers are R&D and technical employees**

Source: Wind, Bloomberg

**Chart 62: Listed companies' R&D investment is much lower than that of power grid companies**

Source: Wind

**Chinese secondary equipment producers are typical technology-driven companies, with R&D and technical employees accounting for over 50% of their total employees.** We think secondary equipment manufacturing is a typical technology-driven sector as it has high value-added software and technologies, substantially differentiated customised products, and highly important after-sales service and system upgrade. R&D and technical employees account for over 50% of total employees at A-share listed secondary equipment producers. In 2007-11, A-share listed secondary equipment companies' R&D employees increased by 15% annually, lower than the 25% of R&D investment, mainly as salaries of R&D employees increased. However, the average annual wage of these employees is still below Rmb100,000.

## R&D efforts are underestimated

**Listed companies' R&D is more focused on applications, and they do not need to overly invest in basic R&D.** In the development of China's secondary equipment technology, exploratory and basic R&D at the fundamental level is carried out by power grid companies' scientific research subsidiaries. Listed companies put more effort into applications and improving product performance, which means the latter does not need to overly invest in basic R&D. While power grid companies' significant R&D investment greatly boosts development of China's secondary equipment technologies, this kind of R&D investment is not included in the financial statements of listed companies.

**China is a vast test site and a great number of after-sales and repair costs are not included in R&D investment.** The government and power grid companies provide support for equipment producers in the development of China's secondary equipment technology. For example, power grid companies tolerate lower power supply quality to test new equipment. Therefore, we think a significant amount of after-sales and repair costs are included in sales expenses or shared by power grid companies, resulting in the underestimation of R&D investment.

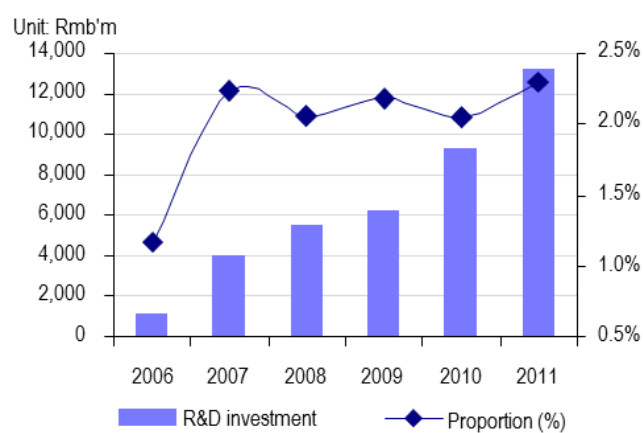
**R&D employee salary is relatively low at Chinese secondary equipment companies, leading to smaller R&D investment.** As a technology intensive sector that focus on R&D, salary of R&D employees represents a large part of secondary equipment producers' R&D investment. We estimate that average annual salary of these R&D employees is still below Rmb100,000 despite wage increases over the past few years, which is clearly lower than their peers in developed countries. We think lower R&D employee salaries drag down the absolute value of R&D investment at Chinese secondary equipment producers, which does not reflect their actual technical achievements.

## The machinery sector

The strength of Chinese companies lies in transforming and upgrading according to specific domestic operating conditions and customer needs in order to develop new products. As domestic equipment companies have yet to establish comprehensive testbeds, they are not putting new products through comprehensive performance tests, so in the initial stage, the equipment are prone to failure. However, domestic companies have huge capabilities to improve in order to tackle the problem. 90% of domestic companies' R&D expenses are used for experimental research, which is on the improvement of application performance.

**Machinery sector: driven by the demand from customers to develop new products**

Chart 63: R&D investment of machinery companies

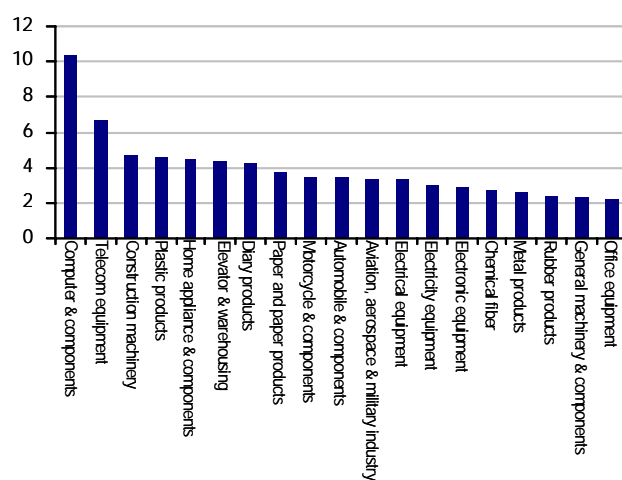


Source: Wind

Since 2006, the machinery sector has significantly increased its R&D investment and achieved remarkable results. From the R&D investment perspective, listed machinery companies' R&D investment as a percentage of revenue increased from 1% in 2006 to 2.5% in 2011, and R&D expenses increased from Rmb1bn to Rmb13bn.

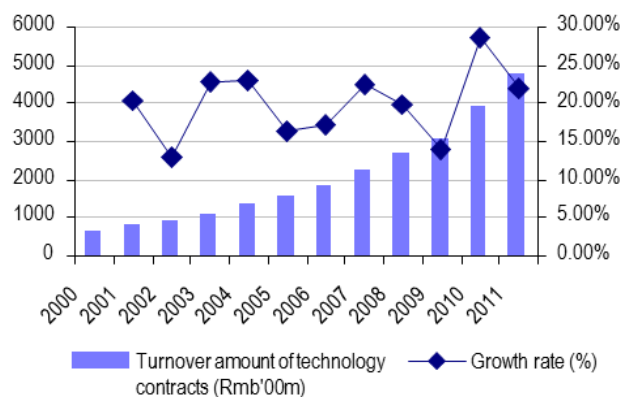
From the perspective of R&D results, new products increased their share in total output value from 15% to 18% at medium and large-sized industrial companies. Turnover of technology contracts increased from Rmb100bn in 2003 to nearly Rmb500bn in 2011, at an average annual growth rate of about 20%.

Chart 64: R&D expenses per capita of top 500 Chinese machinery companies by sub-sector (Rmb 10,000's)

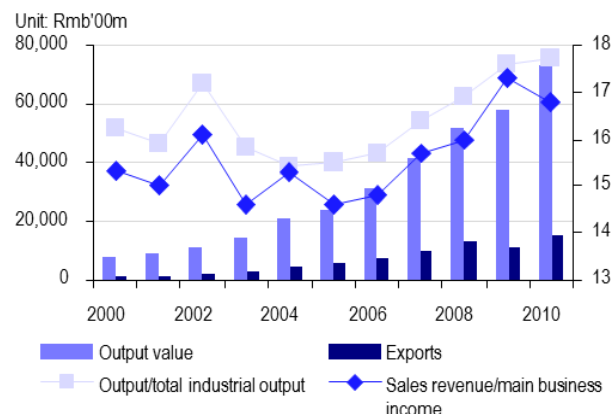


Source: Wind

**Since 2006, the machinery sector has significantly increased its R&D investment**

**Chart 65: No. of transactions and turnover amount of technology contracts in China since 2000**

Source: Wind

**Chart 66: New products' output value and their share at medium and large-sized industrial companies**

Source: Wind

In machinery sub-sectors that are more engineering in nature, such as coal, fracturing equipment, and construction machinery, Chinese companies have basically reached international standards. We believe the main reasons are: 1) through mapping and modeling, they apply reverse engineering in order to make prototypes to solve basic application problems; 2) as the largest machinery market is in China where the application conditions are the most complex, they have the most improvements and innovations for product applications;

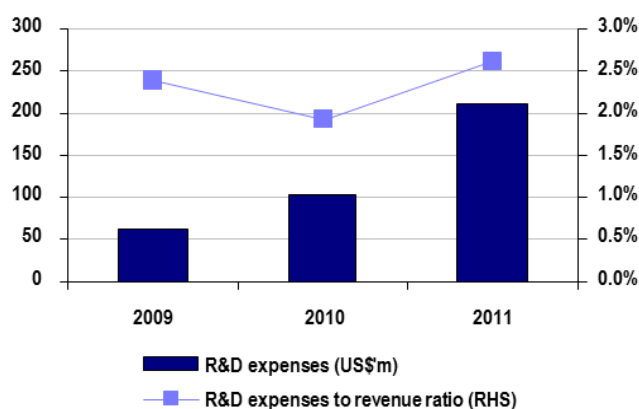
In areas that are more automated in nature, such as industrial robots, CNC machine tools, and well logging instruments, there is a large gap between Chinese companies as a whole and international standards. We believe the main reasons are: 1) it is difficult for reverse engineering to achieve replication and imitation; 2) automation must be combined with industrial applications, but there are great differences between different industries, and in-depth understanding of the needs of each industry is required while cross-industry applications are difficult; 3) as labour costs have been low over the past few decades, business owners have no urgent needs for automation.

## The construction machinery sector

In the past two decades Chinese construction machinery sector has developed from an initial phase of import substitution to one of increasing exports. We believe the narrowing gap between Chinese construction machinery companies and international companies in terms of product technology is an important reason for the rapid development of domestic companies. The limited information available shows leading domestic construction machinery companies, such as Sany Heavy Industry (Sany) and Zoomlion Heavy Industry (Zoomlion), quickly increased their R&D expenses as their revenue improved. Sany and Zoomlion's R&D expenses were US\$63m and US\$28.38m in 2009, and increased to US\$211m and US\$61.59m by 2011. Their R&D expenses as a percentage of revenue were 2.61% and 0.83%, respectively.

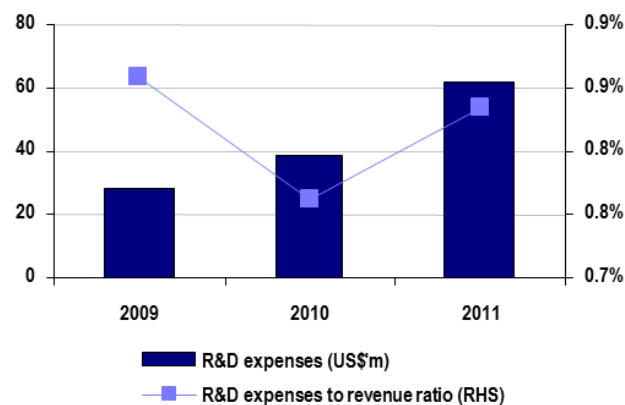
**Construction machinery: two decades of development—from import substitution to rising exports**

Chart 67: Sany's R&D expenses



Source: Bloomberg

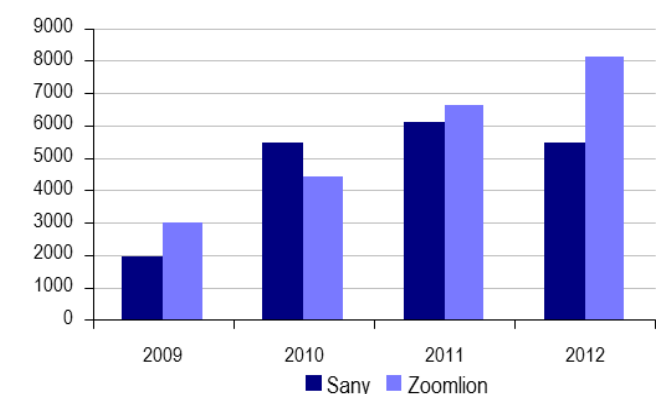
Chart 68: Zoomlion's R&D expenses



Source: Bloomberg

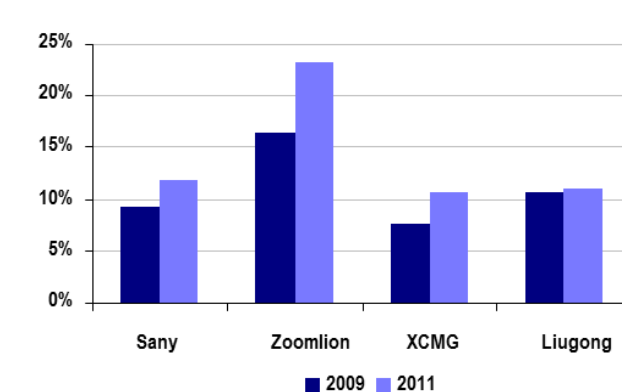
Correspondingly, there were increases in the number of R&D personnel. Sany, Zoomlion, XCMG, and Liugong increased their number of R&D personnel from 1,967/3,015/905/1,048 in 2009 to 6,111/6,676/1,763/1,464 by the end of 2011. Their proportions of R&D personnel as a percentage of employees also increased significantly. Meanwhile, the quality of their R&D teams improved. Staff with a Masters or higher degree accounted for 64.80%/20.81%/25.68% of Sany/Zoomlion/Liugong's entire R&D teams at end 2011.

Chart 69: Number of R&amp;D personnel at Sany and Zoomlion



Source: Company data

Chart 70: Increase in the proportion of R&amp;D personnel as a percentage of employees



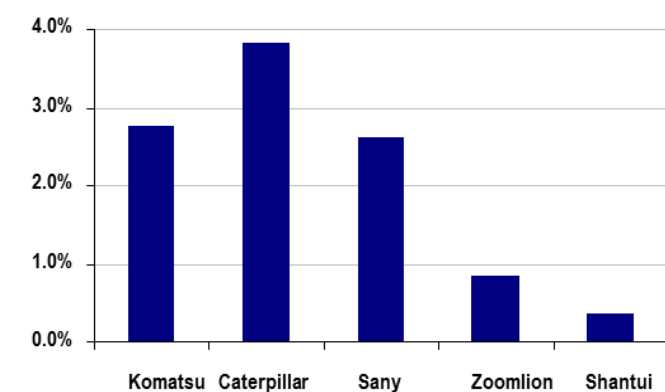
Source: Company data

## Still a gap with international giants

Compared with international giants such as Caterpillar and Komatsu, domestic construction machinery companies still have a wide gap to fill in terms of R&D investment, in absolute terms or relative revenue share. Caterpillar's 2011 R&D expenses amounted to US\$2.297bn, or 3.82% of its revenue. Its R&D expenses were 11 times and 37 times those of Sany and Zoomlion. Also, in terms of the authorisation of patents, despite a rising number of newly authorised patents, the proportion of invention patents is still limited. For example, XCMG had 339 newly authorised patents in 2011, only 18 of which were invention patents.

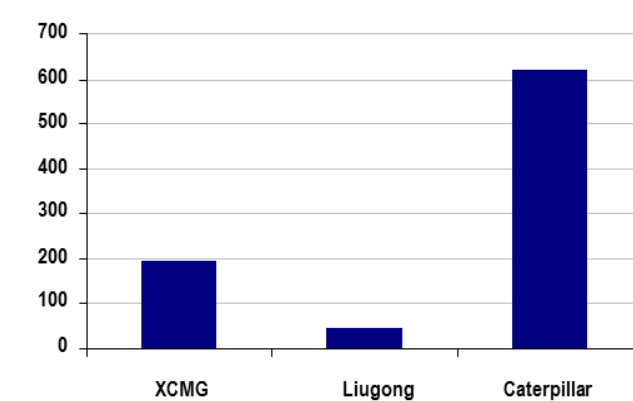
Still lagging behind major foreign machinery companies

Chart 71: Comparison of R&amp;D expense ratios of major domestic and foreign construction machinery companies



Source: Bloomberg

Chart 72: Number of patents obtained by construction machinery companies in 2010



Source: Company data



## The coal machinery sector

**R&D in coal machinery in China can be divided into three stages.** In the 1960s-1980s, mainly under the planned economy, several government-designated enterprises were producing coal machinery. For example, Jixi Coal Mining Machinery Factory was mainly making coal mining machines and Zhengzhou Coal Mining Machinery Factory was making supports. R&D in coal machinery was also concentrated among these state-owned enterprises. In the 1990s, a substantial amount of private capital entered the coal machinery sector and R&D in coal machinery also shifted from state-owned enterprises to private enterprises. R&D at this stage was dominated by the introduction of overseas equipment and imitation manufacturing. After 2000, China's coal machinery sector began to move from the pure imitation stage into the independent innovation stage and overall, it has surpassed overseas companies in terms of R&D.

**Coal machinery: the performance of domestic coal machinery equipment has reached international advanced levels**

### At an advanced level in terms of product performance

Currently, imported coal machinery products only have a 3-5% market share in China. The majority of coal machinery is produced domestically. And domestic key component makers and system integrators have achieved import substitution on a large scale.

- Among the machinery products classified under 'three machines and one support', China has the strongest technical capabilities in hydraulic support, whereby it is already at a world-class level in terms of supporting height and work resistance, and its share in overseas market is also expanding;
- For boring machines, China is already producing high-power whole-rock and half-rock boring machines with international advanced level performance;
- Integrated mechanised coal mining technology has reached an advanced global level, with a small number of companies capable of producing complete sets of high-technical-standard mechanised mining equipment with annual capacity of 6m tonnes of coal, as well as 1800kw high-power electrical traction coal winning machines. For example, the world's largest shaft boring machine and coal washing equipment that can process 4m tonnes of coal/year, are at or approaching advanced global levels.

The main difference between domestic and foreign coal machinery equipment is reflected in their manufacturing standards. Relative to foreign products, the reliability and service life of domestic equipment are still lagging behind. Overall, we believe the performance of domestic coal machinery equipment has reached advanced global levels.

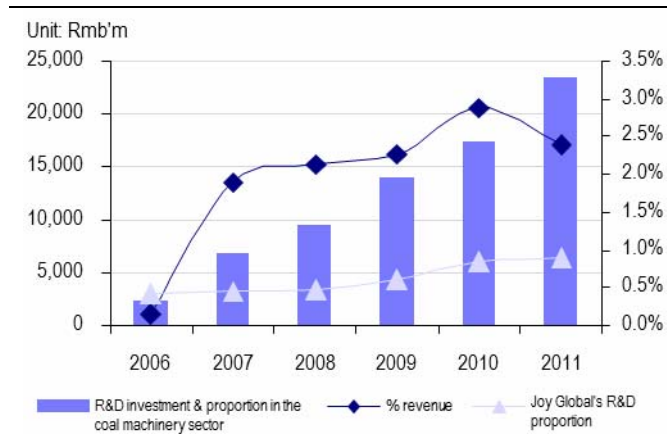
## R&D capability ahead of global peers

While its coal machinery has reached international advanced levels in terms of performance, China's coal machinery companies have surpassed their international counterparts in terms of R&D capability.

China's coal machinery companies have surpassed their international counterparts in terms of R&D capability

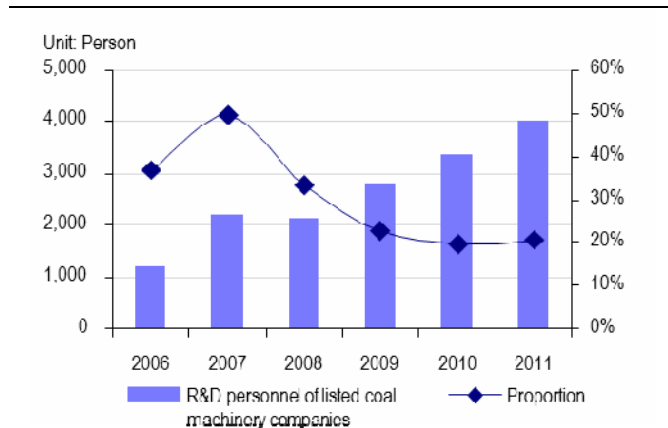
- **In terms of R&D investment**, listed domestic coal machinery companies increased their R&D investment as a percentage of revenue from 0.16% in 2006 to 2.41% in 2011. R&D investment was approximately Rmb600m in 2011. In 2011, the world's largest coal machinery company JOY invested about Rmb250m in R&D, or 0.92% of its revenue. In the coal machinery sector, R&D personnel accounted for approximately 20% of the total number of employees, and listed companies used 10-20% of their financing proceeds for R&D investment, which also shows that domestic coal machinery companies attach great importance to R&D.

Chart 73: R&D investment and proportion in the coal machinery sector (versus JOY)



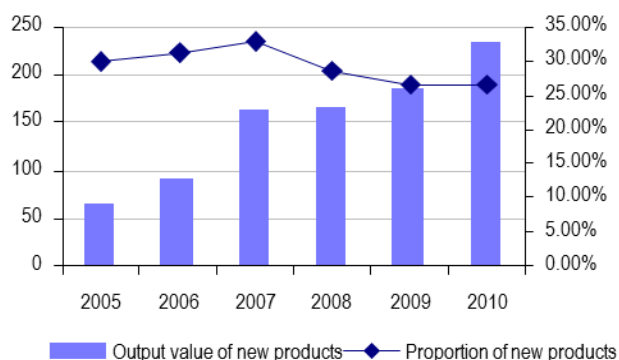
Source: Joy Global, Wind

Chart 74: R&D personnel and proportion in the coal machinery sector

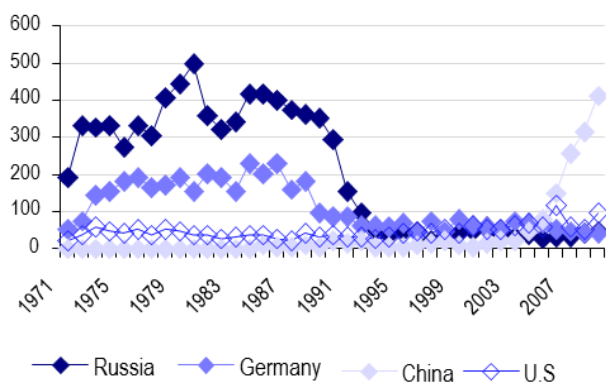


Source: Wind

- **In terms of R&D achievements**, the number of patent applications submitted by the domestic coal machinery sector has been growing rapidly since 2004. From 2007, China's patent applications have accounted for more than half of those submitted globally, with the annual number exceeding the total number of patent applications of all other countries.
- **In terms of R&D products**, the output value of new products in the coal machinery sector as a percentage of GDP has remained at 25-30%.

**Chart 75: Output value of new products and proportion in the coal machinery sector**

Source: Wind, company data

**Chart 76: Number of patent applications in the coal machinery sector by major countries**

Source: National Patent Office

**Why domestic coal machinery companies have been able to surpass overseas competitors in terms of product performance and R&D capabilities:** We believe there are three reasons for this: 1) China has the largest coal output and is the world's largest market; 2) China's coal mining conditions are the most complex, particularly for thick coal seams, thin coal seams, large angle of inclination, and soft coal seams, while overseas countries have relatively homogeneous coal seams; and 3) coal machinery has high requirement in terms of mechanical property but a low requirement in terms of automation property. China's strengths lie in its large number of engineers and relatively more in-depth research on mechanical engineering principles.

Domestic coal machinery companies have been able to surpass overseas competitors in terms of product performance and R&D

# The oil & gas equipment sector

## Some equipment is close to global standards

Domestic companies have reached international standards in terms of R&D capabilities in oil & gas equipment such as drilling rigs and oil extraction machines. For example, over 70% of Honghua's CNC drilling rigs are exported to the North American market.

With regard to fracturing equipment, foreign fracturing equipment has been brought in since 2000. On the basis of introduction and assimilation for domestic R&D, since 2006, domestic fracturing equipment has fully replaced imported equipment and began bulk exports to foreign markets. For example, Jereh's fracturing trucks are exported to the American market on a large scale.

Currently, there are gaps between domestic and foreign drilling rigs and fracturing equipment, mainly in terms of reliability and automation. Domestic products' reliability and degree of automation are yet to catch up with foreign products.

## High-tech equipment still far behind international peers

In the field of down-hole tools, domestic producers are very scattered, including SJS Limited, a joint venture between Chinese JHPA and American SERVA group, and Shelfoil Petroleum Equipment & Services, owned by SINOPEC Research Institute of Petroleum Engineering Technology. Most domestic down-hole companies are international companies and other domestic OEM manufacturers.

For well logging instruments, major producers are GI Technologies, PetroChina's PetroChina Logging Company, and Shengli Weiye, but their products are relatively simple. High-end products are mainly imported.

There are three main reasons for the big gap between domestic and foreign logging instruments, in our view: 1) reverse engineering is difficult to replicate, and logging instruments are an integrated discipline that rolls many different disciplines (acoustics, optics, electricity, nuclear, magnetism) into one; 2) there is a long R&D cycle: each generation of products, from launch to upgrading, needs at least a decade and requires a lot of down-hole test trials; and 3) the weak foundation of technical expertise. In North America, down-hole tools and new logging instruments are developed along with shale gas, while in China, technical expertise in this area is weak and accumulated technology is limited.

## Underestimated R&D expenses and development potential

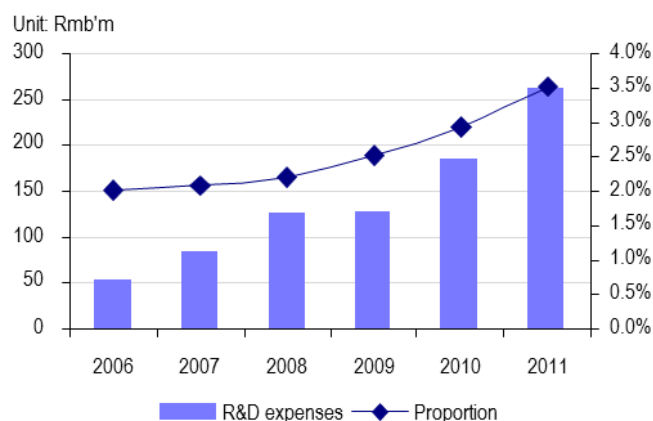
In terms of the absolute amount of R&D investment, listed domestic oil & gas equipment companies' 2011 R&D investment totalled about Rmb250m. And for overseas companies, CAM's 2011 R&D investment alone exceeded US\$60m. There is still a large gap between domestic and overseas companies.

Oil & gas equipment sector: domestic companies have reached international standards in terms of R&D capability

Looking at the absolute amount of R&D investment alone will underestimate China's R&D investment and development potential in the field of oil & gas equipment, mainly because: 1) 30% of the oil & gas equipment market is concentrated in the hands of PetroChina and Sinopec, and they have significant R&D expenses; 2) many types of oil & gas equipment are non-standard products, designed according to the specific circumstances of the customers, and the related design costs are included in the product costs; 3) listed domestic oil & gas equipment companies are relatively small, and their R&D expenses are not high in absolute terms.

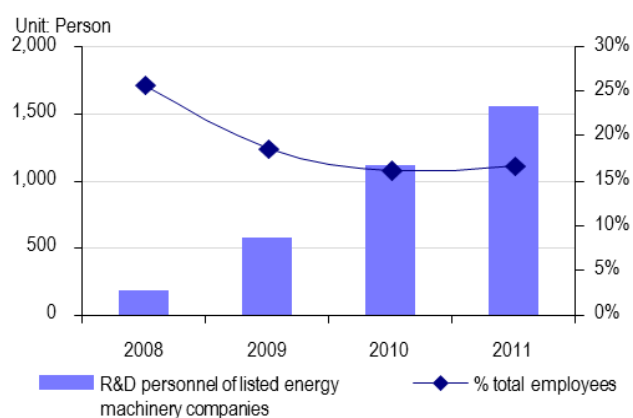
Comparing their proportions of R&D investment, we can see domestic enterprises' emphasis on R&D and the potential. Domestic oil & gas equipment companies' R&D investment proportion increased from 2% in 2006 to 3.5% in 2011, while that of their foreign counterparts was generally about 0.5%-1%. Some 25%-30% of oil & gas equipment companies' IPO proceeds were used for R&D investment.

**Chart 77: R&D investment and proportion of domestic oil & gas equipment companies**



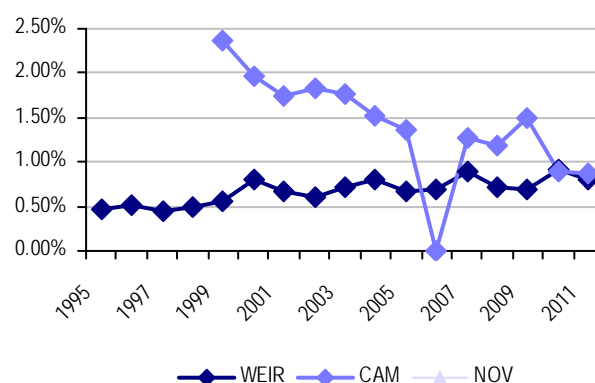
Source: Wind

**Chart 79: R&D personnel and proportion in the oil & gas equipment sector**



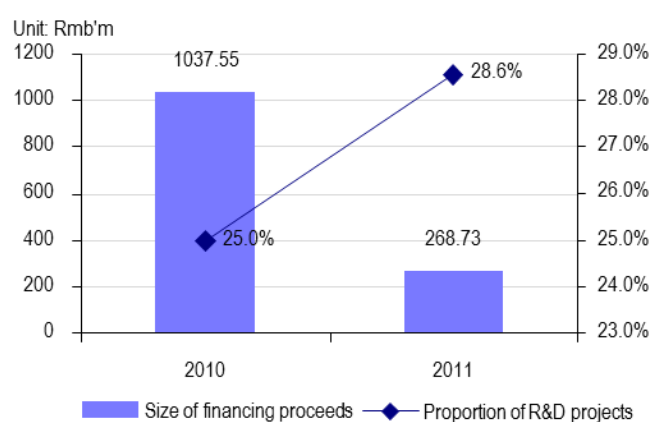
Source: Wind

**Chart 78: R&D investment proportion of several typical international oil & gas equipment companies**



Source: Wind

**Chart 80: Size of financing proceeds and R&D investment & proportion in the oil & gas equipment sector**



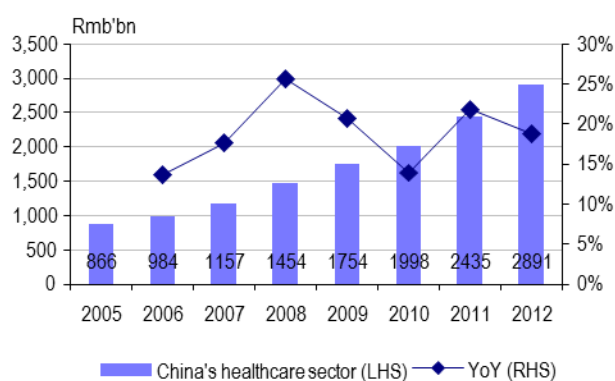
Source: Wind

## The healthcare sector

China's rapid economic development and improving strength in basic science and technology provide the materials and technical basis for investment, R&D, and product upgrades in its healthcare sector, thus promoting the rapid development of the sector. Although R&D in China's healthcare sector is still in its infancy, with supportive policies showing results and companies accumulating and strengthening their R&D capabilities, we believe R&D in China's healthcare sector could move closer to advanced global standards.

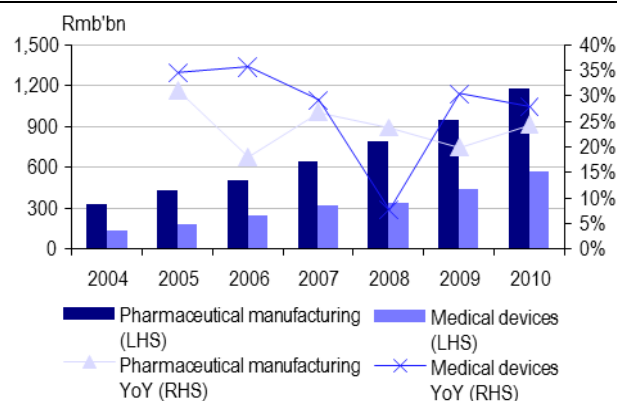
**Healthcare: still lagging behind global leaders**

**Chart 81: China's healthcare sector has grown rapidly**



Source: Ministry of Health

**Chart 82: Pharmaceutical manufacturing and medical equipment/device manufacturing developed rapidly**



Source: National Bureau of Statistics

## History of R&D in China's healthcare sector

The history of R&D in China's healthcare sector is divided into three phases:

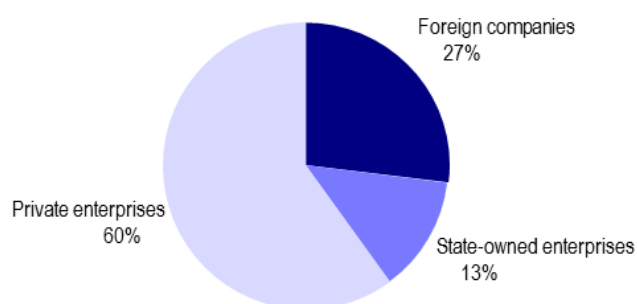
**Three phases of development of China's healthcare sector**

- 1949-1976: There was a lack of medicine in China; several state-owned enterprises designated by the government carried out production in the planned economy. With technological and investment constraints, there was only simple R&D on Western generic medicines and large-scale processing and applications of Chinese herbal medicine.
- 1976-2008: A gradual increase in the need for healthcare services resulted from China's rapid economic development. There was an urgent need for new products to complete the upgrading of the pharmaceutical sector. Both the country and companies were aware of the importance of innovation; cooperation between companies and research institutes began to get closer, with a number of new essential generic drugs and simple medical equipment and instruments being developed and successfully put onto the market. At the same time, the administrative system for the development of drugs and medical devices was improving and progressively becoming scientific.
- 2008–present: China's healthcare sector has been moving out of the stage of low-end imitation and entering a stage of high-end imitation, independent innovation and going global. However, compared to developed countries, there is still a wide gap.

## Domestic drug and medical device producers still lag behind international levels

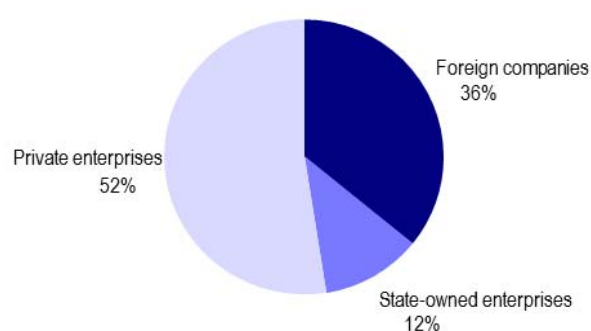
Looking at the overall situation of China's healthcare market, domestically produced drugs/medical devices accounted for a 73%/64% market share in 2012, far ahead of foreign products' 27%/36% share. However, market segment data shows that multinational pharmaceutical companies' products still account for more than a 60% market share in China's Grade-A tertiary hospitals (the highest-end medical institutions), while domestically produced drugs are mainly second-tier products covering low-end medical institutions. This shows that there is still a wide gap between domestic and foreign healthcare products. The main difference is reflected in R&D pipelines, manufacturing standards, and after-sales service. The efficacy, safety and stability of domestic products need to be improved. Overall, we believe the performance of domestic healthcare products is still lagging behind international advanced levels, which also means China's healthcare sector still has much room for growth, in our view.

Chart 83: Total output value proportions in the pharmaceutical manufacturing sector by company type, 2010



Source: National Bureau of Statistics

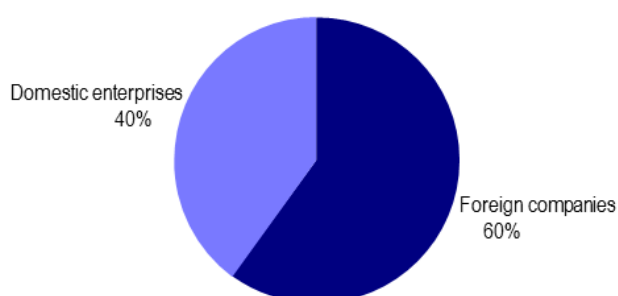
Chart 84: Sales proportions in the pharmaceutical manufacturing sector by company type, 2010



Source: National Bureau of Statistics

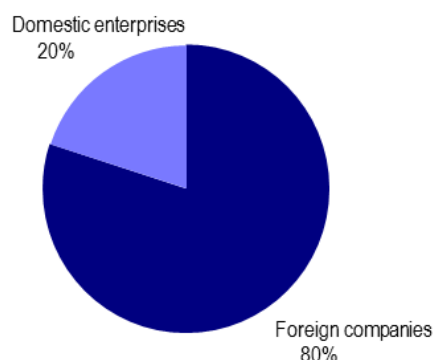
- **Drugs:** According to the National Bureau of Statistics, in 2010, foreign pharmaceutical companies accounted for 16% of the number of pharmaceutical manufacturing enterprises in China, but their total assets and total output value both accounted for 27%, and their gross profit accounted for as much as 31%. In Grade-A hospitals in the big cities, imported drugs, original drugs, and new special drugs accounted for about a 60% to 65% market share.
- **Medical Devices:** In the medical device sector, foreign companies accounted for 36% of output value, but in the high-end market, they accounted for more than 80%.

**Chart 85: Share of foreign companies in the high-end pharmaceutical manufacturing market**



Source: UBS

**Chart 86: Share of foreign companies in the high-end medical device market**



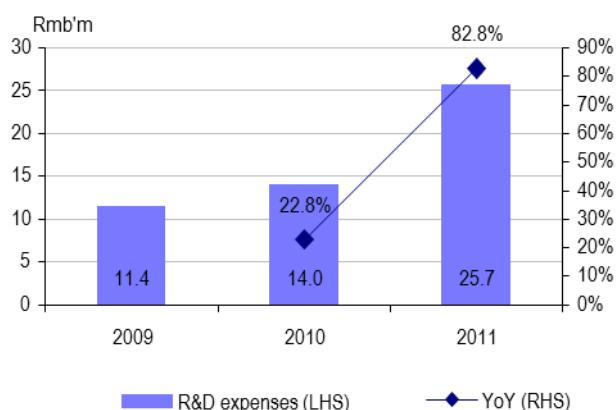
Source: UBS

### R&D capabilities are far behind leading international companies

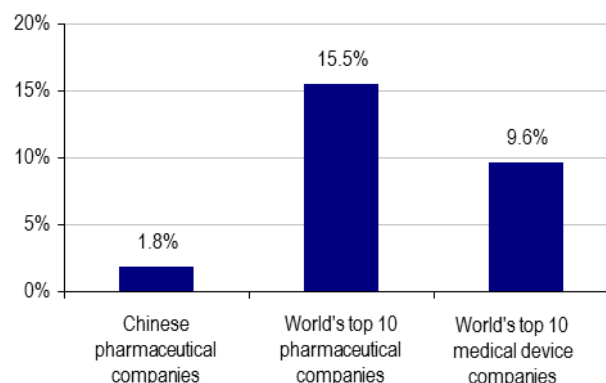
Compared with the product-driven healthcare markets in developed countries, China's domestic healthcare market is flooded with homogeneous products and there is a lack of patent-protected products. Therefore, it remains at the sales-driven stage. However, as the market mechanism improves and the country and companies realise the importance of innovation, domestic healthcare companies continue to increase investment in R&D, and their R&D capabilities are gradually improving.

- From an R&D investment perspective, although there is a substantial increase in investment, domestic companies still lag behind the investment levels of multinational companies. According to the National Bureau of Statistics, in the domestic pharmaceutical sector, above-scale companies' R&D investment as a percentage of revenue increased from 1.3% in 2009 to 1.8% in 2011, and the amount of R&D investment in 2011 totalled about Rmb25.7bn. The world's largest 10 pharmaceutical and medical device companies' 2011 R&D investment as a percentage of revenue were 15.5% and 9.6%, with investment totalling US\$68.5bn and US\$19.8bn. R&D personnel as a percentage of total number of personnel in the pharmaceutical manufacturing sector increased from 4.0% in 2009 to 6.8%. Listed companies used nearly 20% of their financing proceeds for R&D investment, which also shows domestic pharmaceutical companies attach great importance to R&D.

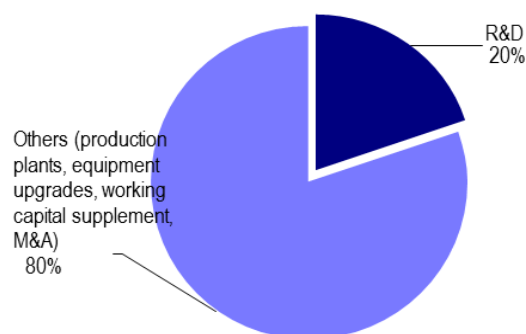


**Chart 87: Chinese pharmaceutical companies substantially increased their R&D investment, 2009-11**

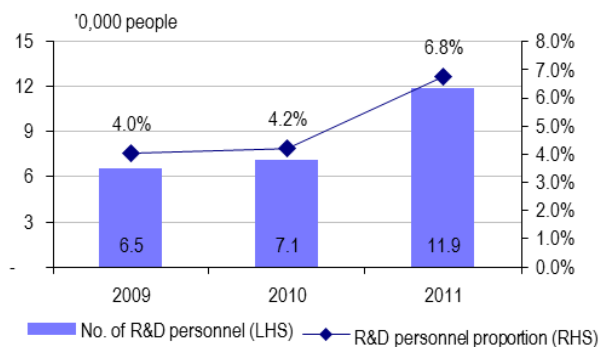
Source: China Statistical Yearbook on Science &amp; Technology

**Chart 88: 2011 R&D investment and proportion in the healthcare sector (versus leading global companies)**

Source: National Bureau of Statistics, Company data

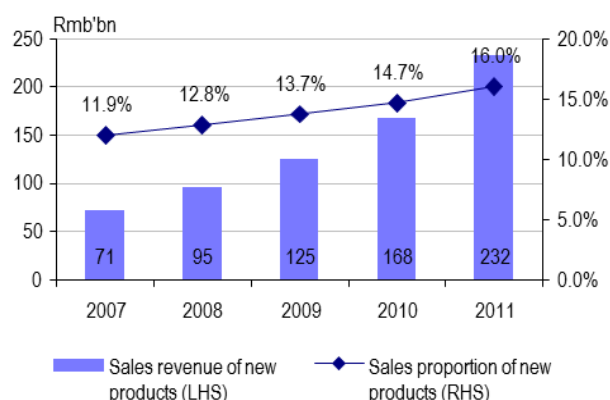
**Chart 89: Listed companies used nearly 20% of financing proceeds for R&D investment**

Source: UBS estimates

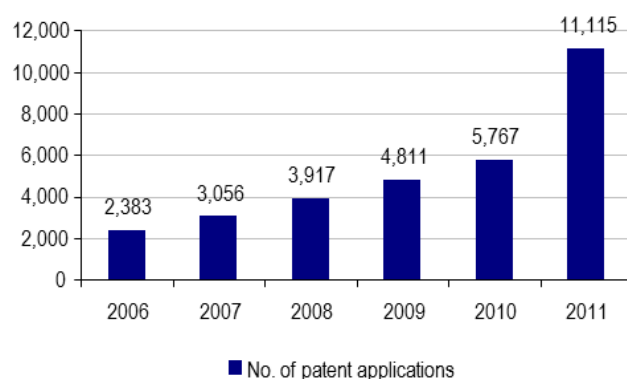
**Chart 90: R&D personnel and proportion in the pharmaceutical manufacturing sector, 2009-11**

Source: National Bureau of Statistics

- **In terms of R&D accomplishments**, the number of patent applications submitted by the domestic pharmaceutical manufacturing sector continued to grow, with a 2006-10 CAGR of 24.7%. There were 11,115 applications in 2011, an increase of more than 90% over 2010.
- **In terms of R&D products**, the output value of new products as a percentage of total output value in the pharmaceutical manufacturing sector steadily increased from 11.9% in 2007 to 16.0% in 2011.

**Chart 91: Output value and proportion of new products in the pharmaceutical manufacturing sector**

Source: National Bureau of Statistics

**Chart 92: No. of patent applications in the pharmaceutical manufacturing sector, 2006-11**

Source: National Bureau of Statistics

While the rapid growth in the number of new products and patents highlights the considerable progress made by China's pharmaceutical sector in terms of R&D, we should also recognise that many new Chinese products and patents lack ground-breaking and original techniques and technologies. Very few healthcare products developed in China are sold worldwide.

Market demand, pricing power and the level of R&D determine that the main R&D direction for China's healthcare sector is 'imitation + innovation':

- The main market for original products is high-end medical institutions. However, the acceptance level by professionals in high-end medical institutions for domestic innovative products is low. Domestically produced imported substitutes are more likely to be accepted.
- As domestic pricing and medical insurance reimbursement policies are not providing enough support, original products have greater market risks; 'imitation + innovation' products require less initial investment, so their market risks can be anticipated.
- Finally, as the R&D systems of domestic research institutions and pharmaceutical companies are still being established and the standards of R&D personnel are also gradually improving, we believe current R&D on original products is still relatively 'strong in willingness but weak in capabilities'.

## R&D trends in the domestic healthcare sector

Although currently there is a big gap between China's R&D in healthcare and the leading countries globally, we believe there are three reasons why China's R&D in healthcare can quickly develop: 1) with its substantial population showing an ageing trend, China will become the world's second-largest healthcare market before 2020, therefore domestic and international healthcare companies are increasing their investment in China, whereby localised R&D and products are the most important areas; 2) we believe as the broad-based growth (driven by state investment and health insurance coverage) of China's healthcare sector is nearing completion, future sector growth will increasingly depend on R&D, and new products and generations; local companies are generally beginning to realise the importance of R&D and are increasing their own R&D and collaboration with national research institutions; and 3) R&D in healthcare has high requirements for the quality of researchers, requiring a significant number of medical researchers but limited automation. China's strength lies in its large number of pharmaceutical R&D personnel and the spectrum of diseases and patient populations required for pharmaceutical R&D, and R&D in healthcare is cost-effective in China.

## R&D trends in the domestic healthcare sector

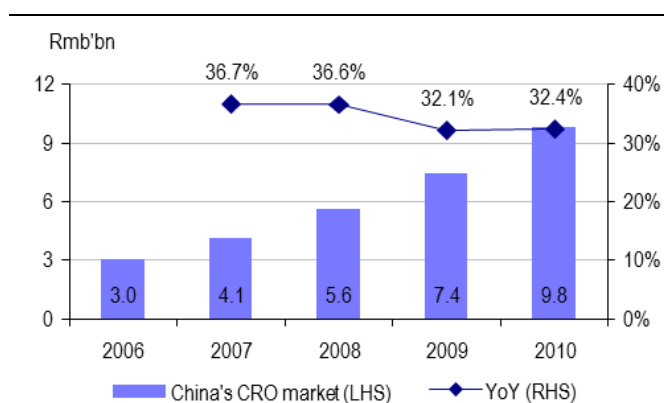
### Orientation of 'localisation' industrial policies

Government policy's is that fiscal funds should first be used to purchase domestic healthcare equipment and support companies' investment in R&D in a variety of ways. For example, the 12th Five-Year Development Plan for the pharmaceutical sector is to: improve the drug pricing policy and use price leverage to encourage independent innovation; support innovative drugs to have priority to enter the National Drug Reimbursement List; strengthen the protection of intellectual property; study how to improve tax support policies to encourage innovation; implement the super-deduction of R&D expenses and income tax concessions for high-tech companies; encourage investment in innovative pharmaceutical companies.

### Rapid development of the CRO sector in China should significantly contribute to its pharmaceutical sector's R&D capabilities

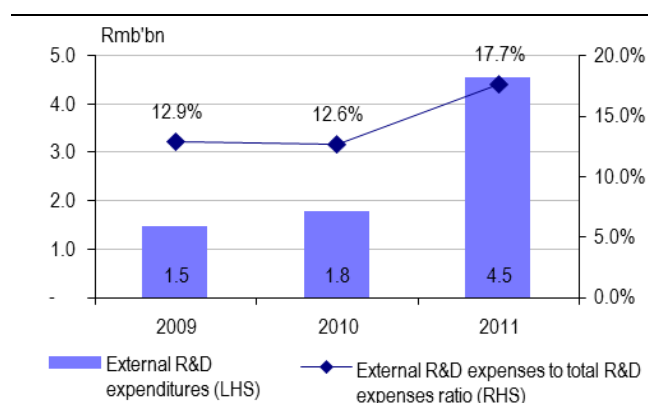
Pharmaceutical companies are gradually strengthening their external R&D, making greater use of the R&D capabilities of CRO businesses and external research institutes to further improve the efficient use of their R&D investment. Meanwhile, multinational healthcare companies, due to cost, time and market factors, have increased the proportion of outsourced R&D. Although most of China's CRO businesses are multinational companies' projects, China's local R&D personnel are gaining experience in foreign advanced R&D systems and project management.

Chart 93: China's CRO market grew significantly, 2006-10



Source: China National Association of Pharmaceutical and Medical Equipment Industry Technical Market

Chart 94: Rise in the proportion of external R&amp;D expenses in the pharmaceutical manufacturing sector, 2009-11



Note: External R&D expenses refer to the R&D expenses pharmaceutical companies paid to external research institutes and universities.

Source: National Bureau of Statistics

### Rapid development of biomedicine presents opportunities to overtake

Biotechnology is currently the fastest growing high-tech field. According to Ernst & Young's Biotechnology Industry Report released in June 2011, in 2010, there were a total of 622 biotechnology companies globally, with total revenue of US\$84.6bn, R&D investment of US\$22.8bn, and an R&D investment proportion of 27.0%. After releasing its 12th Five-Year Biotechnology Development Plan in 2011, China released its Bio-industry Development Plan in 2013 to narrow the gap with the international advanced level in this emerging field. We expect an average annual growth rate for China's bio-pharmaceutical sector of 20% in 2013-15.

### Modern TCM preparations to go global

Traditional Chinese Medicine (TCM) accounted for nearly a 30% share of the total pharmaceutical market in 2012. TCM has certain advantages, especially in the treatment of chronic cardiovascular and cerebrovascular diseases. At the same time, the modernisation of TCM has enabled it to gain international recognition. According to the China Chamber of Commerce for Import & Export of Medicines & Health Products (CCCMHPIE), TCM exports totalled US\$710m (up 20% YoY) in Q113. TCM companies are strengthening their product R&D efforts so that modern TCM preparations can be geared to American and European standards for chemical medicine. As an example, Tasly Group's compound Danshen dripping pills, already in Phase III clinical trial in the US. Also, CSPC-NBP Pharmaceutical is applying for US clinical trials for a new drug it has independently developed domestically for the treatment of strokes.

[Company pages](#)

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## UBS Investment Research

### ZTE Corporation

## An R&D leader; continued high investments

### ■ A good model for R&D in China

ZTE ranks fifth in the global telecom equipment sector in terms of sales. As of end-2012, it had 29,000 R&D employees, the second highest among telecom equipment manufacturers in the world, after Huawei. ZTE has continued to invest 10% of its revenue into R&D. It has technical strength in all the telecom equipment manufacturing sub-sectors, making it one of only two companies in the world with R&D capacity for all telecom equipment (the other being Huawei).

### ■ A leader in several subsectors

ZTE's strengths lie in CDMA, TD-SCDMA and TD-LTE products, where it has a world-leading market share. In terms of wireline equipment, ZTE's share in the PTN (transport products) and PON (access products) markets rank second in the world after Huawei. In the field of telecom terminal equipment, ZTE's delivery volume ranks fourth in the world and first in China.

### ■ A major beneficiary of China's 4G development

We think ZTE is likely to remain the leader in China's wireless master device market, as it did during the 3G era. As this market continues to mature, its concentration ratio should gradually rise. Over the next three to five years, we think China's TD-LTE sector could consist of two large manufacturers (with around a 30% market share each) and three to four small producers (with around a 10% market share each). With higher concentration ratios, gross margins for 4G master devices are likely to remain as high as over 40%, which should lift ZTE's profits out of the doldrums.

### ■ Valuation: Buy rating; HK\$18.00 price target

We derive our price target from a DCF-based methodology and explicitly forecast long-term valuation drivers using UBS's VCAM tool (assuming a 10.4% WACC).

| Highlights (Rmbm)         | 12/11         | 12/12   | 12/13E | 12/14E  | 12/15E  |
|---------------------------|---------------|---------|--------|---------|---------|
| Revenues                  | 86,254        | 84,219  | 95,651 | 105,838 | 113,293 |
| EBIT (UBS)                | 3,774         | (1,206) | 3,755  | 5,879   | 6,940   |
| Net Income (UBS)          | 2,060         | (2,841) | 1,870  | 3,316   | 4,538   |
| EPS (UBS, Rmb)            | 0.61          | (0.83)  | 0.54   | 0.96    | 1.32    |
| Net DPS (UBS, Rmb)        | 0.20          | 0.00    | 0.14   | 0.24    | 0.33    |
| Profitability & Valuation | 5-yr hist av. | 12/12   | 12/13E | 12/14E  | 12/15E  |
| EBIT margin %             | 4.8           | -1.4    | 3.9    | 5.6     | 6.1     |
| ROIC (EBIT) %             | 15.1          | (4.7)   | 14.3   | 20.4    | 22.5    |
| EV/EBITDA (core) x        | 15.0          | -86.2   | 12.0   | 8.9     | 7.3     |
| PE (UBS) x                | 16.2          | -15.4   | 22.7   | 12.8    | 9.4     |
| Net dividend yield %      | 0.9           | 0.0     | 1.1    | 2.0     | 2.7     |

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Valuations: based on an average share price that year, (E): based on a share price of HK\$15.64 on 24 Sep 2013 22:52 SGT

### Jinjin Wang, CFA

Analyst

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## Global Equity Research

China

Communications Technology

12-month rating **Buy**  
**Unchanged**

12m price target **HK\$18.00/US\$2.32**  
**Unchanged**

Price **HK\$15.64/US\$2.02**

RIC: 0763.HK BBG: 763 HK

### Trading data (local/US\$)

|                          |                               |
|--------------------------|-------------------------------|
| 52-wk range              | HK\$15.64-10.56/US\$2.02-1.36 |
| Market cap.              | HK\$69.6bn/US\$8.97bn         |
| Shares o/s               | 630m (ORD)                    |
| Free float               | 67%                           |
| Avg. daily volume ('000) | 7,813                         |
| Avg. daily value (m)     | HK\$109.4                     |

### Balance sheet data 12/13E

|                      |             |
|----------------------|-------------|
| Shareholders' equity | Rmb22.6bn   |
| P/BV (UBS)           | 1.9x        |
| Net Cash (debt)      | (Rmb3.69bn) |

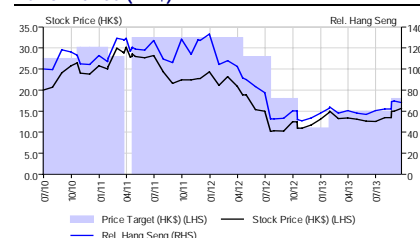
### Forecast returns

|                             |        |
|-----------------------------|--------|
| Forecast price appreciation | +15.1% |
| Forecast dividend yield     | 2.0%   |
| Forecast stock return       | +17.1% |
| Market return assumption    | 9.4%   |
| Forecast excess return      | +7.7%  |

### EPS (UBS, Rmb)

|        | 12/13E | 12/12        |
|--------|--------|--------------|
|        | UBS    | Cons. Actual |
| H1     | 0.09   | - 0.07       |
| H2E    | 0.45   | - (0.90)     |
| 12/13E | 0.54   | 0.54         |
| 12/14E | 0.96   | 0.96         |

### Performance (HK\$)



Source: UBS

www.ubs.com/investmentresearch

# ZTE Corporation

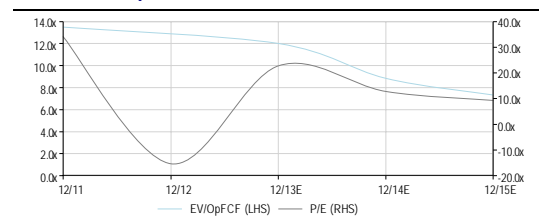
| Income statement (Rmbm)                  | 12/08    | 12/09    | 12/10    | 12/11    | 12/12    | 12/13E   | % ch   | 12/14E    | % ch         | 12/15E    | % ch  |
|--|----------|----------|----------|----------|----------|----------|--------|-----------|--------------|-----------|-------|
| Revenues                                 | 44,293   | 60,273   | 69,907   | 86,254   | 84,219   | 95,651   | 13.6   | 105,838   | 10.7         | 113,293   | 7.0   |
| Operating expenses (ex depn)             | (41,458) | (56,999) | (66,263) | (83,737) | (88,037) | (93,996) | 6.8    | (102,238) | 8.8          | (108,472) | 6.1   |
| EBITDA (UBS)                             | 4,131    | 4,997    | 5,753    | 5,181    | (509)    | 4,548    | -      | 6,755     | 48.6         | 8,191     | 21.3  |
| Depreciation                             | (703)    | (947)    | (1,059)  | (1,407)  | (698)    | (792)    | 13.6   | (877)     | 10.7         | (1,251)   | 42.7  |
| Operating income (EBIT, UBS)             | 3,429    | 4,050    | 4,693    | 3,774    | (1,206)  | 3,755    | -      | 5,879     | 56.5         | 6,940     | 18.0  |
| Other income & associates                | (476)    | 26       | 395      | 235      | 1,111    | (239)    | -      | (482)     | 101.2        | 48        | -     |
| Net interest                             | (690)    | (752)    | (729)    | (1,374)  | (1,888)  | (1,125)  | -40.4  | (1,156)   | 2.8          | (1,184)   | 2.4   |
| Abnormal items (pre-tax)                 | 0        | 0        | 0        | 0        | 0        | 0        | -      | 0         | -            | 0         | -     |
| Profit before tax                        | 2,263    | 3,325    | 4,360    | 2,635    | (1,983)  | 2,391    | -      | 4,241     | 77.4         | 5,804     | 36.8  |
| Tax                                      | (351)    | (629)    | (884)    | (392)    | (621)    | (359)    | -42.3  | (636)     | 77.4         | (871)     | 36.8  |
| Profit after tax                         | 1,912    | 2,696    | 3,476    | 2,243    | (2,605)  | 2,033    | -      | 3,605     | 77.4         | 4,933     | 36.8  |
| Abnormal items (post-tax)                | 0        | 0        | 0        | 0        | 0        | 0        | -      | 0         | -            | 0         | -     |
| Minorities / pref dividends              | (252)    | (238)    | (226)    | (183)    | (236)    | (163)    | -31.2  | (288)     | 77.4         | (395)     | 36.8  |
| Net income (local GAAP)                  | 1,660    | 2,458    | 3,250    | 2,060    | (2,841)  | 1,870    | -      | 3,316     | 77.4         | 4,538     | 36.8  |
| Net Income (UBS)                         | 1,660    | 2,458    | 3,250    | 2,060    | (2,841)  | 1,870    | -      | 3,316     | 77.4         | 4,538     | 36.8  |
| Tax rate (%)                             | 15       | 19       | 20       | 15       | 0        | 15       | -      | 15        | 0.0          | 15        | 0.0   |
| Pre-abnormal tax rate (%)                | 16       | 19       | 23       | 25       | 0        | 15       | -      | 15        | -0.9         | 15        | -0.3  |
| Per share (Rmb)                          | 12/08    | 12/09    | 12/10    | 12/11    | 12/12    | 12/13E   | % ch   | 12/14E    | % ch         | 12/15E    | % ch  |
| EPS (local GAAP)                         | 0.53     | 0.78     | 0.98     | 0.61     | (0.83)   | 0.54     | -      | 0.96      | 77.4         | 1.32      | 36.8  |
| EPS (UBS)                                | 0.53     | 0.78     | 0.98     | 0.61     | (0.83)   | 0.54     | -      | 0.96      | 77.4         | 1.32      | 36.8  |
| Net DPS                                  | 0.13     | 0.18     | 0.25     | 0.20     | 0.00     | 0.14     | -      | 0.24      | 77.4         | 0.33      | 36.8  |
| Cash EPS                                 | 0.75     | 1.08     | 1.30     | 1.02     | (0.62)   | 0.77     | -      | 1.22      | 57.5         | 1.68      | 38.1  |
| BVPS                                     | 4.53     | 5.10     | 6.71     | 7.04     | 6.02     | 6.56     | 9.0    | 7.39      | 12.6         | 8.47      | 14.6  |
| Balance sheet (Rmbm)                     | 12/08    | 12/09    | 12/10    | 12/11    | 12/12    | 12/13E   | % ch   | 12/14E    | % ch         | 12/15E    | % ch  |
| Net tangible fixed assets                | 4,893    | 6,058    | 7,720    | 8,646    | 9,022    | 9,448    | 4.7    | 9,920     | 5.0          | 10,593    | 6.8   |
| Net intangible fixed assets              | 593      | 877      | 1,583    | 2,240    | 2,430    | 2,646    | 8.9    | 2,885     | 9.0          | 3,226     | 11.8  |
| Net working capital (incl. other assets) | 9,148    | 11,968   | 17,893   | 20,546   | 17,285   | 20,129   | 16.5   | 21,884    | 8.7          | 23,319    | 6.6   |
| Other liabilities                        | (5)      | (3,231)  | (5,458)  | (4,731)  | (4,032)  | (4,484)  | 11.2   | (4,887)   | 9.0          | (5,181)   | 6.0   |
| Operating invested capital               | 14,629   | 15,672   | 21,738   | 26,701   | 24,704   | 27,739   | 12.3   | 29,802    | 7.4          | 31,957    | 7.2   |
| Investments                              | 420      | 694      | 1,261    | 866      | 866      | 866      | 0.0    | 866       | 0.0          | 866       | 0.0   |
| Total capital employed                   | 15,048   | 16,366   | 22,998   | 27,567   | 25,570   | 28,605   | 11.9   | 30,668    | 7.2          | 32,824    | 7.0   |
| Shareholders' equity                     | 14,250   | 16,825   | 23,094   | 24,232   | 20,705   | 22,575   | 9.0    | 25,423    | 12.6         | 29,133    | 14.6  |
| Minority interests                       | 934      | 1,124    | 1,868    | 2,057    | 2,193    | 2,287    | 4.3    | 2,453     | 7.3          | 2,680     | 9.3   |
| Total equity                             | 15,184   | 17,949   | 24,962   | 26,289   | 22,898   | 24,861   | 8.6    | 27,877    | 12.1         | 31,813    | 14.1  |
| Net debt / (cash)                        | (1,009)  | (1,621)  | (2,007)  | 1,229    | 2,617    | 3,689    | 40.9   | 2,737     | -25.8        | 955       | -65.1 |
| Other debt-deemed items                  | 873      | 38       | 43       | 49       | 55       | 55       | 0.0    | 55        | 0.0          | 55        | 0.0   |
| Total capital employed                   | 15,048   | 16,366   | 22,998   | 27,567   | 25,570   | 28,605   | 11.9   | 30,668    | 7.2          | 32,824    | 7.0   |
| Cash flow (Rmbm)                         | 12/08    | 12/09    | 12/10    | 12/11    | 12/12    | 12/13E   | % ch   | 12/14E    | % ch         | 12/15E    | % ch  |
| Operating income (EBIT, UBS)             | 3,429    | 4,050    | 4,693    | 3,774    | (1,206)  | 3,755    | -      | 5,879     | 56.5         | 6,940     | 18.0  |
| Depreciation                             | 703      | 947      | 1,059    | 1,407    | 698      | 792      | 13.6   | 877       | 10.7         | 1,251     | 42.7  |
| Net change in working capital            | (481)    | (360)    | (3,453)  | (6,118)  | 2,962    | (2,393)  | -      | (1,352)   | -43.5        | (1,141)   | -15.6 |
| Other (operating)                        | (25)     | (78)     | 154      | (66)     | (236)    | (356)    | 50.6   | (651)     | 83.0         | (167)     | -74.3 |
| Operating cash flow (pre tax/interest)   | 3,625    | 4,559    | 2,454    | (1,002)  | 2,218    | 1,799    | -18.9  | 4,752     | 164.1        | 6,883     | 44.8  |
| Net interest received / (paid)           | (409)    | (487)    | (523)    | (852)    | (1,888)  | (1,125)  | -40.4  | (1,156)   | 2.8          | (1,184)   | 2.4   |
| Dividends paid                           | (240)    | (403)    | (560)    | (841)    | (686)    | 0        | -100.0 | (467)     | 4,674,782.11 | (829)     | 77.36 |
| Tax paid                                 | (290)    | (286)    | (1,142)  | (960)    | (1,021)  | (359)    | -64.9  | (636)     | 77.4         | (871)     | 36.8  |
| Capital expenditure                      | (1,912)  | (2,054)  | (1,898)  | (2,548)  | (1,263)  | (1,435)  | 13.6   | (1,588)   | 10.7         | (2,266)   | 42.7  |
| Net (acquisitions) / disposals           | 48       | 1        | 29       | 89       | 0        | 0        | -      | 0         | -            | 0         | -     |
| Other                                    | 7        | (946)    | (1,781)  | (1,150)  | 1,254    | 48       | -96.2  | 48        | 0.0          | 48        | 0.0   |
| Share issues                             | 43       | 46       | 3,911    | 7        | 0        | 0        | -      | 0         | -            | 0         | -     |
| Cash flow (inc)/dec in net debt          | 873      | 430      | 489      | (7,258)  | (1,388)  | (1,071)  | -22.8  | 952       | -            | 1,781     | 87.1  |
| FX / non cash items                      | 141      | 182      | (104)    | 4,022    | 0        | 0        | -      | 0         | -            | 0         | 200.0 |
| Balance sheet (inc)/dec in net debt      | 1,014    | 613      | 386      | (3,236)  | (1,388)  | (1,071)  | -22.8  | 952       | -            | 1,781     | 87.1  |
| Core EBITDA                              | 4,131    | 4,997    | 5,753    | 5,181    | (509)    | 4,548    | -      | 6,755     | 48.6         | 8,191     | 21.3  |
| Maintenance capital expenditure          | 0        | 0        | 0        | 0        | 0        | 0        | 0.0    | 0         | 0.0          | 0         | 0.0   |
| Maintenance net working capital          | 0        | 0        | 0        | 0        | 0        | 0        | 0.0    | 0         | 0.0          | 0         | 0.0   |
| Operating free cash flow, pre-tax        | 4,131    | 4,997    | 5,753    | 5,181    | (509)    | 4,547    | -      | 6,755     | 48.6         | 8,191     | 21.3  |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Note: For some companies, the data represents an extract of the full company accounts.

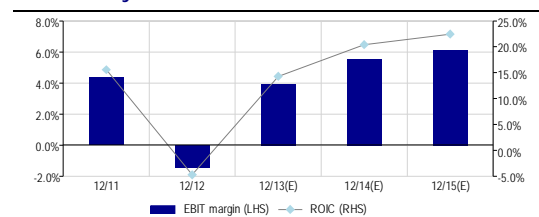
## Company profile

ZTE is one of China's top two networking hardware companies with products ranging from wireless, wireline, data/optical equipment and handsets, to service/software. It has one of the top market shares among Chinese vendors in China and sells its GSM/CDMA 2G/2.5G products in South Asia and Africa. ZTE is also a strong contender for China's 3G network contracts, particularly for China's self developed TD SCDMA technology.

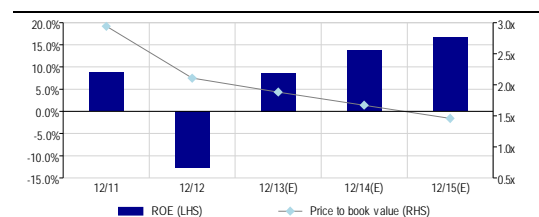
## Value (EV/OpFCF &amp; P/E)



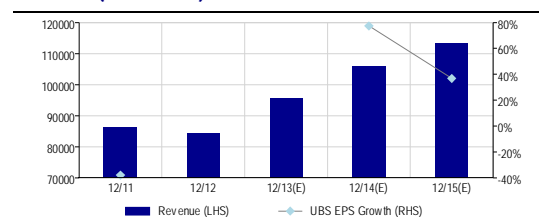
## Profitability



## ROE v Price to book value



## Growth (UBS EPS)



## ZTE Corporation

| Valuation (x)           | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-------------------------|---------|-------|-------|--------|--------|--------|
| P/E (local GAAP)        | 16.6    | 34.2  | NM    | 22.7   | 12.8   | 9.4    |
| P/E (UBS)               | 16.2    | 34.1  | -15.4 | 22.7   | 12.8   | 9.4    |
| P/CEPS                  | 9.1     | 20.3  | NM    | 16.0   | 10.1   | 7.3    |
| Net dividend yield (%)  | 0.9     | 1.0   | 0.0   | 1.1    | 2.0    | 2.7    |
| P/BV                    | 2.7     | 2.9   | 2.1   | 1.9    | 1.7    | 1.5    |
| EV/revenue (core)       | 0.8     | 0.8   | 0.5   | 0.6    | 0.6    | 0.5    |
| EV/EBITDA (core)        | 15.0    | 13.5  | -86.2 | 12.0   | 8.9    | 7.3    |
| EV/EBIT (core)          | 19.9    | 18.5  | NM    | 14.5   | 10.2   | 8.6    |
| EV/OpFCF (core)         | 15.0    | 13.5  | NM    | 12.0   | 8.9    | 7.3    |
| EV/op. invested capital | 3.0     | 2.9   | 1.7   | 2.1    | 2.1    | 1.9    |

| Enterprise value (Rmbm)         | 12/11   | 12/12   | 12/13E  | 12/14E | 12/15E |
|---------------------------------|---------|---------|---------|--------|--------|
| Average market cap              | 70,514  | 44,257  | 54,934  | 54,934 | 54,934 |
| + minority interests            | 2,057   | 2,193   | 2,287   | 2,453  | 2,680  |
| + average net debt (cash)       | (1,814) | (1,814) | (1,814) | 3,213  | 3,213  |
| + pension obligations and other | 49      | 55      | 55      | 55     | 55     |
| - non-core asset value          | (866)   | (866)   | (866)   | (866)  | (866)  |
| Core enterprise value           | 69,940  | 43,825  | 54,596  | 59,789 | 60,016 |

| Growth (%)   | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------|---------|-------|-------|--------|--------|--------|
| Revenue      | 17.4    | 23.4  | -2.4  | 13.6   | 10.7   | 7.0    |
| EBITDA (UBS) | -       | -9.9  | -     | -      | 48.6   | 21.3   |
| EBIT (UBS)   | -       | -19.6 | -     | -      | 56.5   | 18.0   |
| EPS (UBS)    | -       | -37.9 | -     | -      | 77.4   | 36.8   |
| Cash EPS     | -       | -21.1 | -     | -      | 57.5   | 38.1   |
| Net DPS      | -       | -20.1 | -     | -      | 77.4   | 36.8   |
| BVPS         | 7.3     | 4.9   | -14.6 | 9.0    | 12.6   | 14.6   |

| Margins (%)                | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|----------------------------|---------|-------|-------|--------|--------|--------|
| EBITDA / revenue           | 6.3     | 6.0   | NM    | 4.8    | 6.4    | 7.2    |
| EBIT / revenue             | 4.8     | 4.4   | -1.4  | 3.9    | 5.6    | 6.1    |
| Net profit (UBS) / revenue | 2.3     | 2.4   | NM    | 2.0    | 3.1    | 4.0    |

| Return on capital (%) | 5Yr Avg | 12/11 | 12/12  | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|--------|--------|--------|--------|
| EBIT ROIC (UBS)       | 15.1    | 15.6  | NM     | 14.3   | 20.4   | 22.5   |
| ROIC post tax         | -       | 11.7  | NM     | 12.1   | 17.3   | 19.1   |
| Net ROE               | 8.2     | 8.7   | (12.6) | 8.6    | 13.8   | 16.6   |

| Coverage ratios (x)             | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|---------------------------------|---------|-------|-------|--------|--------|--------|
| EBIT / net interest             | 4.2     | 3.5   | 0.0   | 3.4    | 5.1    | 5.9    |
| Dividend cover (UBS EPS)        | -       | 3.0   | -     | 4.0    | 4.0    | 4.0    |
| Div. payout ratio (% , UBS EPS) | -       | 33.3  | -     | 25.0   | 25.0   | 25.0   |
| Net debt / EBITDA               | NM      | 0.2   | NM    | 0.8    | 0.4    | 0.1    |

| Efficiency ratios (x)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Revenue / op. invested capital | 3.5     | 3.6   | 3.3   | 3.6    | 3.7    | 3.7    |
| Revenue / fixed assets         | 8.5     | 8.5   | 7.5   | 8.1    | 8.5    | 8.5    |
| Revenue / net working capital  | 8.0     | 8.1   | 8.2   | 9.3    | 8.7    | 8.5    |

| Investment ratios (x) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| OpFCF / EBIT          | 1.3     | 1.4   | 0.4   | 1.2    | 1.1    | 1.2    |
| Capex / revenue (%)   | 2.8     | 3.0   | 1.5   | 1.5    | 1.5    | 2.0    |
| Capex / depreciation  | 2.0     | 1.8   | 1.8   | 1.8    | 1.8    | 1.8    |

| Capital structure (%)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Net debt / total equity        | (0.8)   | 5.1   | 12.6  | 16.3   | 10.8   | 3.3    |
| Net debt / (net debt + equity) | (0.8)   | 4.8   | 11.2  | 14.0   | 9.7    | 3.2    |
| Net debt (core) / EV           | (2.5)   | (2.6) | (4.1) | (3.3)  | 5.4    | 5.4    |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items.

Valuations: based on an average share price that year, (E): based on a share price of HK\$15.64 on 24 Sep 2013 22:52 SGT Market cap(E) may include forecast share issues/buybacks.

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## UBS Investment Research

### Zhuzhou CSR Times Electric

## Focus on R&D for core technologies; laying foundation for long-term growth

### ■ New products, breakthrough in IGBT likely to improve competitiveness

Zhuzhou CSR Times Electric (Zhuzhou CSR) develops traction systems for 8-axle 9,600kw locomotives, highland locomotives, 160km/hour passenger locomotives, and intercity EMU based on its in-house developed traction system to meet new demand in China. After acquiring Dynex, Zhuzhou CSR is absorbing its core technologies (high-power IGBT) and cooperating with the former to develop an IGBT series for the domestic market. The 8-inch IGBT plant (production to start in 2014) will likely increase Zhuzhou CSR's IGBT revenue by several times.

### ■ Its R&D expenses-to-revenue ratio was higher than its parent company's

The company's 2012 R&D expenses were around Rmb500m (nearly 6% of its sales revenue), while its parent company, CSR Corporation, spent Rmb3.04bn on R&D (3.4% of its sales revenue). We expect Zhuzhou CSR's R&D expenses-to-revenue ratio to rise as its product line continues to expand.

### ■ Delivery to CRC should boost H213 results and support 2014 growth

Its Q213 net profit rose 292% QoQ and was up YoY, reflecting its ability to expand and make a profit in segments outside the railway field. In China Railway's (CRC) first tender for locomotives and EMUs in August 2013, CSR Corporation received 60% of the locomotive orders and all the 250km/hour EMU orders. CRC's other tenders are likely to begin in the next few months. We expect the company's electrical system business to grow rapidly in H213 and 2014.

### ■ Valuation: HK\$25.30 price target; our most preferred railway company

We derive our price target from a DCF-based methodology and explicitly forecast long-term valuation drivers using UBS's VCAM tool (assuming a 9.5% WACC).

| Highlights (Rmbm)         | 12/11         | 12/12    | 12/13E   | 12/14E   | 12/15E    |
|---------------------------|---------------|----------|----------|----------|-----------|
| Revenues                  | 7,124.77      | 7,216.50 | 7,399.20 | 9,759.21 | 12,022.53 |
| EBIT (UBS)                | 1,317.51      | 1,203.16 | 1,238.83 | 1,655.51 | 2,002.07  |
| Net Income (UBS)          | 1,253.29      | 1,230.87 | 1,234.20 | 1,601.34 | 1,930.72  |
| EPS (UBS, Rmb)            | 1.16          | 1.14     | 1.14     | 1.48     | 1.78      |
| Net DPS (UBS, Rmb)        | 0.34          | 0.35     | 0.37     | 0.49     | 0.59      |
| Profitability & Valuation | 5-yr hist av. | 12/12    | 12/13E   | 12/14E   | 12/15E    |
| EBIT margin %             | 18.5          | 16.7     | 16.7     | 17.0     | 16.7      |
| ROIC (EBIT) %             | 30.3          | 31.4     | 32.8     | 38.6     | 37.3      |
| EV/EBITDA (core) x        | 14.6          | 14.8     | 16.6     | 12.7     | 10.6      |
| PE (UBS) x                | 17.4          | 14.8     | 17.3     | 13.3     | 11.0      |
| Net dividend yield %      | 2.0           | 2.1      | 1.9      | 2.5      | 3.0       |

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptional and other special items. Valuations: based on an average share price that year, (E): based on a share price of HK\$24.90 on 24 Sep 2013 22:52 SGT

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## Global Equity Research

China

Industrial, Diversified

12-month rating **Buy**  
**Unchanged**

12m price target **HK\$25.30/US\$3.26**  
**Unchanged**

Price **HK\$24.90/US\$3.21**

RIC: 3898.HK BBG: 3898 HK

### Trading data (local/US\$)

|                          |                               |
|--------------------------|-------------------------------|
| 52-wk range              | HK\$29.65-16.50/US\$3.83-2.13 |
| Market cap.              | HK\$27.0bn/US\$3.48bn         |
| Shares o/s               | 1,084m (ORD)                  |
| Free float               | 42%                           |
| Avg. daily volume ('000) | 3,320                         |
| Avg. daily value (m)     | HK\$71.0                      |

### Balance sheet data 12/13E

|                      |           |
|----------------------|-----------|
| Shareholders' equity | Rmb7.03bn |
| P/BV (UBS)           | 3.0x      |
| Net Cash (debt)      | Rmb3.09bn |

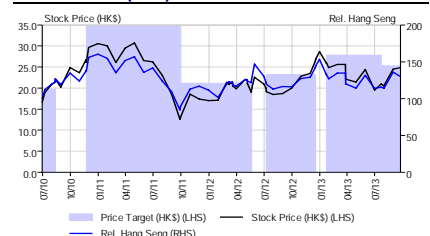
### Forecast returns

|                             |       |
|-----------------------------|-------|
| Forecast price appreciation | +1.6% |
| Forecast dividend yield     | 2.2%  |
| Forecast stock return       | +3.8% |
| Market return assumption    | 9.4%  |
| Forecast excess return      | -5.6% |

### EPS (UBS, Rmb)

|        | 12/13E | 12/12        |
|--------|--------|--------------|
|        | UBS    | Cons. Actual |
| H1E    | 0.34   | - 0.49       |
| H2E    | 0.80   | - 0.64       |
| 12/13E | 1.14   | 1.14         |
| 12/14E | 1.48   | 1.48         |

### Performance (HK\$)



Source: UBS

www.ubs.com/investmentresearch

# Zhuzhou CSR Times Electric

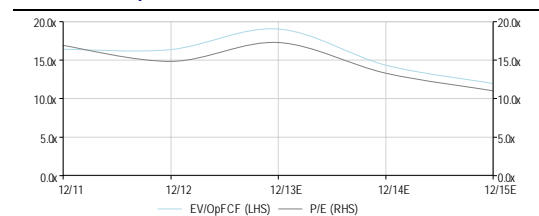
| Income statement (Rmbm)                  | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
|--|------------|------------|------------|------------|------------|------------|-------|------------|-------|------------|-------|
| Revenues                                 | 2,119.32   | 3,325.59   | 5,886.85   | 7,124.77   | 7,216.50   | 7,399.20   | 2.5   | 9,759.21   | 31.9  | 12,022.53  | 23.2  |
| Operating expenses (ex depn)             | (1,690.56) | (2,708.60) | (4,683.11) | (5,672.36) | (5,866.55) | (5,955.55) | 1.5   | (7,861.63) | 32.0  | (9,731.13) | 23.8  |
| EBITDA (UBS)                             | 508.92     | 692.48     | 1,203.74   | 1,452.42   | 1,349.94   | 1,443.65   | 6.9   | 1,897.58   | 31.4  | 2,291.40   | 20.8  |
| Depreciation                             | (58.43)    | (89.10)    | (143.44)   | (134.91)   | (146.78)   | (204.82)   | 39.5  | (242.07)   | 18.2  | (289.33)   | 19.5  |
| Operating income (EBIT, UBS)             | 450.49     | 603.38     | 1,060.30   | 1,317.51   | 1,203.16   | 1,238.83   | 3.0   | 1,655.51   | 33.6  | 2,002.07   | 20.9  |
| Other income & associates                | 8.04       | 15.67      | 80.29      | 155.89     | 213.32     | 184.96     | -13.3 | 224.62     | 21.4  | 271.88     | 21.0  |
| Net interest                             | 17.32      | 7.76       | (3.47)     | (23.63)    | (4.67)     | 12.40      | -     | 14.70      | 18.5  | 15.55      | 5.8   |
| Abnormal items (pre-tax)                 | 21.00      | (2.58)     | (149.95)   | (68.85)    | (11.18)    | (5.55)     | -50.4 | (7.32)     | 31.9  | (9.01)     | 23.2  |
| Profit before tax                        | 496.84     | 624.23     | 987.17     | 1,380.92   | 1,400.63   | 1,430.65   | 2.1   | 1,887.51   | 31.9  | 2,280.49   | 20.8  |
| Tax                                      | (73.51)    | (89.84)    | (135.10)   | (193.89)   | (178.12)   | (195.85)   | 10.0  | (286.77)   | 46.4  | (351.57)   | 22.6  |
| Profit after tax                         | 423.34     | 534.39     | 852.07     | 1,187.04   | 1,222.51   | 1,234.80   | 1.0   | 1,600.74   | 29.6  | 1,928.92   | 20.5  |
| Abnormal items (post-tax)                | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Minorities / pref dividends              | (1.04)     | (3.51)     | (1.53)     | (2.59)     | (1.40)     | (5.39)     | 285.0 | (5.61)     | 4.0   | (5.83)     | 4.0   |
| Net income (local GAAP)                  | 422.30     | 530.88     | 850.54     | 1,184.44   | 1,221.11   | 1,229.41   | 0.7   | 1,595.13   | 29.7  | 1,923.10   | 20.6  |
| Net Income (UBS)                         | 401.30     | 533.46     | 1,000.48   | 1,253.29   | 1,230.87   | 1,234.20   | 0.3   | 1,601.34   | 29.7  | 1,930.72   | 20.6  |
| Tax rate (%)                             | 14.79      | 14.39      | 13.69      | 14.04      | 12.72      | 13.69      | 7.6   | 15.19      | 11.0  | 15.42      | 1.5   |
| Pre-abnormal tax rate (%)                | 15.71      | 14.70      | 12.52      | 13.86      | 13.67      | 14.29      | 4.5   | 15.70      | 9.8   | 15.90      | 1.3   |
| Per share (Rmb)                          | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
| EPS (local GAAP)                         | 0.39       | 0.49       | 0.78       | 1.09       | 1.13       | 1.13       | 0.7   | 1.47       | 29.7  | 1.77       | 20.6  |
| EPS (UBS)                                | 0.37       | 0.49       | 0.92       | 1.16       | 1.14       | 1.14       | 0.3   | 1.48       | 29.7  | 1.78       | 20.6  |
| Net DPS                                  | 0.16       | 0.20       | 0.30       | 0.34       | 0.35       | 0.37       | 5.7   | 0.49       | 32.4  | 0.59       | 20.4  |
| Cash EPS                                 | 0.42       | 0.57       | 1.06       | 1.28       | 1.27       | 1.33       | 4.5   | 1.70       | 28.1  | 2.05       | 20.4  |
| BVPS                                     | 3.14       | 3.49       | 4.13       | 4.90       | 5.70       | 6.48       | 13.8  | 7.60       | 17.2  | 8.90       | 17.1  |
| Balance sheet (Rmbm)                     | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
| Net tangible fixed assets                | 933.25     | 1,312.74   | 1,200.28   | 1,367.69   | 1,452.29   | 1,669.37   | 14.9  | 1,976.93   | 18.4  | 2,359.75   | 19.4  |
| Net intangible fixed assets              | 209.24     | 250.03     | 243.37     | 259.01     | 265.48     | 246.58     | -7.1  | 227.52     | -7.7  | 208.32     | -8.4  |
| Net working capital (incl. other assets) | 1,451.51   | 1,261.14   | 2,030.70   | 2,490.28   | 2,347.66   | 2,130.00   | -9.3  | 2,944.49   | 38.2  | 3,725.08   | 26.5  |
| Other liabilities                        | 0.00       | 0.00       | (139.83)   | (239.80)   | (276.84)   | (284.83)   | 12.9  | (329.26)   | 15.6  | (371.88)   | 12.9  |
| Operating invested capital               | 2,593.99   | 2,823.92   | 3,334.51   | 3,877.19   | 3,788.59   | 3,761.12   | -0.7  | 4,819.68   | 28.1  | 5,921.27   | 22.9  |
| Investments                              | 100.63     | 117.28     | 168.10     | 202.85     | 255.42     | 316.06     | 23.7  | 376.70     | 19.2  | 446.57     | 18.5  |
| Total capital employed                   | 2,694.62   | 2,941.20   | 3,502.62   | 4,080.04   | 4,044.01   | 4,077.19   | 0.8   | 5,196.38   | 27.5  | 6,367.84   | 22.5  |
| Shareholders' equity                     | 3,409.12   | 3,780.44   | 4,472.95   | 5,316.66   | 6,178.22   | 7,028.14   | 13.8  | 8,237.53   | 17.2  | 9,649.77   | 17.1  |
| Minority interests                       | 18.55      | 98.18      | 96.82      | 121.02     | 134.74     | 140.13     | 4.0   | 145.73     | 4.0   | 151.56     | 4.0   |
| Total equity                             | 3,427.67   | 3,878.62   | 4,569.76   | 5,437.68   | 6,312.96   | 7,168.27   | 13.5  | 8,383.26   | 16.9  | 9,801.33   | 16.9  |
| Net debt / (cash)                        | (733.05)   | (937.42)   | (1,067.15) | (1,357.64) | (2,268.95) | (3,091.08) | 36.2  | (3,186.88) | 3.1   | (3,433.49) | 7.7   |
| Other debt-deemed items                  | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Total capital employed                   | 2,694.62   | 2,941.20   | 3,502.62   | 4,080.04   | 4,044.01   | 4,077.19   | 0.8   | 5,196.38   | 27.5  | 6,367.84   | 22.5  |
| Cash flow (Rmbm)                         | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
| Operating income (EBIT, UBS)             | 450.49     | 603.38     | 1,060.30   | 1,317.51   | 1,203.16   | 1,238.83   | 3.0   | 1,655.51   | 33.6  | 2,002.07   | 20.9  |
| Depreciation                             | 58.43      | 89.10      | 143.44     | 134.91     | 146.78     | 204.82     | 39.5  | 242.07     | 18.2  | 289.33     | 19.5  |
| Net change in working capital            | (459.26)   | 113.29     | (1,708.70) | (556.00)   | 187.29     | 225.64     | 20.5  | (770.05)   | -     | (737.98)   | -4.2  |
| Other (operating)                        | 293.70     | (291.76)   | 1,359.58   | 344.50     | (158.84)   | 106.37     | -     | 141.96     | 33.5  | 177.44     | 25.0  |
| Operating cash flow (pre tax/interest)   | 343.35     | 514.01     | 854.62     | 1,240.91   | 1,378.40   | 1,775.67   | 28.8  | 1,269.50   | -28.5 | 1,730.86   | 36.3  |
| Net interest received / (paid)           | (17.32)    | (7.76)     | (11.46)    | (32.62)    | 9.30       | 12.40      | 33.3  | 14.70      | 18.5  | 15.55      | 5.8   |
| Dividends paid                           | (168.06)   | (211.43)   | (211.43)   | (330.70)   | (368.65)   | (379.49)   | 2.94  | (385.74)   | 1.65  | (510.85)   | 32.43 |
| Tax paid                                 | (71.64)    | (61.86)    | (6.94)     | (95.18)    | (141.01)   | (195.85)   | 38.9  | (286.77)   | 46.4  | (351.57)   | 22.6  |
| Capital expenditure                      | (379.73)   | (454.63)   | (150.32)   | (345.25)   | (394.01)   | (403.00)   | 2.3   | (530.58)   | 31.7  | (652.94)   | 23.1  |
| Net (acquisitions) / disposals           | 0.00       | (26.57)    | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Other                                    | 295.07     | 460.26     | 367.13     | (275.33)   | (155.10)   | 12.40      | -     | 14.70      | 18.5  | 15.55      | 5.8   |
| Share issues                             | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Cash flow (inc)/dec in net debt          | 1.68       | 212.02     | 841.60     | 161.83     | 328.93     | 822.14     | 149.9 | 95.79      | -88.3 | 246.61     | 157.4 |
| FX / non cash items                      | (779.23)   | (7.65)     | (711.87)   | 128.66     | 582.37     | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Balance sheet (inc)/dec in net debt      | (777.55)   | 204.37     | 129.73     | 290.50     | 911.31     | 822.14     | -9.8  | 95.79      | -88.3 | 246.61     | 157.4 |
| Core EBITDA                              | 508.92     | 692.48     | 1,203.74   | 1,452.42   | 1,349.94   | 1,443.65   | 6.9   | 1,897.58   | 31.4  | 2,291.40   | 20.8  |
| Maintenance capital expenditure          | (54.56)    | (76.58)    | (111.73)   | (118.17)   | (128.29)   | (182.92)   | 42.6  | (220.02)   | 20.3  | (267.12)   | 21.4  |
| Maintenance net working capital          | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Operating free cash flow, pre-tax        | 454.37     | 615.90     | 1,092.01   | 1,334.25   | 1,221.66   | 1,260.73   | 3.2   | 1,677.56   | 33.1  | 2,024.28   | 20.7  |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Note: For some companies, the data represents an extract of the full company accounts.

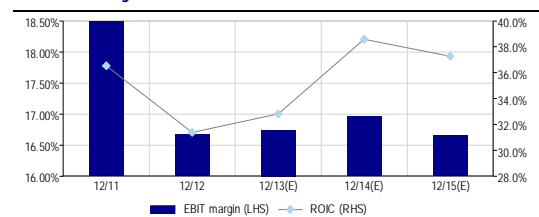
## Company profile

Zhuzhou CSR Times Electric Co., Ltd is an electrical system provider and integrator for the Chinese railway industry. It is engaged in developing, manufacturing and selling power converters, auxiliary power supply equipment and control systems for urban rail systems. In addition, the company designs, manufactures and sells electrical components for the Chinese railway industry, the urban rail industry and non-railway applications.

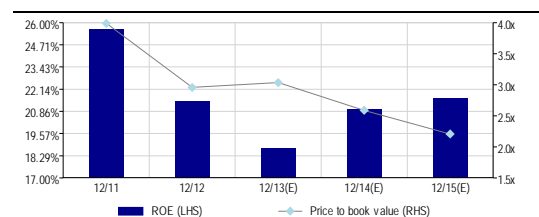
## Value (EV/OpFCF & P/E)



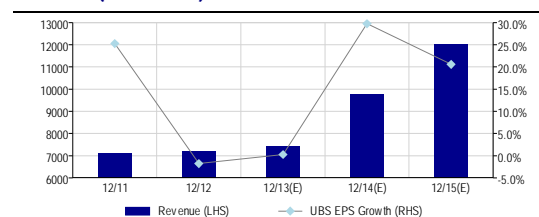
## Profitability



## ROE v Price to book value



## Growth (UBS EPS)



# Zhuzhou CSR Times Electric

| Valuation (x)           | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-------------------------|---------|-------|-------|--------|--------|--------|
| P/E (local GAAP)        | 18.1    | 17.9  | 15.0  | 17.3   | 13.4   | 11.1   |
| P/E (UBS)               | 17.4    | 16.9  | 14.8  | 17.3   | 13.3   | 11.0   |
| P/CEPS                  | 15.3    | 15.3  | 13.3  | 14.8   | 11.6   | 9.6    |
| Net dividend yield (%)  | 2.0     | 1.7   | 2.1   | 1.9    | 2.5    | 3.0    |
| P/BV                    | 3.2     | 4.0   | 3.0   | 3.0    | 2.6    | 2.2    |
| EV/revenue (core)       | 3.0     | 3.1   | 2.8   | 3.2    | 2.5    | 2.0    |
| EV/EBITDA (core)        | 14.6    | 15.1  | 14.8  | 16.6   | 12.7   | 10.6   |
| EV/EBIT (core)          | 16.5    | 16.6  | 16.6  | 19.4   | 14.5   | 12.1   |
| EV/OpFCF (core)         | 16.2    | 16.4  | 16.4  | 19.1   | 14.3   | 12.0   |
| EV/op. invested capital | 5.0     | 6.1   | 5.2   | 6.4    | 5.6    | 4.5    |

| Enterprise value (Rmbm)         | 12/11     | 12/12     | 12/13E    | 12/14E    | 12/15E    |
|---------------------------------|-----------|-----------|-----------|-----------|-----------|
| Average market cap              | 20,682.61 | 18,050.74 | 21,313.42 | 21,313.42 | 21,313.42 |
| + minority interests            | 121.02    | 134.74    | 140.13    | 145.73    | 151.56    |
| + average net debt (cash)       | 1,371.72  | 2,161.35  | 2,983.49  | 3,079.28  | 3,325.89  |
| + pension obligations and other | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| - non-core asset value          | (262.57)  | (348.20)  | (408.84)  | (469.48)  | (539.35)  |
| Core enterprise value           | 21,912.78 | 19,998.62 | 24,028.19 | 24,068.95 | 24,251.52 |

| Growth (%)   | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------|---------|-------|-------|--------|--------|--------|
| Revenue      | 35.8    | 21.0  | 1.3   | 2.5    | 31.9   | 23.2   |
| EBITDA (UBS) | 27.6    | 20.7  | -7.1  | 6.9    | 31.4   | 20.8   |
| EBIT (UBS)   | 27.8    | 24.3  | -8.7  | 3.0    | 33.6   | 20.9   |
| EPS (UBS)    | 32.3    | 25.3  | -1.8  | 0.3    | 29.7   | 20.6   |
| Cash EPS     | 31.6    | 21.4  | -0.8  | 4.5    | 28.1   | 20.4   |
| Net DPS      | 22.6    | 11.5  | 2.9   | 5.7    | 32.4   | 20.4   |
| BVPS         | 16.0    | 18.9  | 16.2  | 13.8   | 17.2   | 17.1   |

| Margins (%)                | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|----------------------------|---------|-------|-------|--------|--------|--------|
| EBITDA / revenue           | 20.9    | 20.4  | 18.7  | 19.5   | 19.4   | 19.1   |
| EBIT / revenue             | 18.5    | 18.5  | 16.7  | 16.7   | 17.0   | 16.7   |
| Net profit (UBS) / revenue | 17.3    | 17.6  | 17.1  | 16.7   | 16.4   | 16.1   |

| Return on capital (%) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| EBIT ROIC (UBS)       | 30.3    | 36.5  | 31.4  | 32.8   | 38.6   | 37.3   |
| ROIC post tax         | -       | 31.5  | 27.1  | 28.1   | 32.5   | 31.4   |
| Net ROE               | 19.7    | 25.6  | 21.4  | 18.7   | 21.0   | 21.6   |

| Coverage ratios (x)             | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|---------------------------------|---------|-------|-------|--------|--------|--------|
| EBIT / net interest             | -       | NM    | NM    | -      | -      | -      |
| Dividend cover (UBS EPS)        | 2.9     | 3.4   | 3.2   | 3.1    | 3.0    | 3.0    |
| Div. payout ratio (% , UBS EPS) | 35.0    | 29.4  | 30.8  | 32.5   | 33.2   | 33.1   |
| Net debt / EBITDA               | NM      | NM    | NM    | NM     | NM     | NM     |

| Efficiency ratios (x)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Revenue / op. invested capital | 1.7     | 2.0   | 1.9   | 2.0    | 2.3    | 2.2    |
| Revenue / fixed assets         | 3.7     | 4.6   | 4.3   | 4.1    | 4.7    | 5.0    |
| Revenue / net working capital  | 3.2     | 3.6   | 3.5   | 4.2    | 4.7    | 4.2    |

| Investment ratios (x) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| OpFCF / EBIT          | 1.0     | 1.0   | 1.0   | 1.0    | 1.0    | 1.0    |
| Capex / revenue (%)   | 6.7     | 4.8   | 5.5   | 5.4    | 5.4    | 5.4    |
| Capex / depreciation  | 3.0     | 2.6   | 2.7   | 2.0    | 2.2    | 2.3    |

| Capital structure (%)          | 5Yr Avg | 12/11  | 12/12  | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|--------|--------|--------|--------|--------|
| Net debt / total equity        | (27.5)  | (25.5) | (36.7) | (44.0) | (38.7) | (35.6) |
| Net debt / (net debt + equity) | (37.9)  | (34.3) | (58.0) | (78.5) | (63.1) | (55.2) |
| Net debt (core) / EV           | 3.6     | 6.3    | 10.8   | 12.4   | 12.8   | 13.7   |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items.

Valuations: based on an average share price that year, (E): based on a share price of HK\$24.90 on 24 Sep 2013 22:52 SGT Market cap(E) may include forecast share issues/buybacks.

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## UBS Investment Research

### Yantai Jereh Oilfield Services

## R&D and innovation are important impetus

### ■ Greatest technical strength in China; R&D spending continues to rise

We believe Yantai Jereh Oilfield Services (Jereh) has the greatest technical strength in China's oil & gas equipment sector. In early 2013, it launched the most advanced high-volume, large horsepower fracturing equipment in the world with around 180 patents. R&D and innovation are its main impetus for growth from an oilfield equipment repairing/leasing service provider to the largest well cementing and fracturing equipment producer in the world. Its R&D investments rose from Rmb20m in 2010 (2% of revenue) to Rmb130m in 2012 (6% of revenue).

### ■ Sales synergy through reputation and channels

For sustainable future growth, Jereh plans to expand its product line (such as to special drilling rigs, coiled tubing blowout preventers, and downhole tools). We think it has the following advantages in extending along the industry chain: 1) sector-leading R&D and manufacturing strengths, and rapid product launches via in-house R&D and cooperation; and 2) sales synergy in the well cementing and fracturing equipment segment, achieved through its reputation and channels.

### ■ New equipment should drive growth; oilfield service gradually recognised

Among its new equipment, skid-mounted natural gas compressors are growing rapidly (2012 sales: Rmb70m, 2013E sales: over Rmb300m) and are becoming a new growth engine. Its oilfield service revenue rose 80% YoY in H113 and could reach Rmb400-500m in 2013E. We are bullish on Jereh's expansion in the oilfield service segment. It is cooperating with Baker Hughes and the Tarim oilfield to promote the use of coiled tubing in deep and super-deep oil wells—we think this suggests that Jereh's oilfield service strength has been recognised.

### ■ Valuation: Rmb77.00 price target

We base our price target on a DCF methodology, assuming an 8.1% WACC.

| Highlights (Rmbm)         | 12/11         | 12/12    | 12/13E   | 12/14E   | 12/15E   |
|---------------------------|---------------|----------|----------|----------|----------|
| Revenues                  | 1,460.04      | 2,384.03 | 4,125.49 | 5,615.34 | 7,458.76 |
| EBIT (UBS)                | 428.10        | 671.95   | 1,184.07 | 1,613.57 | 2,120.90 |
| Net Income (UBS)          | 381.75        | 575.42   | 1,006.49 | 1,385.17 | 1,823.69 |
| EPS (UBS, Rmb)            | 0.64          | 0.96     | 1.69     | 2.32     | 3.05     |
| Net DPS (UBS, Rmb)        | 0.00          | 0.00     | 0.11     | 0.18     | 0.24     |
| Profitability & Valuation | 5-yr hist av. | 12/12    | 12/13E   | 12/14E   | 12/15E   |
| EBIT margin %             | 29.2          | 28.2     | 28.7     | 28.7     | 28.4     |
| ROIC (EBIT) %             | -             | 33.0     | 39.8     | 42.0     | 42.7     |
| EV/EBITDA (core) x        | -             | 26.8     | 31.0     | 23.4     | 17.7     |
| PE (UBS) x                | -             | 34.0     | 42.2     | 30.7     | 23.3     |
| Net dividend yield %      | -             | 0.0      | 0.2      | 0.3      | 0.3      |

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptional and other special items. Valuations: based on an average share price that year, (E): based on a share price of Rmb71.20 on 24 Sep 2013 22:52 SGT

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## Global Equity Research

China

Oil Drilling, Equipment & Services

12-month rating **Buy**  
**Unchanged**

12m price target **Rmb77.00/US\$12.58**  
**Unchanged**

Price **Rmb71.20/US\$11.63**

RIC: 002353.SZ BBG: 002353 CH

### Trading data (local/US\$)

|                          |                               |
|--------------------------|-------------------------------|
| 52-wk range              | Rmb73.41-32.46/US\$11.98-5.22 |
| Market cap.              | Rmb42.5bn/US\$6.95bn          |
| Shares o/s               | 597m (ORDA)                   |
| Free float               | 31%                           |
| Avg. daily volume ('000) | 3,510                         |
| Avg. daily value (m)     | Rmb243.8                      |

### Balance sheet data 12/13E

|                      |           |
|----------------------|-----------|
| Shareholders' equity | Rmb4.16bn |
| P/BV (UBS)           | 10.2x     |
| Net Cash (debt)      | Rmb0.60bn |

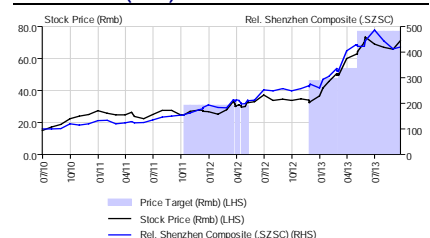
### Forecast returns

|                             |       |
|-----------------------------|-------|
| Forecast price appreciation | +8.1% |
| Forecast dividend yield     | 0.2%  |
| Forecast stock return       | +8.3% |
| Market return assumption    | 8.7%  |
| Forecast excess return      | -0.4% |

### EPS (UBS, Rmb)

|        | 12/13E |      |       | 12/12  |
|--------|--------|------|-------|--------|
|        | From   | To   | Cons. | Actual |
| Q1     | 0.22   | 0.23 | 0.25  | 0.09   |
| Q2     | 0.58   | 0.40 | 0.36  | 0.23   |
| Q3E    | 0.58   | 0.54 | 0.59  | 0.28   |
| Q4E    | 0.28   | 0.52 | 0.28  | 0.36   |
| 12/13E | 1.66   | 1.69 | 1.66  |        |
| 12/14E | 2.37   | 2.32 | 2.37  |        |

### Performance (Rmb)



Source: UBS

www.ubssecurities.com

# Yantai Jereh Oilfield Services

| Income statement (Rmbm)                  | 12/08    | 12/09    | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
|--|----------|----------|------------|------------|------------|------------|-------|------------|-------|------------|-------|
| Revenues                                 | 439.42   | 680.48   | 943.98     | 1,460.04   | 2,384.03   | 4,125.49   | 73.0  | 5,615.34   | 36.1  | 7,458.76   | 32.8  |
| Operating expenses (ex depre)            | (321.88) | (461.84) | (639.73)   | (1,010.36) | (1,664.72) | (2,774.26) | 66.6  | (3,837.29) | 38.3  | (5,141.72) | 34.0  |
| EBITDA (UBS)                             | 124.68   | 218.64   | 304.25     | 449.69     | 719.31     | 1,351.23   | 87.9  | 1,778.05   | 31.6  | 2,317.04   | 30.3  |
| Depreciation                             | (6.18)   | (10.42)  | (12.37)    | (21.59)    | (47.36)    | (167.17)   | 253.0 | (164.48)   | -1.6  | (196.14)   | 19.2  |
| Operating income (EBIT, UBS)             | 118.50   | 208.22   | 291.88     | 428.10     | 671.95     | 1,184.07   | 76.2  | 1,613.57   | 36.3  | 2,120.90   | 31.4  |
| Other income & associates                | 0.00     | 0.00     | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Net interest                             | (5.54)   | (4.21)   | 25.72      | 25.48      | 2.91       | (10.55)    | -     | 5.45       | -     | 14.03      | 157.6 |
| Abnormal items (pre-tax)                 | 0.00     | 10.63    | 18.26      | 50.55      | 79.93      | 80.00      | 0.1   | 80.00      | 0.0   | 80.00      | 0.0   |
| Profit before tax                        | 112.96   | 214.65   | 335.85     | 504.13     | 754.79     | 1,253.51   | 66.1  | 1,699.02   | 35.5  | 2,214.93   | 30.4  |
| Tax                                      | (22.74)  | (31.84)  | (51.60)    | (76.46)    | (109.69)   | (176.03)   | 60.5  | (242.85)   | 38.0  | (320.24)   | 31.9  |
| Profit after tax                         | 90.22    | 182.81   | 284.25     | 427.67     | 645.10     | 1,077.49   | 67.0  | 1,456.17   | 35.1  | 1,894.69   | 30.1  |
| Abnormal items (post-tax)                | 0.00     | 0.00     | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Minorities / pref dividends              | (2.33)   | (3.20)   | (2.33)     | (3.31)     | (1.90)     | (3.00)     | 57.9  | (3.00)     | 0.0   | (3.00)     | 0.0   |
| Net income (local GAAP)                  | 87.88    | 179.61   | 281.92     | 424.36     | 643.20     | 1,074.49   | 67.1  | 1,453.17   | 35.2  | 1,891.69   | 30.2  |
| Net Income (UBS)                         | 87.88    | 170.56   | 266.47     | 381.75     | 575.42     | 1,006.49   | 74.9  | 1,385.17   | 37.6  | 1,823.69   | 31.7  |
|  |          |          |            |            |            |            |       |            |       |            |       |
| Tax rate (%)                             | 20.13    | 14.83    | 15.36      | 15.17      | 14.53      | 14.04      | -3.4  | 14.29      | 1.8   | 14.46      | 1.2   |
| Pre-abnormal tax rate (%)                | 20.13    | 14.83    | 15.36      | 15.11      | 14.45      | 13.98      | -3.3  | 14.26      | 2.0   | 14.44      | 1.3   |
|  |          |          |            |            |            |            |       |            |       |            |       |
| Per share (Rmb)                          | 12/08    | 12/09    | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
| EPS (local GAAP)                         | 0.77     | 0.30     | 0.47       | 0.71       | 1.08       | 1.80       | 67.1  | 2.43       | 35.2  | 3.17       | 30.2  |
| EPS (UBS)                                | 0.77     | 0.29     | 0.45       | 0.64       | 0.96       | 1.69       | 74.9  | 2.32       | 37.6  | 3.05       | 31.7  |
| Net DPS                                  | 0.00     | 0.00     | 0.00       | 0.00       | 0.00       | 0.11       | -     | 0.18       | 66.6  | 0.24       | 35.2  |
| Cash EPS                                 | 0.82     | 0.30     | 0.47       | 0.68       | 1.04       | 1.97       | 88.5  | 2.60       | 32.0  | 3.38       | 30.3  |
| BVPS                                     | -        | 0.57     | 3.76       | 4.32       | 5.27       | 6.97       | 32.3  | 9.22       | 32.3  | 12.15      | 31.7  |
|  |          |          |            |            |            |            |       |            |       |            |       |
| Balance sheet (Rmbm)                     | 12/08    | 12/09    | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
| Net tangible fixed assets                | -        | 84.98    | 109.17     | 334.06     | 825.62     | 1,002.94   | 21.5  | 1,193.85   | 19.0  | 1,253.09   | 5.0   |
| Net intangible fixed assets              | -        | 11.00    | 13.77      | 93.80      | 107.31     | 104.63     | -2.5  | 101.95     | -2.6  | 99.28      | -2.6  |
| Net working capital (incl. other assets) | -        | 147.21   | 508.80     | 1,034.75   | 1,684.68   | 2,252.38   | 33.7  | 3,045.68   | 35.2  | 4,269.93   | 40.2  |
| Other liabilities                        | -        | 0.00     | 0.00       | 0.00       | (13.40)    | (13.00)    | -3.0  | (13.00)    | 0.0   | (13.00)    | 0.0   |
| Operating invested capital               | -        | 243.20   | 631.74     | 1,462.61   | 2,604.21   | 3,346.95   | 28.5  | 4,328.48   | 29.3  | 5,609.29   | 29.6  |
| Investments                              | -        | 5.11     | 4.53       | 190.56     | 236.32     | 236.32     | 0.0   | 236.32     | 0.0   | 236.32     | 0.0   |
| Total capital employed                   | -        | 248.31   | 636.26     | 1,653.17   | 2,840.52   | 3,583.27   | 26.1  | 4,564.80   | 27.4  | 5,845.61   | 28.1  |
| Shareholders' equity                     | -        | 340.15   | 2,245.70   | 2,576.83   | 3,145.89   | 4,160.37   | 32.2  | 5,506.09   | 32.3  | 7,252.46   | 31.7  |
| Minority interests                       | -        | 6.69     | 4.51       | 12.26      | 14.92      | 17.92      | 20.1  | 20.92      | 16.7  | 23.92      | 14.3  |
| Total equity                             | -        | 346.83   | 2,250.21   | 2,589.08   | 3,160.80   | 4,178.29   | 32.2  | 5,527.00   | 32.3  | 7,276.38   | 31.7  |
| Net debt / (cash)                        | -        | (98.52)  | (1,613.94) | (935.92)   | (320.28)   | (595.02)   | 85.8  | (962.21)   | 61.7  | (1,430.77) | 48.7  |
| Other debt-deemed items                  | -        | 0.00     | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Total capital employed                   | -        | 248.31   | 636.26     | 1,653.17   | 2,840.52   | 3,583.27   | 26.1  | 4,564.80   | 27.4  | 5,845.61   | 28.1  |
|  |          |          |            |            |            |            |       |            |       |            |       |
| Cash flow (Rmbm)                         | 12/08    | 12/09    | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
| Operating income (EBIT, UBS)             | 118.50   | 208.22   | 291.88     | 428.10     | 671.95     | 1,184.07   | 76.2  | 1,613.57   | 36.3  | 2,120.90   | 31.4  |
| Depreciation                             | 6.18     | 10.42    | 12.37      | 21.59      | 47.36      | 167.17     | 253.0 | 164.48     | -1.6  | 196.14     | 19.2  |
| Net change in working capital            | (6.00)   | (48.83)  | (345.29)   | (586.12)   | (506.08)   | (793.22)   | 56.7  | (832.09)   | 4.9   | (1,289.12) | 54.9  |
| Other (operating)                        | 7.29     | 12.89    | 23.31      | 54.51      | 83.78      | 233.36     | 178.5 | 30.64      | -86.9 | 48.14      | 57.1  |
| Operating cash flow (pre tax/interest)   | 125.96   | 182.70   | (17.73)    | (81.92)    | 297.01     | 791.37     | 166.4 | 976.60     | 23.4  | 1,076.05   | 10.2  |
| Net interest received / (paid)           | (5.54)   | (4.21)   | 25.72      | 25.48      | 2.91       | (10.55)    | -     | 5.45       | -     | 14.03      | 157.6 |
| Dividends paid                           | 0.00     | 0.00     | 0.00       | 0.00       | 0.00       | (64.51)    | -     | (107.45)   | 66.56 | (145.32)   | 35.24 |
| Tax paid                                 | (22.76)  | (33.01)  | (52.75)    | (83.07)    | (125.23)   | (176.03)   | 40.6  | (242.85)   | 38.0  | (320.24)   | 31.9  |
| Capital expenditure                      | (24.21)  | (32.29)  | (61.05)    | (270.64)   | (496.10)   | (300.00)   | -39.5 | (350.00)   | 16.7  | (250.00)   | -28.6 |
| Net (acquisitions) / disposals           | 0.00     | 0.00     | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Other                                    | -        | -        | (54.62)    | (372.89)   | (182.90)   | 150.56     | -     | 162.45     | 7.9   | 171.03     | 5.3   |
| Share issues                             | 2.01     | 2.15     | 1,701.47   | 4.44       | 5.50       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Cash flow (inc)/dec in net debt          | 58.94    | 42.98    | 1,523.96   | (832.45)   | (592.39)   | 313.84     | -     | 367.19     | 17.0  | 468.56     | 27.6  |
| FX / non cash items                      | -        | -        | (8.54)     | 154.42     | (23.25)    | (39.10)    | 68.2  | 0.00       | -     | 0.00       | -     |
| Balance sheet (inc)/dec in net debt      | -        | -        | 1,515.42   | (678.03)   | (615.64)   | 274.74     | -     | 367.19     | 33.7  | 468.56     | 27.6  |
| Core EBITDA                              | 124.68   | 218.64   | 304.25     | 449.69     | 719.31     | 1,351.23   | 87.9  | 1,778.05   | 31.6  | 2,317.04   | 30.3  |
| Maintenance capital expenditure          | (1.35)   | (2.12)   | (2.73)     | (8.35)     | (20.64)    | (25.07)    | 21.5  | (29.85)    | 19.0  | (31.33)    | 5.0   |
| Maintenance net working capital          | 0.24     | 1.95     | 13.81      | 23.44      | 20.24      | 31.73      | 56.7  | 33.28      | 4.9   | 51.56      | 54.9  |
| Operating free cash flow, pre-tax        | 123.56   | 218.47   | 315.33     | 464.78     | 718.91     | 1,357.89   | 88.9  | 1,781.49   | 31.2  | 2,337.27   | 31.2  |

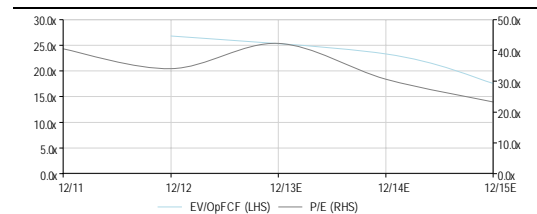
Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Note: For some companies, the data represents an extract of the full company accounts.



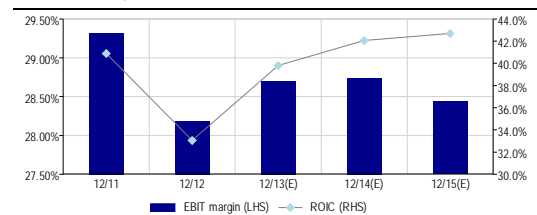
## Company profile

Established in 1999, Yantai Jereh Oilfield Services was restructured into a joint-stock company in November 2007 and listed on the Shenzhen Stock Exchange in February 2010. The company is involved in the manufacture, assembly, distribution and repair of oilfield-related equipment including well cementing and fracturing trucks, as well as the repair, servicing and spare-part distribution of oilfield, mining and other industrial equipment. The company's three controlling shareholders are Sun Weijie, Wang Kunxiao and Liu Zhenfeng with 26.4%, 18.07% and 14.1% stakes, respectively, as at 31 December 2012.

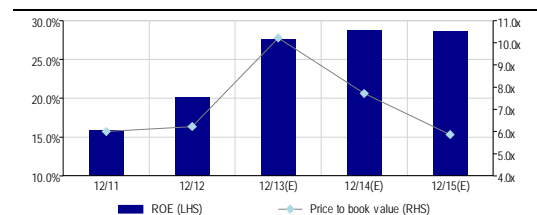
## Value (EV/OpFCF & P/E)



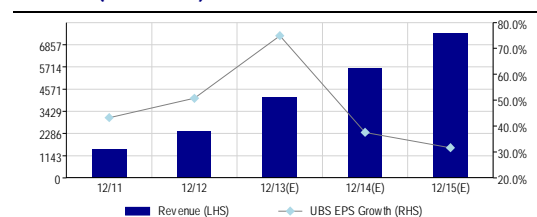
## Profitability



## ROE v Price to book value



## Growth (UBS EPS)



# Yantai Jereh Oilfield Services

| Valuation (x)           | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-------------------------|---------|-------|-------|--------|--------|--------|
| P/E (local GAAP)        | -       | 36.4  | 30.5  | 39.6   | 29.3   | 22.5   |
| P/E (UBS)               | -       | 40.5  | 34.0  | 42.2   | 30.7   | 23.3   |
| P/CEPS                  | -       | 38.3  | 31.5  | 36.2   | 27.4   | 21.0   |
| Net dividend yield (%)  | -       | 0.0   | 0.0   | 0.2    | 0.3    | 0.3    |
| P/BV                    | -       | 6.0   | 6.2   | 10.2   | 7.7    | 5.9    |
| EV/revenue (core)       | -       | 10.0  | 8.1   | NM     | 7.4    | 5.5    |
| EV/EBITDA (core)        | -       | 32.3  | 26.8  | 31.0   | 23.4   | 17.7   |
| EV/EBIT (core)          | -       | NM    | 28.7  | NM     | 25.8   | 19.4   |
| EV/OpFCF (core)         | -       | NM    | 26.8  | NM     | 23.3   | 17.6   |
| EV/op. invested capital | -       | NM    | 9.5   | NM     | NM     | 8.3    |

| Enterprise value (Rmbm)         | 12/11     | 12/12     | 12/13E    | 12/14E    | 12/15E     |
|---------------------------------|-----------|-----------|-----------|-----------|------------|
| Average market cap              | 15,459.84 | 19,588.32 | 42,509.96 | 42,509.96 | 42,509.96  |
| + minority interests            | 12.26     | 14.92     | 17.92     | 20.92     | 23.92      |
| + average net debt (cash)       | (935.92)  | (320.28)  | (595.02)  | (962.21)  | (1,430.77) |
| + pension obligations and other | 0.00      | 0.00      | 0.00      | 0.00      | 0.00       |
| - non-core asset value          | 0.00      | 0.00      | 0.00      | 0.00      | 0.00       |
| Core enterprise value           | 14,536.18 | 19,282.96 | 41,932.86 | 41,568.67 | 41,103.11  |

| Growth (%)   | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------|---------|-------|-------|--------|--------|--------|
| Revenue      | 52.6    | 54.7  | 63.3  | 73.0   | 36.1   | 32.8   |
| EBITDA (UBS) | 55.0    | 47.8  | 60.0  | 87.9   | 31.6   | 30.3   |
| EBIT (UBS)   | 54.3    | 46.7  | 57.0  | 76.2   | 36.3   | 31.4   |
| EPS (UBS)    | 5.9     | 43.3  | 50.7  | 74.9   | 37.6   | 31.7   |
| Cash EPS     | 6.2     | 44.6  | 54.4  | 88.5   | 32.0   | 30.3   |
| Net DPS      | -       | -     | -     | -      | 66.6   | 35.2   |
| BVPS         | -       | 14.7  | 22.1  | 32.3   | 32.3   | 31.7   |

| Margins (%)                | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|----------------------------|---------|-------|-------|--------|--------|--------|
| EBITDA / revenue           | 30.7    | 30.8  | 30.2  | 32.8   | 31.7   | 31.1   |
| EBIT / revenue             | 29.2    | 29.3  | 28.2  | 28.7   | 28.7   | 28.4   |
| Net profit (UBS) / revenue | 24.7    | 26.1  | 24.1  | 24.4   | 24.7   | 24.5   |

| Return on capital (%) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| EBIT ROIC (UBS)       | -       | 40.9  | 33.0  | 39.8   | 42.0   | 42.7   |
| ROIC post tax         | -       | 34.7  | 28.3  | 34.2   | 36.1   | 36.5   |
| Net ROE               | -       | 15.8  | 20.1  | 27.6   | 28.7   | 28.6   |

| Coverage ratios (x)             | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|---------------------------------|---------|-------|-------|--------|--------|--------|
| EBIT / net interest             | -       | -     | -     | NM     | -      | -      |
| Dividend cover (UBS EPS)        | -       | -     | -     | 15.6   | 12.9   | 12.5   |
| Div. payout ratio (% , UBS EPS) | -       | -     | -     | 6.4    | 7.8    | 8.0    |
| Net debt / EBITDA               | -       | NM    | NM    | NM     | NM     | NM     |

| Efficiency ratios (x)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Revenue / op. invested capital | -       | 1.4   | 1.2   | 1.4    | 1.5    | 1.5    |
| Revenue / fixed assets         | -       | 5.3   | 3.5   | 4.0    | 4.7    | 5.6    |
| Revenue / net working capital  | -       | 1.9   | 1.8   | 2.1    | 2.1    | 2.1    |

| Investment ratios (x) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| OpFCF / EBIT          | 1.1     | 1.1   | 1.1   | 1.1    | 1.1    | 1.1    |
| Capex / revenue (%)   | 15.0    | 18.5  | 20.8  | 7.3    | 6.2    | 3.4    |
| Capex / depreciation  | 9.0     | NM    | NM    | 1.8    | 2.1    | 1.3    |

| Capital structure (%)          | 5Yr Avg | 12/11  | 12/12  | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|--------|--------|--------|--------|--------|
| Net debt / total equity        | -       | (36.3) | (10.2) | (14.3) | (17.5) | (19.7) |
| Net debt / (net debt + equity) | -       | (57.0) | (11.3) | (16.7) | (21.2) | (24.6) |
| Net debt (core) / EV           | -       | (6.4)  | (1.7)  | (1.4)  | (2.3)  | (3.5)  |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items.

Valuations: based on an average share price that year, (E): based on a share price of Rmb71.20 on 24 Sep 2013 22:52 SGT Market cap(E) may include forecast share issues/buybacks.

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## UBS Investment Research

### Yonyou Software

## Platform-based development

### ■ Ramped up R&D investments; developed platform product

Yonyou Software (Yonyou) spent Rmb329m on R&D in H113 (up 35.9% YoY), mainly on cloud computing. It completed R&D for its platform product (UAP6.3) and signed contracts with more than 60 partners, finishing the initial deployment along the industry chain. It developed the CSP platform and technical architecture design of the supporting system. Subscribers to Yonyou's financial and tax cloud computing platform 'Accountant Home' have exceeded 260,000 (180,000 have participated in online interactions or watched online programmes). Yonyou launched its 'cloud + terminal' product (T+V11.5) in May 2013, indicating a breakthrough in the social application of mobile software and SNS.

### ■ Its Q313 results could improve

Yonyou began adjusting its business model and structure during end-2012, strengthening joint operations with its partners as well as firms along the value chain, optimising its employee structure, and controlling its expenses, resulting in its H113 SG&A dropping 6.1% YoY. Net cash flow from its operations rose substantially YoY, and advanced receipts continued to rise. We expect the transformation to start improving Yonyou's results in Q313.

### ■ Benefits from long-term development of the cloud computing market

Research firm IDC expects rapid growth in China's cloud computing market—it estimates sales will reach US\$1.83bn in 2013 (up 52.5% YoY) and the submarket for cloud infrastructure will exceed US\$1bn in 2016. Yonyou has an extensive enterprise client base and is actively deploying its cloud computing products. We are optimistic on its future growth potential.

### ■ Valuation: price target of Rmb12.00

We derive our price target from a DCF-based methodology and explicitly forecast long-term valuation drivers using UBS's VCAM tool, assuming an 8.8% WACC.

| Highlights (Rmbm)         | 12/11         | 12/12    | 12/13E   | 12/14E   | 12/15E   |
|---------------------------|---------------|----------|----------|----------|----------|
| Revenues                  | 4,122.16      | 4,235.21 | 4,353.94 | 5,104.75 | 5,918.93 |
| EBIT (UBS)                | 334.21        | 207.50   | 192.84   | 497.14   | 779.67   |
| Net Income (UBS)          | 536.78        | 379.60   | 464.32   | 697.51   | 987.67   |
| EPS (UBS, Rmb)            | 0.55          | 0.39     | 0.47     | 0.71     | 1.01     |
| Net DPS (UBS, Rmb)        | 0.18          | 0.33     | 0.20     | 0.25     | 0.35     |
| Profitability & Valuation | 5-yr hist av. | 12/12    | 12/13E   | 12/14E   | 12/15E   |
| EBIT margin %             | 6.1           | 4.9      | 4.4      | 9.7      | 13.2     |
| ROIC (EBIT) %             | 13.8          | 8.8      | 7.4      | 18.3     | 27.6     |
| EV/EBITDA (core) x        | 49.9          | 41.1     | 46.2     | 21.3     | 13.8     |
| PE (UBS) x                | 35.1          | 36.8     | 30.4     | 20.3     | 14.3     |
| Net dividend yield %      | 1.7           | 2.3      | 1.4      | 1.7      | 2.4      |

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptional and other special items. Valuations: based on an average share price that year, (E): based on a share price of Rmb14.44 on 24 Sep 2013 22:52 SGT

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## Global Equity Research

China

Software

12-month rating **Neutral**  
**Unchanged**

12m price target **Rmb12.00/US\$1.96**  
**Unchanged**

Price **Rmb14.44/US\$2.36**

RIC: 600588.SS BBG: 600588 CH

### Trading data (local/US\$)

|                          |                             |
|--------------------------|-----------------------------|
| 52-wk range              | Rmb15.07-8.04/US\$2.46-1.29 |
| Market cap.              | Rmb13.9bn/US\$2.26bn        |
| Shares o/s               | 959m (ORDA)                 |
| Free float               | 42%                         |
| Avg. daily volume ('000) | 20,707                      |
| Avg. daily value (m)     | Rmb255.0                    |

### Balance sheet data 12/13E

|                      |           |
|----------------------|-----------|
| Shareholders' equity | Rmb3.31bn |
| P/BV (UBS)           | 4.3x      |
| Net Cash (debt)      | Rmb0.57bn |

### Forecast returns

|                             |        |
|-----------------------------|--------|
| Forecast price appreciation | -16.9% |
| Forecast dividend yield     | 1.4%   |
| Forecast stock return       | -15.5% |
| Market return assumption    | 8.7%   |
| Forecast excess return      | -24.2% |

### EPS (UBS, Rmb)

|        | 12/13E | 12/12  |
|--------|--------|--------|
|        | UBS    | Cons.  |
| Q1     | (0.04) | (0.04) |
| Q2     | 0.12   | 0.10   |
| Q3E    | (0.05) | (0.05) |
| Q4E    | 0.44   | 0.44   |
| 12/13E | 0.47   | 0.47   |
| 12/14E | 0.71   | 0.71   |

### Performance (Rmb)



Source: UBS

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# Yonyou Software

| Income statement (Rmbm)                  | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch   | 12/14E     | % ch   | 12/15E     | % ch  |
|--|------------|------------|------------|------------|------------|------------|--------|------------|--------|------------|-------|
| Revenues                                 | 1,725.63   | 2,347.01   | 2,978.83   | 4,122.16   | 4,235.21   | 4,353.94   | 2.8    | 5,104.75   | 17.2   | 5,918.93   | 15.9  |
| Operating expenses (ex depre)            | (1,548.27) | (2,103.62) | (2,790.79) | (3,678.77) | (3,911.00) | (4,066.71) | 4.0    | (4,491.90) | 10.5   | (5,003.67) | 11.4  |
| EBITDA (UBS)                             | 177.36     | 243.39     | 188.04     | 443.39     | 324.21     | 287.23     | -11.4  | 612.86     | 113.4  | 915.26     | 49.3  |
| Depreciation                             | (63.61)    | (68.13)    | (85.35)    | (109.18)   | (116.71)   | (94.40)    | -19.1  | (115.72)   | 22.6   | (135.58)   | 17.2  |
| Operating income (EBIT, UBS)             | 113.75     | 175.26     | 102.69     | 334.21     | 207.50     | 192.84     | -7.1   | 497.14     | 157.8  | 779.67     | 56.8  |
| Other income & associates                | 346.04     | 488.12     | 243.52     | 303.53     | 290.08     | 393.22     | 35.6   | 346.29     | -11.9  | 380.46     | 9.9   |
| Net interest                             | 8.28       | 10.87      | 1.49       | (31.83)    | (56.55)    | (59.62)    | 5.4    | (52.60)    | -11.8  | (40.33)    | -23.3 |
| Abnormal items (pre-tax)                 | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -      | 0.00       | -      | 0.00       | -     |
| Profit before tax                        | 468.07     | 674.25     | 347.70     | 605.91     | 441.03     | 526.44     | 19.4   | 790.82     | 50.2   | 1,119.81   | 41.6  |
| Tax                                      | (60.30)    | (60.26)    | (1.65)     | (55.06)    | (53.88)    | (52.64)    | -2.3   | (79.08)    | 50.2   | (111.98)   | 41.6  |
| Profit after tax                         | 407.77     | 613.99     | 346.05     | 550.85     | 387.15     | 473.80     | 22.4   | 711.74     | 50.2   | 1,007.83   | 41.6  |
| Abnormal items (post-tax)                | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -      | 0.00       | -      | 0.00       | -     |
| Minorities / pref dividends              | (12.33)    | (20.28)    | (14.00)    | (14.06)    | (7.55)     | (9.48)     | 25.5   | (14.23)    | 50.2   | (20.16)    | 41.6  |
| Net income (local GAAP)                  | 395.44     | 593.71     | 332.05     | 536.78     | 379.60     | 464.32     | 22.3   | 697.51     | 50.2   | 987.67     | 41.6  |
| Net Income (UBS)                         | 395.44     | 593.71     | 332.05     | 536.78     | 379.60     | 464.32     | 22.3   | 697.51     | 50.2   | 987.67     | 41.6  |
| Tax rate (%)                             | 12.88      | 8.94       | 0.47       | 9.09       | 12.22      | 10.00      | -18.1  | 10.00      | 0.0    | 10.00      | 0.0   |
| Pre-abnormal tax rate (%)                | 12.88      | 8.94       | 0.47       | 9.09       | 12.22      | 10.00      | -18.1  | 10.00      | 0.0    | 10.00      | 0.0   |
| Per share (Rmb)                          | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch   | 12/14E     | % ch   | 12/15E     | % ch  |
| EPS (local GAAP)                         | 0.42       | 0.63       | 0.34       | 0.55       | 0.39       | 0.47       | 22.0   | 0.71       | 50.2   | 1.01       | 41.6  |
| EPS (UBS)                                | 0.42       | 0.63       | 0.34       | 0.55       | 0.39       | 0.47       | 22.0   | 0.71       | 50.2   | 1.01       | 41.6  |
| Net DPS                                  | 0.25       | 0.15       | 0.39       | 0.18       | 0.33       | 0.20       | -41.4  | 0.25       | 27.2   | 0.35       | 41.6  |
| Cash EPS                                 | 0.49       | 0.70       | 0.43       | 0.66       | 0.51       | 0.57       | 12.3   | 0.83       | 45.6   | 1.15       | 38.1  |
| BVPS                                     | 1.94       | 2.65       | 2.59       | 3.02       | 3.10       | 3.38       | 9.0    | 3.84       | 13.7   | 4.50       | 17.1  |
| Balance sheet (Rmbm)                     | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch   | 12/14E     | % ch   | 12/15E     | % ch  |
| Net tangible fixed assets                | 547.83     | 668.42     | 901.38     | 1,131.71   | 1,389.31   | 1,406.55   | 1.2    | 1,420.85   | 1.0    | 1,431.10   | 0.7   |
| Net intangible fixed assets              | 686.75     | 806.58     | 1,250.52   | 1,268.04   | 1,285.98   | 1,336.94   | 4.0    | 1,388.58   | 3.9    | 1,445.09   | 4.1   |
| Net working capital (incl. other assets) | (463.07)   | (532.72)   | (749.99)   | (237.48)   | (137.44)   | (87.19)    | -36.6  | (29.05)    | -66.7  | 1.53       | -     |
| Other liabilities                        | (22.84)    | 0.00       | (4.55)     | (5.51)     | (5.03)     | (5.03)     | 0.0    | (5.03)     | 0.0    | (5.03)     | 0.0   |
| Operating invested capital               | 748.67     | 942.28     | 1,397.36   | 2,156.77   | 2,532.82   | 2,651.27   | 4.7    | 2,775.34   | 4.7    | 2,872.68   | 3.5   |
| Investments                              | 34.65      | 56.61      | 133.50     | 162.90     | 176.63     | 176.63     | 0.0    | 176.63     | 0.0    | 176.63     | 0.0   |
| Total capital employed                   | 783.32     | 998.89     | 1,530.86   | 2,319.66   | 2,709.45   | 2,827.89   | 4.4    | 2,951.97   | 4.4    | 3,049.31   | 3.3   |
| Shareholders' equity                     | 1,835.83   | 2,591.13   | 2,533.87   | 2,960.98   | 3,037.24   | 3,310.51   | 9.0    | 3,763.89   | 13.7   | 4,405.88   | 17.1  |
| Minority interests                       | 32.63      | 32.90      | 39.81      | 71.56      | 79.91      | 89.39      | 11.9   | 103.62     | 15.9   | 123.78     | 19.5  |
| Total equity                             | 1,868.46   | 2,624.03   | 2,573.68   | 3,032.54   | 3,117.15   | 3,399.90   | 9.1    | 3,867.52   | 13.8   | 4,529.66   | 17.1  |
| Net debt / (cash)                        | (1,085.14) | (1,625.14) | (1,042.82) | (712.88)   | (407.70)   | (572.01)   | 40.3   | (915.54)   | 60.1   | (1,480.35) | 61.7  |
| Other debt-deemed items                  | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -      | 0.00       | -      | 0.00       | -     |
| Total capital employed                   | 783.32     | 998.89     | 1,530.86   | 2,319.66   | 2,709.45   | 2,827.89   | 4.4    | 2,951.97   | 4.4    | 3,049.31   | 3.3   |
| Cash flow (Rmbm)                         | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch   | 12/14E     | % ch   | 12/15E     | % ch  |
| Operating income (EBIT, UBS)             | 113.75     | 175.26     | 102.69     | 334.21     | 207.50     | 192.84     | -7.1   | 497.14     | 157.8  | 779.67     | 56.8  |
| Depreciation                             | 63.61      | 68.13      | 85.35      | 109.18     | 116.71     | 94.40      | -19.1  | 115.72     | 22.6   | 135.58     | 17.2  |
| Net change in working capital            | 40.99      | 11.85      | 18.37      | (280.67)   | (106.69)   | (1.46)     | -98.6  | (140.31)   | 9528.7 | (134.50)   | -4.1  |
| Other (operating)                        | 197.08     | 194.11     | 283.13     | 395.79     | 391.56     | 333.46     | -14.8  | 476.06     | 42.8   | 519.71     | 9.2   |
| Operating cash flow (pre tax/interest)   | 415.43     | 449.35     | 489.54     | 558.51     | 609.08     | 619.23     | 1.7    | 948.61     | 53.2   | 1,300.47   | 37.1  |
| Net interest received / (paid)           | 8.28       | 10.87      | 1.49       | (31.83)    | (56.55)    | (59.62)    | 5.4    | (52.60)    | -11.8  | (40.33)    | -23.3 |
| Dividends paid                           | (231.36)   | (140.00)   | (376.72)   | (179.53)   | (326.36)   | (191.85)   | -41.22 | (244.13)   | 27.25  | (345.69)   | 41.60 |
| Tax paid                                 | (60.30)    | (60.26)    | (1.65)     | (55.06)    | (53.88)    | (52.64)    | -2.3   | (79.08)    | 50.2   | (111.98)   | 41.6  |
| Capital expenditure                      | (114.17)   | (260.42)   | (341.96)   | (282.62)   | (364.84)   | (122.59)   | -66.4  | (141.66)   | 15.6   | (162.34)   | 14.6  |
| Net (acquisitions) / disposals           | 77.19      | 11.74      | 45.37      | 1.31       | 3.04       | 0.00       | -      | 0.00       | -      | 0.00       | -     |
| Other                                    | 378.68     | 734.64     | (151.69)   | (60.43)    | 218.29     | 324.13     | 48.5   | 279.45     | -13.8  | 319.98     | 14.5  |
| Share issues                             | 55.69      | 280.71     | 0.62       | 70.92      | 19.63      | 0.00       | -      | 0.00       | -      | 0.00       | -     |
| Cash flow (inc)/dec in net debt          | 195.73     | 558.79     | (564.52)   | (268.19)   | (234.10)   | 132.92     | -      | 378.54     | 184.8  | 599.81     | 58.5  |
| FX / non cash items                      | (19.99)    | (18.79)    | (17.80)    | (61.75)    | (71.07)    | 31.39      | -      | (35.00)    | -      | (35.00)    | 0.0   |
| Balance sheet (inc)/dec in net debt      | 175.74     | 540.00     | (582.32)   | (329.94)   | (305.18)   | 164.31     | -      | 343.54     | 109.1  | 564.81     | 64.4  |
| Core EBITDA                              | 177.36     | 243.39     | 188.04     | 443.39     | 324.21     | 287.23     | -11.4  | 612.86     | 113.4  | 915.26     | 49.3  |
| Maintenance capital expenditure          | (11.42)    | (26.04)    | (34.20)    | (28.26)    | (36.48)    | (11.16)    | -69.4  | (13.00)    | 16.5   | (14.58)    | 12.2  |
| Maintenance net working capital          | 4.10       | 1.19       | 1.84       | (28.07)    | (10.67)    | (0.15)     | -98.6  | (14.03)    | 9528.7 | (13.45)    | -4.1  |
| Operating free cash flow, pre-tax        | 170.04     | 218.53     | 155.68     | 387.06     | 277.06     | 275.93     | -0.4   | 585.82     | 112.3  | 887.23     | 51.4  |

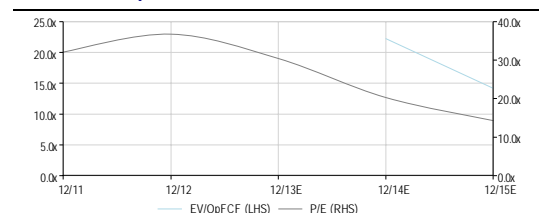
Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Note: For some companies, the data represents an extract of the full company accounts.



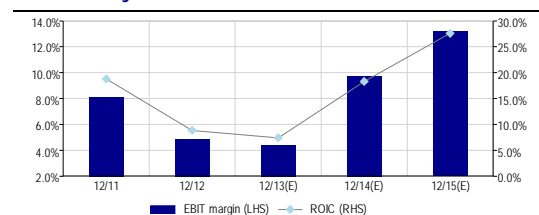
## Company profile

Yonyou Software is engaged in the R&D, market promotion and support of financial, management and other application software for companies. As China's largest management software and service provider and a leading cloud service, healthcare software and management consulting & informatisation talent training service provider, Yonyou has had the largest share in China's management and financial software market for nine straight years. It produces software for ERP, group and HR management, CRM, small company informatisation, fiscal and administrative authorities, auto and tobacco companies, and internal auditing.

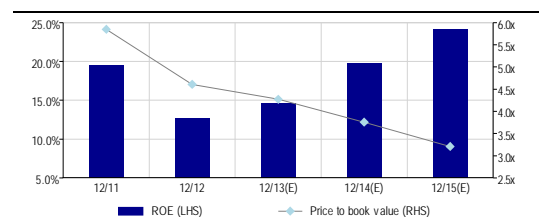
## Value (EV/OpFCF &amp; P/E)



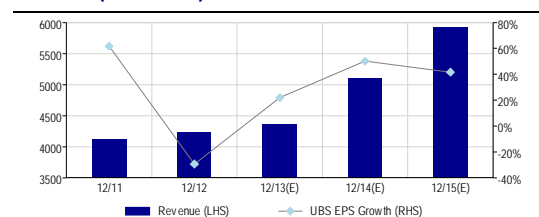
## Profitability



## ROE v Price to book value



## Growth (UBS EPS)



| Valuation (x)           | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-------------------------|---------|-------|-------|--------|--------|--------|
| P/E (local GAAP)        | 35.1    | 32.1  | 36.8  | 30.4   | 20.3   | 14.3   |
| P/E (UBS)               | 35.1    | 32.1  | 36.8  | 30.4   | 20.3   | 14.3   |
| P/CEPS                  | 28.7    | 26.7  | 28.1  | 25.3   | 17.4   | 12.6   |
| Net dividend yield (%)  | 1.7     | 1.0   | 2.3   | 1.4    | 1.7    | 2.4    |
| P/BV                    | 5.8     | 5.8   | 4.6   | 4.3    | 3.8    | 3.2    |
| EV/revenue (core)       | 4.5     | 4.0   | 3.1   | 3.0    | 2.6    | 2.1    |
| EV/EBITDA (core)        | 49.9    | 36.8  | 41.1  | 46.2   | 21.3   | 13.8   |
| EV/EBIT (core)          | NM      | NM    | NM    | NM     | 26.2   | 16.2   |
| EV/OpFCF (core)         | NM      | NM    | NM    | NM     | 22.2   | 14.2   |
| EV/op. invested capital | NM      | 9.2   | 5.7   | 5.1    | 4.8    | 4.5    |

| Enterprise value (Rmbm)         | 12/11     | 12/12     | 12/13E    | 12/14E    | 12/15E     |
|---------------------------------|-----------|-----------|-----------|-----------|------------|
| Average market cap              | 17,312.16 | 13,997.86 | 13,851.57 | 13,851.57 | 13,851.57  |
| + minority interests            | 55.69     | 58.39     | 84.65     | 96.51     | 113.70     |
| + average net debt (cash)       | (877.85)  | (560.29)  | (489.85)  | (743.78)  | (1,197.95) |
| + pension obligations and other | 5.03      | 4.79      | 5.03      | 5.03      | 5.03       |
| - non-core asset value          | (162.90)  | (176.63)  | (176.63)  | (176.63)  | (176.63)   |
| Core enterprise value           | 16,332.13 | 13,324.12 | 13,274.77 | 13,032.70 | 12,595.73  |

| Growth (%)   | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------|---------|-------|-------|--------|--------|--------|
| Revenue      | 25.2    | 38.4  | 2.7   | 2.8    | 17.2   | 15.9   |
| EBITDA (UBS) | 16.3    | 135.8 | -26.9 | -11.4  | 113.4  | 49.3   |
| EBIT (UBS)   | 16.2    | NM    | -37.9 | -7.1   | 157.8  | 56.8   |
| EPS (UBS)    | -2.0    | 61.7  | -29.4 | 22.0   | 50.2   | 41.6   |
| Cash EPS     | 1.0     | 54.8  | -23.2 | 12.3   | 45.6   | 38.1   |
| Net DPS      | 7.9     | -52.3 | 81.6  | -41.4  | 27.2   | 41.6   |
| BVPS         | 12.5    | 16.9  | 2.6   | 9.0    | 13.7   | 17.1   |

| Margins (%)                | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|----------------------------|---------|-------|-------|--------|--------|--------|
| EBITDA / revenue           | 9.1     | 10.8  | 7.7   | 6.6    | 12.0   | 15.5   |
| EBIT / revenue             | 6.1     | 8.1   | 4.9   | 4.4    | 9.7    | 13.2   |
| Net profit (UBS) / revenue | 16.3    | 13.0  | 9.0   | 10.7   | 13.7   | 16.7   |

| Return on capital (%) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| EBIT ROIC (UBS)       | 13.8    | 18.8  | 8.8   | 7.4    | 18.3   | 27.6   |
| ROIC post tax         | -       | 17.1  | 7.8   | 6.7    | 16.5   | 24.8   |
| Net ROE               | 19.2    | 19.5  | 12.7  | 14.6   | 19.7   | 24.2   |

| Coverage ratios (x)             | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|---------------------------------|---------|-------|-------|--------|--------|--------|
| EBIT / net interest             | -       | 10.5  | 3.7   | 3.2    | 9.5    | 19.3   |
| Dividend cover (UBS EPS)        | 2.2     | 3.0   | 1.2   | 2.4    | 2.9    | 2.9    |
| Div. payout ratio (% , UBS EPS) | 63.0    | 33.4  | 86.0  | 41.3   | 35.0   | 35.0   |
| Net debt / EBITDA               | NM      | NM    | NM    | NM     | NM     | NM     |

| Efficiency ratios (x)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Revenue / op. invested capital | 2.3     | 2.3   | 1.8   | 1.7    | 1.9    | 2.1    |
| Revenue / fixed assets         | 1.7     | 1.8   | 1.7   | 1.6    | 1.8    | 2.1    |
| Revenue / net working capital  | NM      | NM    | NM    | NM     | NM     | NM     |

| Investment ratios (x) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| OpFCF / EBIT          | 1.3     | 1.2   | 1.3   | 1.4    | 1.2    | 1.1    |
| Capex / revenue (%)   | 8.9     | 6.9   | 8.6   | 2.8    | 2.8    | 2.7    |
| Capex / depreciation  | 3.1     | 2.6   | 3.1   | 1.3    | 1.2    | 1.2    |

| Capital structure (%)          | 5Yr Avg | 12/11  | 12/12  | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|--------|--------|--------|--------|--------|
| Net debt / total equity        | (37.6)  | (24.1) | (13.4) | (17.3) | (24.3) | (33.6) |
| Net debt / (net debt + equity) | (60.3)  | (31.7) | (15.5) | (20.9) | (32.1) | (50.6) |
| Net debt (core) / EV           | (7.5)   | (5.4)  | (4.2)  | (3.7)  | (5.7)  | (9.5)  |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items.

Valuations: based on an average share price that year, (E): based on a share price of Rmb14.44 on 24 Sep 2013 22:52 SGT Market cap(E) may include forecast share issues/buybacks.

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## UBS Investment Research

### Weifu High-Technology

## R&D should protect long-term business

### ■ Stronger R&D from cooperation with Bosch; rich product lines

Weifu High-Technology (Weifu) began working with Bosch in 1984. When Bosch Automotive Diesel Systems (BADS) introduced a diesel fuel injection system (for high-pressure common rail or HPCR), Weifu ramped up its R&D spending on core HPCR technologies. BADS's HPCR products have a localisation ratio of 30%—this is likely to rise to 50% in the future. Weifu has also developed an economically-efficient WAPS fuel injection system that complements HPCR, further optimising and expanding its product mix. The company is also a leader in the after-treatment system sector.

### ■ Improving R&D is likely to further protect its business

We believe stronger R&D capability will protect Weifu's long-term business as: 1) rising localisation ratios for HPCR products should control production costs; 2) the economically-efficient diesel fuel injection system is complementary to HPCR, and an enriched product line should help boost Weifu's market share; and 3) it has an early-mover advantage in the after-treatment subsector.

### ■ Grace period for China IV should not impact long-term competitive edge

From 1 July 2013, all heavy-duty diesel engines produced and registered must be compliant with China IV emission standards. However, sales of China III vehicles will be allowed over the next 0.5-1 year due to factors such as fuel quality and urea fillings. We expect China to raise its vehicle emission standards. While an altered process for heavy-duty trucks' compliance with China IV emission standards may adversely influence Wufei to unleash its earnings potential in the short term, this should not affect its medium- to long-term competitive advantages.

### ■ Valuation: Buy rating; Rmb28.60 price target

We derive our price target from a DCF-based methodology and explicitly forecast long-term valuation drivers using UBS's VCAM tool, assuming an 8.7% WACC.

| Highlights (Rmbm)         | 12/11         | 12/12    | 12/13E   | 12/14E   | 12/15E    |
|---------------------------|---------------|----------|----------|----------|-----------|
| Revenues                  | 5,898.11      | 5,015.28 | 6,254.52 | 9,594.01 | 13,956.71 |
| EBIT (UBS)                | 889.17        | 553.67   | 750.00   | 1,175.85 | 1,352.64  |
| Net Income (UBS)          | 1,204.62      | 889.33   | 1,089.14 | 1,638.42 | 2,030.66  |
| EPS (UBS, Rmb)            | 1.18          | 0.87     | 1.07     | 1.61     | 1.99      |
| Net DPS (UBS, Rmb)        | 0.30          | 0.30     | 0.36     | 0.54     | 0.67      |
| Profitability & Valuation | 5-yr hist av. | 12/12    | 12/13E   | 12/14E   | 12/15E    |
| EBIT margin %             | 8.8           | 11.0     | 12.0     | 12.3     | 9.7       |
| ROIC (EBIT) %             | 18.7          | 15.3     | 17.9     | 25.1     | 24.2      |
| EV/EBITDA (core) x        | 18.8          | 18.4     | 17.8     | 12.2     | 10.5      |
| PE (UBS) x                | 22.4          | 22.6     | 23.3     | 15.5     | 12.5      |
| Net dividend yield %      | 2.0           | 1.5      | 1.4      | 2.2      | 2.7       |

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Valuations: based on an average share price that year, (E): based on a share price of Rmb24.89 on 24 Sep 2013 22:52 SGT

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## Global Equity Research

China

Auto Parts

12-month rating **Buy**  
**Unchanged**

12m price target **Rmb28.60/US\$4.67**  
**Unchanged**

Price **Rmb24.89/US\$4.07**

RIC: 000581.SZ BBG: 000581 CH

### Trading data (local/US\$)

|                          |                              |
|--------------------------|------------------------------|
| 52-wk range              | Rmb30.27-15.93/US\$4.85-2.53 |
| Market cap.              | Rmb24.1bn/US\$3.93bn         |
| Shares o/s               | 848m (ORDA)                  |
| Free float               | 82%                          |
| Avg. daily volume ('000) | 9,734                        |
| Avg. daily value (m)     | Rmb214.3                     |

### Balance sheet data 12/13E

|                      |           |
|----------------------|-----------|
| Shareholders' equity | Rmb10.2bn |
| P/BV (UBS)           | 2.5x      |
| Net Cash (debt)      | Rmb2.83bn |

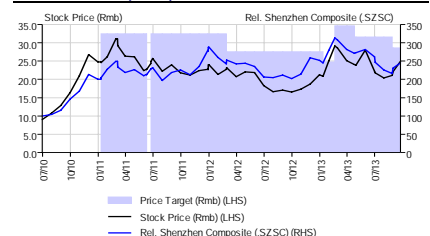
### Forecast returns

|                             |        |
|-----------------------------|--------|
| Forecast price appreciation | +14.9% |
| Forecast dividend yield     | 1.4%   |
| Forecast stock return       | +16.3% |
| Market return assumption    | 8.7%   |
| Forecast excess return      | +7.6%  |

### EPS (UBS, Rmb)

|        | 12/13E | 12/12        |
|--------|--------|--------------|
|        | UBS    | Cons. Actual |
| Q1     | 0.25   | 0.25         |
| Q2     | 0.27   | 0.40         |
| Q3E    | 0.23   | 0.23         |
| Q4E    | 0.32   | 0.32         |
| 12/13E | 1.07   | 1.07         |
| 12/14E | 1.61   | 1.61         |

### Performance (Rmb)



Source: UBS

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# Weifu High-Technology

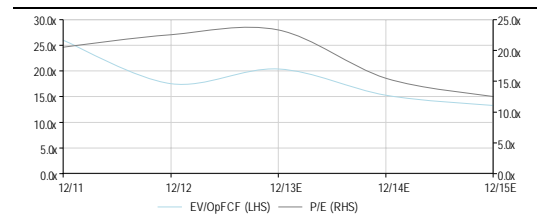
| Income statement (Rmbm)                  | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch   | 12/14E     | % ch  | 12/15E      | % ch  |
|--|------------|------------|------------|------------|------------|------------|--------|------------|-------|-------------|-------|
| Revenues                                 | 3,033.29   | 3,080.62   | 5,371.21   | 5,898.11   | 5,015.28   | 6,254.52   | 24.7   | 9,594.01   | 53.4  | 13,956.71   | 45.5  |
| Operating expenses (ex deprn)            | (2,928.02) | (2,804.66) | (4,401.96) | (4,870.43) | (4,298.82) | (5,232.36) | 21.7   | (8,122.40) | 55.2  | (12,284.47) | 51.2  |
| EBITDA (UBS)                             | 105.27     | 275.96     | 969.26     | 1,027.68   | 716.47     | 1,022.16   | 42.7   | 1,471.61   | 44.0  | 1,672.24    | 13.6  |
| Depreciation                             | (153.28)   | (152.07)   | (140.09)   | (138.51)   | (162.80)   | (272.16)   | 67.2   | (295.77)   | 8.7   | (319.60)    | 8.1   |
| Operating income (EBIT, UBS)             | (48.01)    | 123.89     | 829.17     | 889.17     | 553.67     | 750.00     | 35.5   | 1,175.85   | 56.8  | 1,352.64    | 15.0  |
| Other income & associates                | 335.53     | 390.29     | 704.04     | 533.98     | 408.85     | 492.25     | 20.4   | 716.50     | 45.6  | 1,041.17    | 45.3  |
| Net interest                             | (71.83)    | (31.42)    | (33.35)    | (26.35)    | 75.49      | 21.81      | -71.1  | 13.87      | -36.4 | (76.06)     | -     |
| Abnormal items (pre-tax)                 | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -      | 0.00       | -     | 0.00        | -     |
| Profit before tax                        | 215.69     | 482.76     | 1,499.85   | 1,396.81   | 1,038.02   | 1,264.05   | 21.8   | 1,906.22   | 50.8  | 2,317.75    | 21.6  |
| Tax                                      | (8.88)     | (19.06)    | (118.49)   | (141.29)   | (103.78)   | (122.09)   | 17.6   | (186.92)   | 53.1  | (200.37)    | 7.2   |
| Profit after tax                         | 206.81     | 463.70     | 1,381.36   | 1,255.51   | 934.24     | 1,141.97   | 22.2   | 1,719.31   | 50.6  | 2,117.37    | 23.2  |
| Abnormal items (post-tax)                | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -      | 0.00       | -     | 0.00        | -     |
| Minorities / pref dividends              | (13.39)    | (15.48)    | (41.07)    | (50.89)    | (44.91)    | (52.83)    | 17.6   | (80.89)    | 53.1  | (86.71)     | 7.2   |
| Net income (local GAAP)                  | 193.42     | 448.22     | 1,340.29   | 1,204.62   | 889.33     | 1,089.14   | 22.5   | 1,638.42   | 50.4  | 2,030.66    | 23.9  |
| Net Income (UBS)                         | 193.42     | 448.22     | 1,340.29   | 1,204.62   | 889.33     | 1,089.14   | 22.5   | 1,638.42   | 50.4  | 2,030.66    | 23.9  |
| Tax rate (%)                             | 4.12       | 3.95       | 7.90       | 10.12      | 10.00      | 9.66       | -3.4   | 9.81       | 1.5   | 8.65        | -11.8 |
| Pre-abnormal tax rate (%)                | (6.00)     | 16.61      | 14.53      | 15.72      | 15.51      | 15.51      | 0.0    | 15.51      | 0.0   | 15.51       | 0.0   |
| Per share (Rmb)                          | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch   | 12/14E     | % ch  | 12/15E      | % ch  |
| EPS (local GAAP)                         | 0.19       | 0.44       | 1.31       | 1.18       | 0.87       | 1.07       | 22.5   | 1.61       | 50.4  | 1.99        | 23.9  |
| EPS (UBS)                                | 0.19       | 0.44       | 1.31       | 1.18       | 0.87       | 1.07       | 22.5   | 1.61       | 50.4  | 1.99        | 23.9  |
| Net DPS                                  | 0.16       | 0.15       | 0.44       | 0.30       | 0.30       | 0.36       | 19.5   | 0.54       | 50.4  | 0.67        | 23.9  |
| Cash EPS                                 | 0.34       | 0.59       | 1.45       | 1.32       | 1.03       | 1.33       | 29.4   | 1.90       | 42.1  | 2.30        | 21.5  |
| BVPS                                     | 2.46       | 2.81       | 4.03       | 4.96       | 8.99       | 10.01      | 11.2   | 10.72      | 7.1   | 12.35       | 15.2  |
| Balance sheet (Rmbm)                     | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch   | 12/14E     | % ch  | 12/15E      | % ch  |
| Net tangible fixed assets                | 1,047.31   | 1,152.72   | 1,110.07   | 1,357.51   | 1,404.81   | 1,378.57   | -1.9   | 1,426.24   | 3.5   | 1,494.96    | 4.8   |
| Net intangible fixed assets              | 78.23      | 72.51      | 87.44      | 251.71     | 282.09     | 277.71     | -1.6   | 272.09     | -2.0  | 265.21      | -2.5  |
| Net working capital (incl. other assets) | 712.03     | 757.63     | 1,059.09   | 1,777.15   | 2,415.85   | 2,955.08   | 22.3   | 3,381.21   | 14.4  | 4,650.75    | 37.5  |
| Other liabilities                        | (17.79)    | (28.41)    | (31.82)    | (93.86)    | (163.22)   | (163.22)   | 0.0    | (163.22)   | 0.0   | (163.22)    | 0.0   |
| Operating invested capital               | 1,819.78   | 1,954.46   | 2,224.78   | 3,292.50   | 3,939.53   | 4,448.14   | 12.9   | 4,916.32   | 10.5  | 6,247.70    | 27.1  |
| Investments                              | 1,216.35   | 1,348.29   | 1,897.08   | 1,790.83   | 3,110.85   | 3,283.27   | 5.5    | 3,679.82   | 12.1  | 4,401.09    | 19.6  |
| Total capital employed                   | 3,036.13   | 3,302.74   | 4,121.86   | 5,083.33   | 7,050.38   | 7,731.41   | 9.7    | 8,596.14   | 11.2  | 10,648.79   | 23.9  |
| Shareholders' equity                     | 2,506.35   | 2,862.67   | 4,106.21   | 5,064.06   | 9,176.09   | 10,207.59  | 11.2   | 10,935.66  | 7.1   | 12,599.51   | 15.2  |
| Minority interests                       | 220.56     | 298.58     | 239.61     | 276.33     | 305.00     | 357.84     | 17.3   | 438.72     | 22.6  | 525.43      | 19.8  |
| Total equity                             | 2,726.91   | 3,092.25   | 4,345.82   | 5,340.39   | 9,481.09   | 10,565.43  | 11.4   | 11,374.39  | 7.7   | 13,124.95   | 15.4  |
| Net debt / (cash)                        | 309.22     | 210.49     | (223.96)   | (257.05)   | (2,430.71) | (2,834.02) | 16.6   | (2,778.25) | -2.0  | (2,476.16)  | -10.9 |
| Other debt-deemed items                  | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -      | 0.00       | -     | 0.00        | -     |
| Total capital employed                   | 3,036.13   | 3,302.74   | 4,121.86   | 5,083.33   | 7,050.38   | 7,731.41   | 9.7    | 8,596.14   | 11.2  | 10,648.79   | 23.9  |
| Cash flow (Rmbm)                         | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch   | 12/14E     | % ch  | 12/15E      | % ch  |
| Operating income (EBIT, UBS)             | (48.01)    | 123.89     | 829.17     | 889.17     | 553.67     | 750.00     | 35.5   | 1,175.85   | 56.8  | 1,352.64    | 15.0  |
| Depreciation                             | 153.28     | 152.07     | 140.09     | 138.51     | 162.80     | 272.16     | 67.2   | 295.77     | 8.7   | 319.60      | 8.1   |
| Net change in working capital            | 597.03     | (112.86)   | (371.08)   | (563.70)   | 431.26     | (380.66)   | -      | (1,076.32) | 182.7 | (1,329.00)  | 23.5  |
| Other (operating)                        | 186.90     | 103.27     | 89.84      | 29.93      | 46.32      | 22.39      | -51.7  | 72.29      | 222.9 | 194.32      | 168.8 |
| Operating cash flow (pre tax/interest)   | 889.20     | 266.37     | 688.02     | 493.91     | 1,194.04   | 663.89     | -44.4  | 467.59     | -29.6 | 537.56      | 15.0  |
| Net interest received / (paid)           | (71.83)    | (31.42)    | (33.35)    | (26.35)    | 75.49      | 21.81      | -71.1  | 13.87      | -36.4 | (76.06)     | -     |
| Dividends paid                           | (203.00)   | (140.70)   | (120.74)   | (317.40)   | (255.43)   | (204.04)   | -20.12 | (243.84)   | 19.50 | (366.81)    | 50.43 |
| Tax paid                                 | (8.88)     | (19.06)    | (118.49)   | (141.29)   | (103.78)   | (122.09)   | 17.6   | (186.92)   | 53.1  | (200.37)    | 7.2   |
| Capital expenditure                      | (161.37)   | (104.65)   | (214.74)   | (539.96)   | (241.84)   | (282.46)   | 16.8   | (424.74)   | 50.4  | (424.74)    | 0.0   |
| Net (acquisitions) / disposals           | 43.66      | 149.37     | 197.02     | 576.70     | 304.39     | 304.39     | 0.0    | 304.39     | 0.0   | 304.39      | 0.0   |
| Other                                    | (.00)      | 0.00       | 0.00       | (.00)      | 44.91      | 21.81      | -51.4  | 13.87      | -36.4 | (76.06)     | -     |
| Share issues                             | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -      | 0.00       | -     | 0.00        | -     |
| Cash flow (inc)/dec in net debt          | 487.79     | 119.91     | 397.72     | 45.60      | 1,017.80   | 403.30     | -60.4  | (55.77)    | -     | (302.09)    | 441.7 |
| FX / non cash items                      | 27.14      | (21.18)    | 36.73      | (12.51)    | 1,155.86   | 0.00       | -      | 0.00       | -     | 0.00        | -     |
| Balance sheet (inc)/dec in net debt      | 514.93     | 98.73      | 434.45     | 33.09      | 2,173.66   | 403.30     | -81.4  | (55.77)    | -     | (302.09)    | 441.7 |
| Core EBITDA                              | 105.27     | 275.96     | 969.26     | 1,027.68   | 716.47     | 1,022.16   | 42.7   | 1,471.61   | 44.0  | 1,672.24    | 13.6  |
| Maintenance capital expenditure          | (33.91)    | (23.24)    | (42.95)    | (107.99)   | (48.37)    | (52.70)    | 9.0    | (81.16)    | 54.0  | (81.16)     | 0.0   |
| Maintenance net working capital          | 119.41     | (22.57)    | (74.22)    | (112.74)   | 86.25      | (76.13)    | -      | (215.26)   | 182.7 | (265.80)    | 23.5  |
| Operating free cash flow, pre-tax        | 190.77     | 230.15     | 852.09     | 806.95     | 754.35     | 893.33     | 18.4   | 1,175.19   | 31.6  | 1,325.28    | 12.8  |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Note: For some companies, the data represents an extract of the full company accounts.

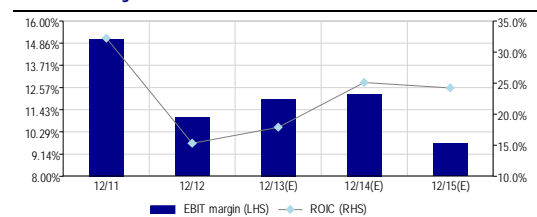
## Company profile

Wuxi Weifu High-Technology Co (Wuxi Weifu) is mainly engaged in manufacturing fuel injection equipment and related products. It holds leading positions in the turbocharger, diesel injection, and emission after-treatment systems markets in China. Bosch Automotive Diesel System Co, its joint venture with Bosch, is a major supplier of high-pressure common-rail systems for diesel engines, while UAES, in which it has a stake, is a market leader in the gasoline engine control system sector.

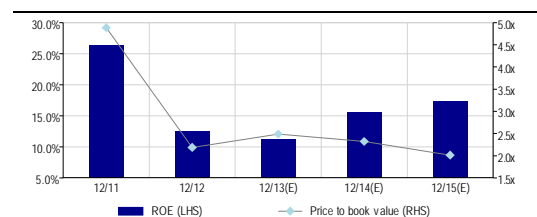
## Value (EV/OpFCF &amp; P/E)



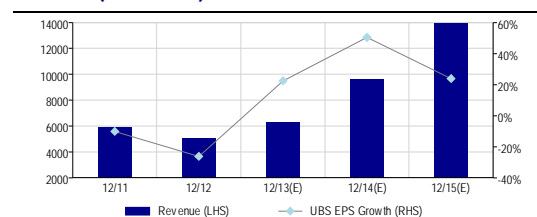
## Profitability



## ROE v Price to book value



## Growth (UBS EPS)



## Weifu High-Technology

| Valuation (x)           | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-------------------------|---------|-------|-------|--------|--------|--------|
| P/E (local GAAP)        | 22.4    | 20.5  | 22.6  | 23.3   | 15.5   | 12.5   |
| P/E (UBS)               | 22.4    | 20.5  | 22.6  | 23.3   | 15.5   | 12.5   |
| P/CEPS                  | 16.6    | 18.4  | 19.1  | 18.7   | 13.1   | 10.8   |
| Net dividend yield (%)  | 2.0     | 1.2   | 1.5   | 1.4    | 2.2    | 2.7    |
| P/BV                    | 3.3     | 4.9   | 2.2   | 2.5    | 2.3    | 2.0    |
| EV/revenue (core)       | 2.6     | 3.6   | 2.6   | 2.9    | 1.9    | 1.3    |
| EV/EBITDA (core)        | 18.8    | 20.4  | 18.4  | 17.8   | 12.2   | 10.5   |
| EV/EBIT (core)          | 24.8    | 23.6  | 23.8  | 24.3   | 15.3   | 13.0   |
| EV/OpFCF (core)         | 20.5    | 26.0  | 17.5  | 20.4   | 15.3   | 13.3   |
| EV/op. invested capital | 4.6     | 7.6   | 3.6   | 4.3    | 3.8    | 3.2    |

| Enterprise value (Rmbm)         | 12/11      | 12/12      | 12/13E     | 12/14E     | 12/15E     |
|---------------------------------|------------|------------|------------|------------|------------|
| Average market cap              | 22,830.42  | 18,532.62  | 24,053.81  | 24,053.81  | 24,053.81  |
| + minority interests            | 276.33     | 305.00     | 357.84     | 438.72     | 525.43     |
| + average net debt (cash)       | (357.05)   | (2,530.71) | (2,934.02) | (2,878.25) | (2,576.16) |
| + pension obligations and other | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       |
| - non-core asset value          | (1,790.83) | (3,110.85) | (3,283.27) | (3,679.82) | (4,401.09) |
| Core enterprise value           | 20,958.86  | 13,196.06  | 18,194.36  | 17,934.46  | 17,601.99  |

| Growth (%)   | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------|---------|-------|-------|--------|--------|--------|
| Revenue      | 13.4    | 9.8   | -15.0 | 24.7   | 53.4   | 45.5   |
| EBITDA (UBS) | 61.5    | 6.0   | -30.3 | 42.7   | 44.0   | 13.6   |
| EBIT (UBS)   | -       | 7.2   | -37.7 | 35.5   | 56.8   | 15.0   |
| EPS (UBS)    | 46.4    | -10.1 | -26.2 | 22.5   | 50.4   | 23.9   |
| Cash EPS     | 32.0    | -9.3  | -21.7 | 29.4   | 42.1   | 21.5   |
| Net DPS      | 16.7    | -31.0 | 0.0   | 19.5   | 50.4   | 23.9   |
| BVPS         | 38.3    | 23.3  | 81.2  | 11.2   | 7.1    | 15.2   |

| Margins (%)                | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|----------------------------|---------|-------|-------|--------|--------|--------|
| EBITDA / revenue           | 12.4    | 17.4  | 14.3  | 16.3   | 15.3   | 12.0   |
| EBIT / revenue             | 8.8     | 15.1  | 11.0  | 12.0   | 12.3   | 9.7    |
| Net profit (UBS) / revenue | 16.8    | 20.4  | 17.7  | 17.4   | 17.1   | 14.5   |

| Return on capital (%) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| EBIT ROIC (UBS)       | 18.7    | 32.2  | 15.3  | 17.9   | 25.1   | 24.2   |
| ROIC post tax         | -       | 27.2  | 12.9  | 15.1   | 21.2   | 20.5   |
| Net ROE               | 20.4    | 26.3  | 12.5  | 11.2   | 15.5   | 17.3   |

| Coverage ratios (x)             | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|---------------------------------|---------|-------|-------|--------|--------|--------|
| EBIT / net interest             | -       | NM    | -     | -      | -      | NM     |
| Dividend cover (UBS EPS)        | 2.8     | 3.9   | 2.9   | 3.0    | 3.0    | 3.0    |
| Div. payout ratio (% , UBS EPS) | 42.5    | 25.4  | 34.4  | 33.6   | 33.6   | 33.6   |
| Net debt / EBITDA               | NM      | NM    | NM    | NM     | NM     | NM     |

| Efficiency ratios (x)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Revenue / op. invested capital | 1.8     | 2.1   | 1.4   | 1.5    | 2.0    | 2.5    |
| Revenue / fixed assets         | 3.4     | 4.2   | 3.0   | 3.7    | 5.7    | 8.1    |
| Revenue / net working capital  | 4.2     | 4.8   | 2.6   | 2.5    | 3.3    | 3.8    |

| Investment ratios (x) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| OpFCF / EBIT          | 1.2     | 0.9   | 1.4   | 1.2    | 1.0    | 1.0    |
| Capex / revenue (%)   | 5.6     | 9.2   | 4.8   | 4.5    | 4.4    | 3.0    |
| Capex / depreciation  | 1.7     | 3.9   | 1.5   | 1.0    | 1.4    | 1.3    |

| Capital structure (%)          | 5Yr Avg | 12/11 | 12/12  | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|--------|--------|--------|--------|
| Net debt / total equity        | (10.1)  | (5.1) | (26.5) | (27.8) | (25.4) | (19.7) |
| Net debt / (net debt + equity) | (11.2)  | (5.3) | (36.0) | (38.4) | (34.1) | (24.5) |
| Net debt (core) / EV           | (5.0)   | (1.7) | (19.2) | (16.1) | (16.0) | (14.6) |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptional and other special items.

Valuations: based on an average share price that year, (E): based on a share price of Rmb24.89 on 24 Sep 2013 22:52 SGT Market cap(E) may include forecast share issues/buybacks.

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## UBS Investment Research

### Chongqing Changan Automobile

## R&D spending supports long-term growth

### ■ Increasing R&D spending; leads in R&D among domestic brands

Chongqing Changan Automobile's (Changan) R&D expenditure was Rmb1.6bn/Rmb1.7bn in 2011/2012 (6.1%/5.7% of its annual revenue)—higher than the average for self-owned brands and similar to those for foreign vehicle producers. In the long term, we expect Changan's R&D expenses-to-revenue ratio to remain at around 5%. As of end-2012, it had more than 6,000 R&D employees, 200 senior experts, and 300 foreign experts. China's National Development and Reform Commission and four other ministries jointly valued the company's R&D strength as 'excellent' and identified Changan as a national-level innovative enterprise.

### ■ New models should lift volume; Changan likely to turn around in 2013

Due to robust sales of the *CS35* and *Eado*, sales volume at Changan's headquarters rose 35% YoY to 360,000 units in H113. *Zhishang XT*, a new model, will be rolled out in 2013, while medium-sized SUVs, small-sized three-box and two-box sedans will be launched in 2014, suggesting sales volumes are likely to continue to rise rapidly. We think Changan's self-owned brands (including micro cars) are likely to reach breakeven in 2013 and make a profit in 2014.

### ■ Ford—profitability should improve QoQ; new *Mondeo* worth watching

We expect H213 sales volume of the old and new *Focus* to remain high, and Kuga's output should remain at 9,000-10,000 units/month despite capacity constraints. Compared to the old *Mondeo*, the new *Mondeo* (launched in August 2013) is substantially improved in terms of its exterior design, power performance and body electronics. We estimate 7,000 new *Mondeos* will be sold each month, which should improve its results in H213.

### ■ Valuation: Buy rating; Rmb13.00 price target

We derive our price target from a DCF-based methodology and explicitly forecast long-term valuation drivers using UBS's VCAM tool, assuming a 9.4% WACC.

| Highlights (Rmbm)         | 12/11         | 12/12     | 12/13E    | 12/14E    | 12/15E    |
|---------------------------|---------------|-----------|-----------|-----------|-----------|
| Revenues                  | 26,551.85     | 29,462.59 | 37,940.73 | 39,767.56 | 41,101.67 |
| EBIT (UBS)                | (1,135.04)    | (915.93)  | (405.81)  | (69.24)   | (109.67)  |
| Net Income (UBS)          | 967.94        | 1,446.41  | 3,268.87  | 4,232.27  | 4,675.05  |
| EPS (UBS, Rmb)            | 0.20          | 0.31      | 0.70      | 0.91      | 1.00      |
| Net DPS (UBS, Rmb)        | 0.04          | 0.05      | 0.11      | 0.15      | 0.16      |
| Profitability & Valuation | 5-yr hist av. | 12/12     | 12/13E    | 12/14E    | 12/15E    |
| EBIT margin %             | -1.8          | -3.1      | -1.1      | -0.2      | -0.3      |
| ROIC (EBIT) %             | (15.4)        | (16.9)    | (5.2)     | (0.8)     | (1.2)     |
| EV/EBITDA (core) x        | 30.8          | 62.3      | 40.2      | 23.9      | 19.6      |
| PE (UBS) x                | 86.1          | 16.1      | 15.2      | 11.8      | 10.6      |
| Net dividend yield %      | 1.0           | 1.0       | 1.1       | 1.4       | 1.5       |

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptional and other special items. Valuations: based on an average share price that year, (E): based on a share price of Rmb10.67 on 24 Sep 2013 22:52 SGT

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## Global Equity Research

China

Automobile Manufacturers

12-month rating **Buy**  
**Unchanged**

12m price target **Rmb13.00/US\$2.12**  
**Unchanged**

Price **Rmb10.67/US\$1.74**

RIC: 000625.SZ BBG: 000625 CH

### Trading data (local/US\$)

|                          |                             |
|--------------------------|-----------------------------|
| 52-wk range              | Rmb11.50-5.06/US\$1.87-0.81 |
| Market cap.              | Rmb49.8bn/US\$8.13bn        |
| Shares o/s               | 4,663m (ORDA)               |
| Free float               | 40%                         |
| Avg. daily volume ('000) | 35,681                      |
| Avg. daily value (m)     | Rmb347.1                    |

### Balance sheet data 12/13E

|                      |             |
|----------------------|-------------|
| Shareholders' equity | Rmb18.5bn   |
| P/BV (UBS)           | 2.7x        |
| Net Cash (debt)      | (Rmb0.64bn) |

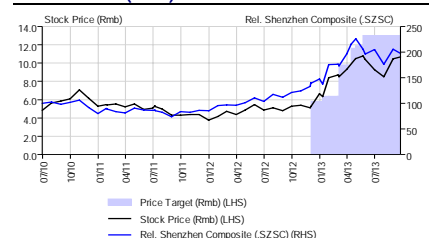
### Forecast returns

|                             |        |
|-----------------------------|--------|
| Forecast price appreciation | +21.8% |
| Forecast dividend yield     | 1.1%   |
| Forecast stock return       | +22.9% |
| Market return assumption    | 8.7%   |
| Forecast excess return      | +14.2% |

### EPS (UBS, Rmb)

|        | 12/13E | 12/12        |
|--------|--------|--------------|
|        | UBS    | Cons. Actual |
| Q1     | 0.12   | - 0.03       |
| Q2E    | 0.16   | - 0.09       |
| Q3E    | 0.19   | - 0.04       |
| Q4E    | 0.23   | - 0.15       |
| 12/13E | 0.70   | -            |
| 12/14E | 0.91   | -            |

### Performance (Rmb)



Source: UBS

www.ubssecurities.com



# Chongqing Changan Automobile

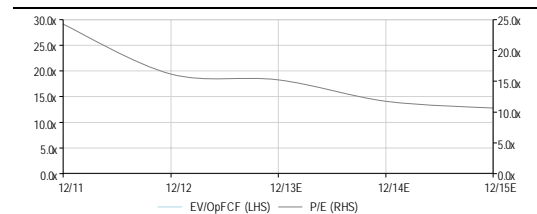
| Income statement (Rmbm)                  | 12/08       | 12/09       | 12/10       | 12/11       | 12/12       | 12/13E      | % ch  | 12/14E      | % ch   | 12/15E      | % ch  |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------|-------------|--------|-------------|-------|
| Revenues                                 | 13,375.46   | 25,203.69   | 33,072.12   | 26,551.85   | 29,462.59   | 37,940.73   | 28.8  | 39,767.56   | 4.8    | 41,101.67   | 3.4   |
| Operating expenses (ex depre)            | (13,342.94) | (24,416.82) | (32,256.39) | (26,852.25) | (29,213.06) | (36,967.27) | 26.5  | (38,248.52) | 3.5    | (39,440.76) | 3.1   |
| EBITDA (UBS)                             | 32.52       | 786.88      | 815.73      | (300.40)    | 249.53      | 973.46      | 290.1 | 1,519.04    | 56.0   | 1,660.91    | 9.3   |
| Depreciation                             | (488.42)    | (507.58)    | (527.97)    | (834.64)    | (1,165.46)  | (1,379.27)  | 18.3  | (1,588.28)  | 15.2   | (1,770.58)  | 11.5  |
| Operating income (EBIT, UBS)             | (455.90)    | 279.29      | 287.76      | (1,135.04)  | (915.93)    | (405.81)    | -55.7 | (69.24)     | -82.9  | (109.67)    | 58.4  |
| Other income & associates                | 539.47      | 805.46      | 1,648.91    | 1,899.64    | 2,272.30    | 3,757.18    | 65.3  | 4,454.25    | 18.6   | 4,965.19    | 11.5  |
| Net interest                             | (49.54)     | 4.23        | 54.10       | 184.03      | (28.94)     | (98.87)     | 241.7 | (116.80)    | 18.1   | (157.91)    | 35.2  |
| Abnormal items (pre-tax)                 | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | -     | 0.00        | -      | 0.00        | -     |
| Profit before tax                        | 34.03       | 1,088.98    | 1,990.77    | 948.63      | 1,327.43    | 3,252.49    | 145.0 | 4,268.22    | 31.2   | 4,697.61    | 10.1  |
| Tax                                      | (16.10)     | (3.23)      | 14.98       | (22.98)     | 87.57       | 16.38       | -81.3 | (35.95)     | -      | (22.56)     | -37.3 |
| Profit after tax                         | 17.93       | 1,085.76    | 2,005.75    | 925.65      | 1,415.01    | 3,268.87    | 131.0 | 4,232.27    | 29.5   | 4,675.05    | 10.5  |
| Abnormal items (post-tax)                | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | -     | 0.00        | -      | 0.00        | -     |
| Minorities / pref dividends              | 6.45        | (7.30)      | 21.24       | 42.29       | 31.40       | 0.00        | -     | 0.00        | -      | 0.00        | -     |
| Net income (local GAAP)                  | 24.38       | 1,078.46    | 2,026.99    | 967.94      | 1,446.41    | 3,268.87    | 126.0 | 4,232.27    | 29.5   | 4,675.05    | 10.5  |
| Net Income (UBS)                         | 24.38       | 1,078.46    | 2,026.99    | 967.94      | 1,446.41    | 3,268.87    | 126.0 | 4,232.27    | 29.5   | 4,675.05    | 10.5  |
| Tax rate (%)                             | 47.30       | 0.30        | 0.00        | 2.42        | 0.00        | 0.00        | -     | 0.84        | -      | 0.48        | -43.0 |
| Pre-abnormal tax rate (%)                | (3.11)      | 1.10        | 0.00        | (3.16)      | 0.00        | 0.00        | -     | 16.42       | -      | 16.42       | 0.0   |
| Per share (Rmb)                          | 12/08       | 12/09       | 12/10       | 12/11       | 12/12       | 12/13E      | % ch  | 12/14E      | % ch   | 12/15E      | % ch  |
| EPS (local GAAP)                         | 0.01        | 0.46        | 0.87        | 0.20        | 0.31        | 0.70        | 126.0 | 0.91        | 29.5   | 1.00        | 10.5  |
| EPS (UBS)                                | 0.01        | 0.46        | 0.87        | 0.20        | 0.31        | 0.70        | 126.0 | 0.91        | 29.5   | 1.00        | 10.5  |
| Net DPS                                  | 0.02        | 0.07        | 0.08        | 0.04        | 0.05        | 0.11        | 126.1 | 0.15        | 29.5   | 0.16        | 10.5  |
| Cash EPS                                 | 0.22        | 0.68        | 1.10        | 0.37        | 0.56        | 1.00        | 78.0  | 1.25        | 25.2   | 1.38        | 10.7  |
| BVPS                                     | 2.44        | 2.83        | 3.41        | 3.05        | 3.33        | 3.98        | 19.6  | 4.77        | 20.0   | 5.63        | 17.9  |
| Balance sheet (Rmbm)                     | 12/08       | 12/09       | 12/10       | 12/11       | 12/12       | 12/13E      | % ch  | 12/14E      | % ch   | 12/15E      | % ch  |
| Net tangible fixed assets                | 3,333.11    | 3,149.23    | 4,267.89    | 7,542.14    | 11,627.07   | 13,396.32   | 15.2  | 14,793.35   | 10.4   | 15,418.45   | 4.2   |
| Net intangible fixed assets              | 124.67      | 380.79      | 931.99      | 1,831.90    | 2,142.96    | 2,231.64    | 4.1   | 2,300.50    | 3.1    | 2,349.54    | 2.1   |
| Net working capital (incl. other assets) | (514.49)    | (1,836.58)  | (3,384.63)  | (4,684.44)  | (3,512.06)  | (5,172.32)  | 47.3  | (5,768.25)  | 11.5   | (6,161.56)  | 6.8   |
| Other liabilities                        | (289.83)    | (577.47)    | (1,277.40)  | (1,530.66)  | (2,572.99)  | (2,572.99)  | 0.0   | (2,572.99)  | 0.0    | (2,572.99)  | 0.0   |
| Operating invested capital               | 2,653.47    | 1,115.98    | 537.84      | 3,158.94    | 7,684.97    | 7,882.66    | 2.6   | 8,752.61    | 11.0   | 9,033.44    | 3.2   |
| Investments                              | 4,624.74    | 5,082.34    | 5,909.75    | 7,693.85    | 7,829.21    | 11,181.43   | 42.8  | 15,230.72   | 36.2   | 19,790.95   | 29.9  |
| Total capital employed                   | 7,278.21    | 6,198.32    | 6,447.59    | 10,852.79   | 15,514.18   | 19,064.08   | 22.9  | 23,983.33   | 25.8   | 28,824.39   | 20.2  |
| Shareholders' equity                     | 7,596.52    | 8,800.12    | 10,625.54   | 14,739.23   | 15,512.94   | 18,548.66   | 19.6  | 22,253.69   | 20.0   | 26,246.12   | 17.9  |
| Minority interests                       | 112.10      | 94.43       | (41.96)     | (90.61)     | (122.01)    | (122.01)    | 0.0   | (122.01)    | 0.0    | (122.01)    | 0.0   |
| Total equity                             | 7,708.62    | 8,894.55    | 10,583.58   | 14,648.63   | 15,390.93   | 18,426.65   | 19.7  | 22,131.68   | 20.1   | 26,124.11   | 18.0  |
| Net debt / (cash)                        | (430.41)    | (2,696.23)  | (4,135.99)  | (3,795.84)  | 123.25      | 637.43      | 417.2 | 1,851.64    | 190.5  | 2,700.28    | 45.8  |
| Other debt-deemed items                  | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | -     | 0.00        | -      | 0.00        | -     |
| Total capital employed                   | 7,278.21    | 6,198.32    | 6,447.59    | 10,852.79   | 15,514.18   | 19,064.08   | 22.9  | 23,983.33   | 25.8   | 28,824.39   | 20.2  |
| Cash flow (Rmbm)                         | 12/08       | 12/09       | 12/10       | 12/11       | 12/12       | 12/13E      | % ch  | 12/14E      | % ch   | 12/15E      | % ch  |
| Operating income (EBIT, UBS)             | (455.90)    | 279.29      | 287.76      | (1,135.04)  | (915.93)    | (405.81)    | -55.7 | (69.24)     | -82.9  | (109.67)    | 58.4  |
| Depreciation                             | 488.42      | 507.58      | 527.97      | 834.64      | 1,165.46    | 1,379.27    | 18.3  | 1,588.28    | 15.2   | 1,770.58    | 11.5  |
| Net change in working capital            | 286.35      | 1,659.01    | 1,914.04    | 247.81      | (269.47)    | 1,658.75    | -     | 325.24      | -80.4  | 229.50      | -29.4 |
| Other (operating)                        | 231.61      | 465.46      | (103.77)    | 98.75       | 529.19      | 582.18      | 10.0  | 538.14      | -7.6   | 574.71      | 6.8   |
| Operating cash flow (pre tax/interest)   | 550.48      | 2,911.35    | 2,626.00    | 46.17       | 509.25      | 3,214.39    | 531.2 | 2,382.42    | -25.9  | 2,465.12    | 3.5   |
| Net interest received / (paid)           | (49.54)     | 4.23        | 54.10       | 184.03      | (28.94)     | (98.87)     | 241.7 | (116.80)    | 18.1   | (157.91)    | 35.2  |
| Dividends paid                           | (91.88)     | (86.16)     | (189.42)    | (223.77)    | (250.14)    | (233.14)    | -6.79 | (527.24)    | 126.14 | (682.62)    | 29.47 |
| Tax paid                                 | (16.10)     | (3.23)      | 14.98       | (22.98)     | 87.57       | 16.38       | -81.3 | (35.95)     | -      | (22.56)     | -37.3 |
| Capital expenditure                      | (930.39)    | (1,543.18)  | (1,831.69)  | (4,048.08)  | (4,884.11)  | (3,314.05)  | -32.1 | (2,799.85)  | -15.5  | (2,292.75)  | -18.1 |
| Net (acquisitions) / disposals           | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | -     | 0.00        | -      | 0.00        | -     |
| Other                                    | 693.79      | 1,808.10    | 2,322.56    | 2,277.26    | 3,510.76    | 3,658.30    | 4.2   | 4,337.45    | 18.6   | 4,807.28    | 10.8  |
| Share issues                             | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | -     | 0.00        | -      | 0.00        | -     |
| Cash flow (inc)/dec in net debt          | (389.57)    | 2,292.95    | 1,326.38    | (3,729.29)  | (3,359.31)  | (514.18)    | -84.7 | (1,214.21)  | 136.1  | (848.64)    | -30.1 |
| FX / non cash items                      | (74.34)     | (27.13)     | 113.38      | 3,389.14    | (559.78)    | 0.00        | -     | 0.00        | -      | 0.00        | -     |
| Balance sheet (inc)/dec in net debt      | (463.91)    | 2,265.81    | 1,439.76    | (340.15)    | (3,919.09)  | (514.18)    | -86.9 | (1,214.21)  | 136.1  | (848.64)    | -30.1 |
| Core EBITDA                              | 32.52       | 786.88      | 815.73      | (300.40)    | 249.53      | 973.46      | 290.1 | 1,519.04    | 56.0   | 1,660.91    | 9.3   |
| Maintenance capital expenditure          | (186.08)    | (308.64)    | (366.34)    | (809.62)    | (976.82)    | (605.68)    | -38.0 | (502.84)    | -17.0  | (401.42)    | -20.2 |
| Maintenance net working capital          | 57.27       | 331.80      | 382.81      | 49.56       | (53.89)     | 331.75      | -     | 65.05       | -80.4  | 45.90       | -29.4 |
| Operating free cash flow, pre-tax        | (96.29)     | 810.04      | 832.20      | (1,060.45)  | (781.19)    | 699.53      | -     | 1,081.25    | 54.6   | 1,305.39    | 20.7  |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Note: For some companies, the data represents an extract of the full company accounts.

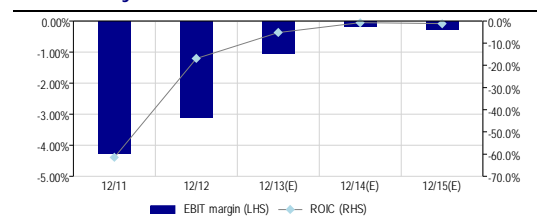
## Company profile

Chongqing Changan Automobile is mainly engaged in the design, manufacturing and distribution of automobile vehicles. The company has a 51% stake in Changan Suzuki (Lingyang, Alto, Swift, Tianyu), a 50% stake in Changan Ford (Mondeo, Focus, Fiesta, Kuga, Ecosport), a 50% stake in Chongqing Changan Mazda (Mazda 3 and Mazda 2), and a 50% stake in Jiangling Motors (Lufeng SUVs, light buses and light trucks). The company's headquarters produces mini vehicles and self-owned brand passenger vehicles.

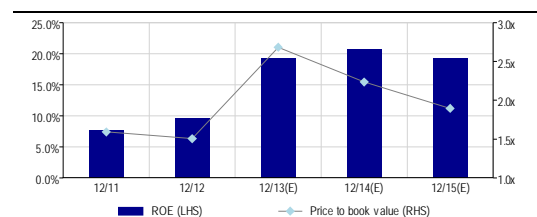
## Value (EV/OpFCF &amp; P/E)



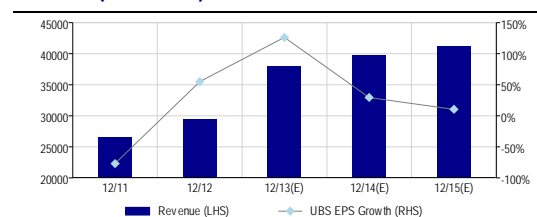
## Profitability



## ROE v Price to book value



## Growth (UBS EPS)



## Chongqing Changan Automobile

| Valuation (x)           | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-------------------------|---------|-------|-------|--------|--------|--------|
| P/E (local GAAP)        | NM      | 24.2  | 16.1  | 15.2   | 11.8   | 10.6   |
| P/E (UBS)               | 86.1    | 24.2  | 16.1  | 15.2   | 11.8   | 10.6   |
| P/CEPS                  | 10.6    | 13.0  | 8.9   | 10.7   | 8.5    | 7.7    |
| Net dividend yield (%)  | 1.0     | 0.8   | 1.0   | 1.1    | 1.4    | 1.5    |
| P/BV                    | 1.7     | 1.6   | 1.5   | 2.7    | 2.2    | 1.9    |
| EV/revenue (core)       | 0.4     | 0.3   | 0.5   | 1.0    | 0.9    | 0.8    |
| EV/EBITDA (core)        | 30.8    | -29.0 | 62.3  | 40.2   | 23.9   | 19.6   |
| EV/EBIT (core)          | NM      | NM    | NM    | NM     | NM     | NM     |
| EV/OpFCF (core)         | NM      | NM    | NM    | NM     | NM     | 24.9   |
| EV/op. invested capital | 3.9     | 4.7   | 2.9   | 5.0    | 4.4    | 3.7    |

| Enterprise value (Rmbm)         | 12/11      | 12/12      | 12/13E      | 12/14E      | 12/15E      |
|---------------------------------|------------|------------|-------------|-------------|-------------|
| Average market cap              | 20,287.31  | 23,349.62  | 49,753.14   | 49,753.14   | 49,753.14   |
| + minority interests            | 0.10       | 0.10       | 0.10        | 0.10        | 0.10        |
| + average net debt (cash)       | (3,895.84) | 23.25      | 537.43      | 1,751.64    | 2,600.28    |
| + pension obligations and other | 0.00       | 0.00       | 0.00        | 0.00        | 0.00        |
| - non-core asset value          | (7,693.85) | (7,829.21) | (11,181.43) | (15,230.72) | (19,790.95) |
| Core enterprise value           | 8,697.73   | 15,543.76  | 39,109.25   | 36,274.17   | 32,562.57   |

| Growth (%)   | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------|---------|-------|-------|--------|--------|--------|
| Revenue      | 21.8    | -19.7 | 11.0  | 28.8   | 4.8    | 3.4    |
| EBITDA (UBS) | 66.4    | -     | -     | NM     | 56.0   | 9.3    |
| EBIT (UBS)   | -       | -     | -19.3 | -55.7  | -82.9  | 58.4   |
| EPS (UBS)    | 133.4   | -77.0 | 54.9  | 126.0  | 29.5   | 10.5   |
| Cash EPS     | 26.4    | -66.1 | 50.2  | 78.0   | 25.2   | 10.7   |
| Net DPS      | 29.1    | -50.0 | 25.0  | 126.1  | 29.5   | 10.5   |
| BVPS         | 8.1     | -10.7 | 9.1   | 19.6   | 20.0   | 17.9   |

| Margins (%)                | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|----------------------------|---------|-------|-------|--------|--------|--------|
| EBITDA / revenue           | 1.1     | NM    | 0.8   | 2.6    | 3.8    | 4.0    |
| EBIT / revenue             | -1.8    | -4.3  | -3.1  | -1.1   | -0.2   | -0.3   |
| Net profit (UBS) / revenue | 3.8     | 3.6   | 4.9   | 8.6    | 10.6   | 11.4   |

| Return on capital (%) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| EBIT ROIC (UBS)       | NM      | NM    | NM    | NM     | NM     | NM     |
| ROIC post tax         | -       | NM    | NM    | NM     | NM     | NM     |
| Net ROE               | 10.3    | 7.6   | 9.6   | 19.2   | 20.7   | 19.3   |

| Coverage ratios (x)             | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|---------------------------------|---------|-------|-------|--------|--------|--------|
| EBIT / net interest             | -       | -     | NM    | 29.8   | NM     | 28.2   |
| Dividend cover (UBS EPS)        | 6.0     | 5.0   | 6.2   | 6.2    | 6.2    | 6.2    |
| Div. payout ratio (% , UBS EPS) | 46.3    | 20.0  | 16.1  | 16.1   | 16.1   | 16.1   |
| Net debt / EBITDA               | NM      | NM    | 0.5   | 0.7    | 1.2    | 1.6    |

| Efficiency ratios (x)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Revenue / op. invested capital | 10.1    | 14.4  | 5.4   | 4.9    | 4.8    | 4.6    |
| Revenue / fixed assets         | 4.2     | 3.6   | 2.5   | 2.6    | 2.4    | 2.4    |
| Revenue / net working capital  | NM      | NM    | NM    | NM     | NM     | NM     |

| Investment ratios (x) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| OpFCF / EBIT          | 0.2     | 0.9   | 0.9   | NM     | NM     | NM     |
| Capex / revenue (%)   | 10.4    | 15.2  | 16.6  | 8.7    | 7.0    | 5.6    |
| Capex / depreciation  | 3.8     | 4.9   | 4.2   | 2.4    | 1.8    | 1.3    |

| Capital structure (%)          | 5Yr Avg | 12/11  | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|--------|-------|--------|--------|--------|
| Net debt / total equity        | (19.1)  | (25.8) | 0.8   | 3.4    | 8.3    | 10.3   |
| Net debt / (net debt + equity) | (23.6)  | (34.7) | 0.8   | 3.3    | 7.7    | 9.3    |
| Net debt (core) / EV           | (23.4)  | (44.8) | 0.1   | 1.4    | 4.8    | 8.0    |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items.

Valuations: based on an average share price that year, (E): based on a share price of Rmb10.67 on 24 Sep 2013 22:52 SGT Market cap(E) may include forecast share issues/buybacks.

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## UBS Investment Research

### Beijing Originwater Technology

## A leading position from technical strength

### R&D consolidates its leading position in the MBR market

We think continued R&D investments are important for Beijing Originwater Technology (Originwater) to consolidate its leading position in China's membrane bioreactor (MBR) sector. The company's major MBR R&D developments include: 1) membrane materials (resolves hydrophilic and strength problems); 2) MBR units (including three generations of products); and 3) an integrated MBR process for the removal of nitrogen and phosphorus (improves membrane output, project costs, and effluent water quality). We think its accumulated experience from projects and operating a wastewater treatment plant (the Mentougou sewage treatment plant) should continue to strengthen its leadership position.

### Technical reserves continue to facilitate profit growth

Originwater's R&D also includes thermally-induced phase separations, PVC ultrafiltration/microfiltration, PES and reverse osmosis membranes, column membrane modules, submerged MBR units, and low-pressure reverse osmosis (LPRO) technologies. It is studying all the technologies of its opponents at home and abroad. Among them, continuous membrane filtration (CMF) has led to sizable orders, and LPRO should become a new profit contributor in the segments of drinking fountains and industrial swage treatment. It invested Rmb62.85m in R&D in 2012, three to six times higher than its A-share listed peers.

### Short- and long-term trends suggest a promising market outlook

In the long term, the weighting of membrane technologies in wastewater and tap water treatment should increase. In the short term, investments over the 12th Five-Year Plan could be low at the beginning and then rise, with a peak in 2013-15E.

### Valuation: Buy rating; Rmb52.00 price target

We base our price target on 38.8x 2014E PE.

| Highlights (Rmbm)         | 12/11         | 12/12    | 12/13E   | 12/14E   | 12/15E   |
|---------------------------|---------------|----------|----------|----------|----------|
| Revenues                  | 1,026.01      | 1,771.55 | 2,749.92 | 3,906.24 | 5,352.83 |
| EBIT (UBS)                | 330.32        | 542.87   | 792.92   | 1,144.19 | 1,558.56 |
| Net Income (UBS)          | 344.51        | 562.47   | 861.23   | 1,191.33 | 1,615.87 |
| EPS (UBS, Rmb)            | 0.39          | 0.64     | 0.97     | 1.34     | 1.82     |
| Net DPS (UBS, Rmb)        | 0.04          | 0.04     | 0.06     | 0.08     | 0.11     |
| Profitability & Valuation | 5-yr hist av. | 12/12    | 12/13E   | 12/14E   | 12/15E   |
| EBIT margin %             | 35.2          | 30.6     | 28.8     | 29.3     | 29.1     |
| ROIC (EBIT) %             | -             | 72.6     | 71.8     | 102.0    | 124.4    |
| EV/EBITDA (core) x        | -             | 24.1     | 39.8     | 26.9     | 19.0     |
| PE (UBS) x                | -             | 29.5     | 42.8     | 30.9     | 22.8     |
| Net dividend yield %      | -             | 0.2      | 0.1      | 0.2      | 0.3      |

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptional and other special items. Valuations: based on an average share price that year, (E): based on a share price of Rmb41.60 on 24 Sep 2013 22:52 SGT

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## Global Equity Research

China

Advanced Industrial Equipment

12-month rating **Buy**  
**Unchanged**

12m price target **Rmb52.00/US\$8.50**  
**Unchanged**

Price **Rmb41.60/US\$6.80**

RIC: 300070.SZ BBG: 300070 CH

### Trading data (local/US\$)

|                          |                              |
|--------------------------|------------------------------|
| 52-wk range              | Rmb47.20-20.33/US\$7.69-3.27 |
| Market cap.              | Rmb36.8bn/US\$6.02bn         |
| Shares o/s               | 886m (ORDA)                  |
| Free float               | 37%                          |
| Avg. daily volume ('000) | 5,830                        |
| Avg. daily value (m)     | Rmb244.0                     |

### Balance sheet data 12/13E

|                      |           |
|----------------------|-----------|
| Shareholders' equity | Rmb4.69bn |
| P/BV (UBS)           | 7.9x      |
| Net Cash (debt)      | Rmb2.56bn |

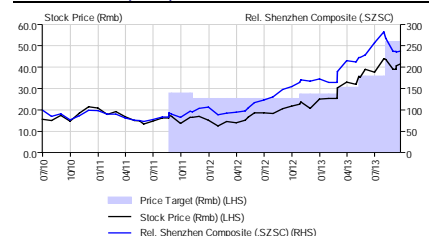
### Forecast returns

|                             |        |
|-----------------------------|--------|
| Forecast price appreciation | +25.0% |
| Forecast dividend yield     | 0.1%   |
| Forecast stock return       | +25.1% |
| Market return assumption    | 8.7%   |
| Forecast excess return      | +16.4% |

### EPS (UBS, Rmb)

|        | 12/13E | 12/12        |
|--------|--------|--------------|
|        | UBS    | Cons. Actual |
| Q1     | 0.01   | - 0.01       |
| Q2     | 0.10   | 0.10 0.08    |
| Q3E    | 0.09   | 0.09 0.05    |
| Q4E    | 0.76   | 0.77 0.50    |
| 12/13E | 0.97   | 0.97         |
| 12/14E | 1.34   | 1.35         |

### Performance (Rmb)



Source: UBS

www.ubssecurities.com



# Beijing Originwater Technology

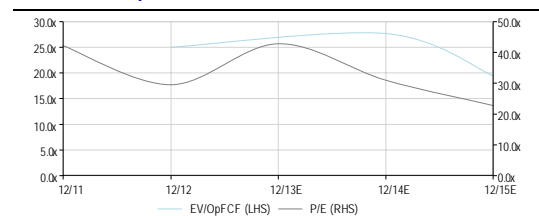
| Income statement (Rmbm)                  | 12/08    | 12/09    | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch       | 12/15E     | % ch  |
|--|----------|----------|------------|------------|------------|------------|-------|------------|------------|------------|-------|
| Revenues                                 | 220.88   | 313.56   | 500.47     | 1,026.01   | 1,771.55   | 2,749.92   | 55.2  | 3,906.24   | 42.0       | 5,352.83   | 37.0  |
| Operating expenses (ex depn)             | (141.56) | (185.26) | (297.07)   | (673.37)   | (1,200.75) | (1,915.17) | 59.5  | (2,711.71) | 41.6       | (3,734.61) | 37.7  |
| EBITDA (UBS)                             | 79.32    | 128.30   | 203.40     | 352.64     | 570.80     | 834.74     | 46.2  | 1,194.53   | 43.1       | 1,618.22   | 35.5  |
| Depreciation                             | (1.98)   | (4.67)   | (10.27)    | (22.32)    | (27.93)    | (41.83)    | 49.8  | (50.34)    | 20.3       | (59.66)    | 18.5  |
| Operating income (EBIT, UBS)             | 77.34    | 123.63   | 193.13     | 330.32     | 542.87     | 792.92     | 46.1  | 1,144.19   | 44.3       | 1,558.56   | 36.2  |
| Other income & associates                | 6.83     | 0.06     | 0.49       | 47.08      | 115.96     | 220.62     | 90.3  | 268.07     | 21.5       | 350.93     | 30.9  |
| Net interest                             | 3.81     | 0.69     | 15.52      | 36.54      | 39.35      | 17.47      | -55.6 | 19.26      | 10.2       | 25.06      | 30.1  |
| Abnormal items (pre-tax)                 | 0.00     | 0.00     | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -          | 0.00       | -     |
| Profit before tax                        | 87.97    | 124.38   | 209.15     | 413.95     | 698.18     | 1,031.00   | 47.7  | 1,431.51   | 38.8       | 1,934.55   | 35.1  |
| Tax                                      | (13.30)  | (16.75)  | (29.70)    | (53.49)    | (102.41)   | (122.46)   | 19.6  | (175.42)   | 43.2       | (238.45)   | 35.9  |
| Profit after tax                         | 74.67    | 107.63   | 179.45     | 360.46     | 595.77     | 908.54     | 52.5  | 1,256.09   | 38.3       | 1,696.10   | 35.0  |
| Abnormal items (post-tax)                | 0.00     | 0.00     | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -          | 0.00       | -     |
| Minorities / pref dividends              | 0.15     | (0.44)   | (2.48)     | (15.96)    | (33.30)    | (47.31)    | 42.1  | (64.76)    | 36.9       | (80.23)    | 23.9  |
| Net income (local GAAP)                  | 74.82    | 107.19   | 176.96     | 344.51     | 562.47     | 861.23     | 53.1  | 1,191.33   | 38.3       | 1,615.87   | 35.6  |
| Net Income (UBS)                         | 74.82    | 107.19   | 176.96     | 344.51     | 562.47     | 861.23     | 53.1  | 1,191.33   | 38.3       | 1,615.87   | 35.6  |
|  |          |          |            |            |            |            |       |            |            |            |       |
| Tax rate (%)                             | 15.12    | 13.46    | 14.20      | 12.92      | 14.67      | 11.88      | -19.0 | 12.25      | 3.2        | 12.33      | 0.6   |
| Pre-abnormal tax rate (%)                | 15.10    | 13.46    | 14.20      | 12.92      | 14.67      | 14.51      | -1.1  | 15.00      | 3.4        | 15.00      | 0.0   |
|  |          |          |            |            |            |            |       |            |            |            |       |
| Per share (Rmb)                          | 12/08    | 12/09    | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch       | 12/15E     | % ch  |
| EPS (local GAAP)                         | 0.11     | 0.16     | 0.22       | 0.39       | 0.64       | 0.97       | 52.9  | 1.34       | 38.3       | 1.82       | 35.6  |
| EPS (UBS)                                | 0.11     | 0.16     | 0.22       | 0.39       | 0.64       | 0.97       | 52.9  | 1.34       | 38.3       | 1.82       | 35.6  |
| Net DPS                                  | 0.03     | 0.02     | 0.05       | 0.04       | 0.04       | 0.06       | 52.5  | 0.08       | 38.3       | 0.11       | 35.6  |
| Cash EPS                                 | 0.12     | 0.17     | 0.23       | 0.42       | 0.67       | 1.02       | 52.8  | 1.40       | 37.5       | 1.89       | 34.9  |
| BVPS                                     | 0.25     | 0.36     | 3.34       | 3.71       | 4.41       | 5.29       | 20.0  | 6.60       | 24.7       | 8.38       | 26.9  |
|  |          |          |            |            |            |            |       |            |            |            |       |
| Balance sheet (Rmbm)                     | 12/08    | 12/09    | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch       | 12/15E     | % ch  |
| Net tangible fixed assets                | 35.67    | 59.85    | 198.32     | 237.80     | 304.67     | 358.11     | 17.5  | 409.64     | 14.4       | 459.90     | 12.3  |
| Net intangible fixed assets              | 22.11    | 43.26    | 119.48     | 123.97     | 126.45     | 141.67     | 12.0  | 153.74     | 8.5        | 162.66     | 5.8   |
| Net working capital (incl. other assets) | 32.14    | (24.58)  | 1.69       | 26.42      | 767.77     | 608.40     | -20.8 | 672.37     | 10.5       | 746.62     | 11.0  |
| Other liabilities                        | 0.00     | (13.00)  | (27.18)    | (41.04)    | (49.93)    | (49.93)    | 0.0   | (49.93)    | 0.0        | (49.93)    | 0.0   |
| Operating invested capital               | 89.92    | 65.52    | 292.31     | 347.15     | 1,148.96   | 1,058.25   | -7.9  | 1,185.82   | 12.1       | 1,319.25   | 11.3  |
| Investments                              | 0.80     | 0.00     | 30.58      | 814.40     | 1,010.86   | 1,297.95   | 28.4  | 1,659.98   | 27.9       | 2,054.89   | 23.8  |
| Total capital employed                   | 90.72    | 65.52    | 322.88     | 1,161.55   | 2,159.82   | 2,356.20   | 9.1   | 2,845.80   | 20.8       | 3,374.14   | 18.6  |
| Shareholders' equity                     | 219.51   | 313.71   | 2,934.95   | 3,263.86   | 3,897.69   | 4,689.01   | 20.3  | 5,848.72   | 24.7       | 7,420.85   | 26.9  |
| Minority interests                       | 15.33    | 17.02    | 19.99      | 125.42     | 166.30     | 222.85     | 34.0  | 287.62     | 29.1       | 367.85     | 27.9  |
| Total equity                             | 234.84   | 330.73   | 2,954.94   | 3,389.28   | 4,063.99   | 4,911.86   | 20.9  | 6,136.33   | 24.9       | 7,788.70   | 26.9  |
| Net debt / (cash)                        | (144.13) | (265.21) | (2,632.06) | (2,227.73) | (1,904.17) | (2,555.66) | 34.2  | (3,290.53) | 28.8       | (4,414.56) | 34.2  |
| Other debt-deemed items                  | 0.00     | 0.00     | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -          | 0.00       | -     |
| Total capital employed                   | 90.72    | 65.52    | 322.88     | 1,161.55   | 2,159.82   | 2,356.20   | 9.1   | 2,845.80   | 20.8       | 3,374.14   | 18.6  |
|  |          |          |            |            |            |            |       |            |            |            |       |
| Cash flow (Rmbm)                         | 12/08    | 12/09    | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch       | 12/15E     | % ch  |
| Operating income (EBIT, UBS)             | 77.34    | 123.63   | 193.13     | 330.32     | 542.87     | 792.92     | 46.1  | 1,144.19   | 44.3       | 1,558.56   | 36.2  |
| Depreciation                             | 1.98     | 4.67     | 10.27      | 22.32      | 27.93      | 41.83      | 49.8  | 50.34      | 20.3       | 59.66      | 18.5  |
| Net change in working capital            | 28.49    | 24.73    | (15.43)    | (24.21)    | (211.56)   | 159.28     | -     | (63.17)    | -          | (73.38)    | 16.2  |
| Other (operating)                        | 1.12     | 9.72     | 3.17       | 99.56      | 65.61      | 43.83      | -33.2 | 64.24      | 46.6       | 89.45      | 39.2  |
| Operating cash flow (pre tax/interest)   | 108.93   | 162.76   | 191.14     | 427.99     | 424.85     | 1,037.86   | 144.3 | 1,195.61   | 15.2       | 1,634.29   | 36.7  |
| Net interest received / (paid)           | 3.81     | 0.69     | 15.52      | 36.54      | 39.35      | 17.47      | -55.6 | 19.26      | 10.2       | 25.06      | 30.1  |
| Dividends paid                           | (17.07)  | (5.66)   | (11.14)    | (44.10)    | (32.34)    | (33.17)    | 2.57  | (50.66)    | 52.72      | (70.08)    | 38.33 |
| Tax paid                                 | (7.37)   | (28.41)  | (29.15)    | (104.51)   | (115.25)   | (178.90)   | 55.2  | (254.12)   | 42.0       | (348.23)   | 37.0  |
| Capital expenditure                      | (39.64)  | (52.38)  | (187.11)   | (61.52)    | (95.65)    | (109.68)   | 14.7  | (113.94)   | 3.9        | (118.84)   | 4.3   |
| Net (acquisitions) / disposals           | 0.00     | 0.00     | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -          | 0.00       | -     |
| Other                                    | -        | 25.61    | (34.50)    | (1,164.94) | (525.62)   | 147.65     | -     | 201.70     | 36.6       | 355.98     | 76.5  |
| Share issues                             | 15.00    | 1.50     | 2,451.40   | 27.18      | 77.89      | 0.00       | -     | 0.00       | -          | 0.00       | -     |
| Cash flow (inc)/dec in net debt          | 63.40    | 92.82    | 2,398.69   | (965.50)   | (322.27)   | 651.49     | -     | 715.83     | 9.9        | 1,097.68   | 53.3  |
| FX / non cash items                      | -        | 28.26    | (31.83)    | 561.17     | (1.29)     | 0.00       | -     | 19.04      | 31733987.3 | 26.34      | 38.3  |
| Balance sheet (inc)/dec in net debt      | -        | 121.08   | 2,366.85   | (404.33)   | (323.56)   | 651.49     | -     | 734.87     | 12.8       | 1,124.02   | 53.0  |
| Core EBITDA                              | 79.32    | 128.30   | 203.40     | 352.64     | 570.80     | 834.74     | 46.2  | 1,194.53   | 43.1       | 1,618.22   | 35.5  |
| Maintenance capital expenditure          | (1.13)   | (3.55)   | (5.73)     | (17.70)    | (22.04)    | (24.70)    | 12.1  | (30.87)    | 25.0       | (37.03)    | 20.0  |
| Maintenance net working capital          | 0.00     | 0.00     | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -          | 0.00       | -     |
| Operating free cash flow, pre-tax        | 78.19    | 124.75   | 197.67     | 334.93     | 548.76     | 810.05     | 47.6  | 1,163.66   | 43.7       | 1,581.18   | 35.9  |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Note: For some companies, the data represents an extract of the full company accounts.

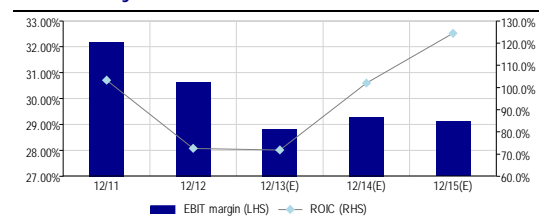
## Company profile

Beijing Originwater Technology is a provider of membrane-unit and membrane-bio-reactor (MBR) equipment and process technology, as well as membrane materials manufacturing technology. The company is a leader in the urban MBR waste water treatment industry and has experience of MBR applications in civil engineering. Based in Beijing, the company has also entered the Yunnan, Jiangsu and Hunan markets and has increased its market share.

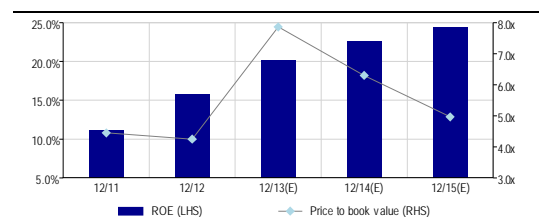
## Value (EV/OpFCF &amp; P/E)



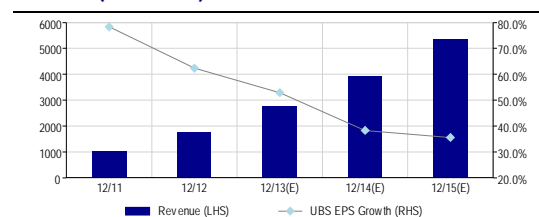
## Profitability



## ROE v Price to book value



## Growth (UBS EPS)



## Beijing Originwater Technology

| Valuation (x)           | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-------------------------|---------|-------|-------|--------|--------|--------|
| P/E (local GAAP)        | -       | 42.2  | 29.5  | 42.8   | 30.9   | 22.8   |
| P/E (UBS)               | -       | 42.2  | 29.5  | 42.8   | 30.9   | 22.8   |
| P/CEPS                  | -       | 39.6  | 28.1  | 40.8   | 29.7   | 22.0   |
| Net dividend yield (%)  | -       | 0.2   | 0.2   | 0.1    | 0.2    | 0.3    |
| P/BV                    | -       | 4.5   | 4.3   | 7.9    | 6.3    | 5.0    |
| EV/revenue (core)       | -       | NM    | 7.8   | NM     | 8.2    | 5.7    |
| EV/EBITDA (core)        | -       | 32.4  | 24.1  | 39.8   | 26.9   | 19.0   |
| EV/EBIT (core)          | -       | NM    | 25.3  | NM     | 28.1   | 19.7   |
| EV/OpFCF (core)         | -       | NM    | 25.0  | NM     | 27.7   | 19.4   |
| EV/op. invested capital | -       | NM    | NM    | NM     | NM     | NM     |

| Enterprise value (Rmbm)         | 12/11      | 12/12      | 12/13E     | 12/14E     | 12/15E     |
|---------------------------------|------------|------------|------------|------------|------------|
| Average market cap              | 14,528.58  | 16,478.93  | 36,848.03  | 36,848.03  | 36,848.03  |
| + minority interests            | 125.42     | 166.30     | 222.85     | 287.62     | 367.85     |
| + average net debt (cash)       | (2,427.73) | (1,904.17) | (2,555.66) | (3,290.53) | (4,414.56) |
| + pension obligations and other | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       |
| - non-core asset value          | (814.40)   | (1,010.86) | (1,297.95) | (1,659.98) | (2,054.89) |
| Core enterprise value           | 11,411.87  | 13,730.20  | 33,217.28  | 32,185.13  | 30,746.44  |

| Growth (%)   | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------|---------|-------|-------|--------|--------|--------|
| Revenue      | 68.3    | 105.0 | 72.7  | 55.2   | 42.0   | 37.0   |
| EBITDA (UBS) | 63.8    | 73.4  | 61.9  | 46.2   | 43.1   | 35.5   |
| EBIT (UBS)   | 62.8    | 71.0  | 64.3  | 46.1   | 44.3   | 36.2   |
| EPS (UBS)    | 53.8    | 78.3  | 62.4  | 52.9   | 38.3   | 35.6   |
| Cash EPS     | 54.7    | 79.5  | 60.1  | 52.8   | 37.5   | 34.9   |
| Net DPS      | 10.6    | -32.8 | 2.0   | 52.5   | 38.3   | 35.6   |
| BVPS         | 105.0   | 11.2  | 18.8  | 20.0   | 24.7   | 26.9   |

| Margins (%)                | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|----------------------------|---------|-------|-------|--------|--------|--------|
| EBITDA / revenue           | 36.8    | 34.4  | 32.2  | 30.4   | 30.6   | 30.2   |
| EBIT / revenue             | 35.2    | 32.2  | 30.6  | 28.8   | 29.3   | 29.1   |
| Net profit (UBS) / revenue | 33.7    | 33.6  | 31.8  | 31.3   | 30.5   | 30.2   |

| Return on capital (%) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| EBIT ROIC (UBS)       | -       | NM    | 72.6  | 71.8   | NM     | NM     |
| ROIC post tax         | -       | NM    | 61.9  | 61.4   | NM     | NM     |
| Net ROE               | -       | 11.1  | 15.7  | 20.1   | 22.6   | 24.4   |

| Coverage ratios (x)             | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|---------------------------------|---------|-------|-------|--------|--------|--------|
| EBIT / net interest             | -       | -     | -     | -      | -      | -      |
| Dividend cover (UBS EPS)        | 9.2     | 10.7  | 17.0  | 17.0   | 17.0   | 17.0   |
| Div. payout ratio (% , UBS EPS) | 14.5    | 9.4   | 5.9   | 5.9    | 5.9    | 5.9    |
| Net debt / EBITDA               | NM      | NM    | NM    | NM     | NM     | NM     |

| Efficiency ratios (x)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Revenue / op. invested capital | -       | 3.2   | 2.4   | 2.5    | 3.5    | 4.3    |
| Revenue / fixed assets         | -       | 3.0   | 4.5   | 5.9    | 7.3    | 9.0    |
| Revenue / net working capital  | -       | NM    | NM    | NM     | NM     | NM     |

| Investment ratios (x) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| OpFCF / EBIT          | 1.0     | 1.0   | 1.0   | 1.0    | 1.0    | 1.0    |
| Capex / revenue (%)   | 11.4    | 6.0   | 5.4   | 4.0    | 2.9    | 2.2    |
| Capex / depreciation  | 6.5     | 2.8   | 3.4   | 2.6    | 2.3    | 2.0    |

| Capital structure (%)          | 5Yr Avg | 12/11  | 12/12  | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|--------|--------|--------|--------|--------|
| Net debt / total equity        | (67.5)  | (68.3) | (48.9) | (54.5) | (56.3) | (59.5) |
| Net debt / (net debt + equity) | NM      | NM     | (95.5) | NM     | NM     | NM     |
| Net debt (core) / EV           | -       | (21.3) | (13.9) | (7.7)  | (10.2) | (14.4) |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items.

Valuations: based on an average share price that year, (E): based on a share price of Rmb41.60 on 24 Sep 2013 22:52 SGT Market cap(E) may include forecast share issues/buybacks.

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## UBS Investment Research

### Jiangsu Hengrui Medicine

## A stable leader; R&D starting to bear fruit

### ■ Steady earnings growth expected over the next two to three years

We think Jiangsu Hengrui Medicine (Hengrui) is growing at a stable pace, with H113 sales revenue/net profit (excluding one-offs) up 13.7%/19% YoY to Rmb2.97bn/Rmb0.64bn. We expect gradually weakening impact from the anti-tumour drug price cuts at end-2012. Its surgical drugs/contrast medium revenue should continue to rise and boost net profit over the next two to three years.

### ■ A leading position in anti-tumour drugs, a gradually-enriched product line

As a leader in the domestic anti-tumour drug sector, Hengrui has an around 12% market share—a stable leading position. In recent years, Hengrui has had success in the fields of surgical drugs and contrast medium through the rapid growth of Sevoflurane, Dexmedetomidine, and Ioversol, and has continued to enrich its product line. The company is actively developing diabetes and cardiovascular drugs—we expect it to become a full-range innovative drug maker in the future.

### ■ Continued R&D investments starting to bear fruit in H213

Hengrui's annual R&D expenses account for nearly 10% of its sales revenue. We expect the company's R&D spending to start bearing fruit in H213 with a rich product pipeline. We estimate Hengrui could have six to seven newly-approved drugs per annum over the next five years. For generic drugs, Febuxostat and Capecitabine may soon be launched; for novel drugs, two blockbusters, Apatinib and long-acting GCSF, are likely to be approved before end-2013, and a first-of-its-kind diabetes drug recently received US approval for phase 1 trials. We believe Hengrui is on its way in becoming an innovative enterprise.

### ■ Valuation: Rmb37.00 price target implies 39x 2013E PE

We derive our price target from a DCF-based methodology and explicitly forecast long-term valuation drivers using UBS's VCAM tool, assuming a 6.0% WACC.

| Highlights (Rmbm)         | 12/11         | 12/12    | 12/13E   | 12/14E   | 12/15E   |
|---------------------------|---------------|----------|----------|----------|----------|
| Revenues                  | 4,550.39      | 5,435.40 | 6,523.71 | 7,975.64 | 9,730.28 |
| EBIT (UBS)                | 1,027.95      | 1,320.78 | 1,585.07 | 1,929.77 | 2,480.81 |
| Net Income (UBS)          | 847.78        | 1,079.51 | 1,289.89 | 1,572.36 | 1,903.30 |
| EPS (UBS, Rmb)            | 0.62          | 0.79     | 0.95     | 1.16     | 1.40     |
| Net DPS (UBS, Rmb)        | 0.06          | 0.17     | 0.15     | 0.22     | 0.60     |
| Profitability & Valuation | 5-yr hist av. | 12/12    | 12/13E   | 12/14E   | 12/15E   |
| EBIT margin %             | 23.8          | 24.3     | 24.3     | 24.2     | 25.5     |
| ROIC (EBIT) %             | 39.4          | 36.1     | 38.1     | 40.0     | 43.1     |
| EV/EBITDA (core) x        | 28.5          | 22.6     | 25.9     | 21.2     | 16.5     |
| PE (UBS) x                | 32.1          | 31.5     | 36.3     | 29.8     | 24.6     |
| Net dividend yield %      | 0.3           | 0.7      | 0.4      | 0.6      | 1.7      |

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptional and other special items. Valuations: based on an average share price that year, (E): based on a share price of Rmb34.39 on 24 Sep 2013 22:52 SGT

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## Global Equity Research

China

Pharmaceuticals

12-month rating **Buy**  
**Unchanged**

12m price target **Rmb37.00/US\$6.04**  
**Unchanged**

Price **Rmb34.39/US\$5.62**

RIC: 600276.SS BBG: 600276 CH

### Trading data (local/US\$)

|                          |                              |
|--------------------------|------------------------------|
| 52-wk range              | Rmb36.58-24.72/US\$5.98-3.97 |
| Market cap.              | Rmb46.8bn/US\$7.64bn         |
| Shares o/s               | 1,360m (ORDA)                |
| Free float               | 100%                         |
| Avg. daily volume ('000) | 7,836                        |
| Avg. daily value (m)     | Rmb252.6                     |

### Balance sheet data 12/13E

|                      |           |
|----------------------|-----------|
| Shareholders' equity | Rmb6.19bn |
| P/BV (UBS)           | 7.6x      |
| Net Cash (debt)      | Rmb2.07bn |

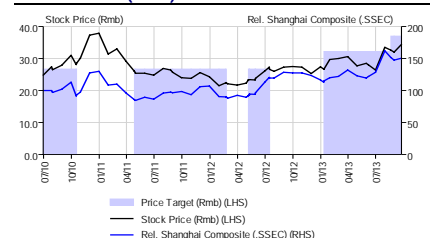
### Forecast returns

|                             |       |
|-----------------------------|-------|
| Forecast price appreciation | +7.6% |
| Forecast dividend yield     | 0.6%  |
| Forecast stock return       | +8.2% |
| Market return assumption    | 8.7%  |
| Forecast excess return      | -0.5% |

### EPS (UBS, Rmb)

| EFC (\$Bil./km2) | 12/13E |      | 12/12        |      |
|------------------|--------|------|--------------|------|
|                  | From   | To   | Cons. Actual |      |
| Q1               | -      | 0.24 | -            | 0.22 |
| Q2               | -      | 0.24 | 0.20         | 0.18 |
| Q3E              | -      | 0.24 | 0.24         | 0.19 |
| Q4E              | -      | 0.24 | 0.24         | 0.19 |
| 12/13E           | -      | 0.95 | 0.95         |      |
| 12/14E           | -      | 1.16 | 1.16         |      |

### Performance (Rmb)



Source: UBS

[www.ubs.com/investmentresearch](http://www.ubs.com/investmentresearch)

# Jiangsu Hengrui Medicine

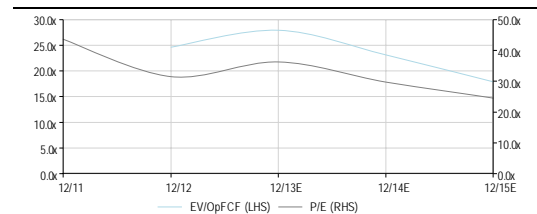
| Income statement (Rmbm)                  | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch   | 12/14E     | % ch  | 12/15E     | % ch  |
|--|------------|------------|------------|------------|------------|------------|--------|------------|-------|------------|-------|
| Revenues                                 | 2,392.56   | 3,028.96   | 3,744.11   | 4,550.39   | 5,435.40   | 6,523.71   | 20.0   | 7,975.64   | 22.3  | 9,730.28   | 22.0  |
| Operating expenses (ex depn)             | (1,685.74) | (2,286.02) | (2,816.37) | (3,396.70) | (3,988.89) | (4,785.83) | 20.0   | (5,878.21) | 22.8  | (7,065.50) | 20.2  |
| EBITDA (UBS)                             | 706.82     | 742.94     | 927.74     | 1,153.69   | 1,446.52   | 1,737.88   | 20.1   | 2,097.43   | 20.7  | 2,664.79   | 27.0  |
| Depreciation                             | (60.24)    | (64.28)    | (71.33)    | (125.74)   | (125.74)   | (152.81)   | 21.5   | (167.66)   | 9.7   | (183.97)   | 9.7   |
| Operating income (EBIT, UBS)             | 646.58     | 678.66     | 856.41     | 1,027.95   | 1,320.78   | 1,585.07   | 20.0   | 1,929.77   | 21.7  | 2,480.81   | 28.6  |
| Other income & associates                | (192.21)   | 84.72      | (22.15)    | (9.71)     | (24.43)    | (18.87)    | -22.7  | (28.64)    | 51.8  | (34.62)    | 20.9  |
| Net interest                             | (4.67)     | 8.34       | 10.95      | 14.15      | 38.39      | 56.81      | 48.0   | 77.31      | 36.1  | 98.33      | 27.2  |
| Abnormal items (pre-tax)                 | 20.31      | 8.97       | 14.99      | 32.65      | 0.00       | 0.00       | -      | 0.00       | -     | 0.00       | -     |
| Profit before tax                        | 470.02     | 780.69     | 860.21     | 1,065.05   | 1,334.75   | 1,623.02   | 21.6   | 1,978.44   | 21.9  | 2,544.52   | 28.6  |
| Tax                                      | (34.43)    | (87.39)    | (104.77)   | (124.64)   | (180.19)   | (243.45)   | 35.1   | (296.77)   | 21.9  | (508.90)   | 71.5  |
| Profit after tax                         | 435.59     | 693.30     | 755.44     | 940.41     | 1,154.56   | 1,379.56   | 19.5   | 1,681.67   | 21.9  | 2,035.62   | 21.0  |
| Abnormal items (post-tax)                | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -      | 0.00       | -     | 0.00       | -     |
| Minorities / pref dividends              | (12.65)    | (27.57)    | (31.26)    | (63.79)    | (75.05)    | (89.67)    | 19.5   | (109.31)   | 21.9  | (132.32)   | 21.0  |
| Net income (local GAAP)                  | 422.95     | 665.73     | 724.17     | 876.61     | 1,079.51   | 1,289.89   | 19.5   | 1,572.36   | 21.9  | 1,903.30   | 21.0  |
| Net Income (UBS)                         | 404.12     | 657.77     | 711.01     | 847.78     | 1,079.51   | 1,289.89   | 19.5   | 1,572.36   | 21.9  | 1,903.30   | 21.0  |
| Tax rate (%)                             | 7.32       | 11.19      | 12.18      | 11.70      | 13.50      | 15.00      | 11.1   | 15.00      | 0.0   | 20.00      | 33.3  |
| Pre-abnormal tax rate (%)                | 7.32       | 11.19      | 12.18      | 11.70      | 13.50      | 15.00      | 11.1   | 15.00      | 0.0   | 20.00      | 33.3  |
| Per share (Rmb)                          | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch   | 12/14E     | % ch  | 12/15E     | % ch  |
| EPS (local GAAP)                         | 0.68       | 0.89       | 0.80       | 0.64       | 0.79       | 0.95       | 19.5   | 1.16       | 21.9  | 1.40       | 21.0  |
| EPS (UBS)                                | 0.65       | 0.88       | 0.78       | 0.62       | 0.79       | 0.95       | 19.5   | 1.16       | 21.9  | 1.40       | 21.0  |
| Net DPS                                  | 0.00       | 0.08       | 0.08       | 0.06       | 0.17       | 0.15       | -12.3  | 0.22       | 43.6  | 0.60       | 175.2 |
| Cash EPS                                 | 0.74       | 0.96       | 0.86       | 0.72       | 0.89       | 1.06       | 19.7   | 1.28       | 20.6  | 1.53       | 20.0  |
| BVPS                                     | 1.70       | 2.23       | 2.87       | 3.11       | 3.74       | 4.55       | 21.7   | 5.51       | 21.0  | 6.69       | 21.4  |
| Balance sheet (Rmbm)                     | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch   | 12/14E     | % ch  | 12/15E     | % ch  |
| Net tangible fixed assets                | 461.98     | 480.72     | 721.82     | 847.71     | 890.69     | 930.26     | 4.4    | 966.69     | 3.9   | 1,006.42   | 4.1   |
| Net intangible fixed assets              | 29.23      | 50.28      | 52.34      | 51.35      | 44.96      | 37.95      | -15.6  | 30.23      | -20.3 | 21.73      | -28.1 |
| Net working capital (incl. other assets) | 965.21     | 1,244.63   | 1,684.51   | 2,535.00   | 2,938.53   | 3,470.43   | 18.1   | 4,220.85   | 21.6  | 5,264.34   | 24.7  |
| Other liabilities                        | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -      | 0.00       | -     | 0.00       | -     |
| Operating invested capital               | 1,456.42   | 1,775.63   | 2,458.67   | 3,434.05   | 3,874.19   | 4,438.64   | 14.6   | 5,217.76   | 17.6  | 6,292.49   | 20.6  |
| Investments                              | 102.81     | 192.14     | 41.12      | 5.11       | 1.34       | 1.34       | 0.0    | 1.34       | 0.0   | 1.34       | 0.0   |
| Total capital employed                   | 1,559.23   | 1,967.77   | 2,499.78   | 3,439.16   | 3,875.52   | 4,439.97   | 14.6   | 5,219.10   | 17.5  | 6,293.83   | 20.6  |
| Shareholders' equity                     | 1,994.38   | 2,607.74   | 3,387.38   | 4,224.18   | 5,091.28   | 6,193.80   | 21.7   | 7,497.07   | 21.0  | 9,099.91   | 21.4  |
| Minority interests                       | 30.07      | 57.28      | 87.46      | 154.37     | 229.42     | 319.09     | 39.1   | 428.40     | 34.3  | 560.72     | 30.9  |
| Total equity                             | 2,024.45   | 2,665.02   | 3,474.83   | 4,378.55   | 5,320.70   | 6,512.89   | 22.4   | 7,925.48   | 21.7  | 9,660.63   | 21.9  |
| Net debt / (cash)                        | (465.22)   | (697.25)   | (975.05)   | (939.39)   | (1,445.17) | (2,072.91) | 43.4   | (2,706.37) | 30.6  | (3,366.80) | 24.4  |
| Other debt-deemed items                  | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -      | 0.00       | -     | 0.00       | -     |
| Total capital employed                   | 1,559.23   | 1,967.77   | 2,499.78   | 3,439.16   | 3,875.52   | 4,439.97   | 14.6   | 5,219.10   | 17.5  | 6,293.83   | 20.6  |
| Cash flow (Rmbm)                         | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch   | 12/14E     | % ch  | 12/15E     | % ch  |
| Operating income (EBIT, UBS)             | 646.58     | 678.66     | 856.41     | 1,027.95   | 1,320.78   | 1,585.07   | 20.0   | 1,929.77   | 21.7  | 2,480.81   | 28.6  |
| Depreciation                             | 60.24      | 64.28      | 71.33      | 125.74     | 125.74     | 152.81     | 21.5   | 167.66     | 9.7   | 183.97     | 9.7   |
| Net change in working capital            | (385.59)   | (364.23)   | (401.03)   | (507.04)   | (407.87)   | (441.14)   | 8.2    | (667.88)   | 51.4  | (831.10)   | 24.4  |
| Other (operating)                        | (164.68)   | 139.45     | (46.94)    | (8.81)     | (44.19)    | (166.30)   | 276.3  | (190.05)   | 14.3  | (348.53)   | 83.4  |
| Operating cash flow (pre tax/interest)   | 156.55     | 518.16     | 479.76     | 637.84     | 994.45     | 1,130.43   | 13.7   | 1,239.50   | 9.6   | 1,485.15   | 19.8  |
| Net interest received / (paid)           | (4.67)     | 8.34       | 10.95      | 14.15      | 38.39      | 56.81      | 48.0   | 77.31      | 36.1  | 98.33      | 27.2  |
| Dividends paid                           | (43.11)    | (51.73)    | (62.07)    | (74.94)    | (213.59)   | (187.37)   | -12.27 | (269.09)   | 43.61 | (300.46)   | 11.66 |
| Tax paid                                 | (34.43)    | (87.39)    | (104.77)   | (124.64)   | (180.19)   | (243.45)   | 35.1   | (296.77)   | 21.9  | (508.90)   | 71.5  |
| Capital expenditure                      | (111.21)   | (141.65)   | (286.73)   | (540.27)   | (176.63)   | (185.49)   | 5.0    | (194.81)   | 5.0   | (212.03)   | 8.8   |
| Net (acquisitions) / disposals           | 21.76      | (10.55)    | 0.97       | 1.16       | 0.00       | 0.00       | -      | 0.00       | -     | 0.00       | -     |
| Other                                    | (360.40)   | 39.51      | (40.45)    | (250.12)   | (168.54)   | (175.39)   | 4.1    | (60.64)    | -65.4 | (68.61)    | 13.1  |
| Share issues                             | 63.76      | 103.46     | 241.73     | 259.99     | 112.41     | 123.66     | 10.0   | 0.00       | -     | 0.00       | -     |
| Cash flow (inc)/dec in net debt          | (127.20)   | 312.04     | 277.81     | (35.96)    | 505.78     | 627.74     | 24.1   | 633.46     | 0.9   | 660.42     | 4.3   |
| FX / non cash items                      | (191.24)   | (80.02)    | (.00)      | 0.30       | 0.00       | 0.00       | -      | 0.00       | -     | 0.00       | -     |
| Balance sheet (inc)/dec in net debt      | (318.44)   | 232.03     | 277.80     | (35.66)    | 505.78     | 627.74     | 24.1   | 633.46     | 0.9   | 660.42     | 4.3   |
| Core EBITDA                              | 706.82     | 742.94     | 927.74     | 1,153.69   | 1,446.52   | 1,737.88   | 20.1   | 2,097.43   | 20.7  | 2,664.79   | 27.0  |
| Maintenance capital expenditure          | (22.24)    | (28.33)    | (57.35)    | (108.05)   | (35.33)    | (37.10)    | 5.0    | (38.96)    | 5.0   | (42.41)    | 8.8   |
| Maintenance net working capital          | (77.12)    | (72.85)    | (80.21)    | (101.41)   | (81.57)    | (88.23)    | 8.2    | (133.58)   | 51.4  | (166.22)   | 24.4  |
| Operating free cash flow, pre-tax        | 607.46     | 641.76     | 790.19     | 944.23     | 1,329.62   | 1,612.55   | 21.3   | 1,924.89   | 19.4  | 2,456.16   | 27.6  |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Note: For some companies, the data represents an extract of the full company accounts.

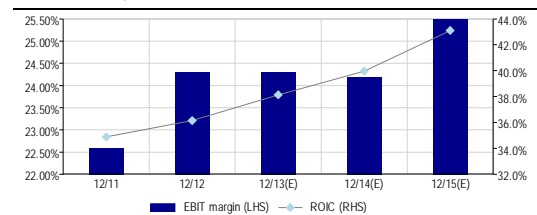
## Company profile

Jiangsu Hengrui Medicine (Hengrui) is the largest domestic producer of antitumour drugs in terms of revenue; the company was listed on the Shanghai Stock Exchange in 2000. Hengrui focuses on producing first-to-market generic drugs. Its major products are in four categories: antitumours, surgical drugs, anti-infectives, and other kinds of drugs, including cardio-cerebrovascular drugs. The company's strategy is to shift its focus from generic to novel drugs.

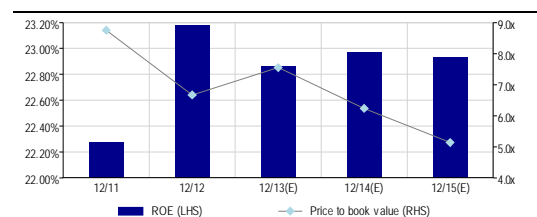
## Value (EV/OpFCF & P/E)



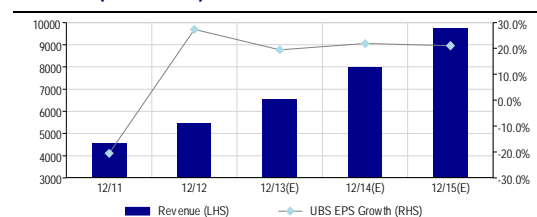
## Profitability



## ROE v Price to book value



## Growth (UBS EPS)



# Jiangsu Hengrui Medicine

| Valuation (x)           | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-------------------------|---------|-------|-------|--------|--------|--------|
| P/E (local GAAP)        | 31.4    | 42.2  | 31.5  | 36.3   | 29.8   | 24.6   |
| P/E (UBS)               | 32.1    | 43.6  | 31.5  | 36.3   | 29.8   | 24.6   |
| P/CEPS                  | 28.6    | 38.0  | 28.2  | 32.4   | 26.9   | 22.4   |
| Net dividend yield (%)  | 0.3     | 0.2   | 0.7   | 0.4    | 0.6    | 1.7    |
| P/BV                    | 8.9     | 8.8   | 6.7   | 7.6    | 6.2    | 5.1    |
| EV/revenue (core)       | 7.4     | 7.6   | 6.0   | 6.9    | 5.6    | 4.5    |
| EV/EBITDA (core)        | 28.5    | 29.9  | 22.6  | 25.9   | 21.2   | 16.5   |
| EV/EBIT (core)          | NM      | NM    | 24.8  | 28.4   | 23.1   | 17.7   |
| EV/OpFCF (core)         | NM      | NM    | 24.6  | 27.9   | 23.1   | 17.9   |
| EV/op. invested capital | NM      | NM    | 9.0   | NM     | 9.2    | 7.6    |

| Enterprise value (Rmbm)         | 12/11     | 12/12      | 12/13E     | 12/14E     | 12/15E     |
|---------------------------------|-----------|------------|------------|------------|------------|
| Average market cap              | 35,250.39 | 33,962.18  | 46,777.96  | 46,777.96  | 46,777.96  |
| + minority interests            | 154.37    | 229.42     | 319.09     | 428.40     | 560.72     |
| + average net debt (cash)       | (939.39)  | (1,445.17) | (2,072.91) | (2,706.37) | (3,366.80) |
| + pension obligations and other | 0.00      | 0.00       | 0.00       | 0.00       | 0.00       |
| - non-core asset value          | (5.11)    | (1.34)     | (1.34)     | (1.34)     | (1.34)     |
| Core enterprise value           | 34,460.26 | 32,745.09  | 45,022.80  | 44,498.65  | 43,970.54  |

| Growth (%)   | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------|---------|-------|-------|--------|--------|--------|
| Revenue      | 22.8    | 21.5  | 19.4  | 20.0   | 22.3   | 22.0   |
| EBITDA (UBS) | 19.6    | 24.4  | 25.4  | 20.1   | 20.7   | 27.0   |
| EBIT (UBS)   | 19.6    | 20.0  | 28.5  | 20.0   | 21.7   | 28.6   |
| EPS (UBS)    | 5.3     | -20.5 | 27.3  | 19.5   | 21.9   | 21.0   |
| Cash EPS     | 4.5     | -17.0 | 23.8  | 19.7   | 20.6   | 20.0   |
| Net DPS      | NM      | -19.5 | 185.0 | -12.3  | 43.6   | 175.2  |
| BVPS         | 21.8    | 8.1   | 20.5  | 21.7   | 21.0   | 21.4   |

| Margins (%)                | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|----------------------------|---------|-------|-------|--------|--------|--------|
| EBITDA / revenue           | 26.2    | 25.4  | 26.6  | 26.6   | 26.3   | 27.4   |
| EBIT / revenue             | 23.8    | 22.6  | 24.3  | 24.3   | 24.2   | 25.5   |
| Net profit (UBS) / revenue | 19.2    | 18.6  | 19.9  | 19.8   | 19.7   | 19.6   |

| Return on capital (%) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| EBIT ROIC (UBS)       | 39.4    | 34.9  | 36.1  | 38.1   | 40.0   | 43.1   |
| ROIC post tax         | -       | 30.8  | 31.3  | 32.4   | 34.0   | 34.5   |
| Net ROE               | 24.0    | 22.3  | 23.2  | 22.9   | 23.0   | 22.9   |

| Coverage ratios (x)             | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|---------------------------------|---------|-------|-------|--------|--------|--------|
| EBIT / net interest             | -       | -     | -     | -      | -      | -      |
| Dividend cover (UBS EPS)        | NM      | 10.3  | 4.6   | 6.3    | 5.3    | 2.3    |
| Div. payout ratio (% , UBS EPS) | 10.0    | 9.7   | 21.8  | 16.0   | 18.8   | 42.8   |
| Net debt / EBITDA               | NM      | NM    | NM    | NM     | NM     | NM     |

| Efficiency ratios (x)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Revenue / op. invested capital | 1.7     | 1.5   | 1.5   | 1.6    | 1.7    | 1.7    |
| Revenue / fixed assets         | 5.6     | 5.4   | 5.9   | 6.9    | 8.1    | 9.6    |
| Revenue / net working capital  | 2.6     | 2.3   | 2.1   | 2.2    | 2.2    | 2.2    |

| Investment ratios (x) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| OpFCF / EBIT          | 1.0     | 0.9   | 1.0   | 1.0    | 1.0    | 1.0    |
| Capex / revenue (%)   | 6.6     | 11.9  | 3.2   | 2.8    | 2.4    | 2.2    |
| Capex / depreciation  | 2.8     | 4.3   | 1.4   | 1.2    | 1.2    | 1.2    |

| Capital structure (%)          | 5Yr Avg | 12/11  | 12/12  | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|--------|--------|--------|--------|--------|
| Net debt / total equity        | (26.1)  | (22.2) | (28.4) | (33.5) | (36.1) | (37.0) |
| Net debt / (net debt + equity) | (35.4)  | (28.6) | (39.6) | (50.3) | (56.5) | (58.7) |
| Net debt (core) / EV           | (3.2)   | (2.7)  | (4.4)  | (4.6)  | (6.1)  | (7.7)  |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptional and other special items.

Valuations: based on an average share price that year, (E): based on a share price of Rmb34.39 on 24 Sep 2013 22:52 SGT Market cap(E) may include forecast share issues/buybacks.

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## UBS Investment Research

### Zhengzhou Coal Mining Machinery

## Strongly leveraging on R&D capability

### ■ A growing focus on R&D

Zhengzhou Coal Mining Machinery's (ZMJ) R&D expenses have grown 37% per annum— from Rmb60m in 2009 to Rmb152m in 2012 (up from 1.2% to 1.5% as a percentage of its revenue, respectively). The company has been leveraging on its strong R&D capability to capture a first-mover advantage (for instance, it invented the largest hydraulic roof support in 2010). With the planned establishment of research centres in Germany and the US, we expect ZMJ to import new technologies into China and further differentiate its products.

### ■ The order book will last until end-2013; few payment defaults

Management indicated that ZMJ's order book will last until end-2013, consistent with its policy of a six-month order pipeline. Management also said there should be few payment defaults or order cancellations from its customers. As ZMJ's customers are mainly large coal enterprises such as China Shenhua and Datong Coal Group, it benefits from more stable demand and lower default risks.

### ■ Sustaining its leadership position in a slowing market

China's coal industry's fixed asset investments (FAI) fell 6.6% YoY to Rmb87.2bn for January-April 2013, compared to 7.5% YoY growth in 2012. Its H113 coal output also declined by 4% YoY to 17.9mt. Despite slower demand growth, we expect machine replacements to provide demand support as machine overloading is common in China. We believe ZMJ can protect its market share through its high technology and the capex barriers in the high-end segment.

### ■ Valuation: HK\$6.73 price target implies 7.6x/7.2x 2013E/2014E PE

We derive our price target from a three-stage DCF methodology, assuming a WACC of 11% and a perpetual growth rate of 3%.

| Highlights (Rmbm)         | 12/11         | 12/12     | 12/13E   | 12/14E    | 12/15E    |
|---------------------------|---------------|-----------|----------|-----------|-----------|
| Revenues                  | 8,060.10      | 10,211.08 | 9,493.40 | 10,193.80 | 10,960.75 |
| EBIT (UBS)                | 1,369.50      | 2,023.37  | 1,489.37 | 1,603.45  | 1,787.87  |
| Net Income (UBS)          | 1,219.80      | 1,587.20  | 1,198.19 | 1,263.88  | 1,393.82  |
| EPS (UBS, Rmb)            | 0.74          | 0.97      | 0.73     | 0.77      | 0.85      |
| Net DPS (UBS, Rmb)        | 0.24          | 0.26      | 0.13     | 0.14      | 0.15      |
| Profitability & Valuation | 5-yr hist av. | 12/12     | 12/13E   | 12/14E    | 12/15E    |
| EBIT margin %             | 16.4          | 19.8      | 15.7     | 15.7      | 16.3      |
| ROIC (EBIT) %             | 69.8          | 54.8      | 27.9     | 23.2      | 22.1      |
| EV/EBITDA (core) x        | -             | 5.1       | 3.8      | 3.8       | 3.4       |
| PE (UBS) x                | -             | 8.3       | 5.2      | 4.9       | 4.4       |
| Net dividend yield %      | -             | 3.2       | 3.5      | 3.7       | 4.1       |

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptional and other special items. Valuations: based on an average share price that year, (E): based on a share price of HK\$4.76 on 24 Sep 2013 22:52 SGT

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## Global Equity Research

China

Mining

12-month rating **Buy**  
*Unchanged*

12m price target **HK\$6.73/US\$0.87**  
*Unchanged*

Price **HK\$4.76/US\$0.61**

RIC: 0564.HK BBG: 564 HK

### Trading data (local/US\$)

|                          |                              |
|--------------------------|------------------------------|
| 52-wk range              | HK\$12.54-4.46/US\$1.62-0.58 |
| Market cap.              | HK\$13.4bn/US\$1.73bn        |
| Shares o/s               | 243m (ORD)                   |
| Free float               | 10%                          |
| Avg. daily volume ('000) | 1,464                        |
| Avg. daily value (m)     | HK\$7.4                      |

### Balance sheet data 12/13E

|                      |           |
|----------------------|-----------|
| Shareholders' equity | Rmb10.0bn |
| P/BV (UBS)           | 0.6x      |
| Net Cash (debt)      | Rmb3.61bn |

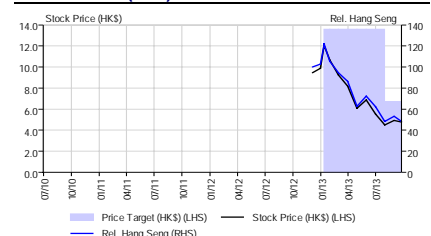
### Forecast returns

|                             |        |
|-----------------------------|--------|
| Forecast price appreciation | +41.4% |
| Forecast dividend yield     | 4.9%   |
| Forecast stock return       | +46.3% |
| Market return assumption    | 9.4%   |
| Forecast excess return      | +36.9% |

### EPS (UBS, Rmb)

|        | 12/13E | 12/12        |
|--------|--------|--------------|
|        | UBS    | Cons. Actual |
| H1E    | 0.40   | - 0.49       |
| H2E    | 0.33   | - 0.47       |
| 12/13E | 0.73   | 0.73         |
| 12/14E | 0.77   | 0.77         |

### Performance (HK\$)



Source: UBS

[www.ubs.com/investmentresearch](http://www.ubs.com/investmentresearch)

# Zhengzhou Coal Mining Machinery

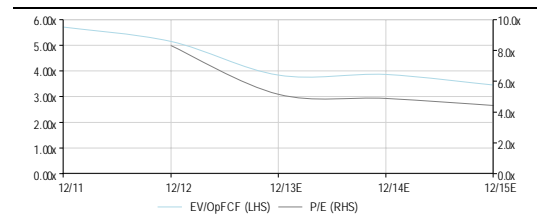
| Income statement (Rmbm)                  | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
|--|------------|------------|------------|------------|------------|------------|-------|------------|-------|------------|-------|
| Revenues                                 | 3,722.34   | 4,994.46   | 6,358.30   | 8,060.10   | 10,211.08  | 9,493.40   | -7.0  | 10,193.80  | 7.4   | 10,960.75  | 7.5   |
| Operating expenses (ex deprn)            | (3,242.09) | (4,160.06) | (5,219.38) | (6,602.20) | (8,048.19) | (7,837.07) | -2.6  | (8,369.19) | 6.8   | (8,860.48) | 5.9   |
| EBITDA (UBS)                             | 480.25     | 834.40     | 1,138.93   | 1,457.90   | 2,162.89   | 1,656.33   | -23.4 | 1,824.60   | 10.2  | 2,100.27   | 15.1  |
| Depreciation                             | (35.76)    | (33.65)    | (43.83)    | (88.40)    | (139.52)   | (166.96)   | 19.7  | (221.16)   | 32.5  | (312.40)   | 41.3  |
| Operating income (EBIT, UBS)             | 444.49     | 800.75     | 1,095.10   | 1,369.50   | 2,023.37   | 1,489.37   | -26.4 | 1,603.45   | 7.7   | 1,787.87   | 11.5  |
| Other income & associates                | (1.27)     | (21.51)    | (3.18)     | 18.25      | (207.67)   | (178.98)   | -13.8 | (189.45)   | 5.9   | (200.92)   | 6.1   |
| Net interest                             | 136.47     | (6.07)     | (2.64)     | 59.14      | 93.28      | 130.71     | 40.1  | 106.12     | -18.8 | 89.46      | -15.7 |
| Abnormal items (pre-tax)                 | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Profit before tax                        | 579.69     | 773.17     | 1,089.28   | 1,446.90   | 1,908.98   | 1,441.10   | -24.5 | 1,520.11   | 5.5   | 1,676.40   | 10.3  |
| Tax                                      | (89.97)    | (126.50)   | (171.60)   | (207.90)   | (297.39)   | (224.50)   | -24.5 | (236.81)   | 5.5   | (261.15)   | 10.3  |
| Profit after tax                         | 489.72     | 646.67     | 917.68     | 1,239.00   | 1,611.60   | 1,216.60   | -24.5 | 1,283.31   | 5.5   | 1,415.25   | 10.3  |
| Abnormal items (post-tax)                | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Minorities / pref dividends              | (8.69)     | (16.40)    | (10.20)    | (19.20)    | (24.40)    | (18.42)    | -24.5 | (19.43)    | 5.5   | (21.42)    | 10.3  |
| Net income (local GAAP)                  | 481.02     | 630.27     | 907.48     | 1,219.80   | 1,587.20   | 1,198.19   | -24.5 | 1,263.88   | 5.5   | 1,393.82   | 10.3  |
| Net Income (UBS)                         | 481.02     | 630.27     | 907.48     | 1,219.80   | 1,587.20   | 1,198.19   | -24.5 | 1,263.88   | 5.5   | 1,393.82   | 10.3  |
| Tax rate (%)                             | 15.52      | 16.36      | 15.75      | 14.37      | 15.58      | 15.58      | 0.0   | 15.58      | 0.0   | 15.58      | 0.0   |
| Pre-abnormal tax rate (%)                | 15.52      | 16.37      | 15.89      | 14.49      | 15.68      | 15.71      | 0.2   | 15.70      | 0.0   | 15.69      | -0.1  |
| Per share (Rmb)                          | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
| EPS (local GAAP)                         | 0.29       | 0.38       | 0.55       | 0.74       | 0.97       | 0.73       | -24.5 | 0.77       | 5.5   | 0.85       | 10.3  |
| EPS (UBS)                                | 0.29       | 0.38       | 0.55       | 0.74       | 0.97       | 0.73       | -24.5 | 0.77       | 5.5   | 0.85       | 10.3  |
| Net DPS                                  | 0.01       | 0.05       | 0.00       | 0.24       | 0.26       | 0.13       | -49.7 | 0.14       | 5.5   | 0.15       | 10.3  |
| Cash EPS                                 | 0.31       | 0.40       | 0.58       | 0.80       | 1.05       | 0.83       | -20.9 | 0.90       | 8.8   | 1.04       | 14.9  |
| BVPS                                     | 0.63       | 1.07       | 3.57       | 4.20       | 5.57       | 6.11       | 9.5   | 6.67       | 9.2   | 7.29       | 9.3   |
| Balance sheet (Rmbm)                     | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
| Net tangible fixed assets                | 248.73     | 412.02     | 1,058.81   | 1,532.87   | 1,715.08   | 2,201.97   | 28.4  | 3,137.44   | 42.5  | 3,631.93   | 15.8  |
| Net intangible fixed assets              | 5.77       | 161.11     | 221.19     | 254.22     | 323.21     | 313.93     | -2.9  | 302.66     | -3.6  | 291.89     | -3.6  |
| Net working capital (incl. other assets) | 120.23     | 345.57     | 383.66     | 1,135.92   | 2,464.49   | 3,689.22   | 49.7  | 4,236.47   | 14.8  | 4,641.96   | 9.6   |
| Other liabilities                        | (16.29)    | (19.97)    | (19.97)    | (18.97)    | (23.82)    | (23.82)    | 0.0   | (23.82)    | 0.0   | (23.82)    | 0.0   |
| Operating invested capital               | 358.45     | 898.74     | 1,643.68   | 2,904.04   | 4,478.95   | 6,181.30   | 38.0  | 7,652.75   | 23.8  | 8,541.96   | 11.6  |
| Investments                              | 17.84      | 28.71      | 45.12      | 85.67      | 445.07     | 456.62     | 2.6   | 468.18     | 2.5   | 479.73     | 2.5   |
| Total capital employed                   | 376.29     | 927.45     | 1,688.81   | 2,989.71   | 4,924.02   | 6,637.92   | 34.8  | 8,120.93   | 22.3  | 9,021.69   | 11.1  |
| Shareholders' equity                     | 875.56     | 1,496.02   | 4,994.60   | 5,874.32   | 9,160.78   | 10,033.73  | 9.5   | 10,956.37  | 9.2   | 11,973.86  | 9.3   |
| Minority interests                       | 25.38      | 63.58      | 145.04     | 274.54     | 193.07     | 211.48     | 9.5   | 230.91     | 9.2   | 252.33     | 9.3   |
| Total equity                             | 900.94     | 1,559.60   | 5,139.64   | 6,148.86   | 9,353.84   | 10,245.22  | 9.5   | 11,187.28  | 9.2   | 12,226.19  | 9.3   |
| Net debt / (cash)                        | (524.65)   | (632.15)   | (3,450.83) | (3,159.15) | (4,429.82) | (3,607.30) | -18.6 | (3,066.35) | -15.0 | (3,204.50) | 4.5   |
| Other debt-deemed items                  | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Total capital employed                   | 376.29     | 927.45     | 1,688.81   | 2,989.71   | 4,924.02   | 6,637.92   | 34.8  | 8,120.93   | 22.3  | 9,021.69   | 11.1  |
| Cash flow (Rmbm)                         | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
| Operating income (EBIT, UBS)             | 444.49     | 800.75     | 1,095.10   | 1,369.50   | 2,023.37   | 1,489.37   | -26.4 | 1,603.45   | 7.7   | 1,787.87   | 11.5  |
| Depreciation                             | 35.76      | 33.65      | 43.83      | 88.40      | 139.52     | 166.96     | 19.7  | 221.16     | 32.5  | 312.40     | 41.3  |
| Net change in working capital            | (176.04)   | (146.03)   | (143.25)   | (673.89)   | (1,654.80) | (1,151.84) | -30.4 | (559.55)   | -51.4 | (429.84)   | -23.2 |
| Other (operating)                        | 160.46     | 17.62      | 27.24      | 37.54      | (95.98)    | (175.10)   | 82.4  | (186.37)   | 6.4   | (198.59)   | 6.6   |
| Operating cash flow (pre tax/interest)   | 464.67     | 705.98     | 1,022.91   | 821.56     | 412.12     | 329.38     | -20.1 | 1,078.68   | 227.5 | 1,471.83   | 36.4  |
| Net interest received / (paid)           | 0.00       | (6.07)     | (2.64)     | 59.14      | 92.12      | 130.71     | 41.9  | 106.12     | -18.8 | 89.46      | -15.7 |
| Dividends paid                           | (15.02)    | (21.47)    | (48.13)    | (192.78)   | (209.33)   | (323.51)   | 54.54 | (341.25)   | 5.48  | (376.33)   | 10.28 |
| Tax paid                                 | (89.97)    | (109.25)   | (172.37)   | (283.77)   | (272.25)   | (297.39)   | 9.2   | (224.50)   | -24.5 | (236.81)   | 5.5   |
| Capital expenditure                      | 0.00       | (262.12)   | (547.24)   | (492.82)   | (368.58)   | (650.00)   | 76.4  | (1,150.00) | 76.9  | (800.00)   | -30.4 |
| Net (acquisitions) / disposals           | 1.28       | (1.32)     | 6.37       | 4.11       | (57.85)    | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Other                                    | (106.15)   | (15.36)    | (2,081.15) | 312.88     | 455.19     | (10.00)    | -     | (10.00)    | 0.0   | (10.00)    | 0.0   |
| Share issues                             | 0.00       | 0.00       | 2,690.92   | 0.00       | 1,767.53   | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Cash flow (inc)/dec in net debt          | 254.81     | 290.38     | 868.68     | 228.32     | 1,818.95   | (820.81)   | -     | (540.95)   | -34.1 | 138.15     | -     |
| FX / non cash items                      | 161.14     | (182.88)   | 1,950.00   | (520.00)   | (548.28)   | (1.72)     | -99.7 | 0.00       | -     | 0.00       | -     |
| Balance sheet (inc)/dec in net debt      | 415.95     | 107.50     | 2,818.68   | (291.68)   | 1,270.67   | (822.53)   | -     | (540.95)   | -34.2 | 138.15     | -     |
| Core EBITDA                              | 480.25     | 834.40     | 1,138.93   | 1,457.90   | 2,162.89   | 1,656.33   | -23.4 | 1,824.60   | 10.2  | 2,100.27   | 15.1  |
| Maintenance capital expenditure          | (5.00)     | (5.00)     | (5.00)     | (5.00)     | (5.00)     | (5.00)     | 0.0   | (5.00)     | 0.0   | (5.00)     | 0.0   |
| Maintenance net working capital          | (5.00)     | (5.00)     | (5.00)     | (5.00)     | (5.00)     | (5.00)     | 0.0   | (5.00)     | 0.0   | (5.00)     | 0.0   |
| Operating free cash flow, pre-tax        | 470.25     | 824.40     | 1,128.93   | 1,447.90   | 2,152.89   | 1,646.33   | -23.5 | 1,814.60   | 10.2  | 2,090.27   | 15.2  |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Note: For some companies, the data represents an extract of the full company accounts.

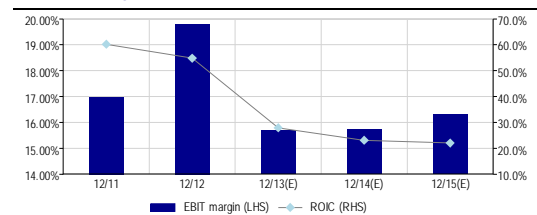
## Company profile

Zhengzhou Coal Mining Machinery (ZMJ) is a leading coal mining and excavating equipment manufacturer in China that designs and manufactures longwall underground mining equipment. It is the market leader for hydraulic roof supports, and is expanding into the roadheader and armoured-faced conveyor segments. More than 90% of ZMJ's sales revenue is derived from the China market historically, and the company plans to tap overseas opportunities by establishing production bases in India and Russia, as well as service centres in major coal producing countries such as the US and Turkey.

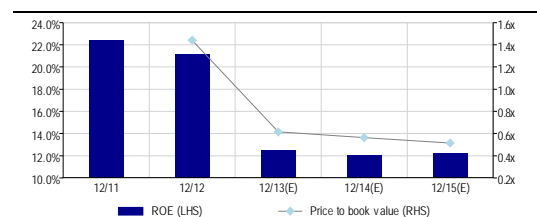
## Value (EV/OpFCF & P/E)



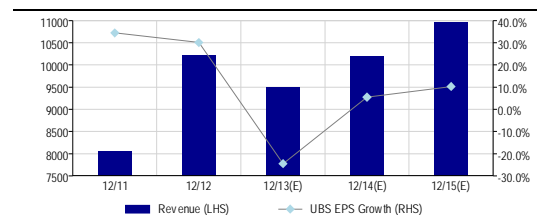
## Profitability



## ROE v Price to book value



## Growth (UBS EPS)



# Zhengzhou Coal Mining Machinery

| Valuation (x)           | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-------------------------|---------|-------|-------|--------|--------|--------|
| P/E (local GAAP)        | -       | -     | 8.3   | 5.2    | 4.9    | 4.4    |
| P/E (UBS)               | -       | -     | 8.3   | 5.2    | 4.9    | 4.4    |
| P/CEPS                  | -       | -     | 7.6   | 4.5    | 4.2    | 3.6    |
| Net dividend yield (%)  | -       | -     | 3.2   | 3.5    | 3.7    | 4.1    |
| P/BV                    | -       | -     | 1.4   | 0.6    | 0.6    | 0.5    |
| EV/revenue (core)       | -       | 1.0   | 1.1   | 0.7    | 0.7    | 0.7    |
| EV/EBITDA (core)        | -       | 5.7   | 5.1   | 3.8    | 3.8    | 3.4    |
| EV/EBIT (core)          | -       | 6.0   | 5.5   | 4.2    | 4.4    | 4.0    |
| EV/OpFCF (core)         | -       | 5.7   | 5.1   | 3.8    | 3.9    | 3.5    |
| EV/op. invested capital | -       | 3.6   | 3.0   | 1.2    | 1.0    | 0.9    |

| Enterprise value (Rmbm)         | 12/11      | 12/12      | 12/13E     | 12/14E     | 12/15E     |
|---------------------------------|------------|------------|------------|------------|------------|
| Average market cap              | 11,446.07  | 15,084.90  | 10,588.09  | 10,588.09  | 10,588.09  |
| + minority interests            | 209.79     | 233.80     | 202.28     | 221.20     | 241.62     |
| + average net debt (cash)       | (3,304.99) | (3,794.49) | (4,018.56) | (3,336.82) | (3,135.42) |
| + pension obligations and other | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       |
| - non-core asset value          | (85.67)    | (445.07)   | (456.62)   | (468.18)   | (479.73)   |
| Core enterprise value           | 8,265.20   | 11,079.15  | 6,315.18   | 7,004.28   | 7,214.55   |

| Growth (%)   | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------|---------|-------|-------|--------|--------|--------|
| Revenue      | 28.7    | 26.8  | 26.7  | -7.0   | 7.4    | 7.5    |
| EBITDA (UBS) | 45.7    | 28.0  | 48.4  | -23.4  | 10.2   | 15.1   |
| EBIT (UBS)   | 46.1    | 25.1  | 47.7  | -26.4  | 7.7    | 11.5   |
| EPS (UBS)    | 34.8    | 34.4  | 30.1  | -24.5  | 5.5    | 10.3   |
| Cash EPS     | 35.2    | 37.5  | 32.0  | -20.9  | 8.8    | 14.9   |
| Net DPS      | 126.7   | -     | 7.4   | -49.7  | 5.5    | 10.3   |
| BVPS         | 72.8    | 17.6  | 32.9  | 9.5    | 9.2    | 9.3    |

| Margins (%)                | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|----------------------------|---------|-------|-------|--------|--------|--------|
| EBITDA / revenue           | 17.4    | 18.1  | 21.2  | 17.4   | 17.9   | 19.2   |
| EBIT / revenue             | 16.4    | 17.0  | 19.8  | 15.7   | 15.7   | 16.3   |
| Net profit (UBS) / revenue | 14.1    | 15.1  | 15.5  | 12.6   | 12.4   | 12.7   |

| Return on capital (%) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| EBIT ROIC (UBS)       | 69.8    | 60.2  | 54.8  | 27.9   | 23.2   | 22.1   |
| ROIC post tax         | -       | 51.5  | 46.2  | 23.6   | 19.5   | 18.6   |
| Net ROE               | 40.1    | 22.4  | 21.1  | 12.5   | 12.0   | 12.2   |

| Coverage ratios (x)             | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|---------------------------------|---------|-------|-------|--------|--------|--------|
| EBIT / net interest             | -       | -     | -     | -      | -      | -      |
| Dividend cover (UBS EPS)        | -       | 3.1   | 3.7   | 5.6    | 5.6    | 5.6    |
| Div. payout ratio (% , UBS EPS) | -       | 32.7  | 27.0  | 18.0   | 18.0   | 18.0   |
| Net debt / EBITDA               | NM      | NM    | NM    | NM     | NM     | NM     |

| Efficiency ratios (x)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Revenue / op. invested capital | 4.1     | 3.5   | 2.8   | 1.8    | 1.5    | 1.4    |
| Revenue / fixed assets         | 6.6     | 5.3   | 5.3   | 4.2    | 3.4    | 3.0    |
| Revenue / net working capital  | 10.8    | 11.4  | 5.9   | 3.2    | 2.6    | 2.5    |

| Investment ratios (x) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| OpFCF / EBIT          | 1.1     | 1.1   | 1.1   | 1.1    | 1.1    | 1.2    |
| Capex / revenue (%)   | 5.0     | 6.1   | 3.6   | 6.8    | 11.3   | 7.3    |
| Capex / depreciation  | 4.9     | 5.6   | 2.6   | 3.9    | 5.2    | 2.6    |

| Capital structure (%)          | 5Yr Avg | 12/11  | 12/12  | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|--------|--------|--------|--------|--------|
| Net debt / total equity        | (54.4)  | (53.8) | (48.4) | (36.0) | (28.0) | (26.8) |
| Net debt / (net debt + equity) | NM      | NM     | (93.6) | (56.1) | (38.9) | (36.5) |
| Net debt (core) / EV           | -       | (40.0) | (34.2) | (63.6) | (47.6) | (43.5) |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items.

Valuations: based on an average share price that year, (E): based on a share price of HK\$4.76 on 24 Sep 2013 22:52 SGT Market cap(E) may include forecast share issues/buybacks.

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## UBS Investment Research

### CSPC Pharmaceutical Group

## R&D should sustain long-term growth

### ■ Transformation into an R&D-focused specialty pharmaceutical company

In 2012, CSPC Pharmaceutical Group (CSPC) strategically changed its focus from active pharmaceutical ingredient (API) manufacturing (economies of scale and a cost-driven market) to differentiated pharmaceutical product R&D and marketing/sales (a product-driven market). With a leading R&D team of around 900 staff, collaborations, and the joint establishment of four research labs with domestic research institutions, we believe CSPC is poised for industry-leading R&D achievements.

### ■ A robust R&D pipeline should sustain long-term growth

We expect new products from its R&D pipeline to be the key drivers of CSPC's growth. The company currently has 167 product candidates in various stages of development for the treatment of cardio- and cerebro-vascular (CCV), central nervous system (CNS), cancer and metabolic diseases as well as antibiotics. CSPC expects to obtain production approval for 53 products that are either exclusive or first-to-market generic products.

### ■ Commodities: haunted by overcapacity; waiting for industry consolidation

CSPC's core products Enbipu, Oulaining, and Xuning (contributed around 60% of its blended operating profit) booked strong 56%/125%/32% sales growth YoY in Q113. It has also managed to improve Enbipu's operating profit margin to 51% in Q113 (up from 43% in Q112) from lower API manufacturing costs (from Rmb3,000/kg to Rmb1,000/kg) and operation efficiency improvements. Management expects its oncology products to book Rmb150m/250-300m sales in 2013/2014, and believes its pipeline and sales capability are competitive.

### ■ Valuation: HK\$5.00 price target

We base our price target on 20.0x 2014E PE, assuming 5.9bn shares at end-2014.

| Highlights (HK\$m)  | 12/11    | 12/12    | 12/13E    | 12/14E    | 12/15E    |
|---------------------|----------|----------|-----------|-----------|-----------|
| Revenues            | 7,379.48 | 4,146.44 | 10,961.00 | 12,386.59 | 13,866.67 |
| EBIT (UBS)          | 377.12   | 763.58   | 1,238.49  | 1,840.60  | 2,333.73  |
| Net Income (UBS)    | 233.16   | 574.27   | 938.89    | 1,433.55  | 1,836.83  |
| EPS (UBS, HK\$)     | 0.15     | 0.39     | 0.20      | 0.25      | 0.31      |
| Net DPS (UBS, HK\$) | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      |

| Profitability & Valuation | 5-yr hist av. | 12/12 | 12/13E | 12/14E | 12/15E |
|---------------------------|---------------|-------|--------|--------|--------|
| EBIT margin %             | 14.2          | 18.4  | 11.3   | 14.9   | 16.8   |
| ROIC (EBIT) %             | -             | 10.5  | 16.5   | 24.5   | 31.0   |
| EV/EBITDA (core) x        | 4.1           | 4.8   | 5.8    | 3.7    | 2.7    |
| PE (UBS) x                | 9.4           | 5.1   | 19.1   | 15.7   | 12.4   |
| Net dividend yield %      | 0.0           | 0.0   | 0.0    | 0.0    | 0.0    |

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptional and other special items. Valuations: based on an average share price that year, (E): based on a share price of HK\$3.91 on 24 Sep 2013 22:52 SGT

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## Global Equity Research

China

Pharmaceuticals

12-month rating **Buy \***  
*Unchanged*

12m price target **HK\$5.00/US\$0.64**  
*Unchanged*

Price **HK\$3.91/US\$0.50**

RIC: 1093.HK BBG: 1093 HK

### Trading data (local/US\$)

|                          |                             |
|--------------------------|-----------------------------|
| 52-wk range              | HK\$4.29-2.10/US\$0.55-0.27 |
| Market cap.              | HK\$10.7bn/US\$1.37bn       |
| Shares o/s               | 2,725m (ORD)                |
| Free float               | 25%                         |
| Avg. daily volume ('000) | 6,083                       |
| Avg. daily value (m)     | HK\$24.3                    |

### Balance sheet data 12/13E

|                      |            |
|----------------------|------------|
| Shareholders' equity | HK\$6.93bn |
| P/BV (UBS)           | 3.1x       |
| Net Cash (debt)      | HK\$0.18bn |

### Forecast returns

|                             |        |
|-----------------------------|--------|
| Forecast price appreciation | +27.9% |
| Forecast dividend yield     | 0.0%   |
| Forecast stock return       | +27.9% |
| Market return assumption    | 9.4%   |
| Forecast excess return      | +18.5% |

### EPS (UBS, HK\$)

|        | 12/13E | 12/12        |
|--------|--------|--------------|
|        | UBS    | Cons. Actual |
| Q1E    | 0.08   | 0.04 (0.06)  |
| Q2E    | 0.05   | 0.05 (0.03)  |
| Q3E    | 0.04   | 0.04 (0.05)  |
| Q4E    | 0.05   | 0.05 (0.54)  |
| 12/13E | 0.20   | 0.20         |
| 12/14E | 0.25   | 0.25         |

### Performance (HK\$)



Source: UBS

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\* Exception to core rating bands; See page107

# CSPC Pharmaceutical Group

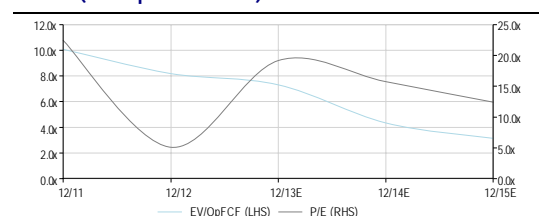
| Income statement (HK\$m)                 | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E      | % ch  |
|--|------------|------------|------------|------------|------------|------------|-------|------------|-------|-------------|-------|
| Revenues                                 | 6,830.00   | 7,031.60   | 7,774.42   | 7,379.48   | 4,146.44   | 10,961.00  | 164.3 | 12,386.59  | 13.0  | 13,866.67   | 11.9  |
| Operating expenses (ex deprn)            | (5,183.51) | (5,408.33) | (6,251.56) | (6,523.20) | (3,230.24) | (9,158.78) | 183.5 | (9,774.49) | 6.7   | (10,715.33) | 9.6   |
| EBITDA (UBS)                             | 1,689.32   | 1,672.75   | 1,593.98   | 982.08     | 954.89     | 1,930.23   | 102.1 | 2,740.11   | 42.0  | 3,279.35    | 19.7  |
| Depreciation                             | (471.24)   | (502.19)   | (574.15)   | (604.96)   | (191.32)   | (691.74)   | 261.6 | (899.52)   | 30.0  | (945.62)    | 5.1   |
| Operating income (EBIT, UBS)             | 1,218.09   | 1,170.56   | 1,019.83   | 377.12     | 763.58     | 1,238.49   | 62.2  | 1,840.60   | 48.6  | 2,333.73    | 26.8  |
| Other income & associates                | (0.71)     | 25.16      | 8.73       | 10.55      | 9.37       | (1.00)     | -     | (1.00)     | 0.0   | (1.00)      | 0.0   |
| Net interest                             | (109.37)   | (69.92)    | (63.79)    | (73.32)    | (60.09)    | (121.71)   | 102.6 | (121.71)   | 0.0   | (121.71)    | 0.0   |
| Abnormal items (pre-tax)                 | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00        | -     |
| Profit before tax                        | 1,108.01   | 1,125.81   | 964.77     | 314.36     | 712.86     | 1,115.78   | 56.5  | 1,717.88   | 54.0  | 2,211.01    | 28.7  |
| Tax                                      | (160.98)   | (142.78)   | (189.96)   | (63.91)    | (131.98)   | (172.01)   | 30.3  | (267.19)   | 55.3  | (347.94)    | 30.2  |
| Profit after tax                         | 947.03     | 983.03     | 774.81     | 250.45     | 580.89     | 943.77     | 62.5  | 1,450.69   | 53.7  | 1,863.08    | 28.4  |
| Abnormal items (post-tax)                | 0.00       | 0.00       | 0.00       | 0.00       | 1,587.96   | 514.82     | -67.6 | 0.00       | -     | 0.00        | -     |
| Minorities / pref dividends              | (6.47)     | (12.30)    | (23.12)    | (17.29)    | (6.61)     | (4.87)     | -26.3 | (17.14)    | 251.8 | (26.25)     | 53.1  |
| Net income (local GAAP)                  | 940.56     | 970.74     | 751.69     | 233.16     | 2,162.24   | 1,453.71   | -32.8 | 1,433.55   | -1.4  | 1,836.83    | 28.1  |
| Net Income (UBS)                         | 940.56     | 970.74     | 751.69     | 233.16     | 574.27     | 938.89     | 63.5  | 1,433.55   | 52.7  | 1,836.83    | 28.1  |
| Tax rate (%)                             | 14.53      | 12.68      | 19.69      | 20.33      | 18.51      | 15.42      | -16.7 | 15.55      | 0.9   | 15.74       | 1.2   |
| Pre-abnormal tax rate (%)                | 14.57      | 12.69      | 19.87      | 21.04      | 18.49      | 15.40      | -16.7 | 15.54      | 0.9   | 15.73       | 1.2   |
| Per share (HK\$)                         | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E      | % ch  |
| EPS (local GAAP)                         | 0.61       | 0.63       | 0.49       | 0.15       | 1.48       | 0.32       | -78.6 | 0.25       | -21.4 | 0.31        | 26.4  |
| EPS (UBS)                                | 0.61       | 0.63       | 0.49       | 0.15       | 0.39       | 0.20       | -48.0 | 0.25       | 21.7  | 0.31        | 26.4  |
| Net DPS                                  | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00        | -     |
| Cash EPS                                 | 0.92       | 0.96       | 0.86       | 0.55       | 0.52       | 0.35       | -32.2 | 0.40       | 14.1  | 0.48        | 17.7  |
| BVPS                                     | 2.92       | 3.35       | 3.73       | 3.86       | 2.42       | 1.25       | -48.2 | 1.47       | 17.5  | 1.69        | 14.9  |
| Balance sheet (HK\$m)                    | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E      | % ch  |
| Net tangible fixed assets                | 3,781.31   | 4,044.99   | 4,353.40   | 4,877.19   | 6,134.37   | 5,959.49   | -2.9  | 5,679.55   | -4.7  | 5,458.67    | -3.9  |
| Net intangible fixed assets              | 394.61     | 562.87     | 665.91     | 776.55     | 662.20     | 666.30     | 0.6   | 666.26     | 0.0   | 661.97      | -0.6  |
| Net working capital (incl. other assets) | 769.10     | 878.24     | 1,294.70   | 1,383.70   | 936.71     | 1,091.24   | 16.5  | 1,376.75   | 26.2  | 1,686.41    | 22.5  |
| Other liabilities                        | (15.49)    | (35.32)    | (44.35)    | (47.33)    | (195.58)   | (212.72)   | 8.8   | (229.87)   | 8.1   | (247.01)    | 7.5   |
| Operating invested capital               | 4,929.53   | 5,450.77   | 6,269.66   | 6,990.12   | 7,537.71   | 7,504.31   | -0.4  | 7,492.69   | -0.2  | 7,560.03    | 0.9   |
| Investments                              | 28.25      | 31.75      | 36.49      | 47.43      | 92.29      | 95.53      | 3.5   | 99.09      | 3.7   | 103.02      | 4.0   |
| Total capital employed                   | 4,957.78   | 5,482.52   | 6,306.15   | 7,037.54   | 7,630.00   | 7,599.83   | -0.4  | 7,591.78   | -0.1  | 7,663.04    | 0.9   |
| Shareholders' equity                     | 4,497.38   | 5,160.28   | 5,740.51   | 5,900.24   | 6,586.76   | 6,933.53   | 5.3   | 8,607.84   | 24.1  | 9,893.62    | 14.9  |
| Minority interests                       | 85.82      | 169.18     | 135.93     | 142.90     | 176.99     | 180.40     | 1.9   | 192.40     | 6.7   | 210.77      | 9.6   |
| Total equity                             | 4,583.19   | 5,329.46   | 5,876.44   | 6,043.14   | 6,763.75   | 7,113.31   | 5.2   | 8,800.24   | 23.7  | 10,104.39   | 14.8  |
| Net debt / (cash)                        | 260.95     | 124.65     | 429.71     | 994.40     | 866.25     | (184.30)   | -     | (1,208.45) | 555.7 | (2,441.35)  | 102.0 |
| Other debt-deemed items                  | 113.64     | 28.41      | 0.00       | 0.00       | 0.00       | 670.83     | -     | 0.00       | -     | 0.00        | -     |
| Total capital employed                   | 4,957.78   | 5,482.52   | 6,306.15   | 7,037.54   | 7,630.00   | 7,599.83   | -0.4  | 7,591.78   | -0.1  | 7,663.04    | 0.9   |
| Cash flow (HK\$m)                        | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E      | % ch  |
| Operating income (EBIT, UBS)             | 1,218.09   | 1,170.56   | 1,019.83   | 377.12     | 763.58     | 1,238.49   | 62.2  | 1,840.60   | 48.6  | 2,333.73    | 26.8  |
| Depreciation                             | 471.24     | 502.19     | 574.15     | 604.96     | 191.32     | 691.74     | 261.6 | 899.52     | 30.0  | 945.62      | 5.1   |
| Net change in working capital            | (152.69)   | 37.79      | (436.43)   | (283.05)   | (279.86)   | (155.16)   | -44.6 | (284.89)   | 83.6  | (309.66)    | 8.7   |
| Other (operating)                        | 61.34      | 6.48       | 66.73      | 23.15      | (10.81)    | (21.04)    | 94.7  | (33.49)    | 59.2  | (47.03)     | 40.4  |
| Operating cash flow (pre tax/interest)   | 1,597.97   | 1,717.02   | 1,224.28   | 722.19     | 664.22     | 1,754.04   | 164.1 | 2,421.73   | 38.1  | 2,922.66    | 20.7  |
| Net interest received / (paid)           | (109.37)   | (69.92)    | (63.79)    | (73.32)    | (60.09)    | (121.71)   | 102.6 | (121.71)   | 0.0   | (121.71)    | 0.0   |
| Dividends paid                           | (78.88)    | (306.99)   | (391.98)   | (196.80)   | (409.27)   | (437.58)   | 6.92  | (435.21)   | -0.54 | (558.92)    | 28.43 |
| Tax paid                                 | (81.64)    | (149.32)   | (217.35)   | (116.11)   | (106.06)   | (172.01)   | 62.2  | (267.19)   | 55.3  | (347.94)    | 30.2  |
| Capital expenditure                      | (412.87)   | (717.73)   | (868.30)   | (925.07)   | (201.15)   | (607.23)   | 201.9 | (706.48)   | 16.3  | (808.27)    | 14.4  |
| Net (acquisitions) / disposals           | 1.45       | (242.92)   | 23.14      | 28.03      | 705.92     | 86.27      | -87.8 | 86.95      | 0.8   | 87.83       | 1.0   |
| Other                                    | -          | 41.20      | (22.88)    | 229.02     | 2,192.90   | 1,057.72   | -51.8 | 27.92      | -97.4 | 32.00       | 14.6  |
| Share issues                             | 10.95      | 34.09      | 8.13       | (20.83)    | 0.00       | 0.00       | -     | 0.00       | -     | 0.00        | -     |
| Cash flow (inc)/dec in net debt          | 866.75     | 286.01     | (321.74)   | (398.37)   | 1,221.68   | 1,050.55   | -14.0 | 1,024.16   | -2.5  | 1,232.90    | 20.4  |
| FX / non cash items                      | -          | (149.71)   | 16.67      | (166.32)   | (1,093.53) | 0.00       | -     | 0.00       | -     | 0.00        | -     |
| Balance sheet (inc)/dec in net debt      | -          | 136.30     | (305.07)   | (564.69)   | 128.15     | 1,050.55   | 719.8 | 1,024.16   | -2.5  | 1,232.90    | 20.4  |
| Core EBITDA                              | 1,689.32   | 1,672.75   | 1,593.98   | 982.08     | 954.89     | 1,930.23   | 102.1 | 2,740.11   | 42.0  | 3,279.35    | 19.7  |
| Maintenance capital expenditure          | (189.07)   | (202.25)   | (217.67)   | (243.86)   | (306.72)   | (297.97)   | -2.9  | (283.98)   | -4.7  | (272.93)    | -3.9  |
| Maintenance net working capital          | (76.71)    | (87.82)    | (129.47)   | (138.37)   | (93.67)    | (109.12)   | 16.5  | (137.68)   | 26.2  | (168.64)    | 22.5  |
| Operating free cash flow, pre-tax        | 1,423.55   | 1,382.68   | 1,246.84   | 599.85     | 554.50     | 1,523.14   | 174.7 | 2,318.46   | 52.2  | 2,837.77    | 22.4  |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Note: For some companies, the data represents an extract of the full company accounts.

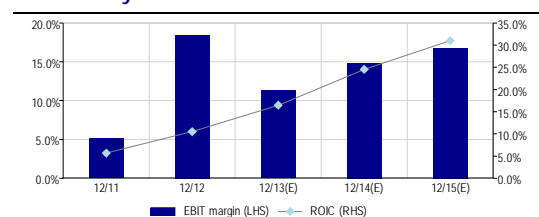
## Company profile

CSPC Pharmaceutical Group (CSPC) transformed from a commodity product supplier to a pharmaceutical company focusing on innovative drugs and branded generics following an asset acquisition. One of its acquired products, stroke treatment Enbipu, is the first cerebrovascular class I new drug developed by a domestic company and was listed in the National Reimbursement Drug List in 2009. In 2009-11, CSPC's acquired assets recorded a revenue CAGR of 80%, a net profit CAGR of 64% and ROE of 36%; while its existing commodity business recorded a revenue CAGR of 2.4%, a net profit CAGR of -51.0% and ROE of 8.7%.

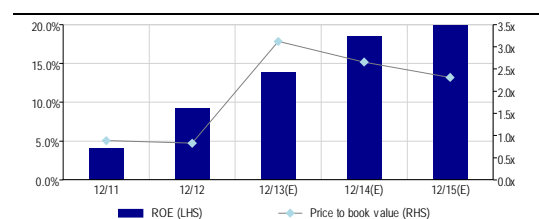
## Value (EV/OpFCF &amp; P/E)



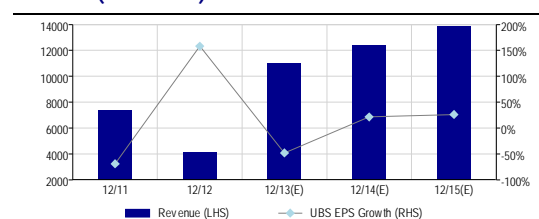
## Profitability



## ROE v Price to book value



## Growth (UBS EPS)



## CSPC Pharmaceutical Group

| Valuation (x)           | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-------------------------|---------|-------|-------|--------|--------|--------|
| P/E (local GAAP)        | 8.7     | 22.4  | 1.4   | 12.4   | 15.7   | 12.4   |
| P/E (UBS)               | 9.4     | 22.4  | 5.1   | 19.1   | 15.7   | 12.4   |
| P/CEPS                  | 4.4     | 6.2   | 3.8   | 11.0   | 9.7    | 8.2    |
| Net dividend yield (%)  | 0.0     | 0.0   | 0.0   | 0.0    | 0.0    | 0.0    |
| P/BV                    | 1.0     | 0.9   | 0.8   | 3.1    | 2.7    | 2.3    |
| EV/revenue (core)       | 0.9     | 0.8   | 1.1   | 1.0    | 0.8    | 0.6    |
| EV/EBITDA (core)        | 4.1     | 6.2   | 4.8   | 5.8    | 3.7    | 2.7    |
| EV/EBIT (core)          | 6.3     | 16.0  | 5.9   | 9.0    | 5.5    | 3.8    |
| EV/OpFCF (core)         | 5.5     | 10.1  | 8.2   | 7.3    | 4.3    | 3.2    |
| EV/op. invested capital | -       | 0.9   | 0.6   | 1.5    | 1.3    | 1.2    |

| Enterprise value (HK\$m)        | 12/11    | 12/12    | 12/13E    | 12/14E    | 12/15E     |
|---------------------------------|----------|----------|-----------|-----------|------------|
| Average market cap              | 5,237.55 | 3,522.55 | 10,656.39 | 10,656.39 | 10,656.39  |
| + minority interests            | 142.90   | 176.99   | 180.40    | 192.40    | 210.77     |
| + average net debt (cash)       | 712.06   | 930.33   | 340.98    | (696.38)  | (1,824.90) |
| + pension obligations and other | 0.00     | 0.00     | 67.08     | 0.00      | 0.00       |
| - non-core asset value          | (47.43)  | (92.29)  | (95.53)   | (99.09)   | (103.02)   |
| Core enterprise value           | 6,045.08 | 4,537.58 | 11,149.32 | 10,053.32 | 8,939.25   |

| Growth (%)   | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------|---------|-------|-------|--------|--------|--------|
| Revenue      | -11.7   | -5.1  | -43.8 | 164.3  | 13.0   | 11.9   |
| EBITDA (UBS) | -13.3   | -38.4 | -2.8  | 102.1  | 42.0   | 19.7   |
| EBIT (UBS)   | -11.0   | -63.0 | 102.5 | 62.2   | 48.6   | 26.8   |
| EPS (UBS)    | -10.5   | -68.9 | 158.2 | -48.0  | 21.7   | 26.4   |
| Cash EPS     | -13.1   | -36.6 | -4.2  | -32.2  | 14.1   | 17.7   |
| Net DPS      | -       | -     | -     | -      | -      | -      |
| BVPS         | -4.7    | 3.3   | -37.3 | -48.2  | 17.5   | 14.9   |

| Margins (%)                | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|----------------------------|---------|-------|-------|--------|--------|--------|
| EBITDA / revenue           | 21.1    | 13.3  | 23.0  | 17.6   | 22.1   | 23.6   |
| EBIT / revenue             | 14.2    | 5.1   | 18.4  | 11.3   | 14.9   | 16.8   |
| Net profit (UBS) / revenue | 10.9    | 3.2   | 13.8  | 8.6    | 11.6   | 13.2   |

| Return on capital (%) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| EBIT ROIC (UBS)       | -       | 5.7   | 10.5  | 16.5   | 24.5   | 31.0   |
| ROIC post tax         | -       | 4.5   | 8.6   | 13.9   | 20.7   | 26.1   |
| Net ROE               | 17.8    | 4.0   | 9.2   | 13.9   | 18.4   | 19.9   |

| Coverage ratios (x)           | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-------------------------------|---------|-------|-------|--------|--------|--------|
| EBIT / net interest           | 12.5    | 5.3   | 12.9  | 10.2   | 15.1   | 19.2   |
| Dividend cover (UBS EPS)      | -       | -     | -     | -      | -      | -      |
| Div. payout ratio (% UBS EPS) | -       | -     | -     | -      | -      | -      |
| Net debt / EBITDA             | 0.4     | 1.0   | 0.9   | NM     | NM     | NM     |

| Efficiency ratios (x)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Revenue / op. invested capital | -       | 1.1   | 0.6   | 1.5    | 1.7    | 1.8    |
| Revenue / fixed assets         | 1.5     | 1.4   | 0.7   | 1.6    | 1.9    | 2.2    |
| Revenue / net working capital  | -       | 5.5   | 3.6   | 10.8   | 10.0   | 9.1    |

| Investment ratios (x) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| OpFCF / EBIT          | 1.1     | 1.6   | 0.7   | 1.2    | 1.3    | 1.2    |
| Capex / revenue (%)   | 9.4     | 12.5  | 4.9   | 5.5    | 5.7    | 5.8    |
| Capex / depreciation  | 1.3     | 1.5   | 1.1   | 0.9    | 0.8    | 0.9    |

| Capital structure (%)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Net debt / total equity        | 9.6     | 16.9  | 13.2  | (2.7)  | (14.0) | (24.7) |
| Net debt / (net debt + equity) | 8.8     | 14.4  | 11.6  | (2.7)  | (16.3) | (32.8) |
| Net debt (core) / EV           | 8.3     | 11.8  | 20.5  | 3.1    | (6.9)  | (20.4) |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items.

Valuations: based on an average share price that year, (E): based on a share price of HK\$3.91 on 24 Sep 2013 22:52 SGT Market cap(E) may include forecast share issues/buybacks.

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\* Exception to core rating bands; See page107



## UBS Investment Research

### Zoomlion - H

## R&D advantage drives sustainable growth

### ■ A leading R&D presence in the construction machinery sector

Zoomlion stems from Changsha Construction Machinery Research Institute, one of the first institutions in China focusing on R&D for construction machinery technology. We believe Zoomlion's technological advantage, commercialisation capacity and high R&D expenditure (3.58% of its total 2012 revenue) have helped establish its leading position in the market and high gross margins.

### ■ Continued product upgrades

As Zoomlion continues to upgrade its products such as longer-arm pump trucks (101m) and larger-sized cranes (3,200t carrying capacity), its market share has risen. New products such as mixer trucks and tower cranes have been its profit growth drivers. We expect Zoomlion to develop more new products in the environmental and sanitation machinery sector—these could also help drive growth.

### ■ Net profit is expected to bottom out in 2013E

Recent industry data shows signs of a weak rebound. Volume for excavators and loaders grew 4.6%/9.4% YoY in Q213 after eight quarters of declines. A rally in equipment utilisation hours also points to a rebound in construction initiations. We believe Zoomlion's performance will follow the industry and bottom out in 2013.

### ■ Valuation: Buy rating; HK\$8.20 price target

We derive our price target from a DCF-based methodology and explicitly forecast long-term valuation drivers using UBS's VCAM tool, assuming an 11% WACC. Our price target implies 10.4x/9.3x/8.4x 2013E/2014E/2015E PE.

| Highlights (Rmbm)         | 12/11         | 12/12     | 12/13E    | 12/14E    | 12/15E    |
|---------------------------|---------------|-----------|-----------|-----------|-----------|
| Revenues                  | 46,323.00     | 48,071.00 | 36,714.68 | 39,713.67 | 43,745.14 |
| EBIT (UBS)                | 9,602.00      | 9,096.00  | 6,408.62  | 6,974.55  | 7,688.50  |
| Net Income (UBS)          | 8,066.00      | 7,330.00  | 4,745.63  | 5,378.88  | 5,896.41  |
| EPS (UBS, Rmb)            | 1.05          | 0.95      | 0.62      | 0.70      | 0.77      |
| Net DPS (UBS, Rmb)        | 0.25          | 0.20      | 0.12      | 0.14      | 0.15      |
| Profitability & Valuation | 5-yr hist av. | 12/12     | 12/13E    | 12/14E    | 12/15E    |
| EBIT margin %             | 17.9          | 18.9      | 17.5      | 17.6      | 17.6      |
| ROIC (EBIT) %             | 27.2          | 24.7      | 15.6      | 16.3      | 16.7      |
| EV/EBITDA (core) x        | 6.1           | 7.1       | 6.1       | 5.3       | 4.7       |
| PE (UBS) x                | -             | 8.7       | 8.6       | 7.6       | 6.9       |
| Net dividend yield %      | -             | 2.4       | 2.3       | 2.6       | 2.9       |

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Valuations: based on an average share price that year, (E): based on a share price of HK\$6.72 on 24 Sep 2013 22:52 SGT

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## Global Equity Research

China

Heavy Machinery

12-month rating **Buy**  
**Unchanged**

12m price target **HK\$8.20/US\$1.06**  
**Unchanged**

Price **HK\$6.72/US\$0.87**

RIC: 1157.HK BBG: 1157 HK

### Trading data (local/US\$)

|                          |                              |
|--------------------------|------------------------------|
| 52-wk range              | HK\$11.98-4.98/US\$1.55-0.64 |
| Market cap.              | HK\$55.7bn/US\$7.19bn        |
| Shares o/s               | 1,430m (ORD)                 |
| Free float               | 100%                         |
| Avg. daily volume ('000) | 13,684                       |
| Avg. daily value (m)     | HK\$83.3                     |

### Balance sheet data 12/13E

|                      |           |
|----------------------|-----------|
| Shareholders' equity | Rmb44.0bn |
| P/BV (UBS)           | 0.9x      |
| Net Cash (debt)      | Rmb2.81bn |

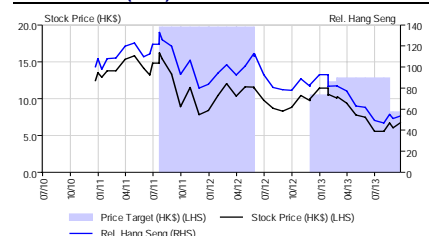
### Forecast returns

|                             |        |
|-----------------------------|--------|
| Forecast price appreciation | +22.0% |
| Forecast dividend yield     | 2.6%   |
| Forecast stock return       | +24.6% |
| Market return assumption    | 9.4%   |
| Forecast excess return      | +15.2% |

### EPS (UBS, Rmb)

|        | 12/13E | 12/12        |
|--------|--------|--------------|
|        | UBS    | Cons. Actual |
| H1     | 0.38   | - 0.73       |
| H2E    | 0.24   | - 0.22       |
| 12/13E | 0.62   | 0.62         |
| 12/14E | 0.70   | 0.70         |

### Performance (HK\$)



Source: UBS

www.ubssecurities.com

# Zoomlion - H

| Income statement (Rmbm)                  | 12/08       | 12/09       | 12/10       | 12/11       | 12/12       | 12/13E      | % ch   | 12/14E      | % ch   | 12/15E      | % ch  |
|--|-------------|-------------|-------------|-------------|-------------|-------------|--------|-------------|--------|-------------|-------|
| Revenues                                 | 13,548.00   | 20,762.00   | 32,193.00   | 46,323.00   | 48,071.00   | 36,714.68   | -23.6  | 39,713.67   | 8.2    | 43,745.14   | 10.2  |
| Operating expenses (ex depre)            | (11,319.00) | (17,221.00) | (26,035.00) | (36,265.00) | (38,500.00) | (29,679.61) | -22.9  | (32,041.23) | 8.0    | (35,289.48) | 10.1  |
| EBITDA (UBS)                             | 2,371.00    | 3,646.00    | 6,158.00    | 10,058.00   | 9,571.00    | 7,035.07    | -26.5  | 7,672.44    | 9.1    | 8,455.66    | 10.2  |
| Depreciation                             | (216.00)    | (329.00)    | (391.00)    | (456.00)    | (475.00)    | (626.45)    | 31.9   | (697.88)    | 11.4   | (767.16)    | 9.9   |
| Operating income (EBIT, UBS)             | 2,155.00    | 3,317.00    | 5,767.00    | 9,602.00    | 9,096.00    | 6,408.62    | -29.5  | 6,974.55    | 8.8    | 7,688.50    | 10.2  |
| Other income & associates                | (110.00)    | (194.00)    | 14.00       | 36.00       | 36.00       | (436.24)    | -      | (32.37)     | -92.6  | (125.96)    | 289.1 |
| Net interest                             | (301.00)    | (295.00)    | (365.00)    | (36.00)     | (274.00)    | (275.35)    | 0.5    | (484.95)    | 76.1   | (484.03)    | -0.2  |
| Abnormal items (pre-tax)                 | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | -      | 0.00        | -      | 0.00        | -     |
| Profit before tax                        | 1,744.00    | 2,828.00    | 5,416.00    | 9,602.00    | 8,858.00    | 5,697.03    | -35.7  | 6,457.23    | 13.3   | 7,078.52    | 9.6   |
| Tax                                      | (191.00)    | (409.00)    | (828.00)    | (1,429.00)  | (1,329.00)  | (854.55)    | -35.7  | (968.59)    | 13.3   | (1,061.78)  | 9.6   |
| Profit after tax                         | 1,553.00    | 2,419.00    | 4,588.00    | 8,173.00    | 7,529.00    | 4,842.48    | -35.7  | 5,488.65    | 13.3   | 6,016.74    | 9.6   |
| Abnormal items (post-tax)                | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | -      | 0.00        | -      | 0.00        | -     |
| Minorities / pref dividends              | (9.00)      | 28.00       | 78.00       | (107.00)    | (199.00)    | (96.85)     | -51.3  | (109.77)    | 13.3   | (120.33)    | 9.6   |
| Net income (local GAAP)                  | 1,544.00    | 2,447.00    | 4,666.00    | 8,066.00    | 7,330.00    | 4,745.63    | -35.3  | 5,378.88    | 13.3   | 5,896.41    | 9.6   |
| Net Income (UBS)                         | 1,544.00    | 2,447.00    | 4,666.00    | 8,066.00    | 7,330.00    | 4,745.63    | -35.3  | 5,378.88    | 13.3   | 5,896.41    | 9.6   |
| Tax rate (%)                             | 10.95       | 14.46       | 15.29       | 14.88       | 15.00       | 15.00       | 0.0    | 15.00       | 0.0    | 15.00       | 0.0   |
| Pre-abnormal tax rate (%)                | 11.00       | 14.49       | 15.33       | 14.92       | 15.06       | 15.10       | 0.2    | 15.09       | 0.0    | 15.09       | 0.0   |
| Per share (Rmb)                          | 12/08       | 12/09       | 12/10       | 12/11       | 12/12       | 12/13E      | % ch   | 12/14E      | % ch   | 12/15E      | % ch  |
| EPS (local GAAP)                         | 1.35        | 1.53        | 1.25        | 1.05        | 0.95        | 0.62        | -35.3  | 0.70        | 13.3   | 0.77        | 9.6   |
| EPS (UBS)                                | 1.35        | 1.53        | 1.25        | 1.05        | 0.95        | 0.62        | -35.3  | 0.70        | 13.3   | 0.77        | 9.6   |
| Net DPS                                  | 0.04        | 0.25        | 0.20        | 0.25        | 0.20        | 0.12        | -38.4  | 0.14        | 13.3   | 0.15        | 9.6   |
| Cash EPS                                 | 1.54        | 1.74        | 1.35        | 1.11        | 1.01        | 0.70        | -31.2  | 0.79        | 13.1   | 0.86        | 9.7   |
| BVPS                                     | 0.93        | 1.37        | 3.63        | 4.59        | 5.29        | 5.71        | 7.9    | 6.28        | 10.1   | 6.91        | 10.0  |
| Balance sheet (Rmbm)                     | 12/08       | 12/09       | 12/10       | 12/11       | 12/12       | 12/13E      | % ch   | 12/14E      | % ch   | 12/15E      | % ch  |
| Net tangible fixed assets                | 3,006.00    | 3,683.00    | 4,135.00    | 4,886.00    | 6,112.00    | 6,994.92    | 14.4   | 7,154.83    | 2.3    | 7,364.46    | 2.9   |
| Net intangible fixed assets              | 3,415.00    | 3,514.00    | 3,163.00    | 3,009.00    | 3,091.00    | 2,149.88    | -30.4  | 2,185.84    | 1.7    | 2,258.62    | 3.3   |
| Net working capital (incl. other assets) | 6,808.00    | 12,238.00   | 18,890.00   | 26,897.00   | 34,792.00   | 34,581.07   | -0.6   | 37,579.94   | 8.7    | 41,109.59   | 9.4   |
| Other liabilities                        | (633.00)    | (1,234.00)  | (1,850.00)  | (2,207.00)  | (3,002.00)  | (2,396.75)  | -20.2  | (2,556.59)  | 6.7    | (2,771.45)  | 8.4   |
| Operating invested capital               | 12,596.00   | 18,201.00   | 24,338.00   | 32,585.00   | 40,993.00   | 41,329.12   | 0.8    | 44,364.03   | 7.3    | 47,961.22   | 8.1   |
| Investments                              | 90.00       | 86.00       | 136.00      | 146.00      | 385.00      | 312.06      | -18.9  | 312.06      | 0.0    | 312.06      | 0.0   |
| Total capital employed                   | 12,686.00   | 18,287.00   | 24,474.00   | 32,731.00   | 41,378.00   | 41,641.18   | 0.6    | 44,676.09   | 7.3    | 48,273.27   | 8.1   |
| Shareholders' equity                     | 5,071.00    | 7,428.00    | 27,376.00   | 35,407.00   | 40,762.00   | 43,966.63   | 7.9    | 48,396.38   | 10.1   | 53,217.01   | 10.0  |
| Minority interests                       | 140.00      | 124.00      | 59.00       | 188.00      | 387.00      | 483.85      | 25.0   | 593.62      | 22.7   | 713.96      | 20.3  |
| Total equity                             | 5,211.00    | 7,552.00    | 27,435.00   | 35,595.00   | 41,149.00   | 44,450.48   | 8.0    | 48,990.00   | 10.2   | 53,930.97   | 10.1  |
| Net debt / (cash)                        | 7,475.00    | 10,735.00   | (2,961.00)  | (2,864.00)  | 229.00      | (2,809.30)  | -      | (4,313.92)  | 53.6   | (5,657.70)  | 31.1  |
| Other debt-deemed items                  | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | -      | 0.00        | -      | 0.00        | -     |
| Total capital employed                   | 12,686.00   | 18,287.00   | 24,474.00   | 32,731.00   | 41,378.00   | 41,641.18   | 0.6    | 44,676.09   | 7.3    | 48,273.27   | 8.1   |
| Cash flow (Rmbm)                         | 12/08       | 12/09       | 12/10       | 12/11       | 12/12       | 12/13E      | % ch   | 12/14E      | % ch   | 12/15E      | % ch  |
| Operating income (EBIT, UBS)             | 2,155.00    | 3,317.00    | 5,767.00    | 9,602.00    | 9,096.00    | 6,408.62    | -29.5  | 6,974.55    | 8.8    | 7,688.50    | 10.2  |
| Depreciation                             | 216.00      | 329.00      | 391.00      | 456.00      | 475.00      | 626.45      | 31.9   | 697.88      | 11.4   | 767.16      | 9.9   |
| Net change in working capital            | (3,176.00)  | (4,686.00)  | (5,533.00)  | (7,643.00)  | (5,559.00)  | (1,950.05)  | -64.9  | (2,938.01)  | 50.7   | (3,555.53)  | 21.0  |
| Other (operating)                        | (720.57)    | 31.06       | 854.00      | 476.00      | 530.00      | 701.76      | 32.4   | 574.13      | -18.2  | 552.91      | -3.7  |
| Operating cash flow (pre tax/interest)   | (863.00)    | (1,126.00)  | 1,644.00    | 2,891.00    | 4,542.00    | 5,786.78    | 27.4   | 5,308.56    | -8.3   | 5,453.04    | 2.7   |
| Net interest received / (paid)           | (301.00)    | (295.00)    | (365.00)    | (36.00)     | (274.00)    | (275.35)    | 0.5    | (484.95)    | 76.1   | (484.03)    | -0.2  |
| Dividends paid                           | (76.00)     | (152.00)    | (492.76)    | (1,669.00)  | (1,946.00)  | (1,541.00)  | -20.81 | (949.13)    | -38.41 | (1,075.78)  | 13.34 |
| Tax paid                                 | (191.00)    | (409.00)    | (828.00)    | (975.00)    | (1,657.00)  | (854.55)    | -48.4  | (968.59)    | 13.3   | (1,061.78)  | 9.6   |
| Capital expenditure                      | (834.00)    | (823.00)    | (1,118.00)  | (1,545.00)  | (1,767.00)  | (91.33)     | -94.8  | (892.85)    | 877.6  | (1,000.73)  | 12.1  |
| Net (acquisitions) / disposals           | (1,932.00)  | (28.00)     | 0.00        | 0.00        | 0.00        | 0.00        | -      | 0.00        | -      | 0.00        | -     |
| Other                                    | (132.00)    | (543.00)    | (1,411.24)  | (462.00)    | 4,187.00    | 13.76       | -99.7  | (508.43)    | -      | (486.95)    | -4.2  |
| Share issues                             | 0.00        | 31.00       | 16,275.00   | 1,507.00    | 0.00        | 0.00        | -      | 0.00        | -      | 0.00        | -     |
| Cash flow (inc)/dec in net debt          | (4,329.00)  | (3,345.00)  | 13,439.00   | (289.00)    | 3,085.00    | 3,038.30    | -1.5   | 1,504.62    | -50.5  | 1,343.78    | -10.7 |
| FX / non cash items                      | (2,704.00)  | 85.00       | 257.00      | 192.00      | (6,178.00)  | 0.00        | -      | 0.00        | -      | 0.00        | -     |
| Balance sheet (inc)/dec in net debt      | (7,033.00)  | (3,260.00)  | 13,696.00   | (97.00)     | (3,093.00)  | 3,038.30    | -      | 1,504.62    | -50.5  | 1,343.78    | -10.7 |
| Core EBITDA                              | 2,371.00    | 3,646.00    | 6,158.00    | 10,058.00   | 9,571.00    | 7,035.07    | -26.5  | 7,672.44    | 9.1    | 8,455.66    | 10.2  |
| Maintenance capital expenditure          | (30.00)     | (30.00)     | (30.00)     | (369.80)    | (399.50)    | (452.10)    | 13.2   | (500.60)    | 10.7   | (552.80)    | 10.4  |
| Maintenance net working capital          | (50.00)     | (50.00)     | (50.00)     | 0.00        | 0.00        | 0.00        | -      | 0.00        | -      | 0.00        | -     |
| Operating free cash flow, pre-tax        | 2,291.00    | 3,566.00    | 6,078.00    | 9,688.20    | 9,171.50    | 6,582.97    | -28.2  | 7,171.84    | 8.9    | 7,902.86    | 10.2  |

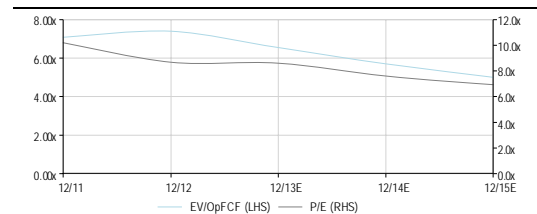
Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Note: For some companies, the data represents an extract of the full company accounts.



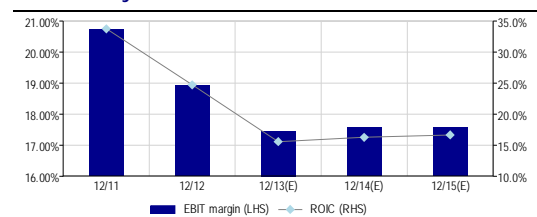
## Company profile

Changsha Zoomlion Heavy Industry is primarily engaged in the R&D and manufacturing of heavy industrial equipment for infrastructure construction, such as construction engineering, environmental engineering, and transportation engineering equipment. Its CAGR of over 65% over the past 20 years was the highest in the global construction machinery industry. It has the world's most comprehensive product line, producing 13 categories, 86 series, and nearly 800 types of products based on 100% intellectual property rights. Its two major products, concrete machines and cranes, are ranked No.2 globally in terms of sales.

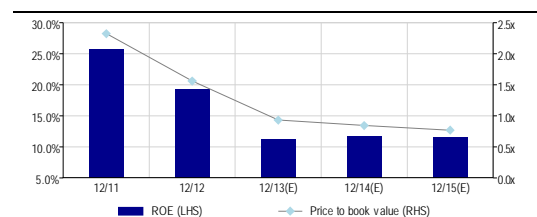
## Value (EV/OpFCF &amp; P/E)



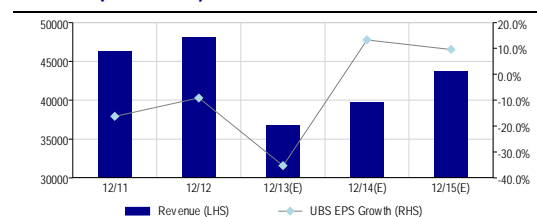
## Profitability



## ROE v Price to book value



## Growth (UBS EPS)



| Valuation (x)           | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-------------------------|---------|-------|-------|--------|--------|--------|
| P/E (local GAAP)        | -       | 10.2  | 8.7   | 8.6    | 7.6    | 6.9    |
| P/E (UBS)               | -       | 10.2  | 8.7   | 8.6    | 7.6    | 6.9    |
| P/CEPS                  | -       | 9.6   | 8.2   | 7.6    | 6.7    | 6.1    |
| Net dividend yield (%)  | -       | 2.3   | 2.4   | 2.3    | 2.6    | 2.9    |
| P/BV                    | -       | 2.3   | 1.6   | 0.9    | 0.8    | 0.8    |
| EV/revenue (core)       | 1.2     | 1.5   | 1.4   | 1.2    | 1.0    | 0.9    |
| EV/EBITDA (core)        | 6.1     | 6.8   | 7.1   | 6.1    | 5.3    | 4.7    |
| EV/EBIT (core)          | 6.5     | 7.1   | 7.5   | 6.7    | 5.9    | 5.2    |
| EV/OpFCF (core)         | 6.3     | 7.1   | 7.4   | 6.5    | 5.7    | 5.0    |
| EV/op. invested capital | 1.8     | 2.4   | 1.8   | 1.0    | 1.0    | 0.9    |

| Enterprise value (Rmbm)         | 12/11      | 12/12      | 12/13E     | 12/14E     | 12/15E     |
|---------------------------------|------------|------------|------------|------------|------------|
| Average market cap              | 71,404.53  | 68,832.45  | 43,987.41  | 43,987.41  | 43,987.41  |
| + minority interests            | 188.00     | 387.00     | 483.85     | 593.62     | 713.96     |
| + average net debt (cash)       | (2,912.50) | (1,317.50) | (1,290.15) | (3,561.61) | (4,985.81) |
| + pension obligations and other | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       |
| - non-core asset value          | (119.30)   | (119.30)   | (119.30)   | (119.30)   | (119.30)   |
| Core enterprise value           | 68,560.73  | 67,782.65  | 43,061.81  | 40,900.12  | 39,596.26  |

| Growth (%)   | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------|---------|-------|-------|--------|--------|--------|
| Revenue      | 37.2    | 43.9  | 3.8   | -23.6  | 8.2    | 10.2   |
| EBITDA (UBS) | 41.7    | 63.3  | -4.8  | -26.5  | 9.1    | 10.2   |
| EBIT (UBS)   | 43.3    | 66.5  | -5.3  | -29.5  | 8.8    | 10.2   |
| EPS (UBS)    | -8.4    | -16.2 | -9.1  | -35.3  | 13.3   | 9.6    |
| Cash EPS     | -10.0   | -18.3 | -8.4  | -31.2  | 13.1   | 9.7    |
| Net DPS      | 53.2    | 27.8  | -20.0 | -38.4  | 13.3   | 9.6    |
| BVPS         | 54.3    | 26.5  | 15.1  | 7.9    | 10.1   | 10.0   |

| Margins (%)                | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|----------------------------|---------|-------|-------|--------|--------|--------|
| EBITDA / revenue           | 19.2    | 21.7  | 19.9  | 19.2   | 19.3   | 19.3   |
| EBIT / revenue             | 17.9    | 20.7  | 18.9  | 17.5   | 17.6   | 17.6   |
| Net profit (UBS) / revenue | 14.1    | 17.4  | 15.2  | 12.9   | 13.5   | 13.5   |

| Return on capital (%) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| EBIT ROIC (UBS)       | 27.2    | 33.7  | 24.7  | 15.6   | 16.3   | 16.7   |
| ROIC post tax         | -       | 28.7  | 21.0  | 13.2   | 13.8   | 14.1   |
| Net ROE               | 29.3    | 25.7  | 19.2  | 11.2   | 11.6   | 11.6   |

| Coverage ratios (x)             | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|---------------------------------|---------|-------|-------|--------|--------|--------|
| EBIT / net interest             | NM      | NM    | NM    | 23.4   | 14.5   | 16.0   |
| Dividend cover (UBS EPS)        | 11.7    | 4.2   | 4.8   | 5.0    | 5.0    | 5.0    |
| Div. payout ratio (% , UBS EPS) | 15.9    | 23.9  | 21.0  | 20.0   | 20.0   | 20.0   |
| Net debt / EBITDA               | 0.4     | NM    | 0.0   | NM     | NM     | NM     |

| Efficiency ratios (x)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Revenue / op. invested capital | 1.5     | 1.6   | 1.3   | 0.9    | 0.9    | 0.9    |
| Revenue / fixed assets         | 4.7     | 6.1   | 5.6   | 4.0    | 4.3    | 4.6    |
| Revenue / net working capital  | 4.2     | 5.1   | 3.2   | 1.9    | 1.9    | 1.9    |

| Investment ratios (x) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| OpFCF / EBIT          | 1.0     | 1.0   | 1.0   | 1.0    | 1.0    | 1.0    |
| Capex / revenue (%)   | 3.8     | 3.3   | 3.7   | 0.2    | 2.2    | 2.3    |
| Capex / depreciation  | 3.3     | 3.4   | 3.7   | 0.1    | 1.3    | 1.3    |

| Capital structure (%)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Net debt / total equity        | 10.9    | (8.1) | 0.6   | (6.4)  | (8.9)  | (10.6) |
| Net debt / (net debt + equity) | 9.8     | (8.8) | 0.6   | (6.8)  | (9.8)  | (11.9) |
| Net debt (core) / EV           | 6.5     | (4.2) | (1.9) | (3.0)  | (8.7)  | (12.6) |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items.

Valuations: based on an average share price that year, (E): based on a share price of HK\$6.72 on 24 Sep 2013 22:52 SGT Market cap(E) may include forecast share issues/buybacks.

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## UBS Investment Research

### Sunny Optical Technology

## Strong R&D across optical products

### ■ Strong R&D capability in the optical industry

We believe Sunny Optical Technology (Sunny Optical) has strong R&D capability and technological prowess across the optical product range. We think its design and production expertise (from lens sets to camera modules) enhances its ability to integrate optical, mechanical, and electronic technological know-how. Thus, it is capable of producing products with more complicated designs such as camera modules with 13mpx resolutions, big aperture designs, or optical image stabiliser (OIS) functions.

### ■ Continue investing in R&D to stay ahead of competition

Sunny Optical is focused on strengthening its R&D capability and continues to enhance its high-resolution handset lens/camera modules and optoelectronic technology. Its R&D expenditure increased by 49.8% YoY in H113, accounting for 3.7% of its sales. Management aims to maintain its R&D expenses-to-sales ratio at 3.5%, while the administrative expenses-to-sales ratio should continue to decline with improving management efficiency.

### ■ On track to deliver strong growth and a margin recovery in H213E

We expect Sunny Optical's 8mpx and above camera module shipments to strongly increase in H213 with new handset model launches during the high season. We expect it to secure a dominant share in the 8mpx and above camera module segment. Its profitability could also improve with resolution migration and increasing automation.

### ■ Valuation: Buy rating; HK\$11.50 price target

We derive our price target from a DCF-based methodology and explicitly forecast long-term valuation drivers using UBS's VCAM tool, assuming a WACC of 8.8%.

| Highlights (Rmbm)         | 12/11         | 12/12    | 12/13E   | 12/14E   | 12/15E    |
|---------------------------|---------------|----------|----------|----------|-----------|
| Revenues                  | 2,498.50      | 3,984.30 | 6,365.74 | 9,180.47 | 11,030.96 |
| EBIT (UBS)                | 209.77        | 363.31   | 571.33   | 890.25   | 1,060.21  |
| Net Income (UBS)          | 222.45        | 344.05   | 488.57   | 746.13   | 888.89    |
| EPS (UBS, Rmb)            | 0.23          | 0.36     | 0.51     | 0.77     | 0.92      |
| Net DPS (UBS, Rmb)        | 0.07          | 0.11     | 0.11     | 0.15     | 0.23      |
| Profitability & Valuation | 5-yr hist av. | 12/12    | 12/13E   | 12/14E   | 12/15E    |
| EBIT margin %             | 7.0           | 9.1      | 9.0      | 9.7      | 9.6       |
| ROIC (EBIT) %             | 14.1          | 22.1     | 27.1     | 32.4     | 32.6      |
| EV/EBITDA (core) x        | 4.7           | 5.1      | 8.6      | 5.9      | 4.8       |
| PE (UBS) x                | 9.8           | 7.5      | 12.7     | 8.3      | 7.0       |
| Net dividend yield %      | 3.1           | 3.9      | 1.7      | 2.4      | 3.6       |

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Valuations: based on an average share price that year, (E): based on a share price of HK\$8.13 on 24 Sep 2013 22:52 SGT

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## Global Equity Research

China

Consumer Electronics

12-month rating **Buy**  
**Unchanged**

12m price target **HK\$11.50/US\$1.48**  
**Unchanged**

Price **HK\$8.13/US\$1.05**

RIC: 2382.HK BBG: 2382 HK

### Trading data (local/US\$)

|                          |                              |
|--------------------------|------------------------------|
| 52-wk range              | HK\$11.56-4.15/US\$1.49-0.54 |
| Market cap.              | HK\$7.85bn/US\$1.01bn        |
| Shares o/s               | 965m (ORD)                   |
| Free float               | 49%                          |
| Avg. daily volume ('000) | 10,402                       |
| Avg. daily value (m)     | HK\$86.8                     |

### Balance sheet data 12/13E

|                      |             |
|----------------------|-------------|
| Shareholders' equity | Rmb2.31bn   |
| P/BV (UBS)           | 2.7x        |
| Net Cash (debt)      | (Rmb0.10bn) |

### Forecast returns

|                             |        |
|-----------------------------|--------|
| Forecast price appreciation | +41.5% |
| Forecast dividend yield     | 1.7%   |
| Forecast stock return       | +43.2% |
| Market return assumption    | 9.4%   |
| Forecast excess return      | +33.8% |

### EPS (UBS, Rmb)

|        | 12/13E | 12/12        |
|--------|--------|--------------|
|        | UBS    | Cons. Actual |
| H1E    | 0.20   | - 0.16       |
| H2E    | 0.31   | - 0.20       |
| 12/13E | 0.51   | 0.51         |
| 12/14E | 0.77   | 0.77         |

### Performance (HK\$)



Source: UBS

[www.ubs.com/investmentresearch](http://www.ubs.com/investmentresearch)

# Sunny Optical Technology

| Income statement (Rmbm)                  | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
|--|------------|------------|------------|------------|------------|------------|-------|------------|-------|------------|-------|
| Revenues                                 | 1,267.06   | 1,309.57   | 1,818.07   | 2,498.50   | 3,984.30   | 6,365.74   | 59.8  | 9,180.47   | 44.2  | 11,030.96  | 20.2  |
| Operating expenses (ex depn)             | (1,138.23) | (1,151.41) | (1,585.83) | (2,197.07) | (3,511.84) | (5,643.26) | 60.7  | (8,101.08) | 43.6  | (9,745.61) | 20.3  |
| EBITDA (UBS)                             | 128.82     | 158.16     | 232.24     | 301.43     | 472.45     | 722.48     | 52.9  | 1,079.39   | 49.4  | 1,285.35   | 19.1  |
| Depreciation                             | (73.08)    | (85.89)    | (91.12)    | (91.66)    | (109.14)   | (151.14)   | 38.5  | (189.14)   | 25.1  | (225.14)   | 19.0  |
| Operating income (EBIT, UBS)             | 55.74      | 72.26      | 141.13     | 209.77     | 363.31     | 571.33     | 57.3  | 890.25     | 55.8  | 1,060.21   | 19.1  |
| Other income & associates                | 24.45      | 9.29       | 1.13       | (4.28)     | 9.27       | 5.63       | -39.3 | 0.00       | -     | 0.00       | -     |
| Net interest                             | 8.48       | 17.84      | 22.57      | 41.23      | 22.40      | 6.93       | -69.1 | (2.00)     | -     | (2.00)     | 0.0   |
| Abnormal items (pre-tax)                 | 0.00       | 0.30       | 0.06       | (7.34)     | 2.23       | 5.91       | 165.3 | 0.00       | -     | 0.00       | -     |
| Profit before tax                        | 88.67      | 99.69      | 164.88     | 239.38     | 397.21     | 589.80     | 48.5  | 888.25     | 50.6  | 1,058.21   | 19.1  |
| Tax                                      | (12.10)    | (12.76)    | (26.65)    | (37.84)    | (58.30)    | (97.21)    | 66.7  | (142.12)   | 46.2  | (169.31)   | 19.1  |
| Profit after tax                         | 76.57      | 86.94      | 138.23     | 201.55     | 338.90     | 492.59     | 45.3  | 746.13     | 51.5  | 888.89     | 19.1  |
| Abnormal items (post-tax)                | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Minorities / pref dividends              | 1.81       | 5.00       | 5.60       | 13.56      | 7.37       | 1.89       | -74.4 | 0.00       | -     | 0.00       | -     |
| Net income (local GAAP)                  | 78.38      | 91.93      | 143.83     | 215.11     | 346.27     | 494.48     | 42.8  | 746.13     | 50.9  | 888.89     | 19.1  |
| Net Income (UBS)                         | 78.38      | 91.63      | 143.77     | 222.45     | 344.05     | 488.57     | 42.0  | 746.13     | 52.7  | 888.89     | 19.1  |
|  |            |            |            |            |            |            |       |            |       |            |       |
| Tax rate (%)                             | 13.64      | 12.79      | 16.16      | 15.81      | 14.68      | 16.48      | 12.3  | 16.00      | -2.9  | 16.00      | 0.0   |
| Pre-abnormal tax rate (%)                | 18.84      | 14.16      | 16.28      | 15.07      | 15.12      | 16.81      | 11.2  | 16.00      | -4.8  | 16.00      | 0.0   |
|  |            |            |            |            |            |            |       |            |       |            |       |
| Per share (Rmb)                          | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
| EPS (local GAAP)                         | 0.08       | 0.09       | 0.15       | 0.22       | 0.36       | 0.51       | 41.4  | 0.77       | 50.9  | 0.92       | 19.1  |
| EPS (UBS)                                | 0.08       | 0.09       | 0.15       | 0.23       | 0.36       | 0.51       | 41.6  | 0.77       | 52.7  | 0.92       | 19.1  |
| Net DPS                                  | 0.02       | 0.02       | 0.04       | 0.07       | 0.11       | 0.11       | 2.8   | 0.15       | 42.4  | 0.23       | 50.9  |
| Cash EPS                                 | 0.15       | 0.18       | 0.24       | 0.33       | 0.47       | 0.66       | 40.7  | 0.97       | 46.2  | 1.15       | 19.1  |
| BVPS                                     | 1.34       | 1.42       | 1.50       | 1.72       | 1.99       | 2.39       | 20.3  | 3.01       | 25.9  | 3.70       | 22.9  |
|  |            |            |            |            |            |            |       |            |       |            |       |
| Balance sheet (Rmbm)                     | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
| Net tangible fixed assets                | 496.58     | 486.21     | 465.26     | 489.29     | 646.06     | 914.92     | 41.6  | 1,105.77   | 20.9  | 1,240.63   | 12.2  |
| Net intangible fixed assets              | 20.96      | 27.11      | 23.38      | 0.04       | 0.04       | 0.04       | 0.0   | 0.04       | 0.0   | 0.04       | 0.0   |
| Net working capital (incl. other assets) | 584.35     | 351.59     | 1,061.21   | 1,145.12   | 1,329.11   | 1,692.85   | 27.4  | 2,150.41   | 27.0  | 2,382.22   | 10.8  |
| Other liabilities                        | (87.60)    | (99.94)    | (112.18)   | (139.07)   | (185.14)   | (185.14)   | 0.0   | (185.14)   | 0.0   | (185.14)   | 0.0   |
| Operating invested capital               | 1,014.30   | 764.98     | 1,437.68   | 1,495.38   | 1,790.06   | 2,422.66   | 35.3  | 3,071.08   | 26.8  | 3,437.75   | 11.9  |
| Investments                              | 0.10       | 0.10       | 14.95      | 13.68      | 0.98       | 1.29       | 31.6  | 1.29       | 0.0   | 1.29       | 0.0   |
| Total capital employed                   | 1,014.40   | 765.08     | 1,452.63   | 1,509.06   | 1,791.05   | 2,423.95   | 35.3  | 3,072.37   | 26.8  | 3,439.04   | 11.9  |
| Shareholders' equity                     | 1,342.72   | 1,416.17   | 1,495.94   | 1,661.37   | 1,921.66   | 2,312.25   | 20.3  | 2,910.04   | 25.9  | 3,575.09   | 22.9  |
| Minority interests                       | 23.61      | 33.23      | 32.01      | 19.73      | 10.19      | 10.19      | 0.0   | 10.19      | 0.0   | 10.19      | 0.0   |
| Total equity                             | 1,366.42   | 1,449.50   | 1,527.95   | 1,681.10   | 1,931.85   | 2,322.44   | 20.2  | 2,920.23   | 25.7  | 3,585.28   | 22.8  |
| Net debt / (cash)                        | (352.03)   | (684.42)   | (75.32)    | (172.04)   | (140.80)   | 101.51     | -     | 152.15     | 49.9  | (146.24)   | -     |
| Other debt-deemed items                  | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Total capital employed                   | 1,014.40   | 765.08     | 1,452.63   | 1,509.06   | 1,791.05   | 2,423.95   | 35.3  | 3,072.37   | 26.8  | 3,439.04   | 11.9  |
|  |            |            |            |            |            |            |       |            |       |            |       |
| Cash flow (Rmbm)                         | 12/08      | 12/09      | 12/10      | 12/11      | 12/12      | 12/13E     | % ch  | 12/14E     | % ch  | 12/15E     | % ch  |
| Operating income (EBIT, UBS)             | 55.74      | 72.26      | 141.13     | 209.77     | 363.31     | 571.33     | 57.3  | 890.25     | 55.8  | 1,060.21   | 19.1  |
| Depreciation                             | 73.08      | 85.89      | 91.12      | 91.66      | 109.14     | 151.14     | 38.5  | 189.14     | 25.1  | 225.14     | 19.0  |
| Net change in working capital            | 51.79      | (35.59)    | (40.39)    | (227.96)   | (200.18)   | (365.97)   | 82.8  | (457.57)   | 25.0  | (231.81)   | -49.3 |
| Other (operating)                        | (0.53)     | (11.60)    | (9.49)     | (6.37)     | 1.54       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Operating cash flow (pre tax/interest)   | 180.08     | 110.96     | 182.36     | 67.10      | 273.82     | 356.51     | 30.2  | 621.82     | 74.4  | 1,053.54   | 69.4  |
| Net interest received / (paid)           | 8.48       | 17.84      | 22.57      | 41.23      | 22.40      | 6.93       | -69.1 | (2.00)     | -     | (2.00)     | 0.0   |
| Dividends paid                           | (21.00)    | (20.00)    | (20.00)    | (43.50)    | (71.00)    | (103.88)   | 46.31 | (148.34)   | 42.80 | (223.84)   | 50.89 |
| Tax paid                                 | (12.10)    | (12.76)    | (26.65)    | (37.84)    | (58.30)    | (97.21)    | 66.7  | (142.12)   | 46.2  | (169.31)   | 19.1  |
| Capital expenditure                      | (148.35)   | (65.61)    | (71.92)    | (183.79)   | (249.58)   | (420.00)   | 68.3  | (380.00)   | -9.5  | (360.00)   | -5.3  |
| Net (acquisitions) / disposals           | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Other                                    | (204.87)   | 291.73     | (648.06)   | 271.36     | 67.07      | 1.92       | -97.1 | 0.00       | -     | 0.00       | -     |
| Share issues                             | 0.00       | 0.00       | (50.39)    | (19.68)    | (34.75)    | 0.00       | -     | 0.00       | -     | 0.00       | -     |
| Cash flow (inc)/dec in net debt          | (197.77)   | 322.17     | (612.09)   | 94.89      | (50.34)    | (255.73)   | 408.0 | (50.64)    | -80.2 | 298.39     | -     |
| FX / non cash items                      | 6.10       | 10.23      | 2.99       | 1.83       | 19.10      | 13.42      | -29.7 | 0.00       | -     | 0.00       | -     |
| Balance sheet (inc)/dec in net debt      | (191.66)   | 332.40     | (609.10)   | 96.73      | (31.24)    | (242.31)   | 675.6 | (50.64)    | -79.1 | 298.39     | -     |
| Core EBITDA                              | 128.82     | 158.16     | 232.24     | 301.43     | 472.45     | 722.48     | 52.9  | 1,079.39   | 49.4  | 1,285.35   | 19.1  |
| Maintenance capital expenditure          | (1.48)     | (0.66)     | (0.72)     | (1.84)     | (2.50)     | (4.20)     | 68.3  | (3.80)     | -9.5  | (3.60)     | -5.3  |
| Maintenance net working capital          | 27.96      | 16.36      | 51.72      | 54.75      | 62.05      | 80.34      | 29.5  | 103.22     | 28.5  | 114.81     | 11.2  |
| Operating free cash flow, pre-tax        | 155.30     | 173.86     | 283.24     | 354.35     | 532.00     | 798.62     | 50.1  | 1,178.81   | 47.6  | 1,396.56   | 18.5  |

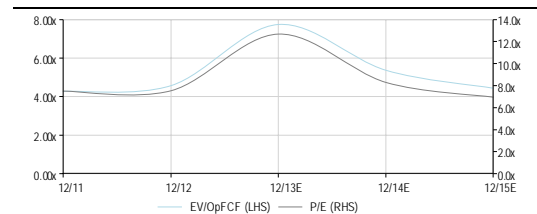
Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Note: For some companies, the data represents an extract of the full company accounts.



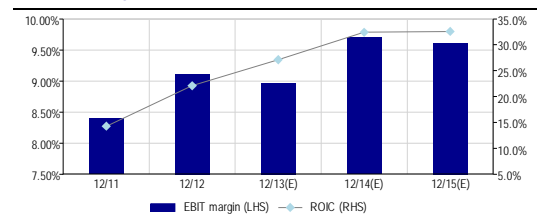
## Company profile

Founded in 1984, Sunny Optical designs, researches and manufactures optical-related products used in handsets, digital cameras, automotives, optical instrument, etc. Its product categories are optical components, optoelectronic products, and optical instruments. It is a leading optical product manufacturer in China in terms of revenue. Its five major clients are Huawei, Lenovo, Coolpad, Samsung and Sony.

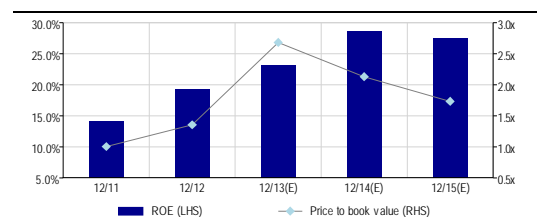
## Value (EV/OpFCF &amp; P/E)



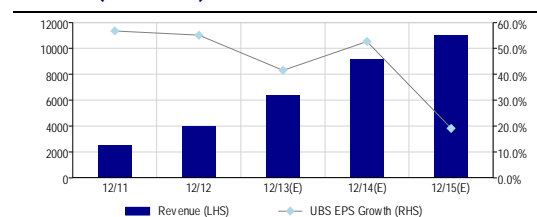
## Profitability



## ROE v Price to book value



## Growth (UBS EPS)



## Sunny Optical Technology

| Valuation (x)           | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-------------------------|---------|-------|-------|--------|--------|--------|
| P/E (local GAAP)        | 9.9     | 7.8   | 7.6   | 12.8   | 8.5    | 7.1    |
| P/E (UBS)               | 9.8     | 7.5   | 7.5   | 12.7   | 8.3    | 7.0    |
| P/CEPS                  | 5.9     | 5.3   | 5.7   | 9.7    | 6.6    | 5.6    |
| Net dividend yield (%)  | 3.1     | 4.1   | 3.9   | 1.7    | 2.4    | 3.6    |
| P/BV                    | 1.0     | 1.0   | 1.4   | 2.7    | 2.1    | 1.7    |
| EV/revenue (core)       | 0.6     | 0.6   | 0.6   | 1.0    | 0.7    | 0.6    |
| EV/EBITDA (core)        | 4.7     | 5.0   | 5.1   | 8.6    | 5.9    | 4.8    |
| EV/EBIT (core)          | 7.2     | 7.2   | 6.7   | 10.8   | 7.1    | 5.9    |
| EV/OpFCF (core)         | 4.1     | 4.3   | 4.6   | 7.7    | 5.4    | 4.4    |
| EV/op. invested capital | 1.0     | 1.0   | 1.5   | 2.9    | 2.3    | 1.9    |

| Enterprise value (Rmbm)         | 12/11    | 12/12    | 12/13E   | 12/14E   | 12/15E   |
|---------------------------------|----------|----------|----------|----------|----------|
| Average market cap              | 1,628.46 | 2,573.92 | 6,196.10 | 6,196.10 | 6,196.10 |
| + minority interests            | 25.87    | 14.96    | 10.19    | 10.19    | 10.19    |
| + average net debt (cash)       | (123.68) | (156.42) | (19.65)  | 126.83   | 2.95     |
| + pension obligations and other | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     |
| - non-core asset value          | (13.68)  | (0.98)   | (1.29)   | (1.29)   | (1.29)   |
| Core enterprise value           | 1,516.97 | 2,431.48 | 6,185.35 | 6,331.82 | 6,207.95 |

| Growth (%)   | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------|---------|-------|-------|--------|--------|--------|
| Revenue      | 33.2    | 37.4  | 59.5  | 59.8   | 44.2   | 20.2   |
| EBITDA (UBS) | 38.4    | 29.8  | 56.7  | 52.9   | 49.4   | 19.1   |
| EBIT (UBS)   | 59.8    | 48.6  | 73.2  | 57.3   | 55.8   | 19.1   |
| EPS (UBS)    | 46.1    | 56.8  | 55.1  | 41.6   | 52.7   | 19.1   |
| Cash EPS     | 32.8    | 35.5  | 44.7  | 40.7   | 46.2   | 19.1   |
| Net DPS      | 51.4    | 63.2  | 47.9  | 2.8    | 42.4   | 50.9   |
| BVPS         | 10.3    | 15.0  | 15.7  | 20.3   | 25.9   | 22.9   |

| Margins (%)                | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|----------------------------|---------|-------|-------|--------|--------|--------|
| EBITDA / revenue           | 11.8    | 12.1  | 11.9  | 11.3   | 11.8   | 11.7   |
| EBIT / revenue             | 7.0     | 8.4   | 9.1   | 9.0    | 9.7    | 9.6    |
| Net profit (UBS) / revenue | 7.7     | 8.9   | 8.6   | 7.7    | 8.1    | 8.1    |

| Return on capital (%) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| EBIT ROIC (UBS)       | 14.1    | 14.3  | 22.1  | 27.1   | 32.4   | 32.6   |
| ROIC post tax         | -       | 12.1  | 18.8  | 22.6   | 27.2   | 27.4   |
| Net ROE               | 11.2    | 14.1  | 19.2  | 23.1   | 28.6   | 27.4   |

| Coverage ratios (x)             | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|---------------------------------|---------|-------|-------|--------|--------|--------|
| EBIT / net interest             | -       | -     | -     | -      | NM     | NM     |
| Dividend cover (UBS EPS)        | 3.7     | 3.2   | 3.4   | 4.7    | 5.0    | 4.0    |
| Div. payout ratio (% , UBS EPS) | 27.4    | 30.8  | 29.4  | 21.3   | 19.9   | 25.2   |
| Net debt / EBITDA               | NM      | NM    | NM    | 0.1    | 0.1    | NM     |

| Efficiency ratios (x)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Revenue / op. invested capital | 1.8     | 1.7   | 2.4   | 3.0    | 3.3    | 3.4    |
| Revenue / fixed assets         | 4.3     | 5.1   | 7.0   | 8.2    | 9.1    | 9.4    |
| Revenue / net working capital  | 2.8     | 2.3   | 3.4   | 4.5    | 5.0    | 5.1    |

| Investment ratios (x) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| OpFCF / EBIT          | 1.8     | 1.7   | 1.5   | 1.4    | 1.3    | 1.3    |
| Capex / revenue (%)   | 6.6     | 7.4   | 6.3   | 6.6    | 4.1    | 3.3    |
| Capex / depreciation  | 1.6     | 2.0   | 2.3   | 2.8    | 2.0    | 1.6    |

| Capital structure (%)          | 5Yr Avg | 12/11  | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|--------|-------|--------|--------|--------|
| Net debt / total equity        | (18.2)  | (10.4) | (7.3) | 4.4    | 5.2    | (4.1)  |
| Net debt / (net debt + equity) | (22.2)  | (11.6) | (7.9) | 4.2    | 5.0    | (4.3)  |
| Net debt (core) / EV           | (26.7)  | (8.2)  | (6.4) | (0.3)  | 2.0    | 0.0    |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items.

Valuations: based on an average share price that year, (E): based on a share price of HK\$8.13 on 24 Sep 2013 22:52 SGT Market cap(E) may include forecast share issues/buybacks.

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## UBS Investment Research

### Geely Automobile

## R&D investment and Volvo consolidation

### ■ Volvo technology consolidation accelerates; greater competitiveness

Geely Automobile's (Geely) R&D spending has been at around 4% of its revenue for years, higher than that for self-owned brands of domestic firms and close to the foreign car makers'. Its R&D system won the National Science & Technology Progress Award in 2010. Geely is accelerating its R&D consolidation with Volvo and a former Volvo executive is now in charge of Geely's day-to-day R&D work. It has a joint research institute with Volvo in Sweden to develop a small-sized vehicle platform (product launches based on the platform are expected in 2016). A former Volvo chief designer also heads Geely's new car designing team.

### ■ Robust EC7 sales offset weak SUV business and exports

Geely sold 86,000 EC7 units in H113 (up 41% YoY)—it remained the bestselling car among the self-owned brands of domestic car makers. We think sales were better than expected, especially given other self-owned and joint venture brands have rolled out many low-end cars this year. Sales for the EC7 should rise further as Geely launches a modified version (with a self-developed 1.3-liter turbo/supercharged engine). A high capacity utilisation ratio could also raise profit contributions from its Ningbo EC7 plant and offset weaker exports and SUV sales.

### ■ Sales could rebound in H213 as channels improve and exports increase

Geely's June 2013 sales were lower than the sector average mainly as: 1) distributors were waiting for adjustments after Geely changed its sales director; and 2) exports were negatively affected by unclear policies for the Iraq market. We think efforts to improve its domestic channels should lead to a positive impact by end-Q313, while new models could drive a domestic sales rebound.

### ■ Valuation: Buy rating; HK\$4.60 price target

We base our price target on a DCF-based methodology (assuming a 9.7% WACC).

| Highlights (Rmbm)         | 12/11         | 12/12     | 12/13E    | 12/14E    | 12/15E    |
|---------------------------|---------------|-----------|-----------|-----------|-----------|
| Revenues                  | 20,964.93     | 24,627.91 | 31,389.77 | 36,684.43 | 43,672.23 |
| EBIT (UBS)                | 2,357.68      | 2,725.40  | 3,343.45  | 4,014.50  | 4,738.90  |
| Net Income (UBS)          | 1,543.44      | 2,039.97  | 2,613.40  | 3,011.83  | 3,453.23  |
| EPS (UBS, Rmb)            | 0.21          | 0.27      | 0.32      | 0.36      | 0.42      |
| Net DPS (UBS, Rmb)        | 0.03          | 0.04      | 0.04      | 0.05      | 0.06      |
| Profitability & Valuation | 5-yr hist av. | 12/12     | 12/13E    | 12/14E    | 12/15E    |
| EBIT margin %             | 11.2          | 11.1      | 10.7      | 10.9      | 10.9      |
| ROIC (EBIT) %             | 25.5          | 23.7      | 27.4      | 29.3      | 31.2      |
| EV/EBITDA (core) x        | 6.2           | 5.1       | 5.6       | 4.5       | 3.6       |
| PE (UBS) x                | 9.9           | 8.8       | 10.0      | 8.6       | 7.5       |
| Net dividend yield %      | 1.5           | 1.6       | 1.4       | 1.6       | 1.9       |

Source: Company accounts, Thomson Reuters, UBS estimates. (UBS) valuations are stated before goodwill, exceptional and other special items. Valuations: based on an average share price that year, (E): based on a share price of HK\$3.99 on 24 Sep 2013 22:52 SGT

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## Global Equity Research

China

Automobile Manufacturers

12-month rating **Buy**  
**Unchanged**

12m price target **HK\$4.60/US\$0.59**  
**Unchanged**

Price **HK\$3.99/US\$0.51**

RIC: 0175.HK BBG: 175 HK

### Trading data (local/US\$)

|                          |                             |
|--------------------------|-----------------------------|
| 52-wk range              | HK\$4.67-2.77/US\$0.60-0.36 |
| Market cap.              | HK\$33.0bn/US\$4.25bn       |
| Shares o/s               | 8,259m (ORD)                |
| Free float               | 60%                         |
| Avg. daily volume ('000) | 61,578                      |
| Avg. daily value (m)     | HK\$218.9                   |

### Balance sheet data 12/13E

|                      |           |
|----------------------|-----------|
| Shareholders' equity | Rmb15.2bn |
| P/BV (UBS)           | 1.7x      |
| Net Cash (debt)      | Rmb2.42bn |

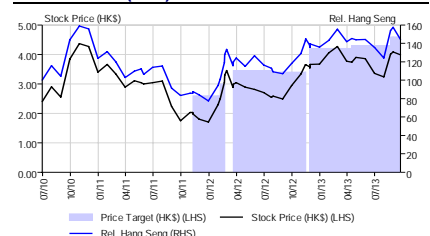
### Forecast returns

|                             |        |
|-----------------------------|--------|
| Forecast price appreciation | +15.3% |
| Forecast dividend yield     | 1.4%   |
| Forecast stock return       | +16.7% |
| Market return assumption    | 9.4%   |
| Forecast excess return      | +7.3%  |

### EPS (UBS, Rmb)

|        | 12/13E | 12/12        |
|--------|--------|--------------|
|        | UBS    | Cons. Actual |
| H1E    | 0.17   | - 0.14       |
| H2E    | 0.15   | - 0.14       |
| 12/13E | 0.32   | 0.32         |
| 12/14E | 0.36   | 0.37         |

### Performance (HK\$)



Source: UBS

www.ubssecurities.com

# Geely Automobile

| Income statement (Rmbm)                  | 12/08      | 12/09       | 12/10       | 12/11       | 12/12       | 12/13E      | % ch  | 12/14E      | % ch  | 12/15E      | % ch  |
|--|------------|-------------|-------------|-------------|-------------|-------------|-------|-------------|-------|-------------|-------|
| Revenues                                 | 4,289.04   | 14,069.23   | 20,099.39   | 20,964.93   | 24,627.91   | 31,389.77   | 27.5  | 36,684.43   | 16.9  | 43,672.23   | 19.0  |
| Operating expenses (ex depn)             | (4,012.70) | (12,479.14) | (18,295.06) | (18,990.82) | (22,227.37) | (27,821.23) | 25.2  | (32,394.70) | 16.4  | (38,494.77) | 18.8  |
| EBITDA (UBS)                             | 633.85     | 1,947.78    | 2,591.09    | 2,971.15    | 3,448.23    | 4,334.76    | 25.7  | 5,139.73    | 18.6  | 6,027.46    | 17.3  |
| Depreciation                             | (127.40)   | (338.05)    | (491.03)    | (613.47)    | (722.83)    | (991.31)    | 37.1  | (1,125.23)  | 13.5  | (1,288.55)  | 14.5  |
| Operating income (EBIT, UBS)             | 506.45     | 1,609.73    | 2,100.05    | 2,357.68    | 2,725.40    | 3,343.45    | 22.7  | 4,014.50    | 20.1  | 4,738.90    | 18.0  |
| Other income & associates                | 472.42     | (25.89)     | (7.30)      | (7.20)      | (1.71)      | (4.00)      | 133.5 | (4.00)      | 0.0   | (4.00)      | 0.0   |
| Net interest                             | (60.95)    | (33.38)     | (192.43)    | (167.27)    | (194.61)    | (39.70)     | -79.6 | (110.17)    | 177.5 | (84.09)     | -23.7 |
| Abnormal items (pre-tax)                 | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | -     | 0.00        | -     | 0.00        | -     |
| Profit before tax                        | 917.92     | 1,550.46    | 1,900.32    | 2,183.21    | 2,529.08    | 3,299.75    | 30.5  | 3,900.33    | 18.2  | 4,650.81    | 19.2  |
| Tax                                      | (51.87)    | (231.43)    | (350.61)    | (467.36)    | (479.29)    | (659.95)    | 37.7  | (858.07)    | 30.0  | (1,162.70)  | 35.5  |
| Profit after tax                         | 866.05     | 1,319.03    | 1,549.71    | 1,715.85    | 2,049.79    | 2,639.80    | 28.8  | 3,042.25    | 15.2  | 3,488.11    | 14.7  |
| Abnormal items (post-tax)                | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | -     | 0.00        | -     | 0.00        | -     |
| Minorities / pref dividends              | 13.00      | (136.29)    | (181.27)    | (172.41)    | (9.82)      | (26.40)     | 168.9 | (30.42)     | 15.2  | (34.88)     | 14.7  |
| Net income (local GAAP)                  | 879.05     | 1,182.74    | 1,368.44    | 1,543.44    | 2,039.97    | 2,613.40    | 28.1  | 3,011.83    | 15.2  | 3,453.23    | 14.7  |
| Net Income (UBS)                         | 879.05     | 1,182.74    | 1,368.44    | 1,543.44    | 2,039.97    | 2,613.40    | 28.1  | 3,011.83    | 15.2  | 3,453.23    | 14.7  |
|  |            |             |             |             |             |             |       |             |       |             |       |
| Tax rate (%)                             | 5.65       | 14.93       | 18.45       | 21.41       | 18.95       | 20.00       | 5.5   | 22.00       | 10.0  | 25.00       | 13.6  |
| Pre-abnormal tax rate (%)                | 7.50       | 14.78       | 18.38       | 21.34       | 18.94       | 19.98       | 5.5   | 21.98       | 10.0  | 24.98       | 13.7  |
|  |            |             |             |             |             |             |       |             |       |             |       |
| Per share (Rmb)                          | 12/08      | 12/09       | 12/10       | 12/11       | 12/12       | 12/13E      | % ch  | 12/14E      | % ch  | 12/15E      | % ch  |
| EPS (local GAAP)                         | 0.15       | 0.17        | 0.19        | 0.21        | 0.27        | 0.32        | 15.8  | 0.36        | 14.8  | 0.42        | 14.2  |
| EPS (UBS)                                | 0.15       | 0.17        | 0.19        | 0.21        | 0.27        | 0.32        | 17.0  | 0.36        | 15.2  | 0.42        | 14.7  |
| Net DPS                                  | 0.02       | 0.02        | 0.03        | 0.03        | 0.04        | 0.04        | 14.2  | 0.05        | 15.2  | 0.06        | 14.7  |
| Cash EPS                                 | 0.17       | 0.22        | 0.25        | 0.29        | 0.37        | 0.44        | 19.1  | 0.50        | 14.8  | 0.57        | 14.6  |
| BVPS                                     | 0.65       | 0.88        | 1.08        | 1.29        | 1.56        | 1.84        | 17.7  | 2.15        | 17.3  | 2.52        | 16.9  |
|  |            |             |             |             |             |             |       |             |       |             |       |
| Balance sheet (Rmbm)                     | 12/08      | 12/09       | 12/10       | 12/11       | 12/12       | 12/13E      | % ch  | 12/14E      | % ch  | 12/15E      | % ch  |
| Net tangible fixed assets                | 3,289.28   | 4,328.10    | 5,796.75    | 6,795.83    | 7,007.74    | 7,240.32    | 3.3   | 8,011.52    | 10.7  | 8,898.40    | 11.1  |
| Net intangible fixed assets              | 657.16     | 1,069.68    | 1,448.59    | 2,221.75    | 2,814.50    | 2,994.76    | 6.4   | 3,125.02    | 4.3   | 3,205.28    | 2.6   |
| Net working capital (incl. other assets) | 131.76     | 606.51      | 1,705.98    | 2,658.42    | 1,545.84    | 2,777.12    | 79.7  | 3,232.67    | 16.4  | 3,863.57    | 19.5  |
| Other liabilities                        | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | -     | 0.00        | -     | 0.00        | -     |
| Operating invested capital               | 4,078.19   | 6,004.29    | 8,951.32    | 11,675.99   | 11,368.08   | 13,012.19   | 14.5  | 14,369.21   | 10.4  | 15,967.25   | 11.1  |
| Investments                              | 42.24      | 7.30        | 1.00        | 83.72       | 195.17      | 191.17      | -2.0  | 187.17      | -2.1  | 183.17      | -2.1  |
| Total capital employed                   | 4,120.43   | 6,011.59    | 8,952.32    | 11,759.71   | 11,563.25   | 13,203.36   | 14.2  | 14,556.37   | 10.2  | 16,150.42   | 11.0  |
| Shareholders' equity                     | 4,197.86   | 6,375.61    | 8,021.88    | 9,582.20    | 12,886.66   | 15,165.70   | 17.7  | 17,792.20   | 17.3  | 20,803.62   | 16.9  |
| Minority interests                       | 584.62     | 720.91      | 1,055.80    | 567.92      | 317.37      | 343.77      | 8.3   | 374.19      | 8.8   | 409.07      | 9.3   |
| Total equity                             | 4,782.48   | 7,096.52    | 9,077.68    | 10,150.12   | 13,204.02   | 15,509.47   | 17.5  | 18,166.39   | 17.1  | 21,212.69   | 16.8  |
| Net debt / (cash)                        | (670.07)   | (1,122.66)  | (493.66)    | 1,517.40    | (1,749.82)  | (2,415.14)  | 38.0  | (3,719.05)  | 54.0  | (5,171.31)  | 39.0  |
| Other debt-deemed items                  | 8.02       | 37.73       | 368.31      | 92.19       | 109.04      | 109.04      | 0.0   | 109.04      | 0.0   | 109.04      | 0.0   |
| Total capital employed                   | 4,120.43   | 6,011.59    | 8,952.32    | 11,759.71   | 11,563.25   | 13,203.36   | 14.2  | 14,556.37   | 10.2  | 16,150.42   | 11.0  |
|  |            |             |             |             |             |             |       |             |       |             |       |
| Cash flow (Rmbm)                         | 12/08      | 12/09       | 12/10       | 12/11       | 12/12       | 12/13E      | % ch  | 12/14E      | % ch  | 12/15E      | % ch  |
| Operating income (EBIT, UBS)             | 506.45     | 1,609.73    | 2,100.05    | 2,357.68    | 2,725.40    | 3,343.45    | 22.7  | 4,014.50    | 20.1  | 4,738.90    | 18.0  |
| Depreciation                             | 127.40     | 338.05      | 491.03      | 613.47      | 722.83      | 991.31      | 37.1  | 1,125.23    | 13.5  | 1,288.55    | 14.5  |
| Net change in working capital            | (59.10)    | (848.50)    | (720.95)    | (1,101.31)  | 1,343.32    | (1,231.27)  | -     | (455.55)    | -63.0 | (630.90)    | 38.5  |
| Other (operating)                        | 27.38      | 88.04       | 518.77      | (213.90)    | 551.37      | 39.70       | -92.8 | 110.17      | 177.5 | 84.09       | -23.7 |
| Operating cash flow (pre tax/interest)   | 602.14     | 1,187.32    | 2,388.91    | 1,655.94    | 5,342.92    | 3,143.19    | -41.2 | 4,794.35    | 52.5  | 5,480.65    | 14.3  |
| Net interest received / (paid)           | (60.95)    | (33.38)     | (192.43)    | (167.27)    | (194.61)    | (39.70)     | -79.6 | (110.17)    | 177.5 | (84.09)     | -23.7 |
| Dividends paid                           | (59.50)    | (91.38)     | (148.35)    | (170.42)    | (170.36)    | (334.36)    | 96.26 | (385.33)    | 15.25 | (441.81)    | 14.66 |
| Tax paid                                 | 9.79       | (205.13)    | (213.98)    | (280.73)    | (710.71)    | (659.95)    | -7.1  | (858.07)    | 30.0  | (1,162.70)  | 35.5  |
| Capital expenditure                      | (591.15)   | (1,282.08)  | (1,529.41)  | (1,420.27)  | (1,076.26)  | (1,404.15)  | 30.5  | (2,026.69)  | 44.3  | (2,255.70)  | 11.3  |
| Net (acquisitions) / disposals           | 1,186.89   | (346.07)    | (134.48)    | (1,000.10)  | (244.39)    | 0.00        | -     | 0.00        | -     | 0.00        | -     |
| Other                                    | (481.37)   | 1,391.84    | (58.53)     | (1,065.32)  | (723.56)    | (70.10)     | -90.3 | (144.59)    | 106.3 | (122.97)    | -15.0 |
| Share issues                             | 0.00       | 824.61      | 106.26      | 13.85       | 617.74      | 0.00        | -     | 0.00        | -     | 0.00        | -     |
| Cash flow (inc)/dec in net debt          | 182.09     | 1,634.20    | 543.21      | (2,068.07)  | 2,620.87    | 665.33      | -74.6 | 1,303.91    | 96.0  | 1,452.25    | 11.4  |
| FX / non cash items                      | 43.81      | (1,181.60)  | (1,172.21)  | 57.00       | 646.34      | 0.00        | -     | 0.00        | -     | 0.00        | -     |
| Balance sheet (inc)/dec in net debt      | 225.90     | 452.59      | (628.99)    | (2,011.07)  | 3,267.22    | 665.33      | -79.6 | 1,303.91    | 96.0  | 1,452.25    | 11.4  |
| Core EBITDA                              | 633.85     | 1,947.78    | 2,591.09    | 2,971.15    | 3,448.23    | 4,334.76    | 25.7  | 5,139.73    | 18.6  | 6,027.46    | 17.3  |
| Maintenance capital expenditure          | (108.65)   | (283.80)    | (407.63)    | (502.54)    | (611.91)    | (671.57)    | 9.7   | (755.49)    | 12.5  | (868.82)    | 15.0  |
| Maintenance net working capital          | 0.00       | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | -     | 0.00        | -     | 0.00        | -     |
| Operating free cash flow, pre-tax        | 525.21     | 1,663.98    | 2,183.46    | 2,468.60    | 2,836.32    | 3,663.19    | 29.2  | 4,384.24    | 19.7  | 5,158.64    | 17.7  |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Note: For some companies, the data represents an extract of the full company accounts.

## Global Equity Research

China

Automobile Manufacturers

12-month rating

Buy

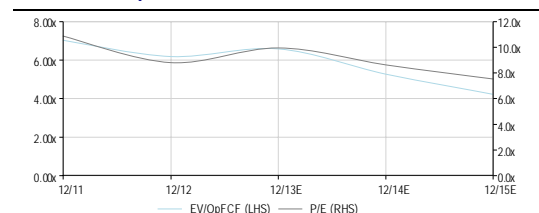
12m price target

HK\$4.60

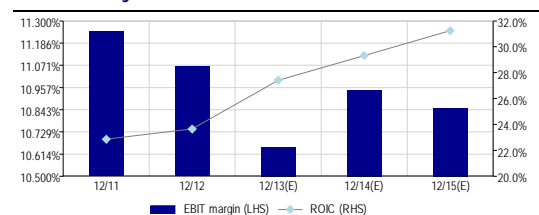
### Company profile

Geely Automobile Holdings, along with its subsidiaries, is principally engaged in the manufacturing and trading of automobiles, automobile parts and related automobile components. It operates in two segments: 1) the manufacture and sale of automobiles, automobile parts and related automobile components (excluding gearboxes); and 2) gearboxes, which includes the manufacture and sale of gearboxes.

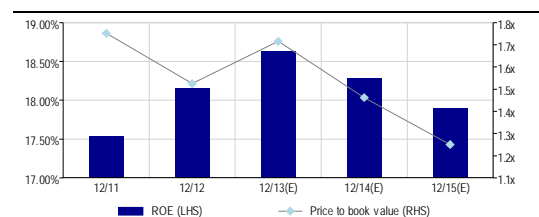
### Value (EV/OpFCF & P/E)



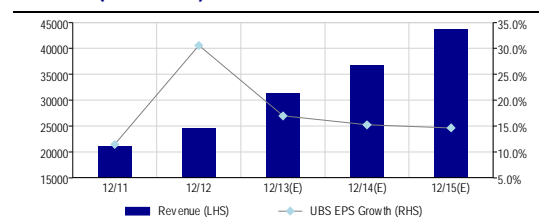
### Profitability



### ROE v Price to book value



### Growth (UBS EPS)



## Geely Automobile

| Valuation (x)           | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-------------------------|---------|-------|-------|--------|--------|--------|
| P/E (local GAAP)        | 10.5    | 11.7  | 9.0   | 10.3   | 9.0    | 7.9    |
| P/E (UBS)               | 9.9     | 10.9  | 8.8   | 10.0   | 8.6    | 7.5    |
| P/CEPS                  | 7.5     | 7.8   | 6.5   | 7.2    | 6.3    | 5.5    |
| Net dividend yield (%)  | 1.5     | 1.2   | 1.6   | 1.4    | 1.6    | 1.9    |
| P/BV                    | 1.8     | 1.8   | 1.5   | 1.7    | 1.5    | 1.3    |
| EV/revenue (core)       | 0.9     | 0.8   | 0.7   | 0.8    | 0.6    | 0.5    |
| EV/EBITDA (core)        | 6.2     | 5.8   | 5.1   | 5.6    | 4.5    | 3.6    |
| EV/EBIT (core)          | 7.7     | 7.4   | 6.4   | 7.2    | 5.8    | 4.6    |
| EV/OpFCF (core)         | 7.4     | 7.0   | 6.2   | 6.6    | 5.3    | 4.2    |
| EV/op. invested capital | 2.0     | 1.7   | 1.5   | 2.0    | 1.7    | 1.4    |

| Enterprise value (Rmbm)         | 12/11     | 12/12     | 12/13E     | 12/14E     | 12/15E     |
|---------------------------------|-----------|-----------|------------|------------|------------|
| Average market cap              | 16,337.85 | 17,540.45 | 26,014.65  | 26,014.65  | 26,014.65  |
| + minority interests            | 567.92    | 317.37    | 343.77     | 374.19     | 409.07     |
| + average net debt (cash)       | 511.87    | (116.21)  | (2,082.48) | (3,067.10) | (4,445.18) |
| + pension obligations and other | 9.22      | 10.90     | 10.90      | 10.90      | 10.90      |
| - non-core asset value          | (83.72)   | (195.17)  | (191.17)   | (187.17)   | (183.17)   |
| Core enterprise value           | 17,343.14 | 17,557.35 | 24,095.68  | 23,145.48  | 21,806.28  |

| Growth (%)   | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------|---------|-------|-------|--------|--------|--------|
| Revenue      | 54.8    | 4.3   | 17.5  | 27.5   | 16.9   | 19.0   |
| EBITDA (UBS) | 52.7    | 14.7  | 16.1  | 25.7   | 18.6   | 17.3   |
| EBIT (UBS)   | 52.3    | 12.3  | 15.6  | 22.7   | 20.1   | 18.0   |
| EPS (UBS)    | 15.8    | 11.5  | 30.6  | 17.0   | 15.2   | 14.7   |
| Cash EPS     | 20.8    | 14.6  | 26.5  | 19.1   | 14.8   | 14.6   |
| Net DPS      | 24.9    | 7.7   | 39.3  | 14.2   | 15.2   | 14.7   |
| BVPS         | 24.6    | 18.8  | 21.3  | 17.7   | 17.3   | 16.9   |

| Margins (%)                | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|----------------------------|---------|-------|-------|--------|--------|--------|
| EBITDA / revenue           | 13.9    | 14.2  | 14.0  | 13.8   | 14.0   | 13.8   |
| EBIT / revenue             | 11.2    | 11.2  | 11.1  | 10.7   | 10.9   | 10.9   |
| Net profit (UBS) / revenue | 10.3    | 7.4   | 8.3   | 8.3    | 8.2    | 7.9    |

| Return on capital (%) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| EBIT ROIC (UBS)       | 25.5    | 22.9  | 23.7  | 27.4   | 29.3   | 31.2   |
| ROIC post tax         | -       | 18.0  | 19.2  | 21.9   | 22.9   | 23.4   |
| Net ROE               | 20.7    | 17.5  | 18.2  | 18.6   | 18.3   | 17.9   |

| Coverage ratios (x)             | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|---------------------------------|---------|-------|-------|--------|--------|--------|
| EBIT / net interest             | 19.7    | 14.1  | 14.0  | NM     | NM     | NM     |
| Dividend cover (UBS EPS)        | 7.7     | 7.4   | 6.9   | 7.1    | 7.1    | 7.1    |
| Div. payout ratio (% , UBS EPS) | 13.2    | 13.5  | 14.4  | 14.1   | 14.1   | 14.1   |
| Net debt / EBITDA               | NM      | 0.5   | NM    | NM     | NM     | NM     |

| Efficiency ratios (x)          | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|-------|--------|--------|--------|
| Revenue / op. invested capital | 2.3     | 2.0   | 2.1   | 2.6    | 2.7    | 2.9    |
| Revenue / fixed assets         | 2.8     | 2.6   | 2.6   | 3.1    | 3.4    | 3.8    |
| Revenue / net working capital  | NM      | 27.9  | 40.8  | 48.0   | 24.5   | 21.4   |

| Investment ratios (x) | 5Yr Avg | 12/11 | 12/12 | 12/13E | 12/14E | 12/15E |
|-----------------------|---------|-------|-------|--------|--------|--------|
| OpFCF / EBIT          | 1.0     | 1.0   | 1.0   | 1.1    | 1.1    | 1.1    |
| Capex / revenue (%)   | 7.0     | 6.8   | 4.4   | 4.5    | 5.5    | 5.2    |
| Capex / depreciation  | 2.6     | 2.3   | 1.5   | 1.4    | 1.8    | 1.8    |

| Capital structure (%)          | 5Yr Avg | 12/11 | 12/12  | 12/13E | 12/14E | 12/15E |
|--------------------------------|---------|-------|--------|--------|--------|--------|
| Net debt / total equity        | (6.1)   | 15.8  | (13.6) | (15.9) | (20.9) | (24.9) |
| Net debt / (net debt + equity) | (6.5)   | 13.7  | (15.7) | (18.9) | (26.4) | (33.1) |
| Net debt (core) / EV           | (2.6)   | 3.0   | (0.7)  | (8.6)  | (13.3) | (20.4) |

Source: Company accounts, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items.

Valuations: based on an average share price that year, (E): based on a share price of HK\$3.99 on 24 Sep 2013 22:52 SGT Market cap(E) may include forecast share issues/buybacks.

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Our conclusion about manufacturers' R&D capabilities and our trend forecasts depend on: 1) China's economic recovery; 2) progress on industry upgrades; and 3) policy support for emerging industries and technologies. If China's economic recovery slows, Chinese manufacturers' profitability weakens, China's industry upgrades decelerate, or policy support for emerging industries and technologies is weaker than expected, Chinese manufacturers' R&D expenditure could be adversely affected, and improvements in their R&D capability are likely to slow as a result.

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| UBS 12-Month Rating   | Rating Category | Coverage <sup>1</sup> | IB Services <sup>2</sup> |
|-----------------------|-----------------|-----------------------|--------------------------|
| Buy                   | Buy             | 45%                   | 35%                      |
| Neutral               | Hold/Neutral    | 44%                   | 37%                      |
| Sell                  | Sell            | 10%                   | 22%                      |
| UBS Short-Term Rating | Rating Category | Coverage <sup>3</sup> | IB Services <sup>4</sup> |
| Buy                   | Buy             | less than 1%          | 33%                      |
| Sell                  | Sell            | less than 1%          | 20%                      |

1:Percentage of companies under coverage globally within the 12-month rating category.

2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.

3:Percentage of companies under coverage globally within the Short-Term rating category.

4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

Source: UBS. Rating allocations are as of 30 June 2013.

### UBS Investment Research: Global Equity Rating Definitions

| UBS 12-Month Rating   | Definition  |
|-----------------------|---|
| Buy                   | FSR is > 6% above the MRA.  |
| Neutral               | FSR is between -6% and 6% of the MRA.   |
| Sell                  | FSR is > 6% below the MRA.  |
| UBS Short-Term Rating | Definition  |
| Buy                   | Buy: Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.  |
| Sell                  | Sell: Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event. |

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**Market Return Assumption (MRA)** is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium).

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| Company Name                                     | Reuters   | 12-mo rating | Short-term rating | Price     | Price date  |
|--|-----------|--------------|-------------------|-----------|-------------|
| Beijing Originwater Technology                   | 300070.SZ | Buy          | N/A               | Rmb41.60  | 24 Sep 2013 |
| Chongqing Changan Automobile                     | 000625.SZ | Buy          | N/A               | Rmb10.67  | 24 Sep 2013 |
| CSPC Pharmaceutical Group <sup>2, 4, 5, 20</sup> | 1093.HK   | Buy (CBE)    | N/A               | HK\$3.91  | 24 Sep 2013 |
| Geely Automobile <sup>16a, 16b</sup>             | 0175.HK   | Buy          | N/A               | HK\$3.99  | 24 Sep 2013 |
| Jiangsu Hengrui Medicine                         | 600276.SS | Buy          | N/A               | Rmb34.39  | 24 Sep 2013 |
| Sunny Optical Technology                         | 2382.HK   | Buy          | N/A               | HK\$8.13  | 24 Sep 2013 |
| Weifu High-Technology                            | 000581.SZ | Buy          | N/A               | Rmb24.89  | 24 Sep 2013 |
| Yantai Jereh Oilfield Services                   | 002353.SZ | Buy          | N/A               | Rmb71.20  | 24 Sep 2013 |
| Yonyou Software                                  | 600588.SS | Neutral      | N/A               | Rmb14.44  | 24 Sep 2013 |
| Zhengzhou Coal Mining Machinery <sup>2, 4</sup>  | 0564.HK   | Buy          | N/A               | HK\$4.76  | 24 Sep 2013 |
| Zhuzhou CSR Times Electric                       | 3898.HK   | Buy          | N/A               | HK\$24.90 | 24 Sep 2013 |
| Zoomlion Heavy Industry Science & Tech           | 1157.HK   | Buy          | N/A               | HK\$6.72  | 24 Sep 2013 |
| ZTE Corporation <sup>16a</sup>                   | 0763.HK   | Buy          | N/A               | HK\$15.64 | 24 Sep 2013 |

Source: UBS. All prices as of local market close.

Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date

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