

2899 HK

Maintain **Hold**

Zijin Mining

26 September 2016 **Publication date** Price 26 Sep close (HKD) 2.54 Target price (HKD) 2.8 Up-/down-side (%) 9.4 7,055 Mkt cap (USDmn) 12.1 6m avg daily val (USDmn) Free float (%) 26.3 1.67-3.10 52wk price range (HKD) **BVPS (HKD)** 1.5 Sector Non-ferrous Metals

Share performance



Financials

Dec year-end	FY15	FY16E	FY17E
Revenue (RMBmn)	74,304	84,340	92,874
yoy%	26.5	13.5	10.1
Net profit (RMBmn)	1,656	1,522	3,170
yoy%	(29.4)	(7.3)	107.6
EPS (diluted, RMB)	0.08	0.07	0.15
PE (x)	27.3	30.7	14.8
Dividend yield (%)	-	(2.7)	(5.6)

Company profile

Zijin Mining is a multi-metal producer mainly focused on gold and copper mining. In 2015, it was China's largest gold miner, second-largest copper miner and third-largest zinc miner. Through aggressive and inexpensive mine asset acquisitions, Zijin has strengthened its resources advantage, and positions itself in the lower part of the global cost curve.

Analyst

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Reverse roadshow: Zijin Zinc, a shining star on China's westernmost border

The takeaways from our 23 September visit to Zijin Mining key subsidiary Zijin Zinc are: 1) management is positive on zinc price, on tight supply, and sees RMB18,000-20,000/tonne as a fair price level in 2017; 2) construction of 50ktpa of zinc and lead capacity is under way and should come on line in 2018. Post expansion, Zijin Zinc is expected to generate net profit of RMB5.5bn over its mine's lifetime; and 3) cost could fall further, even after the 25% yoy cut in 1H16. Though bullish on zinc price, we remain cautious on gold and copper prices. Reiterate Hold and target price of HKD2.8.

Zinc price continues to gain support from tight supply

Amid tight concentrate supply, zinc price has performed strongly so far this year, rising 42% yoy on the London Metal Exchange and 32% yoy on the Shanghai Futures Exchange. Zijin Mining (Zijin) estimates global zinc concentrate supply fell by 10% yoy in 1H16, after closures and production cuts at large-scale zinc mines overseas. Looking into 2017, management expects supply to remain tight and domestic zinc price to stay at RMB18,000-20,000/tonne, underpinned by the improved supply-demand fundamentals.

Zinc segment: a new earnings engine

Zijin's strong copper volume growth and low-cost gold production is well recognized by the market, but the earnings potential of its zinc segment has possibly been overlooked. The company's flagship zinc operation — Zijin Zinc — already has 100ktpa of aggregate zinc and lead capacity; another 50ktpa is under construction and slated to come on line in 2018. After the expansion, Zijin Zinc will generate estimated annual net profit of RMB370mn, with only RMB300mn of expansion capex and a prudent average zinc price assumption of RMB15,000/tonne during the mine's lifetime. We expect a rise in the proportion of earnings Zijin derives from the zinc segment.

Significant cost cuts in 1H16, and still more to come

Zijin Zinc cut its production cost to RMB4,576/tonne in 1H16 from RMB6,121/tonne in 2015. The savings largely came from: 1) scale economies after 5ktpd ore processing project ramp-up; 2) staff cuts and greater mechanization; and 3) improved recovery ratio and reduced oxidation ratio of mined ores. Guidance is for further room to cut costs.

Zinc shines, but copper and gold lack luster, maintain Hold

Gold and copper together account for 60-70% of Zijin's earnings, so although we see strength in zinc price and production volume adding to earnings, our less positive outlook on the prospects for gold and copper prices leaves us reiterating our Hold call and DCF-based TP of HKD2.8.

A shining star out west

We attended a three-day reverse roadshow trip hosted by Zijin Mining last week, visiting the company's flagship zinc mine, Wulagen Mine in Xinjiang. Management sounded positive on the 2016-2017 zinc price, expecting it to average RMB18,000-20,000/tonne in 2017. Meanwhile, guidance is for steady zinc and lead volume growth, and further room for cost reductions in tandem with the increase in annual capacity. We maintain our cautious view on gold in the short term, and expect copper price to lack luster during 2016-2017E on intensive concentrate supply additions. In contrast, we are positive on zinc price during 2016-2017E, given supply constraints at large scale mines overseas. We maintain a Hold rating on Zijin Mining, and stick with our target price of HKD2.8.

The main upside risks to our view are strong-than-expected copper demand boosting copper price, and unexpected political or geographical risks stimulating the gold price. The main downside risks to our view are greater-than-expected copper concentrate supply additions, the US announcing more hawkish than expected monetary policies, and Glencore deciding to restart its zinc mine capacity.

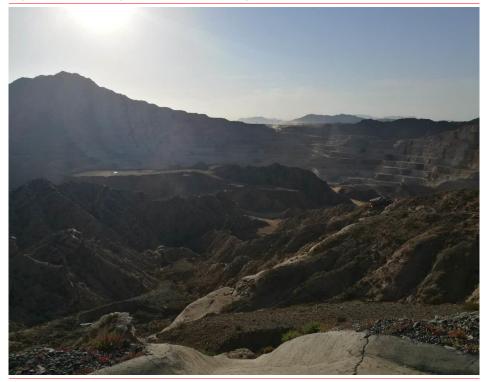


Fig.1. View of Wulagen Zinc Mine, Xinjiang

Source: Huatai HK Research estimates

Zinc price to average RMB18,000-20,000/tonne on supply constraint

The price of zinc has been robust so far this year, underpinned by a significant decline in concentrate output. Management expects supply discipline to continue and sees RMB18,000-20,000/tonne as a fair level for zinc price in 2017.

Australia has been the biggest zinc exporter to China. As a result of depletion at major zinc mines, Australian zinc concentrate production dropped by over 50% yoy in 1H16, according to Antaike. Meanwhile, late 2015 saw Glencore — the world's top zinc miner and trading house — shut down 500ktpa of zinc concentrate capacity, equivalent to 5% of global supply. Against a backdrop of large-scale mine closures and production

reductions this year, global zinc supply has dropped by over 10% yoy so far this year, per management. Management estimates the annual zinc deficit in the Chinese market will extend to 300 kilotonnes in 2016 (2015: 240 kilotonnes).

Fig.2. Zinc market balance

Global market ('000 tonnes)	2014	2015	1H15	1H16
Zinc production	13,498	13,897	6,940	6,648
Zinc consumption	13,745	13,745	6,746	6,786
Market balance	(247)	152	194	(138)
Chinese market ('000 tonnes)	2014	2015	2016E	
Zinc production	5,810	6,160	6,200	
Zinc consumption	6,300	6,400	6,500	
Market balance	(490)	(240)	(300)	

Source: Zijin Mining estimates

Source: Company data

New profit engine: zinc and lead volume growth to strengthen earnings

Zijin has historically been classified as a leading low-cost gold miner. While impressed by the significant copper concentrate growth in recent years, the market has been comparing Zijin with Jiangxi Copper and moving Zijin to the copper matrix. However, Zijin's zinc exposure often appears to be overlooked by market. The company has three major zinc mines at home and abroad: Wulagen Zinc Mine (Xinjiang), Wulate Houqi Zinc Mine (Inner Mongolia), and Longxing Mine (Russia). Zinc concentrate production increased by 78% yoy to 123 kilotonnes in 1H16, and the zinc segment accounted for 14% of total gross margin.

We think zinc segment is underestimated by the market as a potential new profit engine. We expect zinc mine production to grow by 35%/5%/2% yoy to 268/282/289 kilotonnes in 2016-2018E, respectively.

Fig.3. Zijin: gross margin breakdown (1H16)

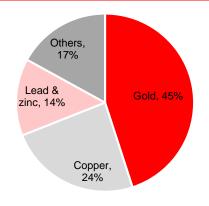
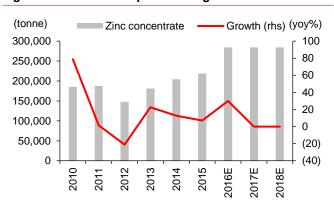


Fig.4. Zinc concentrate production growth

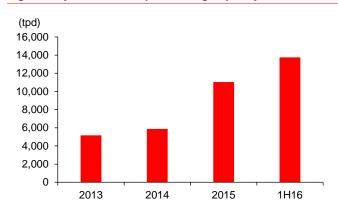


Source: Company data Huatai HK Research estimates

Flagship zinc mining base in the West: Wulagen Mine

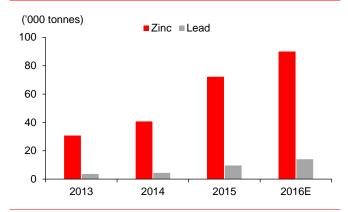
Wulagen Mine (owned by Zijin Zinc) is located in Wuqia county, Xinjiang province, on China's westernmost border. It ranks in the top tier of China's zinc mines in terms of reserve scale: its combined reserves of zinc and lead amount to 5.9mn tonnes (end-2015). Ore processing capacity at the mine is the largest domestically (100ktpd in 2015); however, concentrate production is second to Fankou Zinc Mine due to the low grade of Wulagen's ore (2.7% versus 5.0% China average). Designed zinc and lead capacity at Zijin Zinc is 100ktpa, and is expected to increase to 150ktpa in 2017.

Fig.5. Daily concentrate processing capacity



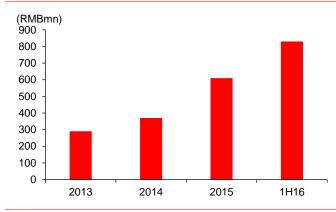
Source: Company data

Fig.6. Zinc and lead production at Wulagen



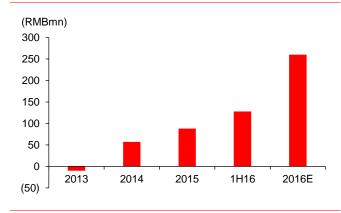
Source: Company data

Fig.7. Zijin Zinc's revenue



Source: Company data

Fig.8. Zijin Zinc's net profit



Source: Company data

Low-cost producer

To counter the low grade of its ore compared with the industry average, Zijin Zinc has endeavored to place itself on the lower part of the Chinese cost curve, in four ways: 1) open-pit mining; 2) high recovery ratio; 3) reducing the oxidation ratio; and 4) intensive staff downsizing.

Open-pit mining. Mining an open pit has inherently lower costs than shaft mining. The ore deposits at Wulagen Mine are shallow and the large reserves are relatively easy to mine. Such characteristics create a suitable environment for open-pit mining.

High recovery ratio. Zijin Zinc's average recovery ratio rose to 86% in 1H16 from 76% in 2015, and management expects this number to increase to 90% by end-2018.

Reduced oxidation ratio. Oxidation ratio at the Wulagen Mine which has been cut to 28% in 1H16, against more than 40% when the project was initiated. Management is confident it can bring this number to 14-16% by 2018, after the ramp-up of new capacity.

Intensive staff downsizing. Zijin Zinc cut its headcount by over 50% yoy to 287 in 1H16, half the level needed by zinc mines of similar size. By applying advanced automatic mining monitoring, Zijin Zinc's staff requirement has been shrinking rapidly. In 1H16, ore processing volume per employee rose to 16ktpa, significantly above the industry average.

Zijin Zinc's all-in mining cost in 1H16 was RMB102/tonne (2015: RMB123/tonne). In other

words, unit zinc production cost was RMB4,576/tonne in 1H16 versus RMB6,121/tonne in 2015. Management guides for further cost reduction, on increased scale economies.

Fig.9. Zijin Zinc: all-in mining cost

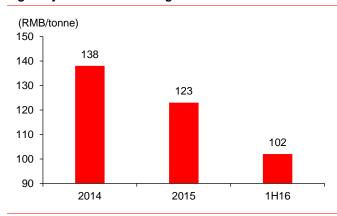
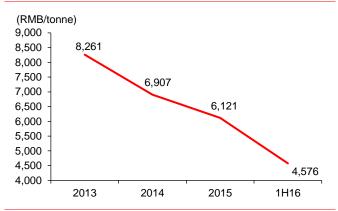


Fig.10. Zijin Zinc: unit zinc production cost



Source: Company data

Source: Company data

Stable volume growth underpins future earnings

Following Zijin's acquisition of Wulagen Mine in 2007, proven reserves at the mine have grown at a CAGR of 57% to 5.9mn tonnes (end-2013). Management guides for further proven reserve increases at Wulagen given the mine's significant potential. In terms of capacity expansion, Wulagen's status as an open-pit mine means it requires less capex and safety management to expand. Zijin plans to expand the mine's capacity to 25ktpd from 14ktpd currently; capex for the project will be kept strictly within RMB300mn, per management. The project is expected to begin trial production by the end of 2017 and after its ramp-up, Wulagen Mine's total capacity for zinc and lead will increase by 50ktpa to 150ktpa, extending the mine's life by 10 to 15 years.

Management makes the following assumptions: zinc price remains at RMB15,000/tonne; zinc production stays at 150ktpa; and cost remains at its current level. Post expansion, total net present value (NPV) of the project will be RMB407mn. On a conservative basis, Zijin Zinc estimates it will be able to generate RMB371mn in annual net profit during 2018 to 2032.

Fig.11. Zijin Zinc's Wulagen Mine: estimated return

(RMBmn)	Total	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
NPV	4,070	374	356	339	323	307	293	279	265	253	241	229	218	208	198	189
Net profit	5,570	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371

Source: Zijin Mining estimates

Quality concentrate ensures lower TC/RC than at peers

Zijin has been focusing on high margin upstream mining business: its concentrate output is mainly for external sales. Zijin Zinc realizes lower concentrate treatment and refining charges (TC/RC) than peers through selling high quality zinc concentrate: its average grade is 55%, versus an industry average of 48%. TC/RC fees for Zijin Zinc in September are RMB5,200/tonne, down by RMB1,300/tonne from April. Excluding transportation cost, which is paid by the buyer, the net TC/RC fees Zijin Zinc pays to downstream smelters amount to RMB4,000/tonne (industry average: RMB4,200/tonne).

Fig.12. Zijin Zinc: ball mill



Source: Huatai HK Research estimates

Fig.13. Zijin Zinc: flotation tank



Source: Huatai HK Research estimates

Zinc shines, but copper and gold lack luster, maintain Hold

Global economic uncertainty and prolonged low interest rates in major economies should help support the gold price in the medium term. However, we are cautious on gold price in the short term, on increased expectation of a US interest rate hike by year-end and limited near-term upside momentum. For copper, we believe the strong volume growth of concentrate globally during 2016-2017 will create significant downward pressure on copper price.

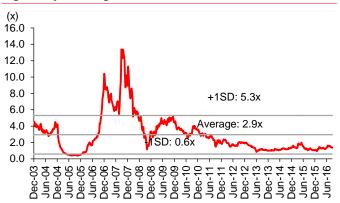
Gold and copper together account for 60-70% of Zijin's earnings, so although we see strength in zinc price and production volume adding to earnings, our less positive outlook on the prospects for gold and copper prices leaves us reiterating our Hold call and target price of HKD2.8. Our target price is based on a DCF valuation with 9.5% WACC and a terminal growth rate of 2%.

Fig.14. Zijin: peer comparison

Stock name	Ticker	Market cap	PE (x)				PB (x)		EV EBITDA (x)		
		(USDmn)	2015	2016E	2017E	2015	2016E	2017E	2015	2016E	2017E
Gold											
H shares											
Zijin Mining-H	2899 HK	7,055	27.3	30.7	14.8	1.5	1.4	1.3	15.9	10.1	7.8
Zhaojin Ming-H	1818 HK	3,022	69.1	34.7	26.4	2.4	1.8	1.8	19.1	14.9	13.0
China Gold Int'l	2099 HK	943	(199.0)	118.9	59.4	0.7	0.6	0.6	15.7	n.a.	n.a.
Lingbao Gold	3330 HK	184	(2.6)	n.a.	n.a.	1.1	n.a.	n.a.	16.4	n.a.	n.a.
Weighted average			19.1	39.3	21.8	1.6	1.5	1.4	16.7	10.6	8.6
A shares											
Zijin Mining A	601899 CH	10,239	39.6	33.0	22.3	2.6	2.2	2.0	18.6	13.2	10.5
Zhongjin Gold	600489 CH	6,262	403.3	91.7	50.4	3.2	3.6	3.4	37.6	18.2	14.2
Shandong Gold	600547 CH	8,245	94.2	53.4	42.3	5.5	5.5	4.9	25.6	19.5	17.3
Chifeng Gold	600988 CH	1,753	48.2	42.0	34.5	5.3	4.1	3.7	25.1	20.6	17.3
Hunan Gold	002155 CH	2,060	404.7	110.4	78.3	4.0	3.9	3.7	57.9	39.4	32.4
Weighted average			162.0	56.0	37.3	3.6	3.5	3.2	26.5	17.4	14.3
Global											
Barrick Gold	ABX US	21,104	(7.4)	26.6	18.6	2.9	2.7	2.4	(59.4)	7.9	7.0
Agnico Eagle	AEM US	12,200	285.9	82.8	47.3	2.9	2.7	2.6	17.1	14.5	12.1
Centerra	CG CN	1,515	31.3	12.2	11.6	0.9	1.5	1.3	4.1	2.6	2.2
Eldorado	EGO US	2,960	(37.5)	53.6	26.3	0.8	0.8	0.8	(2.1)	13.7	11.5
Goldcorp	GG US	14,218	(3.3)	47.9	26.7	1.1	1.1	1.0	(5.0)	10.4	8.3
Kinross Gold	KGC US	5,352	(5.0)	40.6	20.8	1.3	1.2	1.1	40.9	5.1	4.4
Newmont Mining	NEM US	20,990	92.0	22.2	20.8	1.8	1.8	1.6	11.4	8.6	8.2
New Gold	NGD US	2,344	(24.1)	65.3	32.6	1.1	1.1	1.0	11.8	9.0	7.4
Weighted average			62.8	40.5	25.7	2.0	1.9	1.8	(7.8)	9.5	8.2
Copper											
H shares											
Jiangxi Copper-H	358 HK	4,010	38.8	38.7	21.1	0.6	0.6	0.5	8.3	11.6	8.7
Zijin Ming-H	2899 HK	7,055	27.3	30.7	14.8	1.5	1.4	1.3	15.9	10.1	7.8
Weighted average			31.5	33.6	17.1	1.1	1.1	1.0	13.1	10.6	8.1
A shares											
Jiangxi Copper-A	600362 CH	7,186	69.2	54.3	47.1	1.0	1.0	1.0	13.2	15.6	14.2
Zijin Ming-A	601899 CH	10,239	39.6	33.0	22.3	2.6	2.2	2.0	17.5	13.2	10.5
Tongling Non-ferrous	000630 CH	3,698	(36.9)	860.0	122.9	1.8	1.8	1.8	57.7	48.2	48.2
Weighted average			36.3	184.4	46.1	1.8	1.6	1.5	21.8	19.0	17.2
Global											
BHP Billiton	BHP AU	114,727	(13.7)	80.0	29.7	1.6	1.6	1.5	5.0	10.1	8.4
Southern Copper	SCCO US	20,086	27.9	24.9	23.0	3.6	3.5	3.1	12.2	11.6	10.8
OZ Minerals	OZL AU	1,898	14.6	19.6	17.7	8.0	8.0	8.0	2.9	3.5	3.4
HudBay Minerals	HBM CN	1,524	(4.6)	137.3	26.5	0.9	0.9	0.9	13.3	6.8	6.0
Lundin Mining	LUN CN	5,016	(17.0)	(102.4)	151.4	1.7	1.6	1.7	8.7	11.2	10.3
Aurubis	NDA GR	2,551	19.2	16.2	12.6	1.3	1.3	1.2	4.9	6.8	5.8
Anglo American	AAL LN	15,404	(2.7)	13.8	15.5	0.9	0.8	0.8	6.5	6.6	6.5
Grupo Mexico	GMEXICOB MM	18,237	17.9	14.2	13.8	1.7	1.7	1.6	7.6	7.5	6.8
Freeport-McMoRan	FCX US	14,119	(0.9)	22.1	10.8	3.5	2.0	1.7	9.5	8.1	6.7
Weighted average			(3.9)	52.9	27.8	1.9	1.7	1.6	6.6	9.5	8.2

Source: Bloomberg, Huatai HK Research estimates

Fig.15. Zijin Mining: PB bands



Source: Bloomberg, Huatai HK Research estimates

Fig.16. Zijin Mining: PE bands



Source: Bloomberg, Huatai HK Research estimates



Full financials

YE 31 Dec (RMBmn)	FY13	FY14	FY15	FY16E	FY17E
Revenue	49,772	58,761	74,304	85,304	93,915
Cost of goods sold	(41,566)	(51,720)	(68,817)	(77,351)	(83,779
Gross profit	8,206	7,040	5,486	7,954	10,136
Selling and distrib cost	(526)	(906)	(692)	(682)	(751
Admin expenses	(2,166)	(2,175)	(2,621)	(2,815)	(3,099
Other expenses	(960)	(640)	(455)	(434)	(412
Operating profit	4,554	3,320	1,719	4,023	5,87
Financial cost-net	(733)	(768)	(946)	(1,065)	(1,236
Share of P&L of an associate	14	773	1,313	(500)	
Profit before tax	3,835	3,324	2,086	2,458	4,63
Tax expense	(973)	(689)	(743)	(739)	(1,160
Minority interest	(736)	(290)	313	(197)	(308)
Net profit	2,125	2,345	1,656	1,522	3,17
D&A	2,045	2,193	3,007	3,372	3,71
Ebitda	6,599	5,513	4,726	7,395	9,59
EPS (RMB, basic)	0.10	0.11	0.08	0.07	0.1

Balance sheet					
YE 31 Dec (RMBmn)	FY13	FY14	FY15	FY16E	FY17E
Fixed assets	29,340	32,968	35,520	39,262	42,652
Intangible assets	7,315	8,042	8,632	8,498	8,372
Other non-current assets	12,312	14,531	17,967	18,375	18,785
Total non-current assets	48,967	55,541	62,119	66,135	69,808
Inventories	8,200	10,354	10,951	11,441	12,847
Acc & bill receivables	4,013	3,683	3,187	3,990	3,696
Cash & cash equivalents	4,492	4,140	5,498	5,641	6,732
Other current assets	1,227	1,442	2,158	2,158	2,158
Total current assets	17,932	19,618	21,795	23,230	25,434
Total assets	66,898	75,160	83,914	89,365	95,242
Tax payables	1,015	656	699	734	770
Accounts payables	8,046	8,352	12,575	13,395	13,555
Short-term loans	4,152	5,899	11,448	13,448	15,448
Other liabilities	6,747	8,598	6,805	6,805	6,805
Total current liabilities	19,960	23,504	31,526	34,382	36,578
Int'st-bearing bank borrowings	6,998	8,339	9,251	10,751	12,251
Other long term liabs	6,855	3,998	4,309	4,309	4,309
Total non-current liabilities	13,853	17,987	20,459	21,959	23,459

Valuation					
YE 31 Dec (x)	FY13	FY14	FY15	FY16E	FY17E
PE	23.7	21.4	27.3	30.7	14.8
PB	1.5	1.5	1.5	1.4	1.3
EV EBITDA	10.7	13.8	15.9	10.1	7.8
Dividend yield (%)	(7.4)	(7.4)	-	(2.7)	(5.6)
FCF yield (%)	2.1	(0.4)	2.7	(1.5)	1.0

2,170 2,157

28,059

5,609

33,669

27,612

5,473

33,085

Source: Company data, Huatai HK Research estimates

Equity

Reserves

Shareholder equity

Minority interests

Total equity

Cash flow statement					
YE 31 Dec (RMBmn)	FY13	FY14	FY15E	FY16E	FY17E
Profit before tax	3,835	3,324	2,086	2,458	4,638
D&A	2,045	2,193	3,007	3,372	3,716
Finance costs	(733)	(768)	(946)	(1,065)	(1,236)
Changes in working cap	2,829	(1,877)	4,164	(437)	(916)
Tax	(973)	(689)	(743)	(739)	(1,160)
Other	1,841	4,137	2,701	2,130	2,472
Operating cash flow	8,842	6,321	10,269	5,718	7,515
Capital expenditure	(7,204)	(6,478)	(7,053)	(7,114)	(7,115)
Other invest't activ's	(1,276)	(2,774)	(1,640)	(274)	(275)
Investing cash flow	(8,480)	(9,252)	(8,693)	(7,388)	(7,390)
Increase in debt	(2,440)	3,088	6,461	3,500	3,500
Increase in equity	-	-	-	-	-
Dividends paid	(1,732)	(1,726)	-	(623)	(1,298)
Other financing activ's	1,577	1,052	(6,734)	(1,065)	(1,236)
Financing cash flow	(2,595)	2,414	(273)	1,812	966
Changes in cash	(2,232)	(517)	1,303	143	1,091
Cash at start of year	7,473	4,492	4,140	5,498	5,641
Effect of forex rate changes, net	(749)	165	55	-	-
Year-end cash	4,492	4,140	5,498	5,641	6,732

Performance					
YE 31 Dec (x)	FY13	FY14	FY15	FY16E	FY17E
Growth (%)					
Revenue	2.8	18.1	26.5	14.8	10.1
Gross profit	(28.6)	(14.2)	(22.1)	45.0	27.4
Operating profit	(47.8)	(27.1)	(48.2)	134.0	46.0
Net profit	(59.2)	10.3	(29.4)	(8.1)	108.3
EPS	0.10	0.11	0.08	0.07	0.15
Profitability ratios (%)					
Gross profit margin	16.5	12.0	7.4	9.3	10.8
Operating profit margin	9.1	5.6	2.3	4.7	6.3
Net profit margin	4.3	4.0	2.2	1.8	3.4
ROE	6.4	7.0	5.0	4.7	9.3
ROA	3.2	3.3	2.1	1.8	3.4
Solvency					
Debt/total capital (%)	50.5	55.2	62.0	63.0	63.0
Gearing ratio	24.1	36.0	55.2	65.3	69.2
Current ratio	0.90	0.83	0.69	0.68	0.70
Quick ratio	0.49	0.39	0.34	0.34	0.34
Operating capability (days)					
Total assets turnover ratio (x)	0.7	8.0	0.9	1.0	1.0
Receivable	29	23	15	17	14
Payable	70	58	66	62	58
Inventory	71	72	57	53	55
Cash conversion cycle	30	37	7	8	11
Index per share (RMB)					
EPS	0.10	0.11	0.08	0.07	0.15
Book value per share	1.52	1.56	1.48	1.53	1.63

26 September 2016 9

2,154

30,308

4,896

35,205

2,154 2,154

28,436

4,588

33,024

25,442 25,902 25,383 26,282 28,154

27,537

4,391

31,928



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10 26 September 2016