

Huatai Research

9 November 2017

Equity | China | Specialty Chemicals

BUY | TP HKD4.70

Initiation

Wenrui YU +86 21 2897 2218
 Analyst yuwenrui@htsc.com
Hanzhi DING +852 3658 6058
 Analyst dinghanzhi@htsc.com

Key data

Target price (HKD)	4.70
Closing price (HKD as of 9 Nov)	3.82
Upside +/- (%)	23
Mkt cap (USDmn)	512
6m avg daily val (USDmn)	0.50
52wk price range (HKD)	3.82/2.42
BVPS (RMB)	1.92

Share performance



Source: FactSet

Initiate at BUY on promising battery materials business

Initiate at BUY with a target price of HKD4.7

Our positive view on Tsaker Chemical (Tsaker) — a producer of dye, pigment and agricultural chemical intermediates — is based on three factors: 1) we estimate the new iron phosphate business will contribute RMB320mn revenue in 2018E, and improve its gross profit margin to 30% (1H17: 27.4%) on mass production ramp-up; 2) completion of the dye intermediates production plant in Dongying (slated for 2H18) and leased facilities for manufacture of OBA should support 2017E/2018E gross profit growth of 18/11% in dye intermediates (2016: 34% drop); and 3) we expect the dye and agricultural intermediates business to offer income protection. We initiate coverage at BUY with a DCF-based TP of HKD4.7.

Horizontal expansion into promising lithium battery market

We estimate iron phosphate segment 2018E revenue at RMB320mn, with mass production ramp-up widening gross profit margin to 30% (1H17: 27.4%). Tsaker is negotiating with potential buyers for its iron phosphate products; we look for new orders to push utilization rate at the new production line above 90% (industry average: 80%). The new production line should create synergies with Tsaker's current NMP products, in our view.

Vertical integration of DSD acid value chain to be a new driver

Construction of a new 15,000-tonne capacity production line for DSD acid and other dye intermediates is scheduled for completion in 2H18, which would create synergies with OBA facilities leased at the end of 2016, in our view. We think this vertical integration will both expand production to include OBA, and improve the capacity utilization of DSD acid.

Dye and agricultural intermediates offers income protection

We expect Tsaker's dye and agricultural intermediates businesses to offer income protection, given that they have been making a stable earnings contribution since 2015. These businesses accounted for 73% of Tsaker's 2016 earnings, and on their own would yield a 2016-2018E earnings CAGR of 9% for the company given consistent products and long-standing cooperation with key customers.

Valuation and risks to our view

Our BUY call rests on a DCF-based target price of HKD4.7 (WACC of 8.2%; terminal growth rate of 2%). Downside risks: 1) sales volume of iron phosphate lower than our expectation; and 2) margins widen more slowly than we estimate.

Financials

YE 31 Dec	FY15	FY16	FY17E	FY18E	FY19E
Revenue (RMBmn)	876	1,041	1,230	1,635	1,898
yoy%	-	18.9	18.1	33.0	16.1
Net profit (RMBmn)	102	121	143	190	219
yoy%	-	18.3	18.0	33.4	14.9
EPS (diluted, RMB)	0.204	0.241	0.137	0.182	0.210
PE (x)	15.9	13.5	23.8	17.8	15.5
PB (x)	1.9	1.7	3.2	2.8	2.5
EV EBITDA (x)	23.7	19.2	16.4	12.9	11.4
Dividend yield (%)	1.9	2.2	1.3	1.7	1.9
Free cashflow yield (%)	(10.9)	(5.8)	1.5	3.6	3.1

Source: Company data, Huatai HK Research estimates

Contents

Investment thesis	3
New lithium battery material business expected	3
Vertical integration in industry value chain to enhance leading position	3
Long-standing and diversified customer base.....	4
Industry overview	5
Sizable market for dye intermediates - DSD acid.....	5
Favorable growth in DMAS and DMSS pigment intermediates.....	5
ONT demand to drive mononitrotoluene growth	6
Leader in dye intermediates industry	7
Dye and agricultural intermediates businesses offer income protection	7
Long-standing and diversified customer base.....	8
Green treatment consultancy to be a long-term driver	8
Horizontal expansion into lithium battery market	9
Vertical integration in value chain to be a new driver	12
Earnings forecast	13
Valuation	14
Company profile	16
Tsaker's main businesses	16
Stable holding structure.....	16

Investment thesis

Tsaker Chemical is the world's leading producer of fine chemicals that work as dye, pigment and agricultural chemicals intermediates. We believe its core business will provide stable earnings support, and the company is set to benefit from horizontal and vertical expansion in the near term.

New lithium battery material business expected

Based on Tsaker's ample production experience and potential synergies, we are positive on the company's entry into the promising lithium battery industry and construction of an iron phosphate production line in Cangzhou, Hebei province with a production capacity of 15,000 tonnes.

We expect the new iron phosphate segment's 2018E revenue to reach RMB320mn, and gross margin to improve from 27.4% in 1H17 to 30% in 2018E on mass production ramp-up. We also estimate the utilization rate of the new iron phosphate production line to exceed 90%, higher than the industry average of 80%.

Our positive view on demand for iron phosphate rests on: 1) Tsaker is negotiating with several potential buyers of its iron phosphate products; and 2) as its samples have passed first-round testing for a potential domestic customer, we are optimistic that it will become part of the customer's supply chain, which is a testament to the quality of its iron phosphate products.

The new production line began operation in November 2017, and we see potential for the company to expand production by another 15,000 tonnes in 2018 if demand for its iron phosphate exceeds supply.

Vertical integration in industry value chain to enhance leading position

We are positive on the company's vertical integration strategy of expanding its production chain both upstream and downstream. We believe that through upstream expansion, the company strengthens the quality control of raw and auxiliary materials and stabilizes production cost. In 2015, Tsaker expanded its business to mononitrotoluene (an upstream raw material for DSD acid) production, and in 2016 enlarged its capacity by acquiring Tsaker Dongao. The agricultural intermediates segment contributed gross profit of RMB13mn and RMB94mn to Tsaker in 2015 and 2016, respectively.

As for moving down the value chain, the company has not only expanded its product structure to include OBA, but has also improved the capacity utilization of DSD acid, which is the core raw material for OBA production. At the end of 2016, the company leased assets and facilities in relation to the production of OBA for textile printing, dyeing and detergent, which began operation in 1H17 after refurbishment. We believe this production line will help Tsaker become familiar with the manufacturing process, to broaden its customer base for OBA, and to prepare for mass production ramp-up.

Construction of the new production line, which will have a capacity of 15,000 tonnes for DSD acid and other dye intermediates, is scheduled for completion in 2H18, which would create synergies with OBA facilities leased at the end of 2016, in our view. We see this vertical integration supporting earnings growth at 18/11% in 2017E/2018E (2016: 34% drop).

Long-standing and diversified customer base

We expect Tsaker's dye and agricultural intermediates businesses to offer income protection, given that they have been providing stable earnings contribution since 2015. In 2016, 83% of Tsaker's revenue and 73% of its gross profit were generated by those two segments. Given the stable global demand for dye and agricultural intermediates, we expect the two businesses to yield a 2016-2018E earnings CAGR of 9%.

Tsaker has established stable relationships with internationally-renowned chemical giants for an average of more than 10 years, which we consider a critical strength as the company faces fierce market competition. We also expect the diversified customer base to help Tsaker defend against revenue volatility, with the top five major customers accounting for 28.3% of revenue in 1H17 (2016: 28.9%).

We expect Tsaker's unique formulas and consistent products to help it enhance its competitiveness. As the consistency of intermediates directly affects the quality of end products, end users tend to avoid frequent replacement of intermediate supplies. To ensure the quality and consistency of its products, the company began self-producing PNT, a core raw material for producing DSD acid. Tsaker also owns assembly lines, which it keeps in constant operation, for products for which the core formulas are developed by the chairman of the board and are tightly-guarded secrets.

Fig.1. Peer valuation comparison

Name	Ticker	Price (local)	Mkt cap (USDmn)	PE (x)		PB (x)		EV EBITDA (x)		Yield (%) 2017E
				2017E	2018E	2017E	2018E	2017E	2018E	
Tsaker Chemical	1986 HK	3.82	512	23.8	17.8	3.2	2.8	16.4	12.9	1.3
Lanxess	LXS GR	67.86	7,222	17.7	15.4	2.3	2.2	7.6	7.8	1.3
DSM	DSM NA	75.89	16,010	18.2	18.3	1.9	1.8	10.6	9.8	2.4
Deepak	DN IN	217.25	438	38.2	52.5	4.1	3.8	20.7	20.8	0.5

Note: Data as at 9 November close

Source: Bloomberg, FactSet, Huatai HK Research estimates

Industry overview

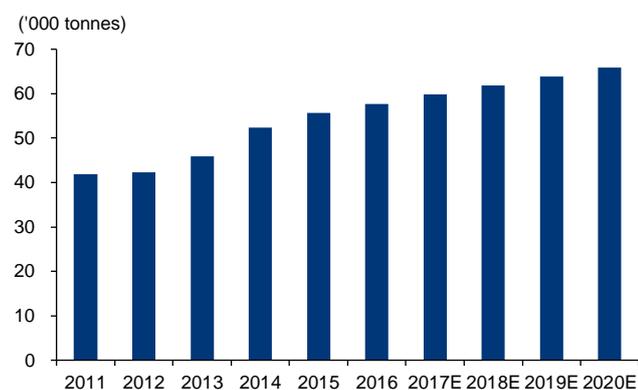
Intermediates, essentially derivatives of petroleum products, is one of the three sub-segments in the dyestuff industry. We expect the consumption volume of global intermediates to exceed 1mn tonnes in 2019E. Tsaker's principal products – DSD acid, DMSS, and DMAS – will each account for around 5%, 0.5%, and 0.4% of total intermediates consumption in 2015, respectively.

Sizable market for dye intermediates - DSD acid

Dye intermediates are petroleum downstream products that are further processed into finished dyes and pigments. Tsaker's principal product, DSD acid, is the core dye intermediate (and has no comparable substitute) for the production of OBA, which is the core ingredient for the production of dyes and to brighten or whiten paper and textiles.

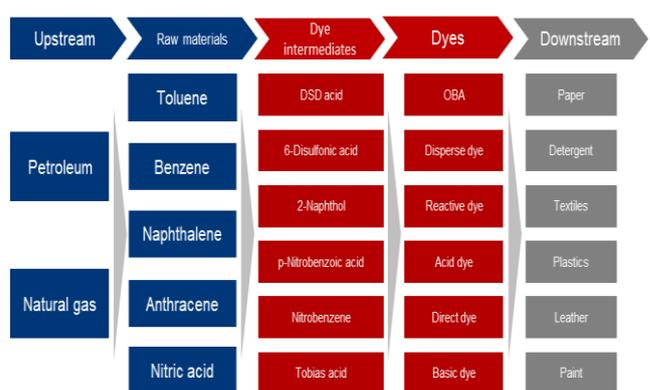
We expect global DSD acid consumption volume to remain stable and to grow from 57,700 tonnes in 2016 to 65,800 tonnes in 2020E. Over 2011 to 2016, DSD acid demand was relatively stable, increasing from 41,800 tonnes to 57,700 tonnes, representing a CAGR of 6.7%.

Fig.2. DSD acid: global consumption volume



Source: Company data, Huatai HK Research estimates

Fig.3. DSD acid: value chain



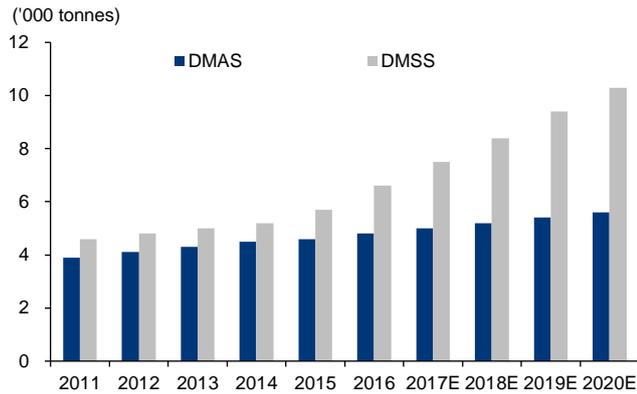
Source: Company data, Huatai HK Research

Favorable growth in DMAS and DMSS pigment intermediates

Pigment intermediates are essential derivatives of petroleum products which are manufactured through a series of chemical reactions, and include DMSS, DATA, and DMAS. DMSS is an upstream material of DATA, and both are important raw materials in the production of pigments for building and automobile applications. DMAS is used to produce Lemon yellow, which is one of the most widely-adopted pigments used in the manufacture of food additives.

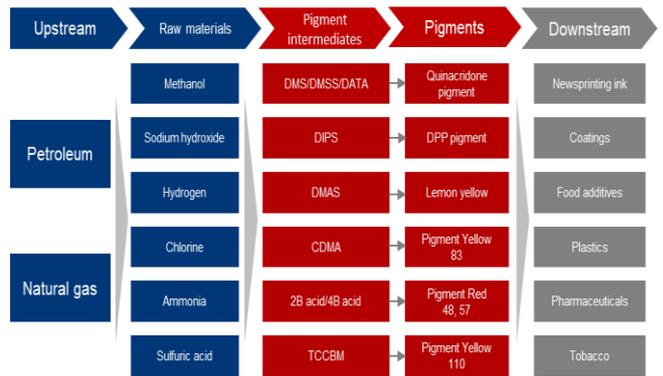
We estimate that annual demand for DMSS will improve from 6,600 tonnes in 2016 to 10,300 tonnes in 2020E, representing a CAGR of 11.9% (2011-2015: CAGR of 5.5%). The favorable growth for DMSS is due to growing demand for Pigment Red-122, which is a major application of DATA. Given the steady market for food, medicines and cosmetics, we expect DMAS demand to improve from 4,800 tonnes in 2016 to 5,600 tonnes in 2020E, an increase which is in line with its downstream product demand.

Fig.4. DMAS and DMSS: global consumption volume



Source: Company data, Huatai HK Research estimates

Fig.5. Pigment intermediates: value chain



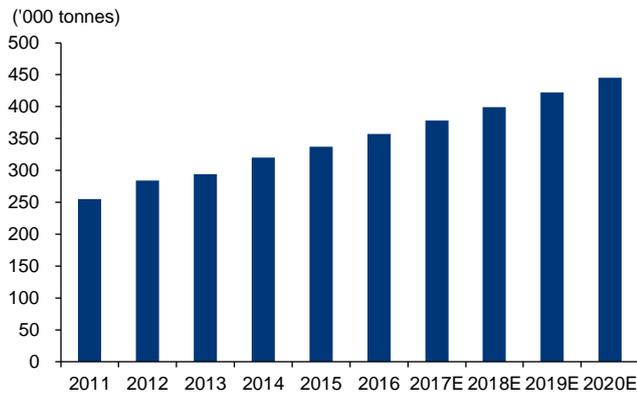
Source: Company data, Huatai HK Research

ONT demand to drive mononitrotoluene growth

Mononitrotoluene comes into three isomers, including para-nitrotoluene (PNT), ortho-nitrotoluene (ONT) and meta-nitrotoluene (MNT), which are produced simultaneously during the nitration of toluene and account for 35/60/5% of the final products. DSD acid is a downstream product of PNT, and ONT is used in the manufacture of OT, which is the raw material for the production of agricultural chemicals, especially herbicides.

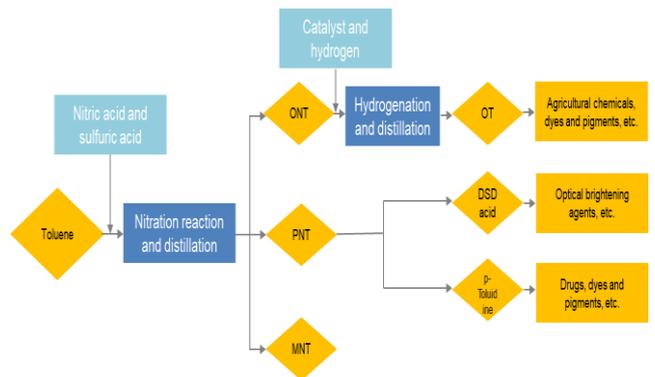
We see steady growth in mononitrotoluene demand, which we expect to reach 445,200 tonnes in 2020E (2016: 357,400 tonnes). In our view, production volume of ONT is expected to reach 240,900 tonnes in 2019E (2016: 205,500 tonnes), driven by rapid development of the pharmaceutical industries in China and India and steady demand for herbicides, for which demand for ONT reached 104,700 tonnes in 2016.

Fig.6. Mononitrotoluene: global consumption volume



Source: Company data, Huatai HK Research estimates

Fig.7. Mononitrotoluene: production process



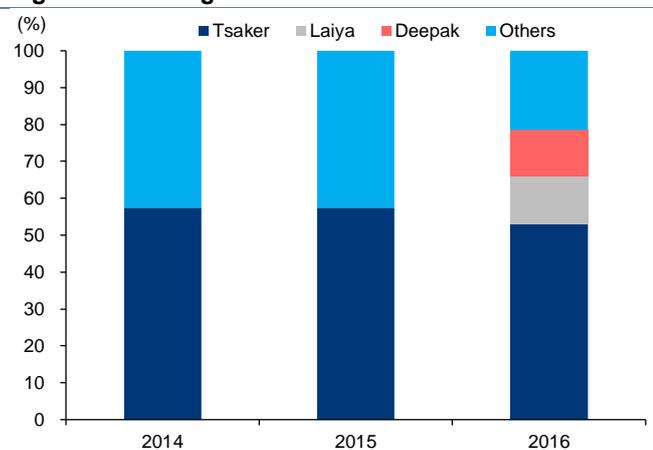
Source: Company data, Huatai HK Research

Leader in dye intermediates industry

Tsaker Chemical is the world's leading producer of fine chemicals that work as dye and pigment and agricultural chemicals intermediates. In its dye intermediates segment, the company is the world's leading producer of DSD acid, accounting for c. 53.0% of the world's market in 2016. In the pigment intermediates segment, Tsaker is experienced in producing DMSS and DMAS, accounting for nearly 42.7% and 19.8% of the global market, respectively. In the agricultural intermediates segment, as one of the world's major producers, the company holds a global market share of 18.8%.

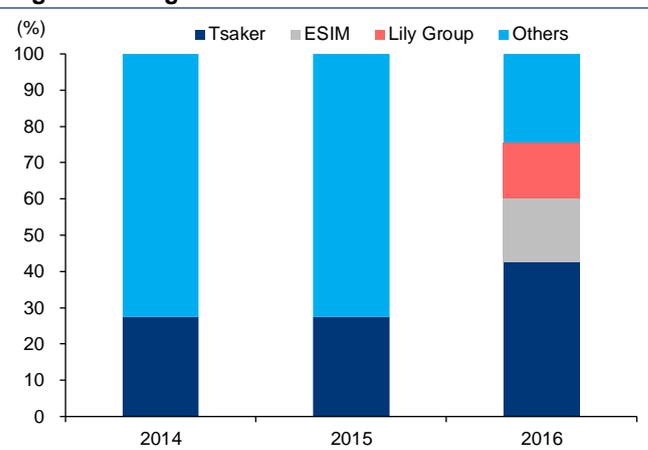
We see a high degree of consolidation in the markets in the DSD acid and DMSS industries. There are no more than 20 DSD acid and 10 DMSS manufacturers in the world, and the leading manufacturers have established their dominant positions. As one of the major producers of DSD and DMSS, the company has maintained its leading position in DSD acid and DMSS production for more than three years.

Fig.8. DSD acid: global market share



Source: Company data, Huatai HK Research

Fig.9. DMSS: global market share

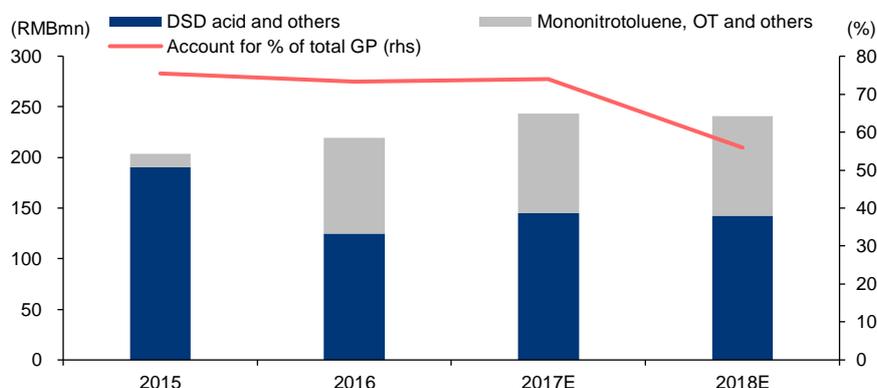


Source: Company data, Huatai HK Research

Dye and agricultural intermediates businesses offer income protection

We expect Tsaker's dye (DSD acid) and agricultural intermediates (mononitrotoluene, OT and others) businesses to offer income protection, as they have been providing stable earnings contribution since 2015. In 2016, 83% of Tsaker's revenue and 73% of its gross profit were generated by the two businesses. Given the stable global demand for dye and agricultural intermediates, we expect these businesses to yield a 2016-2018E earnings CAGR of 9%.

Fig.10. Dye and agricultural intermediates: gross profit



Source: Company data, Huatai HK Research estimates

Long-standing and diversified customer base

Tsaker has established stable relationships with internationally-renowned chemical giants, including overseas customers such as a global color and specialty chemicals company, a German chemicals producer and a Japanese chemical company, as well as domestic customers such as the procurement branch of Transfar Group Company Limited. These major customers has been doing business with Tsaker for an average of more than 10 years, which we consider a critical strength as the company faces fierce market competition. We also expect the diversified customer base to help Tsaker defend against revenue volatility, with its top five major customers accounting for 28.3% of revenue in 1H17 (2016: 28.9%).

We expect Tsaker's unique formulas and consistent products to help it enhance its competitiveness. As the consistency of intermediates directly affects the quality of end products, end users tend to avoid frequent replacement of intermediate supplies. To ensure the quality and consistency of its products, the company began self-producing PNT, a core raw material for producing DSD acid. Tsaker also owns assembly lines, which it keeps in constant operation, for products for which the core formulas are developed by the chairman of the board and are tightly-guarded secrets.

Green treatment consultancy to be a long-term driver

We are keeping an eye on the new green treatment consultancy business, which Tsaker has launched with a third party, and which focuses on consultation on waste treatment, including air, waste water and solid waste. The consultancy business is involved in small-scale up-front investment and promises higher gross profit margin than other segments, which could drive profit growth.

Fig.11. Green treatment consultancy business



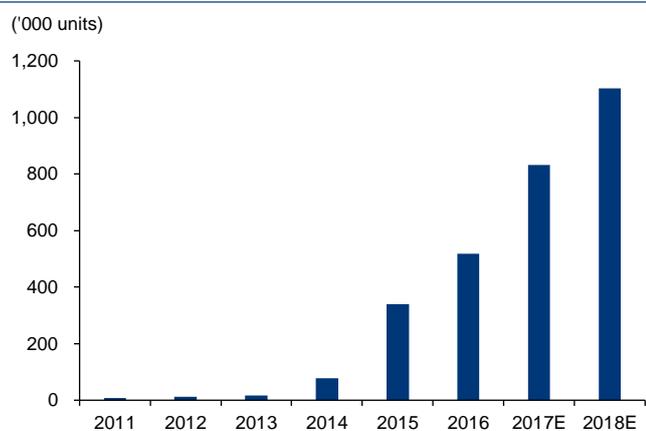
Source: Company data, Huatai HK Research

Horizontal expansion into lithium battery market

China is set to see electric vehicle (EV) purchases accelerate in 2017E-2020E, which will boost demand for lithium battery cathode materials. For 2017E, China's EV production volume is set to see growth of 40.4% yoy (2016: 51.8%), and we expect this trend to persist. In June, the MIIT published updated fuel economy standards with a mandate for EVs, which will significantly drive China's EV sales, especially after the phase-out of China's national purchase subsidy for NEVs in 2021.

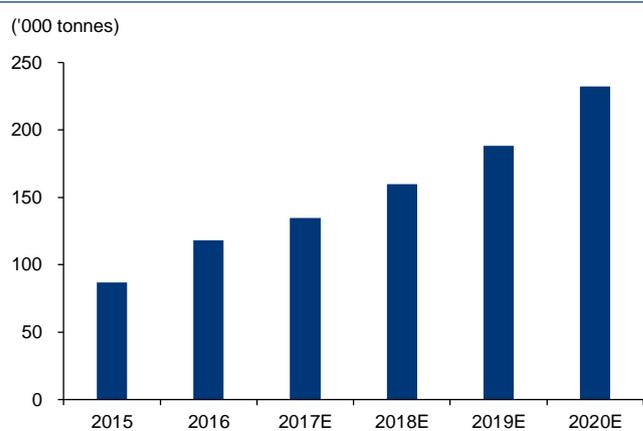
Driven by the rapid growth of EVs, we expect China's production volume of cathode materials to reach 232,000 tonnes in 2020E, representing a 2017E-2020E CAGR of 18%. As an indispensable part of lithium-ion batteries, cathode materials account for c. 40% of a battery's total cost, making it one of the most attractive markets in the upstream battery value chain.

Fig.12. China EV: production volume



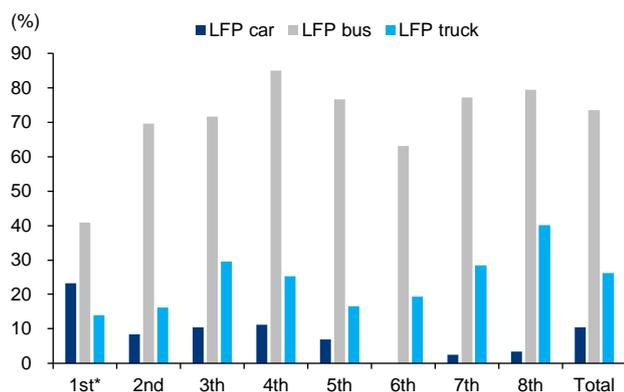
Source: Wind, Huatai HK Research estimates

Fig.13. China: demand for cathode materials



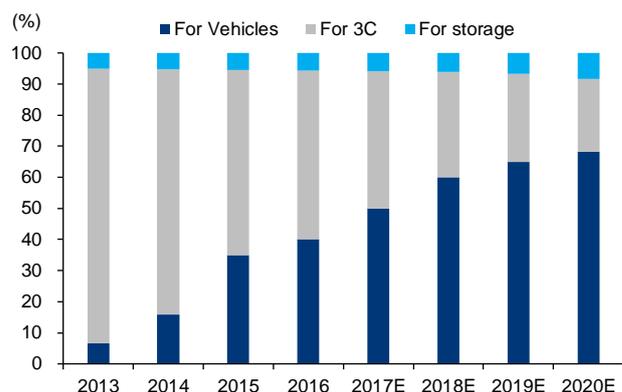
Source: Huatai HK Research estimates

We expect the market for lithium iron phosphate (LFP) to continue to grow, and to achieve a 2017E-2018E CAGR of 17%. While lithium nickel manganese cobalt (NMC) gradually gains market share due to its greater energy density, two factors support our positive view on LFP demand: 1) LFP will continue to dominate the electric bus market for its safety and price edge. According to the China 2017 directory of recommended EV models, 73% of buses on the list are equipped with batteries featuring LFP cathode materials; and 2) LFP is a favorable choice for battery energy storage systems, which will be a promising market in the future.

Fig.14. 2017 directory of recommended LFP EV models

Source: MIIT, Huatai HK Research

Note: *the 1st directory of recommended EV models issued in 2017

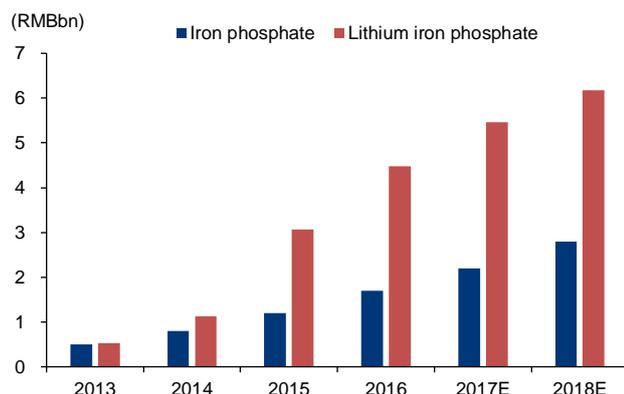
Fig.15. Lithium-ion battery: downstream structure

Source: GGII, Huatai HK Research estimates

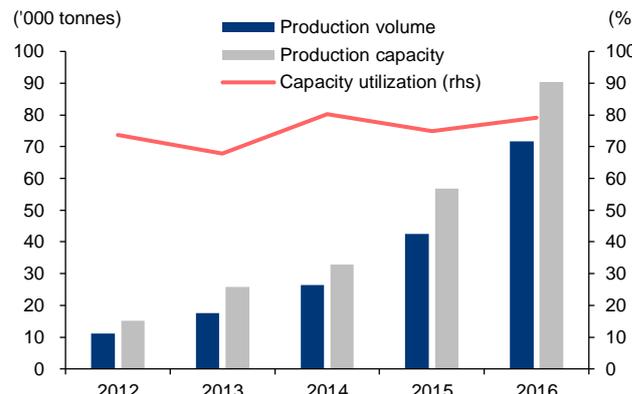
We expect the battery materials segment's 2018E revenue to reach RMB320mn, and there is room for gross margin to improve from 27.4% in 1H17 to 30% in 2018E on mass production ramp-up. We also expect the utilization rate of the new iron phosphate production line to exceed 90%, higher than the industry average of 80%.

Our positive view on demand for Tsaker's iron phosphate products rests on: 1) Tsaker is negotiating with several potential buyers for its iron phosphate products; and 2) as its samples have passed first-round testing for a potential domestic customer, we are optimistic that it will become part of the customer's supply chain, which is a testament to the quality of its iron phosphate products.

Based on our analysis of the iron phosphate market, we think the company does need not to pay special attention to risk involving the industry chain. Downstream, we can see steady growth in demand for lithium iron phosphate (LFP) for the next 2-3 years, which will drive growth in demand for iron phosphate. Upstream, the company faces fewer upstream risks and has an adequate supply of raw materials such as ferrous phosphate and phosphoric acid.

Fig.16. Iron phosphate: market size

Source: GGII, Huatai HK Research estimates

Fig.17. Iron phosphate: production volume and capacity

Source: CIESC, Huatai HK Research estimates

To expand its current lineup of NMP products, the company launched a project in October to produce carbon nanotube paste, a new conductor used in lithium batteries, which has an initial annual capacity of 2,000 tonnes. We see the new iron phosphate production line creating synergies with NMP vertical integration, which we expect to bring 2018E revenue of c. RMB90mn.

Fig.18. Carbon nanotube paste



Source: Huatai HK Research

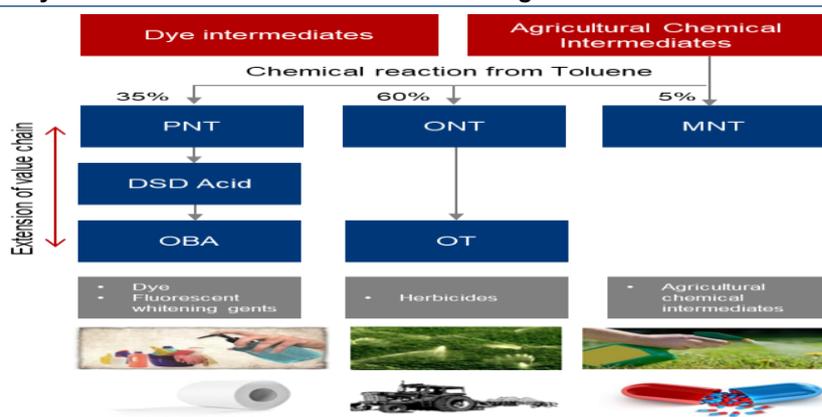
Vertical integration in value chain to be a new driver

We estimate Tsaker's 2017E/2018E dye intermediates' earnings growth at 18/11% (2016: 34% drop). Construction of a new production line with a capacity of 15,000 tonnes for DSD acid and other dye intermediates is scheduled for completion in 2H18. It will create synergies with OBA facilities leased at the end of 2016, in our view. We believe this vertical integration will not only expand production to include OBA, but will also improve the capacity utilization of DSD acid.

We are positive on the company's vertical integration strategy of expanding its production chain both upstream and downstream. Through upstream expansion, the company strengthens the quality control of raw or auxiliary materials and stabilizes production cost, we believe. In 2015, Tsaker expanded its business to mononitrotoluene (an upstream raw material for DSD acid), and in 2016, it enlarged its capacity by acquiring Tsaker Donggao. The agricultural intermediates segment contributed gross profit of RMB13mn and RMB94mn to Tsaker in 2015 and 2016, respectively.

As for moving down the value chain, the company has not only expanded its product structure to include OBA, but has also improved the capacity utilization of DSD acid, which is the core raw material for OBA production. At the end of 2016, the company leased assets and facilities in relation to the production of OBA for textile printing, dyeing and detergent, which began operation in 1H17 after refurbishment. We believe this production line will help Tsaker become familiar with the manufacturing process, to broaden its customer base for OBA, and to prepare for mass production ramp-up.

Fig.19. Dye intermediates value chain: vertical integration



Source: Company data, Wind, Huatai HK Research

Fig.20. Tsaker: production bases and main products

Production plant	Base	Main products	Situation
South Dongguang	Hebei	Dye intermediates Iron phosphate	Self-built 15,000 tonnes capacity completed
North Dongguang	Hebei	Pigment intermediates	Self-built
Donggao	Shandong	Agricultural chemical intermediates	Complete acquisition in July 2016
Dongying	Shandong	Dye intermediates New plant for DSD acid and other intermediates	Self-built 15,000 tonnes capacity built

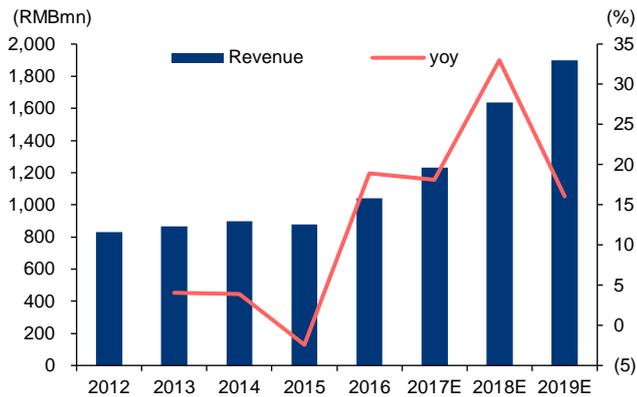
Source: Company data, Huatai HK Research

Earnings forecast

We forecast Tsaker's earning to grow 18/33/15% in 2017E/2018E/2019E, driven by rising iron phosphate sales and expanded dye intermediates production capacity. We also expect 2017E/2018E/2019E GPM to reach 28/28.9/29.7%, given that the battery material segment's GPM is higher than that of other segments (ex-Pigments).

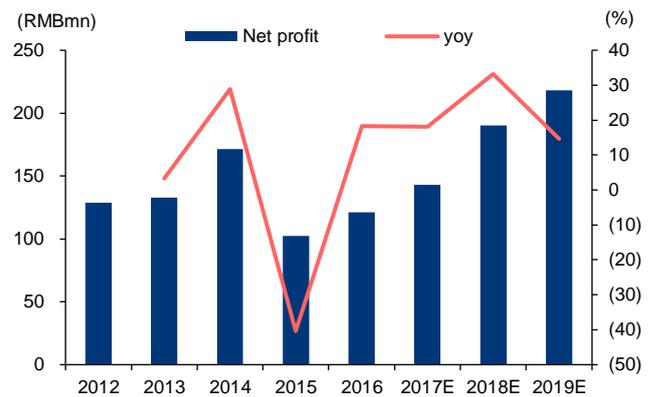
As for balance sheet strength, we note that Tsaker's operating cash flow has increased from RMB39mn in 2015 to RMB171mn in 2016. We expect the overall operating cash flow to rise further, to RMB252mn in 2017E, driven by rapid growth in revenue and increasing GPM.

Fig.21. Tsaker: revenue growth



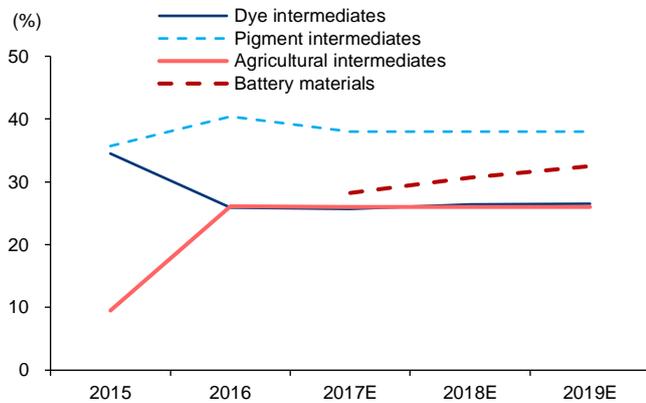
Source: Bloomberg, Huatai HK Research estimates

Fig.22. Tsaker: net profit growth



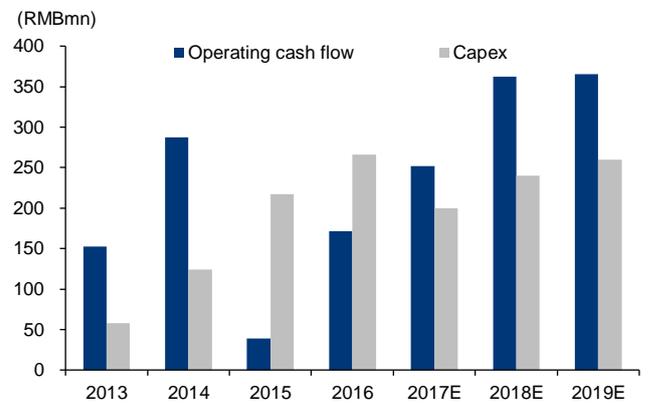
Source: Bloomberg, Huatai HK Research estimates

Fig.23. Tsaker: gross margin



Source: Bloomberg, Huatai HK Research estimates

Fig.24. Tsaker: operating cash flow and capex



Source: Bloomberg, Huatai HK Research estimates

Valuation

Based on a WACC of 8.2%, a terminal growth rate of 2% and exchange rate of 0.85CNY/HKD, we initiate coverage of Tsaker at BUY with a DCF-based target price of HKD4.70. Our TP implies 34.4x 2017E PE and 25.8x 2018E PE.

Fig.25. DCF model

(RMBmn)	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Stage	1	2	3	4	5	6	7	8	9	10
EBIT	215	285	326	359	394	434	477	525	577	635
Taxes	(40)	(57)	(65)	(69)	(72)	(76)	(79)	(83)	(88)	(92)
D&A	66	74	81	85	89	94	98	103	108	114
Chg in operating working cap	15	67	31	32	34	36	38	39	41	43
Capex	(200)	(240)	(260)	(271)	(283)	(295)	(308)	(321)	(335)	(349)
Free cash flow	56	129	112	136	163	192	226	263	305	351
PV of unlevered FCF	1,254									
Terminal growth rate (%)	2									
PV of terminal value	2,843									
Total NPV	4,097									
Net debt	66									
Minority interest	-									
Equity value	4,164									
No. shares	1,044									
Value per share (RMB)	3.99									
Value per share (HKD)	4.70									

Source: Huatai HK Research estimates

Fig.26. WACC assumption

(%)			
Risk free rate	3.20		
Equity risk premium	4.63	Tax rate	18
Country premium	9.50		
Beta (x)	0.81		
Cost of equity	10.93	Cost of debt	5.00
Ratio			
Equity	60	Debt	40
WACC	8.20		

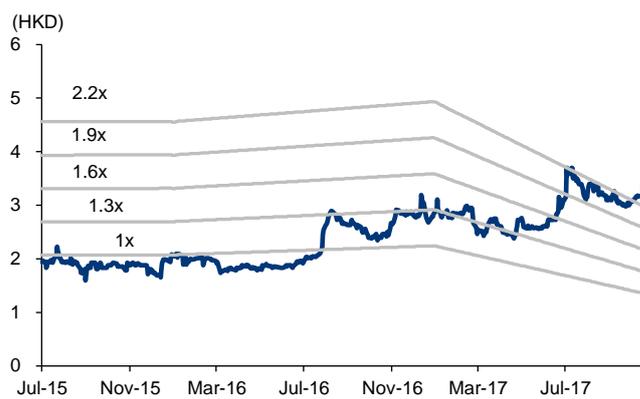
Source: Huatai HK Research estimates

Fig.27. Tsaker: 12-month forward PE bands



Source: Bloomberg, Huatai HK Research

Fig.28. Tsaker: 12-month forward PB bands



Source: Bloomberg, Huatai HK Research

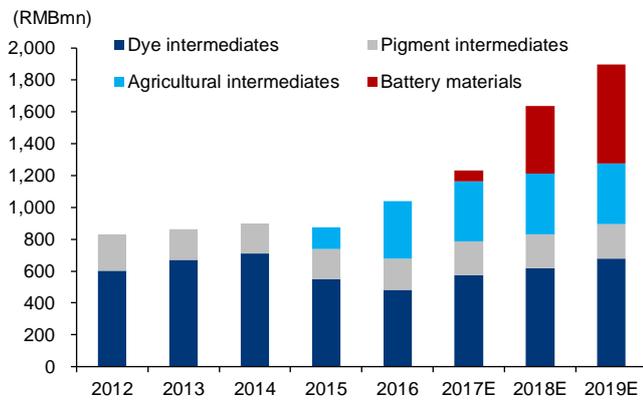
Company profile

Tsaker is leading producer of dye, pigment and agricultural chemicals intermediates. It now also produces battery materials after the completion of its iron phosphate and carbon nanotube conductor paste product production line at end-October. Tsaker's business can be divided into four major segments: 1) dye intermediates; 2) pigment intermediates; 3) agricultural intermediates; and 4) battery materials.

Tsaker's main businesses

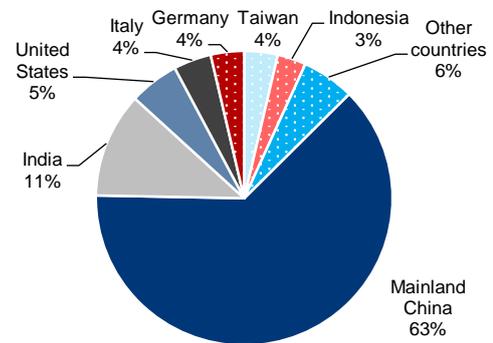
Dye intermediates was the largest revenue contributor in 2016 (46%), followed by agricultural (35%) and pigment (19%) intermediates. In 1H17, 63% of Tsaker's revenue was generated in China, with the remainder from India (11%), the Americas (5%), Italy/Germany/Taiwan/Indonesia (15%) and others (6%).

Fig.29. Tsaker: revenue breakdown by segment



Source: Bloomberg, Huatai HK Research estimates

Fig.30. Tsaker: revenue breakdown by region (1H17)

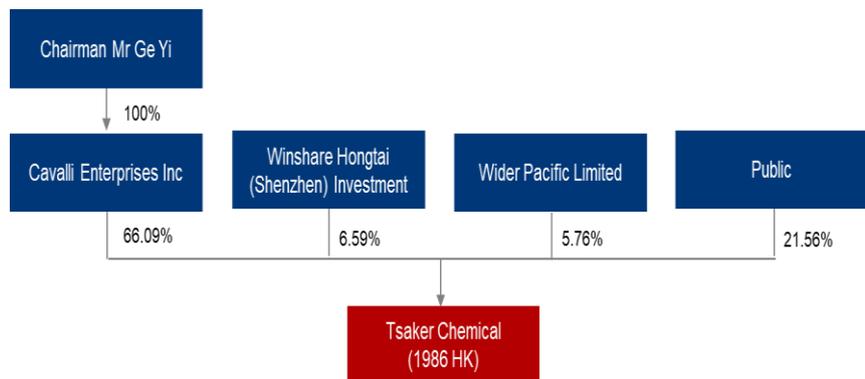


Source: Bloomberg, Huatai HK Research

Stable holding structure

Tsaker Chemical was established in 1997 (originally named Huage Dye), and was listed on the Main Board of the Stock Exchange of Hong Kong in 2015. Mr Ge Yi, CEO and the son of founder Mr Ge Jianhua, currently holds a 66.09% equity interest in Tsaker.

Fig.31. Tsaker: holding structure



Source: Company data, Huatai HK Research

Fig.32. Tsaker: company history

Time	Key Milestones
1997	Huage Dye was established to produce and sell DSD acid
2001	Huage Fine Chemical successfully developed DMS and DMSS
2005	Mr.Ge Jianhua and Huage Holding became beneficially interested in Huage Dye
2008	Tsaker Cangzhou successfully developed DMAS
2013	Tsaker Dongguang was established to produce and sell chemical products Tsaker Beijing was established to focus on technology research
2015	Listed on Hong Kong Stock Exchange at HKD2 per share
2016	Acquired agricultural intermediates production plant in Shandong
2017	Built battery materials production line

Source: Company data, Huatai HK Research

Full financials

Income statement

YE 31 Dec (RMBmn)	FY15	FY16	FY17E	FY18E	FY19E
Revenue	876	1,041	1,230	1,635	1,898
Cost of goods sold	(606)	(748)	(885)	(1,162)	(1,335)
Gross profit	270	294	344	473	563
Selling and distrib cost	(34)	(39)	(46)	(61)	(71)
Admin expenses	(94)	(91)	(102)	(151)	(195)
Others oper inc/exp	17	16	18	25	28
Operating profit	159	180	215	285	326
Financial cost-net	(7)	(10)	(14)	(14)	(14)
Share of P&L of assoc	(4)	(15)	(18)	(24)	(28)
Others inc/exp	0	0	0	0	0
Profit before tax	148	154	183	247	284
Tax expense	(45)	(34)	(40)	(57)	(65)
Minority interest/other	0	0	0	0	0
Net profit	102	121	143	190	219
Depr and amortization	34	56	66	74	81
EBITDA	136	177	209	264	300
EPS (RMB basic)	0.204	0.241	0.137	0.182	0.210

Cash flow statement

YE 31 Dec (RMBmn)	FY15	FY16	FY17E	FY18E	FY19E
EBITDA	136	177	209	264	300
Financing costs	7	10	14	14	14
Chg in working capital	(59)	(34)	15	67	31
Tax	(45)	(34)	(40)	(57)	(65)
Other	1	52	55	74	86
Operating cash flow	39	171	252	362	365
Capital expenditure	(217)	(266)	(200)	(240)	(260)
Other investing activ's	3	18	0	0	0
Investing cash flow	(214)	(248)	(200)	(240)	(260)
Increase in debt	(64)	393	(24)	(0)	1
Increase in equity	379	0	1	0	0
Dividends paid	0	(31)	(43)	(57)	(66)
Other financing activ's	(48)	(92)	(32)	(38)	(42)
Financing cash flow	267	270	(98)	(95)	(106)
Change in cash	92	193	(46)	27	(1)
Cash at start of year	96	493	469	421	444
Effect of forex rate chg	5	9	0	0	0
Year-end cash	193	696	423	448	443

Balance sheet

YE 31 Dec (RMBmn)	FY15	FY16	FY17E	FY18E	FY19E
Inventories	78	82	92	111	124
Acc & bill receivable	278	375	404	470	530
Cash & cash equiv	493	469	421	444	440
Other current assets	14	0	0	0	0
Total current assets	864	926	917	1,026	1,094
Fixed assets	569	967	1,101	1,267	1,447
Intangible assets	0	0	0	0	0
Other long-term assets	24	46	52	59	68
Total long-term asset:	594	1,013	1,153	1,327	1,514
Total assets	1,457	1,940	2,070	2,353	2,609
Accounts payable	289	456	509	653	750
Short-term loans	317	242	230	218	207
Other liabilities	0	20	18	23	27
Total current liabs	607	717	757	894	984
Long-term debt	0	240	228	239	251
Other long-term liabs	8	22	22	23	25
Total long-term liabs	8	262	250	263	276
Equity	31	31	32	32	32
Reserves/other items	811	930	1,031	1,165	1,318
Shareholder equity	842	961	1,063	1,196	1,349
Minority interest	0	0	0	0	0
Total equity	842	961	1,063	1,196	1,349
BVPS (RMB basic)	1.68	1.92	1.02	1.15	1.29

Valuation

YE 31 Dec (x)	FY15	FY16	FY17E	FY18E	FY19E
PE	15.9	13.5	23.8	17.8	15.5
PB	1.9	1.7	3.2	2.8	2.5
EV EBITDA	23.7	19.2	16.4	12.9	11.4
Dividend yield (%)	1.9	2.2	1.3	1.7	1.9
FCF yield (%)	(10.9)	(5.8)	1.5	3.6	3.1

Performance

YE 31 Dec	FY15	FY16	FY17E	FY18E	FY19E
Growth (%)					
Revenue	-	18.9	18.1	33.0	16.1
Gross profit	-	8.8	17.3	37.4	19.0
Operating profit	-	13.1	19.5	32.5	14.3
Net profit	-	18.3	18.0	33.4	14.9
EPS	-	18.3	(43.4)	33.4	14.9
Profitability ratios (%)					
Gross profit	30.8	28.2	28.0	28.9	29.7
EBITDA	15.5	17.0	17.0	16.1	15.8
Net profit	11.7	11.6	11.6	11.6	11.5
ROE	-	13.4	14.1	16.9	17.2
ROA	-	7.1	7.1	8.6	8.8
Solvency (x)					
Net gearing ratio (%)	(20.9)	1.3	3.5	1.1	1.4
Current ratio	1.4	1.3	1.2	1.1	1.1
Quick ratio	1.3	1.2	1.1	1.0	1.0
Operating capability (days)					
Total assets t/o ratio (x)	0.6	0.5	0.6	0.7	0.7
Receivable	114	130	118	104	101
Payable	172	219	207	202	202
Inventory	46	39	37	35	34
Cash conversion cycle	(11)	(50)	(51)	(64)	(68)

Source: Company data, Huatai HK Research estimates

Analyst Certification

The views expressed in this report accurately reflect the personal views of the analyst(s) about the subject securities or issuers; and no part of the compensation of the analyst(s) was, is, or will be, directly or indirectly, related to the inclusion of specific recommendations or views in this report. Wenrui YU; Hanzhi DING

Important Disclosures

Huatai Financial Holdings (Hong Kong) Limited is regulated by the Securities and Futures Commission in Hong Kong and is the wholly owned subsidiary of HTSC (A joint stock company incorporated in the People's Republic of China with limited liability under the Chinese corporate name "华泰证券股份有限公司" and carrying on business in Hong Kong as HTSC).

Huatai Financial Holdings (Hong Kong) Limited and/or its affiliated companies has acted, currently is acting and/or may act as market maker in the bond securities of the companies mentioned or recommended in the report.

Guide to Huatai Financial Holdings (Hong Kong) Limited Investment Rating

Huatai Financial Holdings (Hong Kong) Limited investment ratings are according to analysts' expectations of stock performance within six months vs relevant market benchmark, as indicated below.

Market Benchmark for China is Hang Sang Index (HSI)

Stock Rating Definitions

BUY: The analyst expects the stock to outperform more than 15% vs the relevant market benchmark.

HOLD: The analyst expects the stock to perform within -10%~15% vs the relevant market benchmark.

SELL: The analyst expects the stock to underperform below -10% vs the relevant market benchmark.

Rating suspended: The rating, target price and estimates have been suspended temporarily to comply with applicable regulations and/or firm policies.

Not rated: Stocks are not in regular research coverage. Investors should not expect continuing or additional information from Huatai relating to such securities and/or companies.

Industry Rating Definitions

OVERWEIGHT: The analyst expects the performance of his or her industry coverage universe to be favorable vs the relevant market benchmark.

NEUTRAL: The analyst expects the performance of his or her industry coverage universe to be in line with the relevant market benchmark.

UNDERWEIGHT: The analyst expects the performance of his or her industry coverage universe to be unfavorable vs the relevant market benchmark.

Additional Information is available upon request.

General Disclosures**DISTRIBUTION TO INSTITUTIONAL AND PROFESSIONAL INVESTOR (AS DEFINED BY SECURITIES AND FUTURES ORDINANCE (CHAPTER 571)) CUSTOMERS**

This document has been furnished to you solely for your information and may not be reproduced or redistributed to any other person.

The information herein is prepared and published by Huatai Financial Holdings (Hong Kong) Limited and is strictly confidential to the recipient. This publication is intended for Huatai Financial Holdings (Hong Kong) Limited, its clients, Huatai Financial Holdings (Hong Kong) Limited's subsidiaries, branches of Huatai Financial Holdings (Hong Kong) Limited, HTSC and its subsidiaries, to whom it has been delivered and may not be reproduced, transmitted or communicated, in whole or in part, to any other person without the prior written consent of Huatai Financial Holdings (Hong Kong) Limited. To the extent that onward distribution is permitted by Huatai Financial Holdings (Hong Kong) Limited, the recipient shall obtain independent local advice to comply with applicable laws and regulations before onward distribution.

Huatai Financial Holdings (Hong Kong) Limited is not a U.S. Financial Industry Regulatory Authority ("FINRA") registered member, and Huatai Financial Holdings (Hong Kong) Limited research analysts are not registered/qualified as research analysts with FINRA.

This publication is (i) for your private information, and we are not soliciting any action based upon it; (ii) not to be construed as an offer to sell or a solicitation of an offer to buy any security in any jurisdiction where such offer or solicitation would be illegal; (iii) based upon information from sources that we consider reliable, but has not been independently verified by Huatai Financial Holdings (Hong Kong) Limited. This publication provides general information only. It is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of any specific person. This publication may contain information obtained from third parties, including ratings from credit ratings agencies and the distribution of third party content in any form is prohibited except with the prior written permission of the related third party. Third party content providers do not guarantee the accuracy, completeness, timeliness or availability of any information, including ratings, and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such content. Third party content providers give no express or implied warranties, including, but not limited to, any warranties of merchantability of fitness for a particular purpose or use. Third party content providers shall not be liable for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including lost income or profits and opportunity costs) in connection with any use of their content, including ratings. Credit ratings are statements of opinions and are not statements of fact or recommendations to purchase, hold or sell securities. They do not address the suitability of securities or the suitability of securities for investment purposes, and should not be relied on as investment advice.

Figures presented herein may refer to past performance or simulations based on past performance which are not reliable indicators of future performance. Where the information contains an indication of future performance, such forecasts may not be a reliable indicator of future performance. Moreover, simulations are based on models and simplifying assumptions which may oversimplify and not reflect the future distribution of returns.

The facts described in this publication, as well as the opinions, estimates, forecasts and projections expressed in it are as of the date hereof and are subject to change without notice. No representation or warranty, express or implied, is made as to and no reliance should be placed on information contained in this publication. Huatai Financial Holdings (Hong Kong) Limited accepts no liability whatsoever for any direct, indirect or consequential losses or damages arising from or in connection with the use or reliance of this publication or its contents. This publication is not intended to provide, and should not be relied upon as professional advice (including without limitation, accounting, legal or tax advice or investment recommendations) and is not to be taken in substitution for your exercise of judgment. Huatai Financial Holdings (Hong Kong) Limited does not act as an adviser and assumes no fiduciary responsibility or liability for any consequences, financial or otherwise. Investors shall consider whether any information or recommendation in this publication is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice.

Investors should consider this publication as only a single factor in making their investment decision and, as such, the report should not be viewed as identifying or suggesting all risks, direct or indirect, that may be associated with any investment decision. Huatai Financial Holdings (Hong Kong) Limited produces a number of different types of research product including, among others, fundamental analysis, quantitative analysis and short term trading ideas; recommendations contained in one type of research product differ from recommendations contained in other types of research product, whether as a result of differing time horizons, methodologies or otherwise.

Huatai Financial Holdings (Hong Kong) Limited, and/or its officers, directors and employees, may, to the extent permitted by applicable law and/or regulation, deal as principal, agent, or otherwise, or have long or short positions in, or buy or sell, the securities, options or other derivative instruments based thereon, of issuers or securities mentioned herein. Huatai Financial Holdings (Hong Kong) Limited may, to the extent permitted by law, participate or invest in financing transactions with the issuer(s) of the securities referred to in this publication, perform services for or solicit business from such issuers. Huatai Financial Holdings (Hong Kong) Limited may have served as manager or co-manager of a public offering of securities for, or currently may make a primary market in issues of, any or all of the entities mentioned in this report or may be providing, or have provided within the previous 12 months, other investment banking services, significant advice or investment services in relation to the investment concerned or a related investment. Huatai Financial Holdings (Hong Kong) Limited may also act as market maker or liquidity provider in the financial instruments of the issuers.

Huatai Financial Holdings (Hong Kong) Limited manages conflicts with respect to the production of research through its compliance policies and procedures (including, but not limited to, Conflicts of Interest, Chinese Wall and Confidentiality policies) as well as through the maintenance of Chinese walls and employee training.

© 2017 Huatai Financial Holdings (Hong Kong) Ltd. All rights reserved.

Legal Entity Disclosures

China: HTSC is approved by the China Securities Regulatory Commission under a qualification to carry out "securities investment consulting" business. Business license no: Z23032000.

Hong Kong: Huatai Financial Holdings (Hong Kong) Limited holds a license issued by the Securities and Futures Commission in Hong Kong to carry out "advising on securities" business. License no: AOK809.

Unit 5808-12, 58/F, The Center, 99 Queens Road Central, Central, HONG KONG

Tel: +852 3658 6000

Fax: +852 2169 0770

Email: research@htsc.com

<http://www.htsc.com.hk/>
