



Asia  
China  
Utilities  
Utilities

## Industry China Environmental

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## Industry Update

Thomas Zhu, CFA    Michael Tong, CFA  
Research Analyst    Research Analyst  
(+852 ) 2203 6235    (+852 ) 2203 6167  
thomas.zhu@db.com    michael.tong@db.com

# Turning PPP into cash

### Turning PPP into cash

We are positive on China's environmental sector. The valuations of most stocks are below/close to their average minus one standard deviation since 2013 in terms of both absolute P/E and relative P/E to MSCI China. With decent sector earnings growth (16% CAGR ex-GDI in 2017-19E) and China's policies favoring PPP and environmental, we expect earnings growth to drive stock price performance. The sector's preferred Buys: BEW (top pick), CEI and SIIC.

### PPP rollouts continue at a fast pace

PPP rollouts in China continued at a fast pace over the past few months. The average monthly addition to the MoF's PPP database was RMB367bn in 1Q17 and environmental represented 16% of overall PPP investments. We expect China's recent policies on encouraging insurance companies providing PPP funding and also encouraging asset-backed securities to benefit the sector.

### Earnings forecast and target price updates

We raise earnings by ~5% for BEW in 2017-18E and our target price by 11% to HKD7.1 on higher earnings from PPP projects. We lower earnings by 7-9% for GDI on lower profitability assumptions from the power and water segments. Details of other minor changes can be found in Figure 4.

### Top pick: BEW – strong growth in PPP with cash earnings upside risk

We expect strong growth (~20%) in PPP construction revenue in 2018E, even after the ~150% growth in 2017E on strong project wins and the successful launch of an investment fund recently. We like it that BEW can collect cash on construction revenue and we see upside risk to our forecast as BEW's recent track record shows that the company might surprise in terms of market share. We expect the launch of more investment funds by BEW to serve as share price catalysts.

### Maintain Buy on CEI; improving earnings quality; insensitive to materials costs

CEI's earnings quality should improve with the earnings contribution from operations rising from 58% in 2016 to 68% in 2019E. Our detailed re-modeling shows that the earnings mix from China Everbright Greentech (1257 HK, Not rated) should be flat over the next few years (at ~20%) after the recent spin-off, and CEI's earnings are not sensitive to any biomass raw materials cost fluctuations.

### Maintain Buy on SIIC; HK dual listing might be finally happening

During the recent conference call after 1Q17 results in April, management mentioned that the company has entered a blackout for its potential HK dual listing, which is likely to happen in 3Q17, according to management guidance in February 2017. We expect SIIC's valuation gap versus peers (a ~45% discount to industry leaders in ex-construction earnings) to narrow if the Hong Kong dual listing takes place in 2017.

### Maintaining ratings on other names; valuation/risks

We maintain our ratings on CEW, CTEG, DJE and GDI (details in Figure 5). Our valuations are DCF-based. Key risks: fewer-than-expected project wins and lower-than-expected project returns.

### Key Changes

Company	Target Price	Rating
0257.HK	11.80 to 12.20(HKD)	-
0371.HK	6.40 to 7.10(HKD)	-
CEWL.SI	0.60 to 0.59(SGD)	-
1363.HK	1.77 to 1.63(HKD)	-
0270.HK	13.00 to 13.30(HKD)	-
0895.HK	15.20 to 16.00(HKD)	-

Source: Deutsche Bank

### Companies Featured

China Everbright Int'l (0257.HK),HKD9.96	Buy
	2016A 2017E 2018E
P/E (x)	14.09 13.64 11.94
EV/EBITDA (x)	11.4 10.7 10.3
Price/book (x)	2.3 2.0 1.8

Beijing Enterprises Water (0371.HK),HKD5.73	Buy
	2016A 2017E 2018E
P/E (x)	14.82 13.18 11.33
EV/EBITDA (x)	11.6 9.2 8.7
Price/book (x)	2.7 2.7 2.3

CT Environmental (1363.HK),HKD1.46	Hold
	2016A 2017E 2018E
P/E (x)	18.28 11.95 9.78
EV/EBITDA (x)	14.3 7.9 6.3
Price/book (x)	2.6 2.1 1.8

Guangdong Investment (0270.HK),HKD11.50	Buy
	2016A 2017E 2018E
P/E (x)	15.80 16.04 16.02
EV/EBITDA (x)	9.1 8.1 7.7
Price/book (x)	2.0 2.0 2.0

SIIC Environment (SIIC.SI),SGD0.52	Buy
	2016A 2017E 2018E
P/E (x)	20.24 11.41 10.48
EV/EBITDA (x)	23.7 12.4 11.9
Price/book (x)	1.1 0.9 0.8

Dongjiang Environmental (0895.HK),HKD12.18	Buy
	2016A 2017E 2018E
P/E (x)	23.71 19.86 16.95
EV/EBITDA (x)	17.7 17.9 15.9
Price/book (x)	3.1 2.5 2.2



# Executive summary

## Earnings growth to drive share price performance

We are positive on China's environmental sector due to attractive valuations, decent earnings growth and a favorable policy environment. We expect share prices to be driven by the earnings growth.

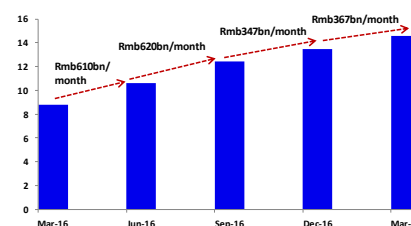
- The sector's valuation looks attractive, with the P/E's of most stocks below/close to their average minus one standard deviation, in terms of both absolute P/E and relative P/E to MSCI China.
- Sector recurring earnings should register a 16% CAGR in 2017-19E, and adjusted earnings (recurring earnings ex-construction) should record a 19% CAGR over the same period, driven by a capacity ramp-up as well as water environment PPP construction.
- Public Private Partnership (PPP) and environmental are the key policy agenda items of the Chinese government. The Ministry of Finance's PPP project database has continued to add new projects at the fast pace of ~RMB360bn per month.
- Top pick – Beijing Enterprises Water (BEW): We expect strong growth (~20%) in PPP construction revenue in 2018E, even after the ~150% growth in 2017E on strong project wins and successful launch of an investment fund recently. We like it that BEW can collect cash on construction revenue and we see upside risk to our forecast as BEW's recent track record shows that the company might surprise in terms of market share.
- Maintaining Buy on China Everbright Intl (CEI): CEI's earnings quality should improve with the earnings contribution from operations rising from 58% in 2016 to 68% in 2019E. Our detailed re-modeling shows that the earnings contribution from China Everbright Greentech (1257 HK, Not rated) should be flat at ~20% after the recent spin-off, and CEI's earnings are not sensitive to biomass raw materials cost fluctuations (0.1-0.2x sensitive in 2017-19E).
- Maintaining Buy on SIIC: During the recent conference call after 1Q17 results in April, management mentioned that the company has entered a blackout for its potential HK dual listing, which is likely to happen in 3Q17, according to management guidance in February 2017. We expect SIIC's valuation gap versus peers (a ~45% discount to industry leaders in ex-construction earnings) to narrow if the Hong Kong dual listing takes place in 2017.
- Other key changes – GDI: lowering earnings forecasts by 7-9% in 2017-18E on lower profitability of the power segment; CTEG: lowering our target price by 8% on lower long-term profitability assumptions.

Figure 1: P/E of BEW vs. MSCI China, 12-m forward



Source: Bloomberg Finance LP, Deutsche Bank

Figure 2: Investment in PPP project (Rmb tr)



Source: Deutsche Bank; Ministry of Finance

Figure 3: BEW's water environment renovation (PPP) construction

	RMB bn
Orders signed in 2016, not yet executed	13.5
Orders signed in 1Q17, Tongzhou	17.7
Orders signed in 1Q17, ex-Tongzhou	4.2
Orders to be signed in 2Q-4Q17, base on mgt guidance	8.1
<b>Total orders by end 2017</b>	<b>43.5</b>
Total construction revenue recognizable	19.6
Construction revenue to be recognized in 2017E, HKD bn	11.7
in RMB bn	10.7
Construction revenue to be recognized in 2018E	8.9
Monthly additional investment to MoF PPP database	370
% of environmental projects	16%
Total additional environmental projects in 2Q-4Q17	533
BEW's market share	5.0%
Additional project sign-ups in 2Q-4Q17 for BEW in addition to guidance	18.5
Total construction revenue recognizable	8.3
Construction revenue to be recognized in 2018E	3.1
Total additional environmental projects in 1Q18	178
BEW's market share	5%
Additional project sign-ups in 1Q18 for BEW	8.9
Total construction revenue recognizable	4.0
Construction revenue to be recognized in 2018E	0.5
<b>Total construction revenue in 2018E</b>	<b>12.5</b>
YoY growth	18%

Source: Deutsche Bank



Figure 4: Earnings estimates and target prices

Company	Reported earnings		% of change		Recurring earnings		% of change		Recurring EPS		% of change		Target price		% of change
	2017E	2018E	2017E	2018E	2017E	2018E	2017E	2018E	2017E	2018E	2017E	2018E New	Old		
BEWG	3,869	4,441	5%	4%	3,801	4,441	6%	3%	0.43	0.51	6%	3%	7.1	6.4	11%
SIIC	558	635	0%	0%	558	635	0%	0%	0.22	0.24	0%	0%	0.7	0.7	0%
GDI	4,593	4,701	-7%	-9%	4,593	4,701	-7%	-9%	0.72	0.72	-9%	-13%	13.3	13.0	2%
CEW	574	632	4%	-5%	574	632	4%	-5%	0.22	0.24	4%	-5%	0.6	0.6	-2%
CTEG	684	836	0%	0%	684	836	0%	0%	0.11	0.13	0%	0%	1.6	1.8	-8%
CEI	3,273	3,740	2%	4%	3,273	3,740	2%	4%	0.73	0.83	2%	4%	12.2	11.8	3%
DJE-H	484	571	5%	3%	484	571	5%	3%	0.54	0.64	3%	1%	16.0	15.2	5%

Note: Reported earnings and recurring earnings are in HK\$m, except for SIIC and CTEG, which are in RMB\$m; target prices are in HK\$, except for SIIC and CEW, which are in SGD  
Source: Deutsche Bank estimates

Figure 5: Valuation comps

							Avg. daily trade	EPS	Earnings												
				Price	% to	Mkt. Cap.		CAGR	CAGR	PE		P/BV		Net debt/Equity		RoE		Dividend yield			
Company	Ticker	Price	Rating	target	target	US\$m	US\$m	17-19E	17-19E	17E	18E	17E	18E	17E	18E	17E	18E	17E	18E		
On recurring earnings basis (concession accounting)																					
BEW	371 HK	HKD5.73	Buy	HKD7.10	24%	5,043	17.2	15%	15%	13.2	11.3	2.6	2.3	91%	93%	21.9	21.7	2.5	2.8		
CEI	257 HK	HKD9.99	Buy	HKD12.20	22%	5,754	14.2	12%	12%	13.7	12.0	2.0	1.9	82%	103%	16.5	16.1	2.6	2.9		
CEW	CEWL SP	SGD0.47	Buy	SGD0.59	26%	875	0.6	13%	13%	11.8	10.8	1.0	1.0	63%	82%	8.6	9.3	1.0	1.1		
CTEG	1363 HK	HKD1.44	Hold	HKD1.63	13%	1,169	2.6	17%	17%	11.8	9.6	2.1	1.8	41%	29%	19.4	20.1	1.6	1.9		
DJE-H	895 HK	HKD12.36	Buy	HKD16.00	29%	2,064	1.4	24%	25%	20.2	17.2	2.6	2.3	72%	80%	13.6	14.0	1.0	1.2		
GDI	270 HK	HKD11.48	Buy	HKD13.30	16%	9,164	15.4	2%	3%	16.0	16.0	2.0	2.0	-31%	-36%	13.3	12.5	4.1	4.4		
SIIC	SIIC SP	SGD0.52	Buy	SGD0.67	29%	838	1.0	10%	13%	11.4	10.5	0.9	0.8	81%	80%	8.2	8.1	1.3	1.4		
Average ex. GDI								15%	16%	13.7	11.9	1.9	1.7	72%	78%	14.7	14.9	1.7	1.9		
On adjusted earnings basis (ex-construction)																					
BEW	371 HK	HKD5.73						27%	28%	23.5	18.2					12.2	13.5				
CEI	257 HK	HKD9.99						22%	22%	24.2	20.2					9.3	9.5				
CEW	CEWL SP	SGD0.47						10%	10%	18.4	17.2					5.5	5.8				
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DJE-H	895 HK	HKD12.36						24%	25%	20.2	17.2					13.6	14.0				
GDI	270 HK	HKD11.48						2%	3%	16.0	16.0					13.3	12.5				
SIIC	SIIC SP	SGD0.52						11%	14%	14.0	12.6					7.5	7.6				
Average ex. GDI								19%	19%	19.2	16.3					11.3	11.7				

Source: Bloomberg Finance LP, Deutsche Bank estimates

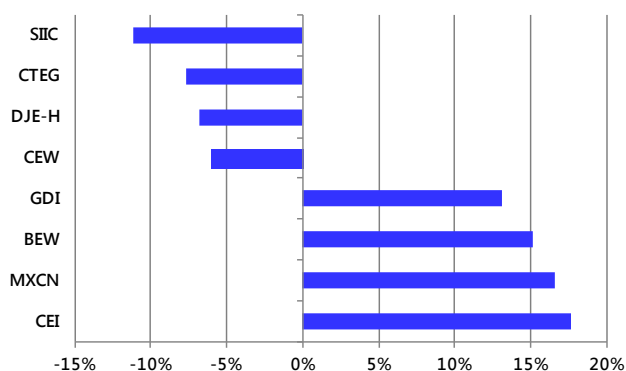


# Valuation and earnings

## Share price performance and valuation

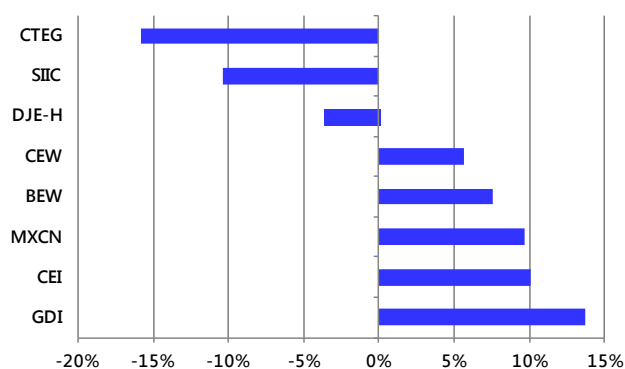
Stocks in China's environmental sector have had diverging performances recently. China Everbright International (257 HK, Buy), our top pick since our last sector report, has outperformed MSCI China on both a year-to-date and a three-month basis, driven by strong FY16 results and also the successful spin-off of China Everbright Greentech (1257 HK, Not rated). On the other hand, SIIC Environment (SIIC SP, Buy) and CT Environmental (1363 HK, Hold) have underperformed significantly, driven by a surprise rise in gearing (and share placement) and delays with project ramp-ups, respectively.

Figure 6: Share price returns, YTD



Source: Bloomberg Finance LP, Deutsche Bank

Figure 7: Share price returns, past three months

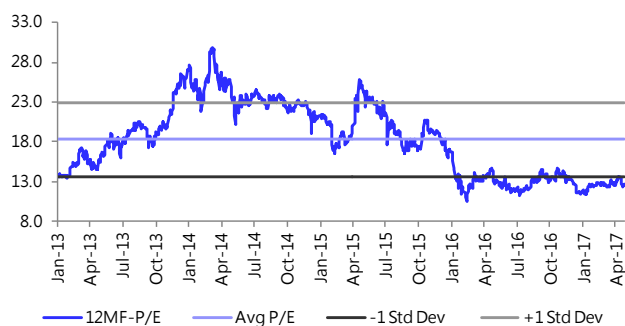


Source: Bloomberg Finance LP, Deutsche Bank

The sector's valuation looks attractive at current levels, compared with its own trading history and also with the index. The P/Es of most stocks are below/close to their average minus one standard deviation since 2013, in terms of both reported earnings and adjusted earnings (after taking out non-cash construction earnings). The relative P/E versus MSCI China has also fallen below the average minus one standard deviation since 2013. We think that the sector's current valuation offers decent safety margins to buy into most stocks.

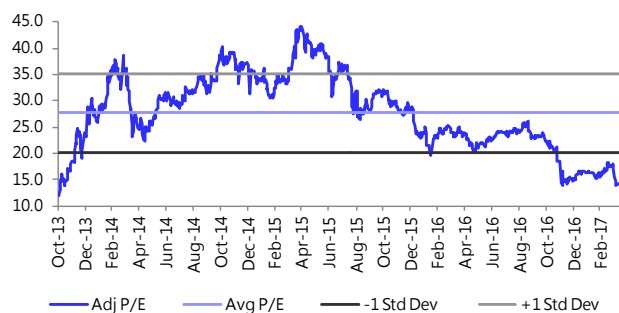


Figure 8: BEW – 12m forward P/E



Source: Bloomberg Finance LP, Deutsche Bank

Figure 9: BEW – 12m forward adjusted P/E



Source: Bloomberg Finance LP, Deutsche Bank

Figure 10: P/E of BEW vs. MSCI China, 12-m forward



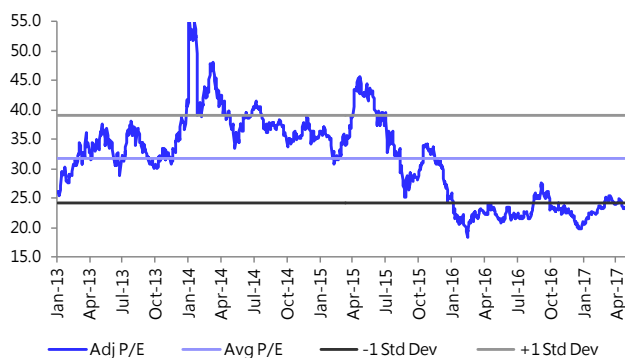
Source: Bloomberg Finance LP, Deutsche Bank

Figure 11: CEI – 12m forward P/E



Source: Bloomberg Finance LP, Deutsche Bank

Figure 12: CEI – 12m forward adjusted P/E



Source: Bloomberg Finance LP, Deutsche Bank

Figure 13: P/E of CEI vs. MSCI China, 12m forward



Source: Bloomberg Finance LP, Deutsche Bank



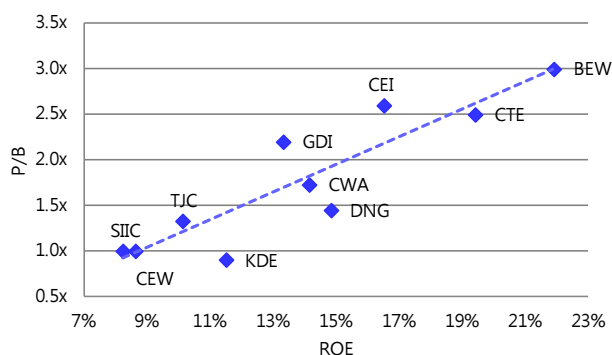
We are positive on the sector on what we consider to be cheap valuations, decent sector earnings growth potential (a 16% CAGR ex-GDI in 2017-19E) and China's favorable policies on PPP and environmental. We expect the stock prices of most shares in the sector to rise as the market gradually rolls over the valuation base to 2018E.

Figure 14: Valuation comps

Company	Ticker	Price	Rating	Price target	% to target	Mkt. Cap. US\$m	Avg. daily trade US\$m	EPS CAGR 17-19E	Earnings CAGR 17-19E	PE 17E	PE 18E	P/BV 17E	P/BV 18E	Net debt/Equity 17E	Net debt/Equity 18E	RoE 17E	RoE 18E	Dividend yield 17E	Dividend yield 18E
<b>On recurring earnings basis (concession accounting)</b>																			
BEW	371 HK	HKD5.73	Buy	HKD7.10	24%	5,043	17.2	15%	15%	13.2	11.3	2.6	2.3	91%	93%	21.9	21.7	2.5	2.8
CEI	257 HK	HKD9.99	Buy	HKD12.20	22%	5,754	14.2	12%	12%	13.7	12.0	2.0	1.9	82%	103%	16.5	16.1	2.6	2.9
CEW	CEWL.SP	SGD0.47	Buy	SGD0.59	26%	875	0.6	13%	13%	11.8	10.8	1.0	1.0	63%	82%	8.6	9.3	1.0	1.1
CTEG	1363 HK	HKD1.44	Hold	HKD1.63	13%	1,169	2.6	17%	17%	11.8	9.6	2.1	1.8	41%	29%	19.4	20.1	1.6	1.9
DJE-H	895 HK	HKD12.36	Buy	HKD16.00	29%	2,064	1.4	24%	25%	20.2	17.2	2.6	2.3	72%	80%	13.6	14.0	1.0	1.2
GDI	270 HK	HKD11.48	Buy	HKD13.30	16%	9,164	15.4	2%	3%	16.0	16.0	2.0	2.0	-31%	-36%	13.3	12.5	4.1	4.4
SIIC	SIIC.SP	SGD0.52	Buy	SGD0.67	29%	838	1.0	10%	13%	11.4	10.5	0.9	0.8	81%	80%	8.2	8.1	1.3	1.4
<b>Average ex. GDI</b>								<b>15%</b>	<b>16%</b>	<b>13.7</b>	<b>11.9</b>	<b>1.9</b>	<b>1.7</b>	<b>72%</b>	<b>78%</b>	<b>14.7</b>	<b>14.9</b>	<b>1.7</b>	<b>1.9</b>
<b>On adjusted earnings basis (ex-construction)</b>																			
BEW	371 HK	HKD5.73						27%	28%	23.5	18.2					12.2	13.5		
CEI	257 HK	HKD9.99						22%	22%	24.2	20.2					9.3	9.5		
CEW	CEWL.SP	SGD0.47						10%	10%	18.4	17.2					5.5	5.8		
CTEG	1363 HK	HKD1.44						18%	18%	15.2	12.3					19.2	20.1		
DJE-H	895 HK	HKD12.36						24%	25%	20.2	17.2					13.6	14.0		
GDI	270 HK	HKD11.48						2%	3%	16.0	16.0					13.3	12.5		
SIIC	SIIC.SP	SGD0.52						11%	14%	14.0	12.6					7.5	7.6		
<b>Average ex. GDI</b>								<b>19%</b>	<b>19%</b>	<b>19.2</b>	<b>16.3</b>					<b>11.3</b>	<b>11.7</b>		

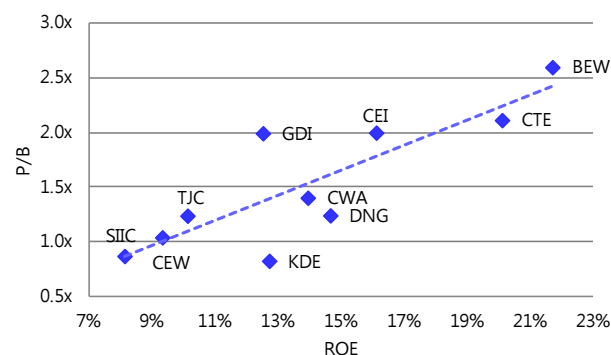
Source: Bloomberg Finance LP, Deutsche Bank estimates

Figure 15: 2016 P/B vs. 2017E ROE



Note: TJC-Tianjin Capital; KDE-Kangda International Environmental; CWA-China Water Affairs; DNG- Dynagreen Environmental  
Source: Bloomberg Finance LP, Deutsche Bank estimates

Figure 16: 2017E P/B vs. 2018E ROE



Note: TJC-Tianjin Capital; KDE-Kangda International Environmental; CWA-China Water Affairs; DNG- Dynagreen Environmental  
Source: Bloomberg Finance LP, Deutsche Bank estimates



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## Earnings/target price changes

**BEW:** We raise our earnings forecasts by 5%/4% in 2017/18E driven by a higher profit contribution from water environment renovation construction. We now factor in 154% growth in water environment renovation construction revenue in 2017E (derived from management guidance for total construction revenue) and a further ~18% growth in 2018E based on our latest industry model (see the investment thesis section for BEW for detail). We raise our target price to HKD7.1 as a result of our earnings revision.

**CEI:** We raise our earnings forecasts by 2%/4% in 2017/18E driven by higher revenue assumptions for CEI's equipment external sales and also China Everbright Water (CEWL SP, Buy), partially offset by the spin-off of China Everbright Greentech (1257 HK, Not rated). We raise our revenue forecast for equipment external sales significantly to HKD1.0bn for 2017E as the revenue grew significantly from HKD43m in 1H16 to HKD503m in 2H16 (as CEI tries to ramp up this new business segment). Our higher revenue forecasts for China Everbright Water were driven by the construction revenue contribution from the Zhenjiang, Nanjing, Suizhou and Zhangqiu water environment renovation projects. We raise our target price marginally to HKD12.2 as a result of our earnings revision.

**CEW:** We raise our earnings forecast by 4% in 2017E as we raise our revenue forecast by 25%, driven by higher construction revenue assumptions. Management mentioned that most of the construction revenue relating to the Zhenjiang sponge city project should be booked in 2017 and we expect the Nanjing water environment renovation project to also book some revenue in 2017. Our 2017 earnings revision was much lower than our revenue revision as we lower our construction margin assumption from 21% to 17% to make it in-line with the company's recent margin. Despite raising our revenue forecasts by 28% in 2018E driven by construction revenue from the Suizhou and Zhangqiu projects, we end up lowering our earnings forecast by 5% in 2018E, driven by 1) lower construction and operation margin assumptions, 2) a higher tax rate, and 3) higher minority interest assumptions. We marginally lower our target price to SGD0.59.

**SIIC:** We keep our earnings and target prices unchanged after our recent revision. For our recent revision of SIIC's earnings/target price, please refer to [SIIC Environment - High finance cost to decline and valuation to recover: reiterating Buy, 25 Apr. 2017](#)

**CTEG:** We marginally fine tune our earnings forecasts, but lower our target price to HKD1.63 as we factor in more conservative long-term profitability assumptions. For our recent revision of CTEG's earnings, please refer to [CT Environmental - Weak FY16 results and slow project ramp-up: downgrading to Hold, 4 Apr. 2017](#)

**GDI:** We lower our earnings forecast by 7%/9% in 2017/18E driven by a lower profit contribution from the power segment. The Zhongshan power plant suffered a 41% decline in profit in 1Q17 and Yudean Jinghai turned to a net loss, driven by high coal prices. We also marginally lower our earnings forecasts for the water business as we marginally lower the margin assumptions to make them in line with the reported number for 2016. Despite the earnings downgrades, we raise our target price marginally to HKD13.3 as



we factor in the Guangdong Land (124 HK, Not rated) acquisition, which we value using the market cap of Guangdong Land. Guangdong Land should represent 3% of our valuation for GDI, although there should be a minimal earnings contribution from Guangdong Land in 2017-18E.

**DJE:** We fine-tune our earnings and target prices as a result of Dongjiang's 1Q17 results and raise our earnings forecasts by 5-3% in 2017-18E and target prices by 5% on lower finance cost assumptions. Dongjiang has recently issued green bond and asset-backed securities, which bear much lower interest rates than the company's previous debts.

Figure 17: Earnings estimates and target prices

Company	Reported earnings		% of change		Recurring earnings		% of change		Recurring EPS		% of change		Target price		
	2017E	2018E	2017E	2018E	2017E	2018E	2017E	2018E	2017E	2018E	2017E	2018E	New	Old	% of change
BEWG	3,869	4,441	5%	4%	3,801	4,441	6%	3%	0.43	0.51	6%	3%	7.1	6.4	11%
SIIC	558	635	0%	0%	558	635	0%	0%	0.22	0.24	0%	0%	0.7	0.7	0%
GDI	4,593	4,701	-7%	-9%	4,593	4,701	-7%	-9%	0.72	0.72	-9%	-13%	13.3	13.0	2%
CEW	574	632	4%	-5%	574	632	4%	-5%	0.22	0.24	4%	-5%	0.6	0.6	-2%
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CEI	3,273	3,740	2%	4%	3,273	3,740	2%	4%	0.73	0.83	2%	4%	12.2	11.8	3%
DJE-H	484	571	5%	3%	484	571	5%	3%	0.54	0.64	3%	1%	16.0	15.2	5%

Note: Reported earnings and recurring earnings are in HK\$m, except for SIIC and CTEG, which are in RMBm; target prices are in HK\$, except for SIIC and CEW, which are in SGD  
Source: Deutsche Bank estimates



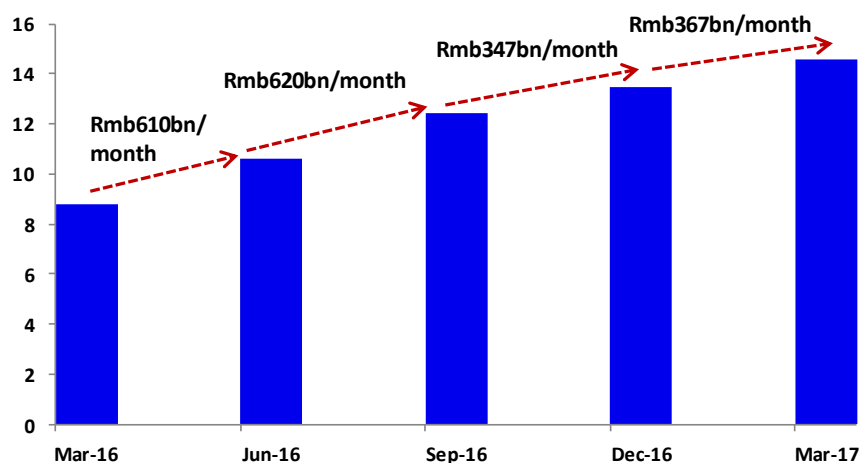


# Industry dynamic

## PPP rollouts continue at a fast pace

PPP rollouts in China continued at a fast pace over the past few months. As of March 2017, investment in PPP projects in the Ministry of Finance's (MoF) database reached Rmb14.6tr, with average monthly additions of Rmb367bn in 1Q17.

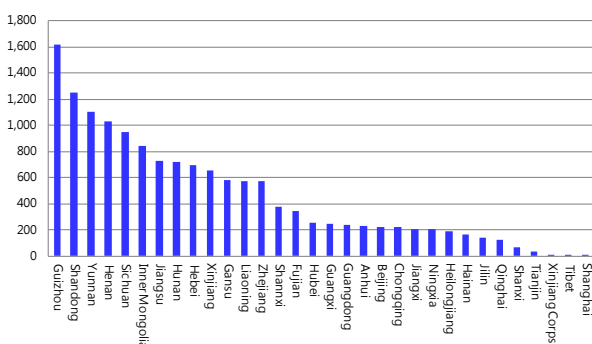
Figure 18: Investment in PPP project (Rmb tr)



Source: Deutsche Bank, Ministry of Finance

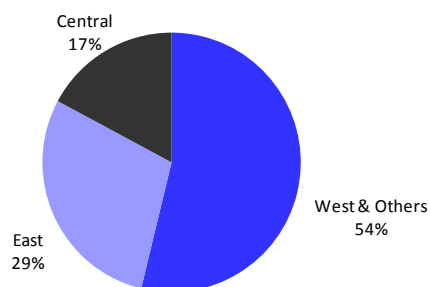
Looking at geographic distribution, West China, East China and Central China represent 54%, 29% and 17% of total investments respectively. Specifically, investments in Guizhou, Shandong, Yunnan, Henan and Sichuan rank as the top five.

Figure 19: PPP investment as of March 2017 (Rmb bn)



Source: Deutsche Bank, Ministry of Finance

Figure 20: PPP investment as of March 2017



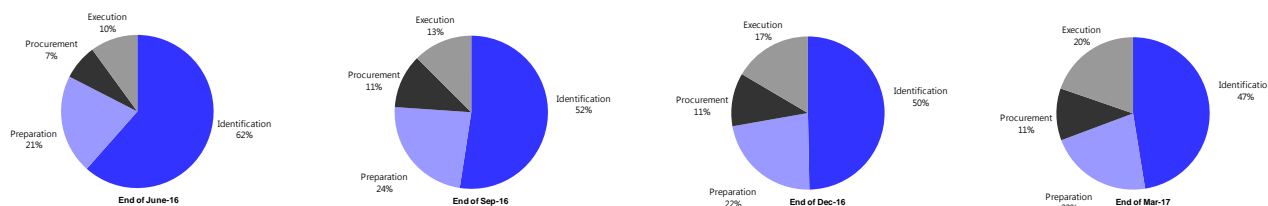
Source: Deutsche Bank, Ministry of Finance

Looking at investments by stage, projects in the execution stage reached RMB2.9tr by end-March (20% of overall investment), up 28% from December



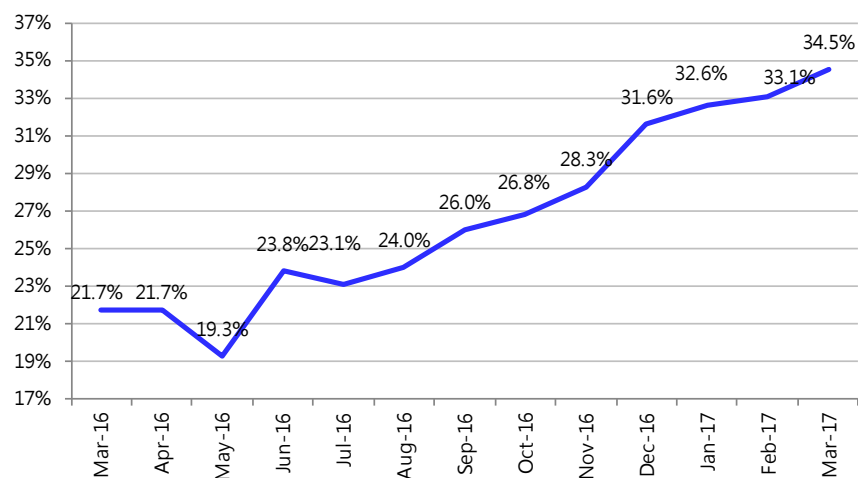
2016. In terms of the sign-up rate (published by the MoF), the rate rose from 32% by December 2016 to 35% by March 2017.

Figure 21: Investment in PPP projects by stage



Source: Deutsche Bank, Ministry of Finance

Figure 22: Sign-up rate

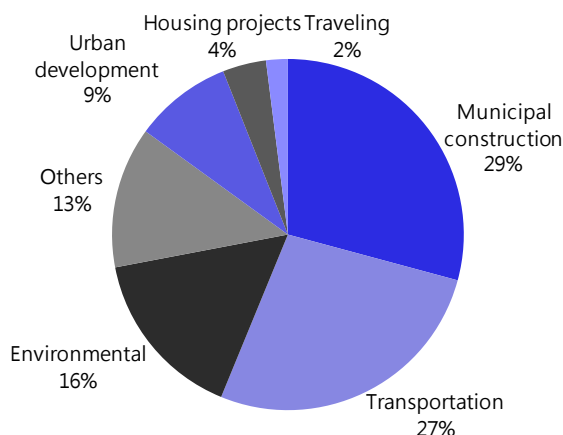


Source: Deutsche Bank, Ministry of Finance

Looking at investment by sector, environmental PPP investments represented 16% of overall PPP investment (Rmb2.3tr by March 2017) and the monthly addition for environmental PPP was RMB42bn in 1Q17. Our strategy team has also published an analysis of China's PPP projects recently ([Featuring PPP Part 3: Strength extended and trickled down, 5 May 2017](#)). Our statistics on environmental PPP are different from that of the strategy team in that we include sewage treatment and waste treatment under Environmental rather than Municipal Construction.



Figure 23: PPP investment as of March 2017 – by sector



Source: Deutsche Bank, Ministry of Finance

In order to promote PPP roll-outs, China has recently started to encourage PPP securitization since February 2017. PPP securitization applications enjoy priority review from the regulators and we have seen three environmental companies issuing PPP asset-backed securities (ABS)/asset-backed notes (ABN), namely Beijing Capital (600008 CH, Not rated), Dongjiang Environmental (895 HK, Buy) and Beijing Enterprises Water (371 HK, Buy). We note that average funding cost of the ABS issued by Beijing Capital (4.55%) and Dongjiang (4.15%) bear interest rates below China's benchmark lending rates, providing an attractive funding alternative for them. In addition, China Insurance Regulatory Commission has recently published Notice on PPP Investments from Insurance Companies (中国保监会关于保险资金投资政府和社会资本合作项目有关事项的通知), encouraging insurance companies to participate in PPP projects investments. We expect these policies to help with PPP project rollouts going forward.



Figure 24: ABS by Beijing Capital

No.	Issue size (RMB m)	Interest	Maturity
1	16	3.70	2018
2	18	3.98	2019
3	20	4.60	2020
4	20	4.60	2021
5	22	4.60	2022
6	22	4.60	2023
7	24	4.60	2024
8	26	4.60	2025
9	26	4.60	2026
10	28	4.60	2027
11	28	4.60	2028
12	30	4.60	2029
13	32	4.60	2030
14	32	4.60	2031
15	36	4.60	2032
16	38	4.60	2033
17	40	4.60	2034
18	42	4.60	2035
19	30	-	2035
<b>Total</b>	<b>530</b>	<b>4.55</b>	

Source: Company data, Deutsche Bank

Figure 25: ABS by Dongjiang Environmental

No.	Issue size (RMB m)	Interest	Maturity
1	41	4.15	2020
2	49	4.15	2023
3	58	4.15	2026
4	69	4.15	2029
5	83	4.15	2032
6	20	-	2032
<b>Total</b>	<b>320</b>	<b>4.15</b>	

Source: Company data, Deutsche Bank



# Investment summary

## Beijing Enterprises Water (BEW) – Buy

**Stock view:** We maintain our Buy rating on Beijing Enterprises Water (BEW). We like the company because of its earnings growth prospects, the fact that it can collect cash on PPP construction with the launch of its investment fund and its efforts to become asset-lighter, potentially boosting ROE. We expect BEW to deliver a recurring profit growth of 29% in 2017E and a CAGR of 16% in 2017-19E, driven by both water environment renovation construction and water capacity additions. We expect BEW's total capacity to grow from 27.2mtpd in 2016 to 31.1mtpd in 2018, and operating capacity to grow from 16.5mtpd to 24.2mtpd over the period. The valuation is attractive, with the company trading at 14x 12-month forward P/E, close to the average minus one standard deviation since 2013.

### Capturing opportunities from PPP

Management expects very strong growth in construction revenue in 2017 – guiding for total construction revenue growth of 45% yoy in 2017 as BEW has started to launch PPP investment funds to carry out PPP projects construction. BEW has recently launched an investment fund of RMB1.0bn for the Chifeng (Inner Mongolia) project and management expects BEW to launch another two funds of RMB10bn each for other projects. We have factored in 154% growth in water environment renovation (PPP) construction revenue in 2017E and a 28% decline in water plant construction revenue, with our total construction revenue growth of 46% in line with management guidance.

We believe that a key issue that the market is uncertain about is the water environment renovation (PPP) construction revenue growth in 2018E. We have derived our forecast for BEW's PPP construction revenue for 2018E based on the following assumptions:

- 90% of the RMB15bn orders signed up in 2016 are not yet executed (based on the construction progress of these projects).
- 45% of the orders can be recognized as construction revenue for BEW (in line with management guidance).
- The MoF's PPP database continuing to add RMB370bn of projects per month, with environmental representing 16% of all projects (in line with the recent situation)
- BEW taking 5% of market share in environmental projects (in line with the company's recent track record)
- PPP projects commencing construction six months after rolling out (in line with our channel checks)
- A construction period of 24 months for PPP projects

Based on these assumptions, we estimate that BEW should continue to deliver PPP construction revenue growth of 18% in 2018E. We see upside risk to our forecasts as BEW may take more market share with the successful launch of investment funds recently.



Figure 26: BEW's water environment renovation (PPP) construction

	RMB bn	Comments
Orders signed in 2016, not yet executed	13.5	a=15*90% 90% of the orders not executed
Orders signed in 1Q17, Tongzhou	17.7	b
Orders signed in 1Q17, ex-Tongzhou	4.2	c=21.9-b Total sign-up of RMB21.9bn
Orders to be signed in 2Q-4Q17, base on mgt guidance	8.1	d=30-b-c Guidance for RMB30bn sign-up
<b>Total orders by end 2017</b>	<b>43.5</b>	<b>e</b>
Total construction revenue recognizable	19.6	f=e*45% 45% of orders recognizable as construction revenue
Construction revenue to be recognized in 2017E, HKD bn	11.7	g Management guidance
in RMB bn	10.7	h
Construction revenue to be recognized in 2018E	8.9	i=f-h
Monthly additional investment to MoF PPP database	370	k
% of environmental projects	16%	l
Total additional environmental projects in 2Q-4Q17	533	m=k*l*9
BEW's market share	5.0%	n
Additional project sign-ups in 2Q-4Q17 for BEW in addition to guidance	18.5	o=m*n-d
Total construction revenue recognizable	8.3	p=o*45%
Construction revenue to be recognized in 2018E	3.1	q=p*9/24 Construction starts in 6 months and lasts for 24 months
Total additional environmental projects in 1Q18	178	m=k*l*3
BEW's market share	5%	t
Additional project sign-ups in 1Q18 for BEW	8.9	u=m*t
Total construction revenue recognizable	4.0	v=u*45%
Construction revenue to be recognized in 2018E	0.5	w=v*3/24 Construction starts in 6 months and lasts for 24 months
<b>Total construction revenue in 2018E</b>	<b>12.5</b>	<b>y=j+i+x</b>
YoY growth	18%	z=y/h-1

Source: Deutsche Bank

### Asset-backed note (ABN) makes sense but lower funding costs desired

BEW has recently issued an asset-backed note (ABN) of RMB2.1bn based on future treatment fees for 19 water plants in six provinces. BEW (China) Investment, BEW's subsidiary holding concession rights of the water plants, securitizes the guaranteed portion (usually ~70% of all expected receivables) of (future) water treatment fees and sells the ABN to institutional investors through intermediaries. At the same time, BEW continues to provide operation and maintenance (O&M) service for those plants and earn O&M fees. When local governments pay the treatment fees, BEW (China) Investment will pass on the interests and principal related to the ABN to the institutional investors. If there are any deficiencies in government payments, China Bond Insurance Corporation (instead of BEW) will make up the difference for the ABN investors.

The senior tranche of RMB2.0bn has been issued to institutional investors and BEW has subscribed to the junior tranche of RMB100m. BEW's RMB2.0bn receivables will be turned into cash on its balance sheet and BEW will then be able to either 1) leave the cash on its balance sheet in order to lower the company's gearing, or 2) leverage up further based on the newly-available cash.

Figure 27: BEW'S ABN details

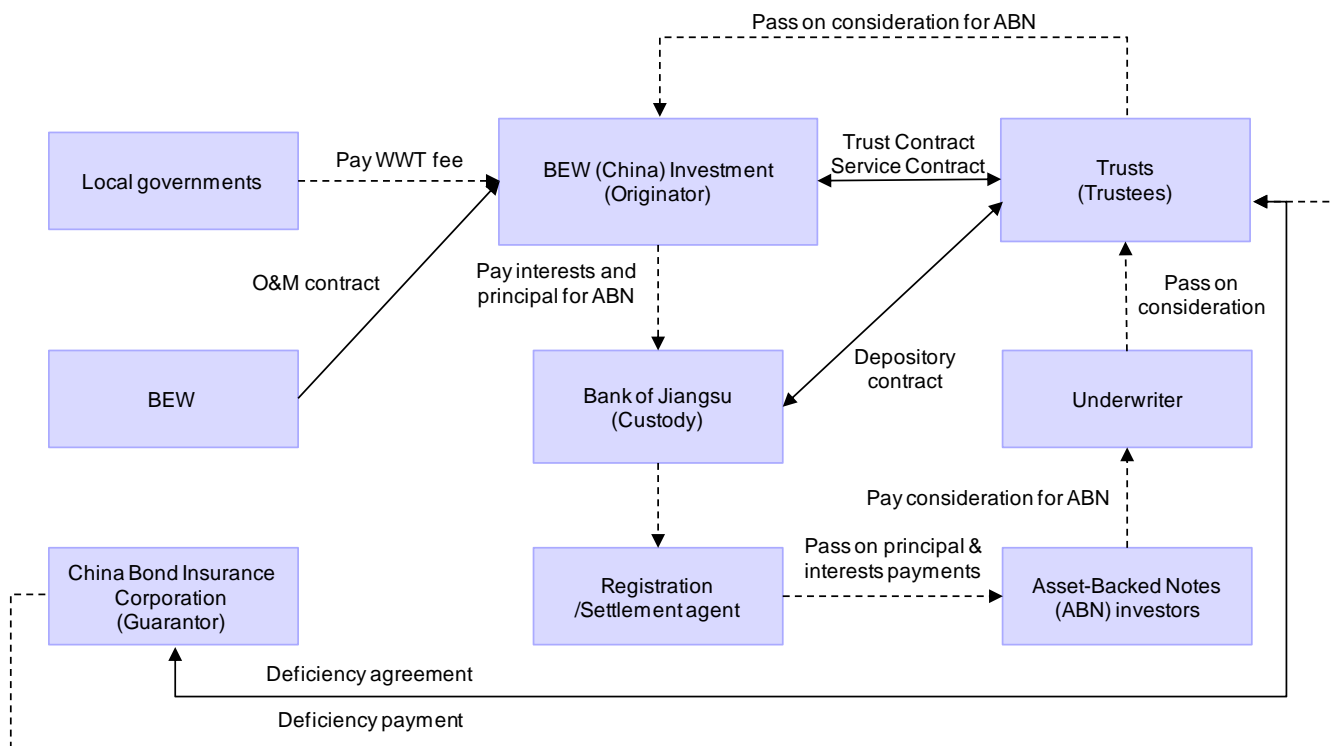
No.	Issue size (RMB m)	Maturity	Interest payments
1	260	2018	Quarterly interest payments with call-back option in 2022 and 2023
2	260	2019	
3	270	2020	
4	300	2021	
5	310	2022	
6	600	2024	
Senior tranche	2,000		
Junior tranche	100		
<b>Total ABN</b>	<b>2,100</b>		

Source: Company data, Deutsche Bank



The ABN has proven to be popular with investors as 1) the ABN only involves guaranteed treatment fees from government (i.e. there is no risk on utilization), and 2) China Bond Insurance Company has provided insurance, essentially eliminating the receivables risk on the treatment fees.

Figure 28: ABN (asset-backed note) for Beijing Enterprises Water



Source: Company data, Deutsche Bank

We believe that an ABN makes sense for de-leveraged water plants, i.e. water plants which have low/no gearing after several years of operation. The ABN allows BEW to collect the cash for the receivables and re-leveraging based on them should allow BEW to boost its ROE. While BEW has achieved low funding costs of 3.8% for Issue No. 1 (RMB260m), we learned that the average funding cost for the ABN is higher than China's benchmark lending rate. This is because 1) the ABN issued by BEW is an off-balance sheet facility (while those issued by Beijing Capital and Dongjiang are not) and 2) BEW does not have to pay for any deficiency from government payments (while Beijing Capital and Dongjiang do). Having said that, in order for the ABN to have a material impact on BEW's ROE, BEW would have to work on lowering the average funding cost for any future, especially longer-dated, ABN.



Figure 29: Summary for BEW

HK\$ m	2015	2016	2017E	2018E	2019E
<b>Year-end contracted capacity (ktpd)</b>					
Sewage treatment	13,808	15,674	17,874	20,074	22,274
Water supply	10,497	11,175	12,975	14,775	16,575
Overseas	319	319	319	319	319
<b>Year-end operational capacity (ktpd)</b>					
Sewage treatment	8,965	10,454	12,286	14,706	16,906
Water supply	3,961	5,704	7,203	9,183	10,983
Overseas	91	319	319	319	319
<b>Utilisation</b>					
Sewage treatment	85%	88%	83%	85%	87%
Water supply	56%	66%	64%	64%	65%
<b>Tariff (HK\$/cm, ex-VAT)</b>					
Sewage treatment	1.47	1.18	1.16	1.13	1.15
Water supply	2.20	2.17	2.09	2.07	2.13
<b>Revenue (HK\$ m)</b>					
Sewage treatment	3,515	3,654	3,960	4,720	5,694
Water supply	881	1,371	1,961	2,648	3,793
Water environment renovation construction	1,890	4,612	11,709	13,291	13,291
Water plant construction	6,441	6,696	4,811	3,785	3,111
Technical services	776	1,021	2,297	2,607	2,607
Others	-	-	-	-	-
<b>Total</b>	<b>13,503</b>	<b>17,355</b>	<b>24,738</b>	<b>27,052</b>	<b>28,496</b>
<b>Gross profit (HK\$ m)</b>					
Sewage and reclaimed water treatment	2,166	2,044	2,351	2,878	3,499
Water supply	448	672	977	1,387	2,041
Construction for comprehensive renovation	454	1,015	2,459	2,791	2,791
Construction of water plants	1,466	1,473	1,155	908	747
Technical services for water environmental	456	576	1,148	1,304	1,304
Others	-	-	-	-	-
<b>Total</b>	<b>4,989</b>	<b>5,780</b>	<b>8,090</b>	<b>9,269</b>	<b>10,382</b>
<b>Gross profit margin</b>					
Sewage and reclaimed water treatment	62%	56%	59%	61%	61%
Water supply	51%	49%	50%	52%	54%
Construction for comprehensive renovation	24%	22%	21%	21%	21%
Construction of water plants	23%	22%	24%	24%	24%
Technical services for water environmental	59%	56%	50%	50%	50%
Others	-	-	-	-	-
<b>Total</b>	<b>37%</b>	<b>33%</b>	<b>33%</b>	<b>34%</b>	<b>36%</b>

Source: Deutsche Bank estimates

**Valuation:** We derive our target price using the DCF method, incorporating a 6.2% WACC (CoD 3.4%, 0.90 beta and 5.6% ERP yielding an 8.9% CoE), which incorporates longer-term growth and is not affected by the mismatch between reported earnings and cash flows under concession accounting.

**Risks:** the main downside risks include: 1) credit risk on the receivables from local governments, 2) delays in implementing the cost pass-through for waste water (including the impact of the VAT rule change) and water supply projects, 3) rising competition in new water projects, 4) stress on managerial and financial resources from rapid expansion, 5) political or foreign exchange risks for overseas investment, 6) larger-than-expected EPS dilution from potential



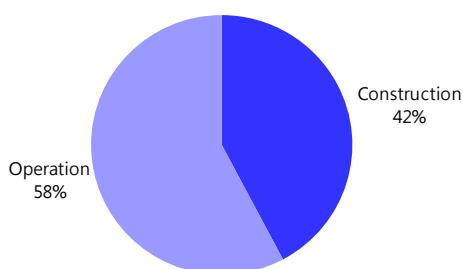


share placements, and 7) any delay in project construction due to the relatively high reliance on earnings from construction activities in the near term (as opposed to recurring earnings from operational waste water and water supply projects)

## China Everbright Intl (CEI) – Buy

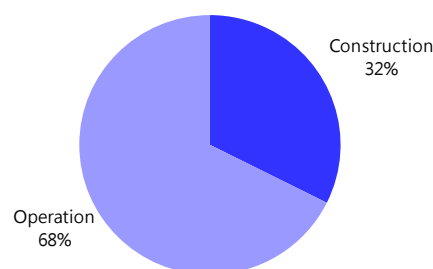
**Stock view:** We maintain our Buy rating on China Everbright Intl (CEI) on its growth prospects, increasing earnings contribution from operations and undemanding valuation. We expect CEI to deliver earnings growth of 16% in 2017 and an earnings CAGR of 12% in 2017-19E. Earnings quality should improve with the earnings contribution from operations rising from 58% in 2016 to 68% in 2019E. The valuation is undemanding, with the company trading at 14x 12-month forward P/E, below the average minus one standard deviation since January 2013.

Figure 30: Earnings split in 2016



Source: Deutsche Bank; company data

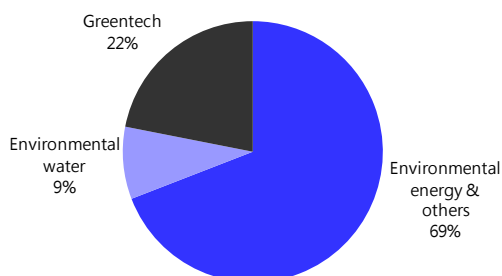
Figure 31: Earnings split in 2019E



Source: Deutsche Bank estimates

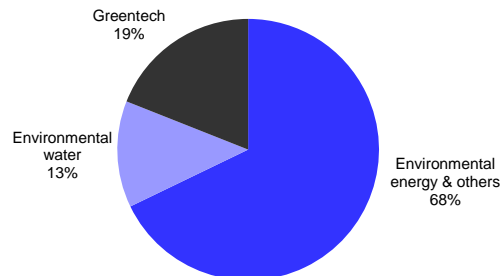
After the spin-off of China Everbright Greentech (CEG), we expect CEI's earnings contribution from different business segments to be little changed from 2016 to 2019E, with Environmental Energy (primarily Waste to Energy) representing ~70% of CEI's total earnings.

Figure 32: Net income split in 2016



Source: Deutsche Bank; company data

Figure 33: Net income split in 2019E



Source: Deutsche Bank estimates



### Detailed re-modeling of the Greentech segment

We have re-modeled the Greentech segment in detail, with the additional information from its IPO prospectus. We expect the Greentech segment to deliver recurring earnings growth of 34% in 2017 and an earnings CAGR of 14% in 2017-19E, driven by the biomass business.

Figure 34: Summary for the Greentech segment

	2015	2016	2017E	2018E	2019E
<b>Year-end operational capacity</b>					
Biomass to power (MW)	60	145	265	421	616
Biomass to heat (tpa)	-	525,600	525,600	963,600	1,011,050
Urban-rural WTE (tpa)	-	146,000	438,000	1,131,500	1,387,000
Hazardous waste (tpa)	63,650	130,980	170,980	210,980	310,980
<b>Utilization rate</b>					
Biomass to power	91%	87%	86%	84%	84%
Biomass to heat	-	65%	65%	68%	71%
Urban-rural WTE	-	76%	80%	80%	80%
Hazardous waste	84%	107%	85%	85%	85%
<b>Tariff (ex-VAT)</b>					
Biomass to power (Rmb/kWh)	0.64	0.64	0.64	0.64	0.64
Biomass to heat (Rmb/t)	-	205	197	199	201
Urban-rural WTE (Rmb/kWh)	-	0.56	0.56	0.56	0.56
Hazardous waste (Rmb/t)	2,172	2,414	2,486	2,511	2,536
<b>Gross profit (HKD m)</b>					
Biomass	282	659	1,005	1,266	1,606
Hazardous waste	92	188	214	325	401
Renewables	61	145	155	160	164
<b>Total</b>	<b>435</b>	<b>992</b>	<b>1,375</b>	<b>1,751</b>	<b>2,172</b>
<b>Gross profit mix</b>					
Biomass	65%	66%	73%	72%	74%
Hazardous waste	21%	19%	16%	19%	18%
Renewables	14%	15%	11%	9%	8%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Gross profit mix</b>					
Construction	41%	53%	54%	44%	40%
Others	59%	47%	46%	56%	60%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: Deutsche Bank estimates

Biomass raw materials costs, which has represented 76-80% of biomass operations costs over the past few years, is the biggest swing factor in the profitability of the Greentech segment. Despite some year-on-year volatility, CEI has generally been successful in controlling raw material costs due to 1) blending of agricultural and non-agricultural raw materials, 2) proper site selection, and 3) an efficient raw materials supply system.



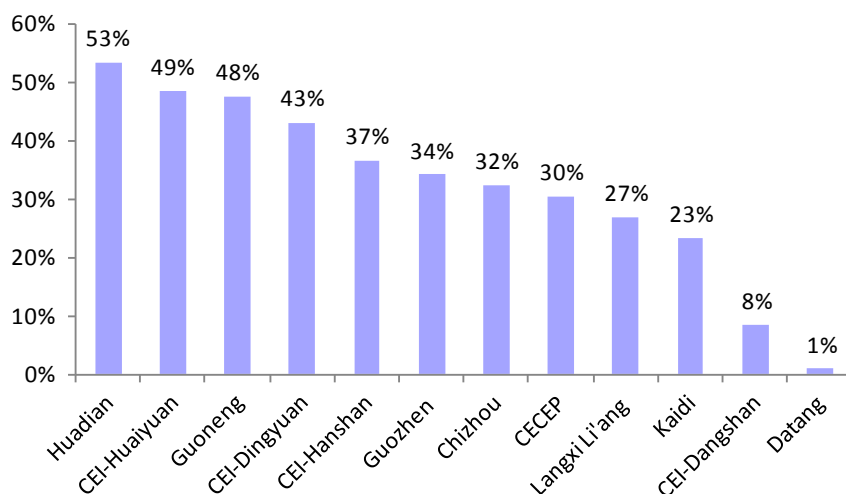
Figure 35: Biomass raw materials

Biomass raw materials	2013	2014	2015	2016	2017E	2018E	2019E
Unit fuel cost (Rmb/Kwh)	0.41	0.34	0.37	0.37	0.38	0.38	0.38
yoy	n.a	-17%	8%	1%	1%	1%	1%
Calorific value (Kwh/t)	658	820	847	924			
Unit fuel cost (Rmb/t)	272	301	345	351			

Source: Deutsche Bank estimates

CEI usually blends non-agricultural waste in-feeds (such as wooden construction panels and money-printing paper) with agricultural waste in-feeds (such as straw) for its biomass plants. Non-agricultural waste in-feeds usually carry a high calorific value and prices are less vulnerable to seasonal or weather volatility. The Huaiyuan biomass plant, despite being CEI's plant with the highest agricultural waste in-feeds, gets only 49% of its total raw material from straw.

Figure 36: Straw as % of total fuel (2016)



Source: Anhui Energy Administration; Deutsche Bank

CEI builds its biomass plants at locations where it believes it can get abundant raw material supply. Take the Xuyi (Jiangsu) plant, for example, for which the available agricultural raw materials are over 3x those needed by the plant.

Figure 37: Biomass resources within 30 km of CEI's Xuyi plant, tonnes

Type	Biomass available to plants	Actual amount used by plants	Available/Actual
Rice straw	284,573	64,160	344%
Corn stalk	100,978	22,960	340%
Wheat straw	222,311	52,120	327%
Cotton stalk	29,631	20,360	46%
Fruit-tree wood	195,874	40,400	385%

Source: Anhui Energy Administration; Deutsche Bank

We calculate that CEI's biomass projects are generating a project IRR of ~13%, much higher than the new projects in the waste-to-energy and water segments. However, returns for the biomass business are sensitive to the raw material costs – we calculate that a 10% change in the raw material costs would change our project IRR for the biomass business by 2-3ppt.



Figure 38: CEI biomass projects' IRR

### Construction

Processing capacity, tpa	300,000	A
Generation capacity, MW	30.0	B
Unit investment, RMB m/MW	10.5	C

**Total investment, RMB m**                      **315**  $D=B \times C$

### Operation revenue

Utilization hours	7,900	E
Self-use power	8%	F
Total power generation, MWh	237,000	$G=B \times E$
On-grid power sale, MWh	218,040	$H=G \times (1-F)$
Tariff, RMB/kWh	0.75	I

**Total revenue, RMB m**                      **140**  $J=H \times I / 1000 / 1.17$

VAT rebates, RMB m                      24  $K=H \times I / 1000 - H \times I / 1000 / 1.17$

### Operation cost

Unit fuel costs, RMB/kWh	0.37	L
in RMB/t	387	$M=L \times V$
Raw materials consumption, ktpa	226	$N=G/V$
Total fuel cost, RMB m	88	$O=L \times G \times 1000 / 1000000$
O&M cost, RMB m	20.0	P
Repair, RMB m	3.8	Q

**Total cash O&M cost, RMB m**                      **111**  $R=O+P+Q$

### Financing

Debt	210	$S=D \times 2/3$
Equity	105	$T=D-S$
Interest rate	4.7%	U

### Calorific value

Raw materials, kWh/t	1,047	V
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### IRRs

Project IRR	13%	W
Equity IRR	18%	X

Source: Deutsche Bank; company data



Figure 39: CEI project IRR sensitivity

		Fuel cost, RMB/kWh				
Unit investment Rmb m/MW		0.30	0.33	0.37	0.41	0.44
	8.4	22%	19%	16%	13%	10%
	9.5	20%	17%	14%	12%	9%
	10.5	18%	15%	<b>13%</b>	10%	7%
	11.6	16%	14%	11%	9%	6%
	12.6	14%	12%	10%	8%	5%

Source: Deutsche Bank; company data

While the Greentech segment returns/earnings are very sensitive to raw material costs, CEI's earnings are, fortunately, not as sensitive after the impact is mitigated by earnings from other segments. We calculate that every 10% change in biomass raw materials costs (in RMB/kWh) would change our earnings for CEI by only 1-2% in 2017-19E.



Figure 40: Summary for CEI

	2015	2016	2017E	2018E	2019E
<b>Year-end operational capacity (consolidated basis)</b>					
Waste-to-Energy (tpd)	18,550	22,300	32,000	37,600	51,250
Water (ktpd)	3,602	3,907	4,175	4,632	5,115
Biomass to Power (MW)	60	145	265	421	616
Hazardous Waste (tpa)	63,650	130,980	170,980	210,980	310,980
<b>Utilisation</b>					
Waste-to-Energy	123%	126%	120%	125%	125%
Wastewater Treatment	96%	89%	90%	93%	93%
Biomass to Power	91%	87%	86%	84%	84%
Hazardous Waste	84%	107%	85%	85%	85%
<b>Tariff (ex-VAT)</b>					
Waste-to-Energy Power (RMB/kWh)	0.56	0.56	0.56	0.55	0.55
Waste-to-Energy Treatment Fee (RMB/t)	75	63	63	62	61
Wastewater Treatment (RMB/t)	1.2	1.1	1.1	1.2	1.2
Biomass to Power (RMB/kWh)	0.64	0.64	0.64	0.64	0.64
Hazardous Waste (RMB/t)	2,172	2,414	2,486	2,511	2,536
<b>Revenue (HKD m)</b>					
Environmental Energy	5,400	7,905	9,292	6,497	7,147
Environmental Water	1,815	2,494	4,047	4,608	5,444
Greentech	1,178	3,026	4,454	5,715	6,895
Envirotech	135	546	1,006	1,157	1,330
Others	6	-	-	-	-
<b>Total</b>	<b>8,535</b>	<b>13,971</b>	<b>18,799</b>	<b>17,977</b>	<b>20,816</b>
<b>EBITDA (HKD m)</b>					
Environmental Energy	2,608	3,300	3,748	4,323	4,541
Environmental Water	796	844	1,168	1,290	1,494
Greentech	458	1,020	1,361	1,675	2,068
Envirotech	515	417	292	336	386
Inter-segment Elimination & Others	(593)	(434)	-	-	-
<b>Total</b>	<b>3,784</b>	<b>5,147</b>	<b>6,568</b>	<b>7,623</b>	<b>8,488</b>
<b>EBITDA margin</b>					
Environmental Energy	48%	42%	40%	67%	64%
Environmental Water	44%	34%	29%	28%	27%
Greentech	39%	34%	31%	29%	30%
Envirotech	n.a.	n.a.	29%	29%	29%
Inter-segment Elimination & Others	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Overall</b>	<b>44%</b>	<b>37%</b>	<b>35%</b>	<b>42%</b>	<b>41%</b>

Source: Deutsche Bank estimates

**Valuation:** We derive our target price using a DCF valuation, which is not affected by the mismatch between reported earnings and cash flows under concession accounting. We use explicit cash flows to 2051E, with no terminal value, discounted at 6.1% WACC (beta of 0.9, ERP of 5.6%, yielding a CoE of 8.9%, pre-tax CoD of 3.5%, and a D/E ratio of 45:55).

**Risks:** Key downside risks include 1) fewer-than-expected new project wins, 2) delays in the construction progress of new projects, 3) lower-than-expected construction cost savings, and 4) lower-than-expected returns on new projects.



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## China Everbright Water (CEW) – Buy

**Stock view:** We maintain a Buy rating on CEW on its strong growth prospects, synergies with China Everbright Intl., strong balance sheet and attractive valuation. Management plans to expand more into water environment renovation and has recently won two sizable projects. In addition, management is confident of reaching its long-term capacity target of ~10mtpd, indicating that capacity should double. As a result, we forecast that CEW's recurring profit should register a CAGR of 13% in 2017-19. China Everbright Intl, the parent company of CEW, is a leading environmental company and we expect CEW to benefit from the parent's strong connections with various local governments and strong brand name. CEW's leverage (net debt/equity) was at the low level of only 45% by end 2016 and the company expects to launch a PPP fund soon, providing plenty of financial resources for the company's future growth.

### PPP and Dongda integration are key

CEW expects to complete most of the Zhenjiang (Jiangsu) sponge city PPP project in 2017 and also plans to push forward construction of the Nanjing (Jiangsu) river environment renovation PPP project. The company has recently won the Suizhou (Hubei) water environment renovation project, with an RMB956m investment and Zhangqiu (Shandong) urban-rural integration water supply projects with an RMB3.1bn investment. CEW aims to expand more into sponge cities, water environment renovation, industrial waste water treatment and sludge treatment.

On the financing front, CEW is comfortable in increasing its gearing ratio from the current level (~45%) to 60-70%. CEW still prefers traditional funding tools, i.e. borrowing from banks, but might employ other funding instruments as a supplement (investment funds and ABS, etc.). CEW expected to launch a water investment fund in 1H17 and may ultimately host an investment fund of RMB10bn (with an implied total project investment of RMB30bn). Management expects the fund to operate off the balance sheet and does not plan to provide any guarantees.

Management mentioned that the integration of HanKore was progressing smoothly, although the integration with Dongda has not progressed as expected. Trade receivables declined from HKD642m by end-2015 to HKD589m in 2016, presumably driven by an improvement in receivable collection from HanKore/Dongda plants. The total earnings contribution by Dongda reached RMB80m in 2016 and CEW expects Dongda to increase its contribution once the integration gets on the right track in 2017.

Total water capacity for CEW reached 5.1mtpd by end 2016 and management maintains 10mtpd water capacity target for the medium-to-long term. The company has recently secured new discharge standard upgrade contracts worth RMB210m.

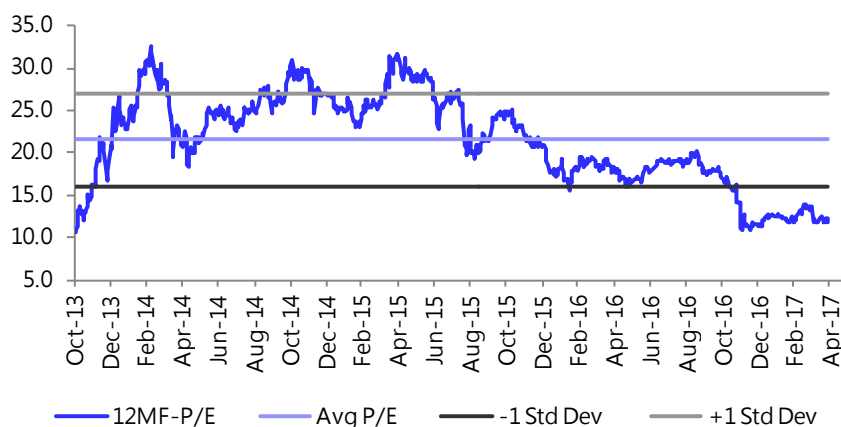


Figure 41: Forecast summary

	2015	2016	2017E	2018E	2019E
<b>Year-end capacity (ktpd, consolidated basis)</b>					
Design capacity	4,587	5,132	5,632	6,132	6,632
Operational capacity	3,602	3,907	4,175	4,632	5,115
<b>Utilization</b>					
WWT	96%	89%	90%	93%	93%
Reusable water	46%	49%	52%	55%	58%
<b>Tariffs (RMB/t, ex-VAT)</b>					
WWT	1.2	1.1	1.1	1.2	1.2
Reusable water	4.1	3.9	4.0	4.0	4.1
<b>Revenue (HKD m)</b>					
Construction	592	1,143	2,543	2,950	3,577
Operation + Finance Income	1,223	1,351	1,504	1,658	1,867
<b>Total</b>	<b>1,815</b>	<b>2,494</b>	<b>4,047</b>	<b>4,608</b>	<b>5,444</b>
<b>Gross profit (HKD m)</b>					
Construction	135	193	432	502	608
Operation + Finance Income	689	713	782	845	952
<b>Total</b>	<b>824</b>	<b>906</b>	<b>1,214</b>	<b>1,347</b>	<b>1,560</b>
<b>Gross margin</b>					
Construction	23%	17%	17%	17%	17%
Operation + Finance Income	56%	53%	52%	51%	51%
<b>Overall</b>	<b>45%</b>	<b>36%</b>	<b>30%</b>	<b>29%</b>	<b>29%</b>
<b>Gross profit split</b>					
Construction	16%	21%	36%	37%	39%
Operation + Finance Income	84%	79%	64%	63%	61%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: Deutsche Bank estimates

Figure 42: CEW 12m forward P/E



Source: Deutsche Bank estimates; Bloomberg Finance LP

**Valuation:** We derive our target price using a DCF valuation with explicit cash flows to 2051 and no terminal value, discounted at a WACC of 7.3% (RFR of 3.9%, beta of 1.4, EOR of 5.6%, and therefore a CoE of 11.6%; CoD of 3.0%; and D/E of 50:50). Our DCF valuation is not affected by the mismatch between reported earnings and cash flows under concession accounting.





**Risks:** The main downside risks include the following: 1) rising competition for new projects, 2) regulatory risks such as delays in implementing cost pass-through for waste water (including the impact from VAT rule changes) and water supply projects, 3) credit risk on the receivables from local governments or other customers, 4) fewer-than-expected project wins, 5) EPS dilution from potential equity placement, and 6) possible higher share price volatility due to relatively low trading liquidity.

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## SIIC Environment (SIIC) – Buy

**Stock view:** We maintain our Buy rating on SIIC Environment (SIIC) on its growth prospects and attractive valuation. We expect SIIC to deliver recurring profit growth of 63% in 2017E and a CAGR of 13% in 2017-19E, driven by water capacity addition. SIIC is trading at 11.6x P/E in 2017E, a 25% discount to sector peers in recurring earnings in 2017E and a 44% discount in ex-construction earnings in 2017E. We expect the valuation gap to narrow with the Hong Kong dual listing, which may take place in 3Q17, according to previous management guidance.

### Awaiting Hong Kong dual listing

SIIC added ~3.5mtpd of water capacity, 600tpd of waste incineration capacity and 1,930tpd of sludge capacity in 2016. Management plans to add 1.0-1.5mtpd water capacity per annum but large-scale M&As/parent asset injection, if any, will have to take place after its Hong Kong listing. SIIC has ~2.0mtpd of sewage capacity under 1B, which needs to be upgraded over the next few years.

Management expects SIIC's cost of funding to go down in the future as the company has recently replaced almost all the high-cost debt of Longjiang (~RMB3.5bn), reducing Longjiang's cost of funding from ~6% to ~5%. In addition, the recent 350m share issue to the parent (at SGD0.63) should help to lower the gearing of SIIC environment.

During the recent conference call after SIIC's 1Q17 results, management mentioned that the company has entered a blackout for its potential HK dual listing. According to management guidance during an earlier conference call, SIIC aims to complete the HK listing in 3Q17. Management plans to issue minimal new shares during the HK dual listing.

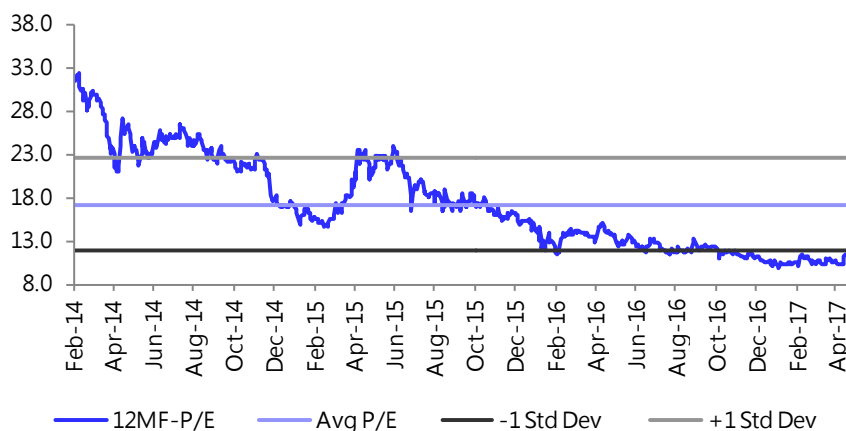


Figure 43: Summary for SIIC

	2015	2016	2017E	2018E	2019E
<b>Year-end capacity (ktpd, consolidated basis)</b>					
WWT	4,737	8,178	8,978	9,778	10,578
Water supply	1,895	1,895	1,895	1,895	1,895
<b>Utilization</b>					
WWT	100%	86%	97%	95%	93%
Water supply	57%	50%	51%	52%	53%
<b>Tariffs (RMB/t, ex-VAT)</b>					
WWT	0.9	0.8	0.9	0.9	0.9
Water supply	1.6	2.2	2.2	2.2	2.3
<b>Revenue (RMB m)</b>					
Construction	523	1,031	1,114	1,049	866
Operation + Finance Income	1,087	1,348	2,635	2,860	3,163
Others	193	269	272	272	272
<b>Total</b>	<b>1,804</b>	<b>2,648</b>	<b>4,020</b>	<b>4,180</b>	<b>4,301</b>
<b>Gross profit (RMB m)</b>					
Construction	65	124	134	126	104
Operation + Finance Income	491	495	1,127	1,232	1,375
Others	156	194	196	196	196
<b>Total</b>	<b>712</b>	<b>812</b>	<b>1,457</b>	<b>1,555</b>	<b>1,676</b>
<b>Gross margins</b>					
Construction	13%	12%	12%	12%	12%
Operation + Finance Income	45%	37%	43%	43%	43%
Others	81%	72%	72%	72%	72%
<b>Overall</b>	<b>39%</b>	<b>31%</b>	<b>36%</b>	<b>37%</b>	<b>39%</b>
<b>Gross profit split</b>					
Construction	9%	15%	9%	8%	6%
Operation + Finance Income	69%	61%	77%	79%	82%
Others	22%	24%	13%	13%	12%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: Deutsche Bank estimates

Figure 44: SIIC 12m forward P/E



Source: Bloomberg Finance LP, Deutsche Bank



**Valuation:** Our DCF-based valuation (WACC of 6.8%) incorporates our long-term growth assumption and is not affected by the mismatch between reported earnings and cash flows under concession accounting.

**Risks:** lower-than-expected project wins; EPS dilution from potential equity placement; delay in passing through the VAT rule change impact, and receivable risks from local governments.

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## Dongjiang Environmental (Dongjiang) – Buy

**Stock view:** We like Dongjiang on the strong capacity growth outlook for China's hazardous waste treatment market, Dongjiang's leading market position, potential to consolidate the fragmented market and the company's transformation into an SOE with an employee share incentive scheme. We expect Dongjiang to deliver recurring earnings growth of 28% in 2017E and a CAGR of 25% in 2017-19E. This should be driven by the capacity growth and utilization rate rise in the industrial waste treatment division. We expect Dongjiang to benefit from the Shenzhen-Hong Kong Stock Connect in the long run, as Dongjiang's share price is only 0.68x that of Dongjiang-A. Maintaining Buy on Dongjiang and Sell on Dongjiang-A.

### Leading market position and transformation to SOE

China's hazardous waste treatment capacity should post a 17% CAGR, driven by the Soil Pollution Control Plan. Dongjiang is well positioned to capture the growth due to its being a leader in capacity, geographic presence, treatment qualifications and track record. The company should also benefit as the market, with ~1,500 players, consolidates. Dongjiang's announced share issue to a company under Guangdong SASAC will turn it into an SOE and we expect it to benefit from its new SOE status in new project wins, project ramp-ups and finance costs.

Dongjiang has qualifications to treat ~43 different types of hazardous waste (qualifications are a major entry barrier to the hazardous waste treatment market), making it one of the few companies possessing qualifications for over 30 types of hazardous waste. Dongjiang has over 20 years of experience in hazardous waste treatment, one of the longest in China. We believe that Dongjiang's leading market position places the company well for future expansion.

We expect Dongjiang to benefit from its transformation into an SOE on 1) new project wins, 2) project ramp-ups, and 3) finance costs. GRAM has sizable operations in mining and this could provide business opportunities for Dongjiang with the mining industry being a major contributor to China's hazardous waste generation. In addition, Dongjiang's SOE status can help the company in terms of securing other new projects and also make project ramp-ups smoother – as is the recent case with Dongjiang's Yuebei project. Moreover, Dongjiang should be able to enjoy lower finance costs as an SOE, for whom banks usually offer discounts when granting loans.



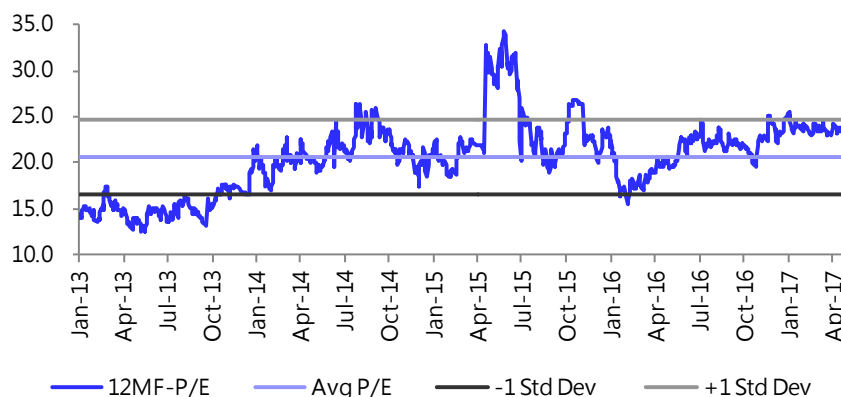
Figure 45: Revenue forecasts for Dongjiang

	2014	2015	2016E	2017E	2018E	2019E
<b>Average operational capacity (ktpa)</b>						
Industrial waste recycling	401	613	711	707	737	885
Industrial waste treatment and disposal	91	356	591	793	984	1,310
<b>Total</b>	<b>493</b>	<b>969</b>	<b>1,302</b>	<b>1,500</b>	<b>1,721</b>	<b>2,194</b>
<b>Utilization rate</b>						
Industrial waste recycling	90%	75%	78%	74%	73%	68%
Industrial waste treatment and disposal	180%	66%	60%	69%	73%	72%
<b>Processing volume (kt)</b>						
Industrial waste recycling	361	459	554	522	541	602
Industrial waste treatment and disposal	165	235	327	546	720	945
<b>Revenue (Rmb m)</b>						
Industrial waste recycling	938	773	791	668	778	1,148
Industrial waste treatment and disposal	396	587	843	1,421	1,890	2,506
Municipal waste treatment and disposal	209	273	306	306	306	210
Renewable energy utilisation	64	89	92	92	92	92
Environmental engineering and services	159	200	245	245	245	245
Trading	61	86	119	119	119	119
Dismantling household appliances	221	395	221	50	15	15
Other emerging business	-	-	-	334	367	404
<b>Total</b>	<b>2,048</b>	<b>2,403</b>	<b>2,617</b>	<b>3,235</b>	<b>3,813</b>	<b>4,740</b>
<b>Gross profit (Rmb m)</b>						
Industrial waste recycling	283	235	260	210	248	377
Industrial waste treatment and disposal	228	303	421	708	929	1,207
Municipal waste treatment and disposal	34	48	67	49	40	27
Renewable energy utilisation	18	23	33	24	24	24
Environmental engineering and services	39	49	59	59	59	59
Trading	27	63	90	53	53	53
Dismantling household appliances	36	58	14	5	2	2
Other emerging business	-	-	-	67	73	81
<b>Total</b>	<b>665</b>	<b>779</b>	<b>945</b>	<b>1,175</b>	<b>1,428</b>	<b>1,831</b>
<b>Gross profit margin</b>						
Industrial waste recycling	30%	30%	33%	31%	32%	33%
Industrial waste treatment and disposal	58%	52%	50%	50%	49%	48%
Municipal waste treatment and disposal	16%	18%	22%	16%	13%	13%
Renewable energy utilisation	28%	26%	36%	26%	26%	26%
Environmental engineering and services	25%	24%	24%	24%	24%	24%
Trading	45%	73%	76%	45%	45%	45%
Dismantling household appliances	16%	15%	7%	10%	10%	10%
Other emerging business	-	-	-	20%	20%	20%
<b>Total</b>	<b>32%</b>	<b>32%</b>	<b>36%</b>	<b>36%</b>	<b>37%</b>	<b>39%</b>

Source: Deutsche Bank estimates



Figure 46: Dongjiang 12m forward P/E



Source: Bloomberg Finance LP, Deutsche Bank

**Valuation:** We derive our target price using a DCF-valuation with explicit cash flows through to 2026E and a terminal value, discounted at a 7.3% WACC (RFR of 3.9%, beta of 1.3, and ERP of 5.6%, yielding a CoE of 11.2%; pre-tax CoD of 4.5%; and a D/E ratio of 50:50).

**Risks:** 1) fluctuations in China's industrial activity, 2) slower/faster-than-expected capacity ramp-ups, 3) lower/higher-than-expected metal prices, 4) lower/higher-than-expected margins, and 5) possible changes in China's policies.

## Guangdong Investment (GDI) – Buy

**Stock view:** We like GDI on its defensive water business, growing dividends and strong balance sheet. With more than 50% of earnings from water sales in HKD terms, GDI is the most defensive among its environmental peers from potential RMB depreciation. We expect GDI to deliver a recurring profit CAGR of 3% in 2017-19E and to increase its dividend payout by ~5 percentage points per annum, resulting in a DPS CAGR of 10% in 2017-19E. GDI is in a net cash position, with very low funding costs (~2.0%), positioning the company very well for any future expansion, in our view. Although we expect GDI's dividend yield to decline to 4.0% in 2017, in line with a rising share price, the company would still trade at an attractive free cash flow yield of 8.1%, according to our estimate.

GDI won the bid for 60ktpd of water supply capacity and 11ktpd of waste water treatment capacity in 1Q17. GDI has invested HKD2.4bn in Tianjin Teem Shopping Mall and HKD2.2bn in Panyu Wanbo by March 2017. There have not been any investments for the Yinping PPP projects by March 2017. The Guangdong Land (124 HK, Not rated) acquisition was completed on 18 April 2017, although there should be a minimal earnings contribution from Guangdong Land in 2017-18E.

Going forward, GDI has said that it will continue investing in water, property and other infrastructure projects.



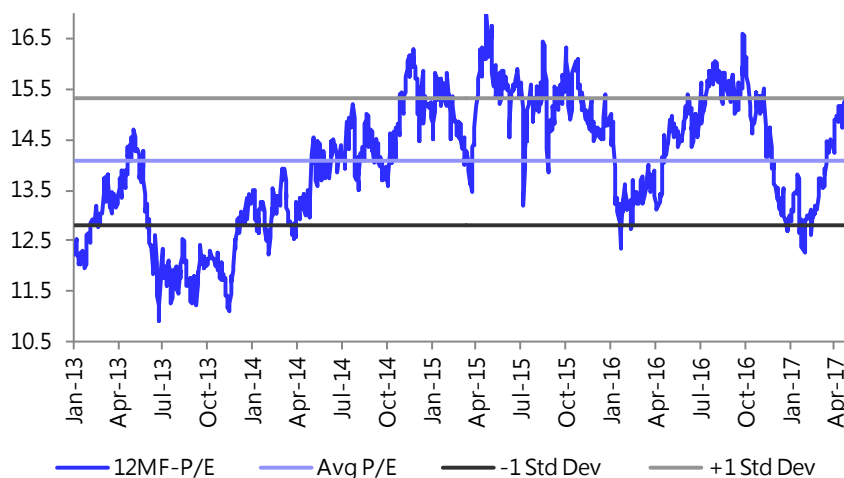
Figure 47: Summary for GDI

	2015	2016	2017E	2018E	2019E
<b>Year-end capacity</b>					
Water supply					
Water Group HK (RMB/ m3)	145	555	642	642	642
Waste water (RMB/ m3)	142	143	160	160	160
Power plant (Rmb/ kWh)	110	355	600	600	600
<b>Utilization rate</b>					
Water supply					
Water Group HK (RMB/ m3)	60%	50%	52%	54%	56%
Waste water (RMB/ m3)	90%	90%	90%	90%	90%
Power plant (Rmb/ kWh)	68%	62%	45%	47%	49%
<b>Tariff (ex VAT)</b>					
Water supply					
Hong Kong (HK\$/ m3)	5.51	7.14	7.59	7.82	8.06
Shenzhen and Dongguan (RMB/ m3)	0.62	0.84	0.84	0.84	0.84
Water Group HK (RMB/ m3)	2.41	2.23	2.27	2.32	2.36
Waste water (RMB/ m3)	0.93	0.91	0.95	0.95	0.95
Power plant (Rmb/ kWh)	0.49	0.37	0.38	0.38	0.38
<b>Revenue (HK\$ mn)</b>					
- Water distribution	5,896	6,505	6,804	6,929	7,105
- Property investment and dev.	1,171	1,130	1,331	1,057	1,240
- Department stores	813	717	719	702	716
- Electric power generation	471	847	992	993	1,035
- Toll roads and bridges	150	630	639	635	658
- Hotel O&M	672	634	620	626	645
- Others	-	-	-	-	-
<b>Total</b>	<b>9,172</b>	<b>10,464</b>	<b>11,105</b>	<b>10,942</b>	<b>11,398</b>
<b>EBITDA (excl. interest income)</b>					
Water distribution	3,852	4,471	4,899	4,954	5,045
Electric power generation	189	405	347	372	388
Toll roads and bridges	166	542	550	547	568
Property investment	1,078	1,104	1,021	907	917
Department stores	282	206	227	223	226
Hotel operations and management	226	192	240	251	258
Others	(124)	(219)	-	-	-
<b>Total</b>	<b>5,668</b>	<b>6,701</b>	<b>7,284</b>	<b>7,255</b>	<b>7,402</b>
<b>EBITDA margin (excl. interest income)</b>					
Water distribution	65%	69%	72%	72%	71%
Electric power generation	16%	36%	26%	35%	31%
Toll roads and bridges	20%	76%	77%	78%	79%
Property investment	229%	130%	103%	91%	89%
Department stores	188%	33%	35%	35%	34%
Hotel operations and management	34%	30%	39%	40%	40%
Others	-	-	-	-	-
<b>Total</b>	<b>62%</b>	<b>64%</b>	<b>66%</b>	<b>66%</b>	<b>65%</b>

Source: Deutsche Bank estimates; company data



Figure 48: GDI 12m forward P/E



Source: Bloomberg Finance LP, Deutsche Bank

**Valuation:** We derive our target price using the NAV discount method for the commercial property segment and a DCF methodology for the other segments based on a WACC of 6% for water and 8% for the other sectors.

**Risks:** Key downside risks include 1) lower-than-expected revenue for raw water sales to Hong Kong in future revenue resets after 2017, 2) acquisition or asset injection at expensive valuations, 3) higher-than-expected tariff cuts and coal costs or lower-than-expected utilization rates for its thermal plant business, 4) lower-than-expected rental yields for its commercial property projects, especially for new projects under development, and 5) potential rises in US interest rates.

Figure 49: Target price breakdown by segment

HK\$ m	Discounted explicit cash flow	PV of terminal value	Total	Per share (HK \$)
<b>DCF method (WACC of 6.0% for water and 8.0% for the others)</b>				
Water distribution	38,289	10,851	49,141	7.5
Department stores	1,446	788	2,234	0.3
Electric power generation	2,899	1,448	4,347	0.7
Toll roads	3,701	-	3,701	0.6
Hotel O&M	1,898	1,156	3,054	0.5
<b>NAV discount method</b>				
Property investment and dev.	N.A.	N.A.	15,923	2.4
<b>Sum of present value of free cashflow</b>			<b>78,400</b>	<b>12.0</b>
Less: total debt			(5,317)	(0.8)
Add: cash			11,052	1.7
Add: Assoc & JC			1,654	0.3
Add: Invest			7,656	1.2
Less: minority interest			(6,219)	(1.0)
<b>Equity value (HK\$ in millions)</b>			<b>87,227</b>	<b>13.3</b>

Source: Deutsche Bank estimates



## CT Environmental (CTEG) – Hold

**Stock view:** We maintain a Hold rating on CT Environmental (CTEG). Utilization/profitability for hazardous waste treatment projects was lower/slower than expected and management guided for delays in another four projects in other segments for various reasons during the recent FY16 results. In our view, it will take some time for CTEG to restore investor confidence after the recent results miss and also negative report.

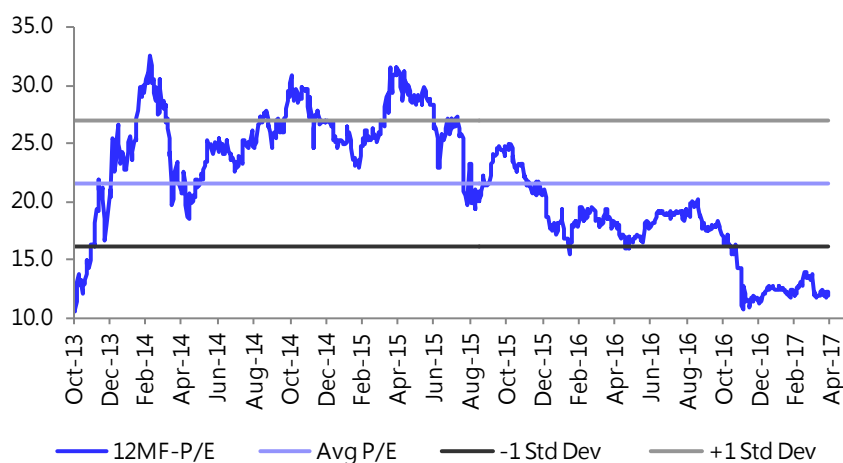
Downstream industrial customer production in Guangdong was affected by the very strict environmental inspection by the Ministry of Environmental Protection in 4Q16 (which thereby impacted CTEG's utilization). Management believes that this should not recur in 2017 and has already seen a rebound in utilization in 1Q17 versus 4Q16.

Delays with project ramp-ups were driven by CTEG adding sub-projects to projects. For example, the Longmen project started planning as a waste-to-energy project, but later, management added industrial waste and sludge treatment to the planning and decided to launch all sub-projects at the same time as it sees synergies among them.

The Guangyuan project is expected to commence operation in 2017 and the Yulin project's industrial park is already close to a 100% sign-up rate.

Management is upbeat on the sludge treatment business in 2017, with sludge treatment fees rising. The company has recently signed up sludge treatment projects with treatment fees of over RMB400/t, much higher than the ~RMB250/t in previous years.

Figure 50: CTEG 12m forward P/E



Source: Bloomberg Finance LP, Deutsche Bank

**Valuation:** We derive our target price using a DCF valuation, with explicit cash flows to 2025E and a terminal value, discounted at 7.2% WACC (RFR of 3.9%, beta of 1.3, ERP of 5.6%, yielding a CoE of 10.9%, pre-tax CoD of 3.4%, and a D/E ratio of 50:50).





**Risks:** Key downside risks include 1) closure or relocation of existing industrial customers or lower-than-expected utilization rates due to economic growth slowdown, 2) credit risk on receivables from customers, especially industrial customers, 3) slower/stronger-than-expected expansion through winning new projects, 4) failure to meet environmental discharge standards, 5) EPS dilution from potential equity placement, and 6) lower-than-expected returns on new projects or unsuccessful expansion into new businesses.



Figure 51: Summary for CT Environmental

	2016	2017E	2018E	2019E
<b>Average operational capacity (t/d)</b>				
Industrial water supply	280,000	305,833	390,000	390,000
WWT BOO	435,000	565,833	622,500	625,000
WWT BOT	165,000	165,000	165,000	165,000
Industrial waste	274	479	1,575	2,055
Sludge	3,063	3,667	4,242	4,242
Hazardous waste	729,000	781,000	839,000	879,000
WTE	-	300	600	600
<b>Utilization rate</b>				
Industrial water supply	56%	56%	57%	58%
WWT BOO	62%	62%	74%	82%
WWT BOT	95%	95%	95%	95%
Industrial waste	78%	57%	60%	71%
Sludge	120%	100%	102%	105%
Hazardous waste	47%	56%	62%	67%
WTE	-	80%	90%	100%
<b>Volume (mt)</b>				
Industrial water supply	57	63	80	82
WWT BOO	98	129	168	186
WWT BOT	57	57	57	57
Industrial waste	0.1	0.1	0.3	0.5
Sludge	1.3	1.3	1.6	1.6
WTE treatment volume	-	0.1	0.2	0.2
WTE electricity (mn kWh)	-	29	66	73
<b>Tariff (Rmb/t)</b>				
Industrial water supply	1.1	1.1	1.0	1.0
WWT BOO	4.3	4.1	3.9	3.9
WWT BOT	1.0	1.0	1.0	1.0
Industrial waste	586	586	586	586
Sludge	286	334	344	354
WTE treatment fee	245.0	245.0	245.0	245.0
WTE electricity (Rmb/kWh, ex. VAT)	-	0.5	0.5	0.5
<b>Revenue (Rmb m)</b>				
Industrial water supply	58	69	84	85
Wastewater treatment plants operation	470	563	702	764
BOT construction and operation	334	132	121	130
Heating service	121	138	142	146
Sludge & solid waste treatment	440	506	747	887
Entrusted operations	9	9	9	9
Hazardous waste treatment	435	532	585	644
<b>Total</b>	<b>1,866</b>	<b>1,948</b>	<b>2,390</b>	<b>2,666</b>
<b>Adjusted EBITDA (Rmb m)</b>				
Industrial water supply	47	55	67	68
Wastewater treatment plants operation	327	416	505	542
BOT construction and operation	87	37	51	55
Heating service	8	10	10	10
Sludge & solid waste treatment	247	268	388	453
Entrusted operations	9	0	0	0
Hazardous waste treatment	308	383	416	451
Elimination	-5	0	0	0
<b>Total</b>	<b>1,027</b>	<b>1,169</b>	<b>1,437</b>	<b>1,579</b>
<b>Adjusted EBITDA margin</b>				
Industrial water supply	81%	80%	80%	80%
Wastewater treatment plants operation	70%	74%	72%	71%
BOT construction and operation	26%	28%	42%	42%
Heating service	7%	7%	7%	7%
Sludge & solid waste treatment	56%	53%	52%	51%
Entrusted operations	NA	0%	0%	0%
Hazardous waste treatment	71%	72%	71%	70%
Elimination	0%	0%	0%	0%
<b>Total</b>	<b>55%</b>	<b>60%</b>	<b>60%</b>	<b>59%</b>

Source: Deutsche Bank estimates





Model updated: 08 May 2017

### Running the numbers

Asia

China

Utilities

### Beijing Enterprises Water

Reuters: 0371.HK

Bloomberg: 371 HK

### Buy

Price (8 May 17) HKD 5.73

Target Price HKD 7.10

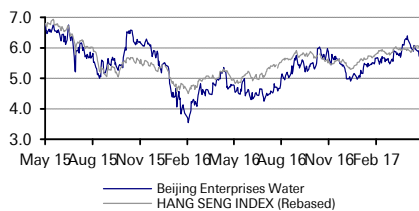
52 Week range HKD 4.25 - 6.40

Market Cap (m) HKDm 39,251  
USDm 5,043

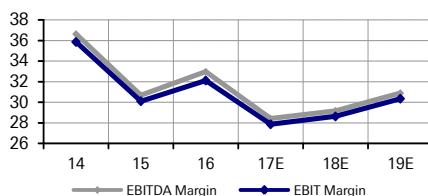
### Company Profile

Beijing Enterprises Water is a state-owned enterprise that specializes in sewage treatment, water supply, reclaimed water and desalination business. It is currently one of the leading integrated water and sewage treatment provider in China, with its water plants located across 14 provinces and municipalities. Beijing Enterprises Holdings is largest shareholder.

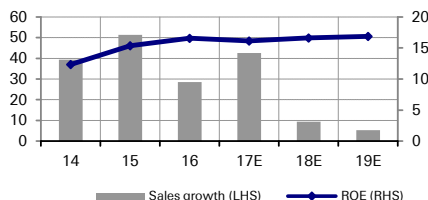
### Price Performance



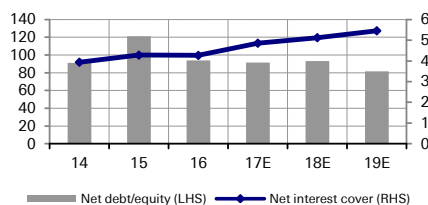
### Margin Trends



### Growth & Profitability



### Solvency



Fiscal year end 31-Dec

### Financial Summary

	2014	2015	2016	2017E	2018E	2019E
DB EPS (HKD)	0.18	0.27	0.33	0.43	0.51	0.57
Reported EPS (HKD)	0.20	0.28	0.36	0.44	0.51	0.57
DPS (HKD)	0.08	0.10	0.12	0.14	0.16	0.18
BVPS (HKD)	1.8	1.9	1.9	2.2	2.5	2.9
Weighted average shares (m)	8,643	8,715	8,712	8,725	8,765	8,805
Average market cap (HKDm)	44,268	50,048	42,809	39,251	39,251	39,251
Enterprise value (HKDm)	61,863	74,247	66,242	64,598	68,710	68,545

### Valuation Metrics

P/E (DB) (x)	28.1	21.4	14.8	13.2	11.3	10.0
P/E (Reported) (x)	25.2	20.9	13.5	13.0	11.3	10.0
P/BV (x)	2.92	2.93	2.72	2.65	2.29	1.98
FCF Yield (%)	nm	nm	nm	nm	nm	7.1
Dividend Yield (%)	1.5	1.7	2.4	2.5	2.8	3.2
EV/Sales (x)	6.9	5.5	3.8	2.6	2.5	2.4
EV/EBITDA (x)	18.9	17.9	11.6	9.2	8.7	7.8
EV/EBIT (x)	19.3	18.3	11.9	9.4	8.9	7.9

### Income Statement (HKDm)

Sales revenue	8,926	13,503	17,355	24,738	27,052	28,496
Gross profit	3,564	5,044	5,932	8,227	9,417	10,536
EBITDA	3,270	4,143	5,722	7,032	7,894	8,806
Depreciation	68	77	147	137	148	154
Amortisation	0	0	0	0	0	0
EBIT	3,201	4,066	5,575	6,895	7,745	8,651
Net interest income/(expense)	-812	-950	-1,306	-1,419	-1,511	-1,585
Associates/affiliates	278	429	375	406	484	584
Exceptionals/extraordinaries	0	0	0	0	0	0
Other pre-tax income/(expense)	0	0	0	0	0	0
Profit before tax	2,667	3,546	4,644	5,882	6,718	7,650
Income tax expense	594	778	971	1,273	1,480	1,713
Minorities	279	312	389	514	571	642
Other post-tax income/(expense)	0	0	-57	-226	-226	-226
Net profit	1,794	2,455	3,227	3,869	4,441	5,068
DB adjustments (including dilution)	-184	-64	-277	-68	0	0
DB Net profit	1,611	2,391	2,950	3,801	4,441	5,068

### Cash Flow (HKDm)

Cash flow from operations	264	-2,627	-2,500	-132	-822	3,707
Net Capex	-634	-2,094	-378	-121	-128	-134
Free cash flow	-370	-4,721	-2,878	-253	-950	3,573
Equity raised/(bought back)	0	0	6,545	90	90	90
Dividends paid	-495	-802	-1,060	-1,243	-1,427	-1,628
Net inc/(dec) in borrowings	3,343	8,291	5,141	4,013	1,219	2,089
Other investing/financing cash flows	-1,753	-2,385	-3,193	-1,419	-1,390	-1,440
Net cash flow	725	384	4,555	1,187	-2,458	2,684
Change in working capital	-6,856	-6,913	-3,687	-6,181	-7,463	-3,573

### Balance Sheet (HKDm)

Cash and other liquid assets	6,091	6,374	10,921	11,882	9,198	11,656
Tangible fixed assets	1,299	1,380	2,831	2,567	2,546	2,525
Goodwill/intangible assets	0	0	0	0	0	0
Associates/investments	3,109	4,466	5,685	5,657	6,019	6,457
Other assets	41,142	52,272	61,610	68,138	76,468	80,294
Total assets	51,641	64,492	81,047	88,243	94,231	100,933
Interest bearing debt	23,490	30,933	36,078	38,714	39,933	42,022
Other liabilities	9,062	13,269	18,202	20,168	21,263	21,702
Total liabilities	32,552	44,201	54,280	58,882	61,195	63,724
Shareholders' equity	15,784	16,184	22,806	25,189	28,293	31,823
Minorities	3,304	4,107	3,961	4,173	4,743	5,386
Total shareholders' equity	19,089	20,290	26,767	29,361	33,036	37,208
Net debt	17,400	24,559	25,157	26,832	30,735	30,366

### Key Company Metrics

Sales growth (%)	39.3	51.3	28.5	42.5	9.4	5.3
DB EPS growth (%)	35.4	47.0	23.8	31.1	16.3	13.6
EBITDA Margin (%)	36.6	30.7	33.0	28.4	29.2	30.9
EBIT Margin (%)	35.9	30.1	32.1	27.9	28.6	30.4
Payout ratio (%)	37.6	33.7	32.1	32.1	32.1	32.1
ROE (%)	12.3	15.4	16.6	16.1	16.6	16.9
Capex/sales (%)	7.1	15.5	2.2	0.5	0.5	0.5
Capex/depreciation (x)	9.3	27.2	2.6	0.9	0.9	0.9
Net debt/equity (%)	91.2	121.0	94.0	91.4	93.0	81.6
Net interest cover (x)	3.9	4.3	4.3	4.9	5.1	5.5

Source: Company data, Deutsche Bank estimates

Thomas Zhu, CFA

+852 2203 6235

thomas.zhu@db.com



Model updated: 04 May 2017

### Running the numbers

Asia

China

Utilities

### China Everbright Int'l

Reuters: 0257.HK

Bloomberg: 257 HK

### Buy

Price (8 May 17) HKD 9.96

Target Price HKD 12.20

52 Week range HKD 7.76 - 10.98

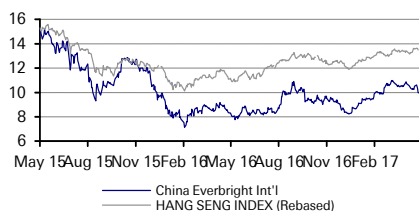
Market Cap (m) HKDm 44,648

USDm 5,736

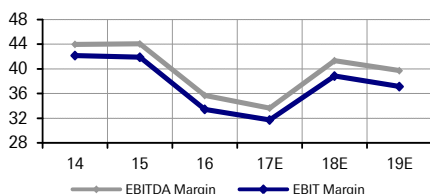
### Company Profile

China Everbright International is primarily engaged in environmental protection project investments such as sewage water treatment, waste-to-energy and solid waste disposal. The company also operates a toll bridge in Fuzhou, Fujian province. China Everbright Int'l is controlled by China Everbright Group and has positioned itself as the environmental investment arm of its parent.

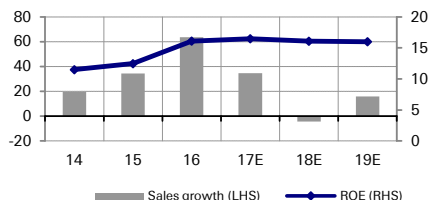
### Price Performance



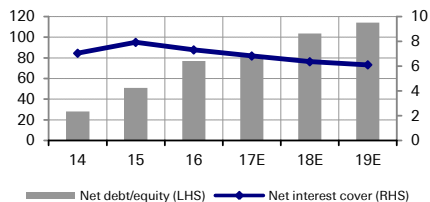
### Margin Trends



### Growth & Profitability



### Solvency



Fiscal year end 31-Dec

### Financial Summary

	2014	2015	2016	2017E	2018E	2019E
DB EPS (HKD)	na	0.45	0.63	0.73	0.83	0.91
Reported EPS (HKD)	0.38	0.46	0.62	0.73	0.83	0.91
DPS (HKD)	0.11	0.19	0.21	0.26	0.29	0.32
BVPS (HKD)	3.6	3.8	3.9	5.0	5.4	6.0
Weighted average shares (m)	4,484	4,484	4,483	4,483	4,483	4,483
Average market cap (HKDm)	48,038	54,702	39,630	44,648	44,648	44,648
Enterprise value (HKDm)	53,325	66,156	56,711	67,635	76,384	84,125

### Valuation Metrics

P/E (DB) (x)	0.0	27.0	14.1	13.6	11.9	10.9
P/E (Reported) (x)	28.2	26.2	14.2	13.6	11.9	10.9
P/BV (x)	3.18	2.60	2.27	2.00	1.84	1.66
FCF Yield (%)	nm	nm	nm	nm	nm	nm
Dividend Yield (%)	1.0	1.5	2.3	2.6	2.9	3.2
EV/Sales (x)	8.4	7.8	4.1	3.6	4.2	4.0
EV/EBITDA (x)	19.1	17.6	11.4	10.7	10.3	10.2
EV/EBIT (x)	19.9	18.5	12.1	11.3	10.9	10.9

### Income Statement (HKDm)

Sales revenue	6,355	8,535	13,971	18,799	17,977	20,816
Gross profit	3,084	4,093	5,623	7,124	8,384	9,465
EBITDA	2,796	3,760	4,988	6,327	7,433	8,269
Depreciation	79	91	163	176	200	225
Amortisation	36	93	150	185	248	311
EBIT	2,680	3,576	4,675	5,966	6,985	7,733
Net interest income/(expense)	-381	-452	-640	-875	-1,099	-1,266
Associates/affiliates	-1	-6	63	22	15	15
Exceptionals/extraordinaries	0	0	0	0	0	0
Other pre-tax income/(expense)	0	0	0	0	0	0
Profit before tax	2,299	3,119	4,099	5,113	5,901	6,481
Income tax expense	534	783	1,062	1,349	1,472	1,617
Minorities	62	251	252	491	689	775
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	1,703	2,085	2,785	3,273	3,740	4,090
DB adjustments (including dilution)	-1,703	-61	27	0	0	0
DB Net profit	0	2,024	2,812	3,273	3,740	4,090

### Cash Flow (HKDm)

Cash flow from operations	-1,187	-2,091	-2,448	-3,279	-1,958	-229
Net Capex	-216	-656	-520	-2,940	-3,160	-4,117
Free cash flow	-1,402	-2,747	-2,968	-6,219	-5,118	-4,345
Equity raised/(bought back)	0	660	0	0	0	0
Dividends paid	-448	-560	-874	-1,155	-1,227	-1,370
Net inc/(dec) in borrowings	1,187	7,513	6,220	7,494	4,324	4,890
Other investing/financing cash flows	332	-2,285	-1,915	2,668	-1,098	-1,266
Net cash flow	-332	2,579	463	2,787	-3,119	-2,091
Change in working capital	-3,740	-5,392	-6,999	-8,257	-7,920	-6,881

### Balance Sheet (HKDm)

Cash and other liquid assets	4,094	5,953	6,341	9,128	6,008	3,917
Tangible fixed assets	1,684	2,516	3,187	3,575	3,967	5,073
Goodwill/intangible assets	3,406	4,419	7,250	9,445	11,771	14,250
Associates/investments	1,335	638	651	672	687	702
Other assets	20,681	27,096	32,104	41,687	48,814	55,893
Total assets	31,200	40,623	49,532	64,508	71,247	79,836
Interest bearing debt	9,137	15,821	21,616	29,841	34,795	39,685
Other liabilities	4,220	5,382	8,071	9,403	8,616	8,820
Total liabilities	13,357	21,203	29,687	39,244	43,411	48,505
Shareholders' equity	16,263	17,196	17,389	22,317	24,200	26,919
Minorities	1,580	2,224	2,456	2,947	3,637	4,411
Total shareholders' equity	17,843	19,421	19,845	25,264	27,836	31,331
Net debt	5,042	9,867	15,275	20,713	28,787	35,768

### Key Company Metrics

Sales growth (%)	19.5	34.3	63.7	34.6	-4.4	15.8
DB EPS growth (%)	na	na	39.0	16.4	14.3	9.4
EBITDA Margin (%)	44.0	44.1	35.7	33.7	41.3	39.7
EBIT Margin (%)	42.2	41.9	33.5	31.7	38.9	37.1
Payout ratio (%)	29.0	39.8	33.0	35.0	35.0	35.0
ROE (%)	11.5	12.5	16.1	16.5	16.1	16.0
Capex/sales (%)	3.4	7.7	3.7	15.6	17.6	19.8
Capex/depreciation (x)	1.9	3.6	1.7	8.1	7.0	7.7
Net debt/equity (%)	28.3	50.8	77.0	82.0	103.4	114.2
Net interest cover (x)	7.0	7.9	7.3	6.8	6.4	6.1

Source: Company data, Deutsche Bank estimates

Thomas Zhu, CFA

+852 2203 6235

thomas.zhu@db.com



Model updated: 04 May 2017

### Running the numbers

Asia

China

Utilities

### China Everbright Water

Reuters: CEWL.SI

Bloomberg: CEWL SP

### Buy

Price (8 May 17) SGD 0.46

Target Price SGD 0.59

52 Week range SGD 0.42 - 0.71

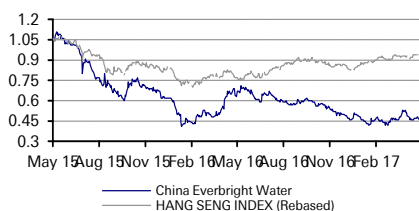
Market Cap (m) SGDm 1,187

USDm 845

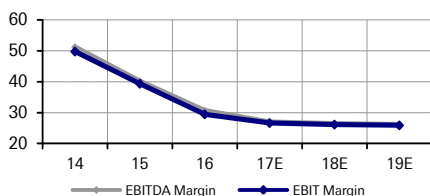
### Company Profile

China Everbright Water (CEW), a 74.4 percent-owned subsidiary of China Everbright Intl, is listed in Singapore. CEW is primarily engaged in the environmental water business, such as wastewater treatment, and reusable water, etc.. Upon the completion of reverse takeover of Hankore Environment (previously known as Bio-Treat) on 12 December 2014, CEW has expanded its water business with projects located across North and Central of China, including Beijing, Jiangsu, Shandong, Shaanxi, and Henan.

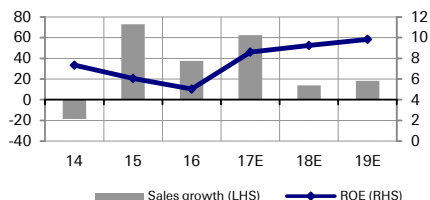
### Price Performance



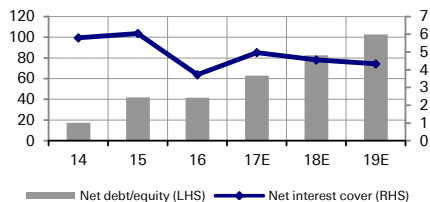
### Margin Trends



### Growth & Profitability



### Solvency



Fiscal year end 31-Dec

### Financial Summary

	2014	2015	2016	2017E	2018E	2019E
DB EPS (HKD)	0.15	0.16	0.15	0.22	0.24	0.28
Reported EPS (HKD)	0.15	0.16	0.13	0.22	0.24	0.28
DPS (HKD)	0.00	0.02	0.02	0.03	0.03	0.03
BVPS (HKD)	2.5	2.7	2.6	2.5	2.7	3.0
Weighted average shares (m)	1,969	2,571	2,609	2,610	2,610	2,610
Average market cap (HKDm)	12,341	12,626	8,256	6,576	6,576	6,576
Enterprise value (HKDm)	13,042	15,018	10,842	10,588	12,517	14,824

### Valuation Metrics

P/E (DB) (x)	40.9	30.5	21.7	11.5	10.4	9.0
P/E (Reported) (x)	42.1	31.1	23.6	11.5	10.4	9.0
P/BV (x)	2.41	1.28	1.08	1.01	0.92	0.85
FCF Yield (%)	2.5	0.2	0.1	nm	nm	nm
Dividend Yield (%)	0.0	0.4	0.6	1.0	1.2	1.3
EV/Sales (x)	12.4	8.3	4.3	2.6	2.7	2.7
EV/EBITDA (x)	24.2	20.6	14.2	9.7	10.3	10.4
EV/EBIT (x)	24.9	21.0	14.8	9.8	10.4	10.5

### Income Statement (HKDm)

Sales revenue	1,051	1,815	2,494	4,047	4,608	5,444
Gross profit	596	824	906	1,214	1,347	1,560
EBITDA	538	729	765	1,092	1,219	1,422
Depreciation	14	14	15	13	13	13
Amortisation	1	1	15	2	1	0
EBIT	523	714	735	1,077	1,204	1,409
Net interest income/(expense)	-90	-118	-198	-217	-265	-325
Associates/affiliates	0	0	0	0	0	0
Exceptionals/extraordinaries	0	0	0	0	0	0
Other pre-tax income/(expense)	0	0	0	0	0	0
Profit before tax	433	596	537	861	940	1,084
Income tax expense	119	172	165	250	268	303
Minorities	21	17	23	37	40	47
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	293	406	349	574	632	733
DB adjustments (including dilution)	9	7	32	0	0	0
DB Net profit	302	413	381	574	632	733

### Cash Flow (HKDm)

Cash flow from operations	317	33	20	-1,073	-1,528	-1,816
Net Capex	-3	-10	-12	0	0	0
Free cash flow	313	23	8	-1,073	-1,528	-1,816
Equity raised/(bought back)	0	659	0	0	0	0
Dividends paid	0	0	-12	-50	-46	-69
Net inc/(dec) in borrowings	-149	2,909	310	1,202	1,336	1,577
Other investing/financing cash flows	88	-2,787	-366	-266	-315	-375
Net cash flow	252	803	-60	-186	-552	-683
Change in working capital	-173	-635	-642	-2,092	-2,669	-3,155

### Balance Sheet (HKDm)

Cash and other liquid assets	681	1,769	1,903	1,716	1,165	482
Tangible fixed assets	174	163	148	134	122	108
Goodwill/intangible assets	1,994	2,709	2,445	2,322	2,305	2,287
Associates/investments	667	893	792	792	792	792
Other assets	6,595	8,405	8,793	10,621	13,496	16,950
Total assets	10,112	13,939	14,080	15,586	17,880	20,619
Interest bearing debt	1,824	4,818	4,887	6,090	7,426	9,004
Other liabilities	1,736	1,824	2,002	2,532	2,863	3,314
Total liabilities	3,560	6,642	6,889	8,622	10,289	12,317
Shareholders' equity	6,325	7,061	6,798	6,534	7,120	7,785
Minorities	226	236	394	430	470	517
Total shareholders' equity	6,551	7,297	7,192	6,964	7,590	8,302
Net debt	1,143	3,049	2,985	4,373	6,262	8,522

### Key Company Metrics

Sales growth (%)	-18.6	72.7	37.4	62.3	13.9	18.1
DB EPS growth (%)	11.6	4.8	-9.2	50.6	10.0	16.1
EBITDA Margin (%)	51.2	40.2	30.7	27.0	26.4	26.1
EBIT Margin (%)	49.8	39.4	29.5	26.6	26.1	25.9
Payout ratio (%)	0.0	12.2	13.1	12.0	12.0	12.0
ROE (%)	7.3	6.1	5.0	8.6	9.3	9.8
Capex/sales (%)	0.3	0.6	0.5	0.0	0.0	0.0
Capex/depreciation (x)	0.2	0.7	0.4	0.0	0.0	0.0
Net debt/equity (%)	17.5	41.8	41.5	62.8	82.5	102.6
Net interest cover (x)	5.8	6.0	3.7	5.0	4.6	4.3

Source: Company data, Deutsche Bank estimates

Thomas Zhu, CFA

+852 2203 6235

thomas.zhu@db.com



Model updated: 04 May 2017

### Running the numbers

Asia

China

Utilities

### CT Environmental

Reuters: 1363.HK

Bloomberg: 1363 HK

### Hold

Price (8 May 17) HKD 1.46

Target Price HKD 1.63

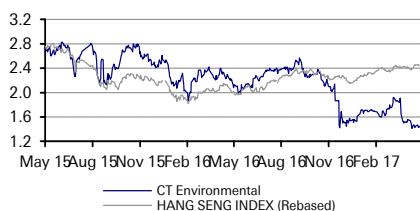
52 Week range HKD 1.41 - 2.57

Market Cap (m) HKDm 9,223  
USDm 1,185

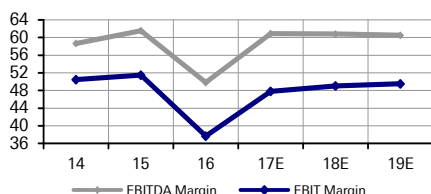
### Company Profile

CT Environmental Group Ltd (CTEG), listed in Hong Kong in September 2013, is committed to providing one-stop environmental services, mainly for industrial customers. It started in the industrial wastewater treatment and water supply businesses, and has now expanded into sludge treatment, industrial solid waste and hazardous waste businesses.

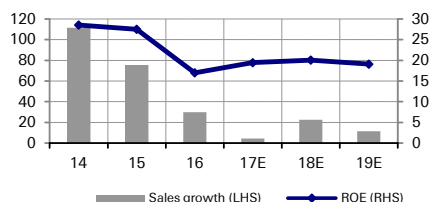
### Price Performance



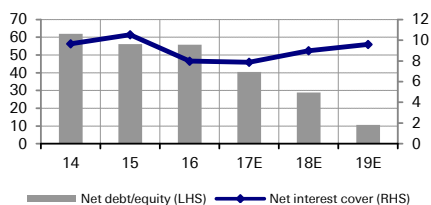
### Margin Trends



### Growth & Profitability



### Solvency



Fiscal year end 31-Dec

### Financial Summary

	2014	2015	2016	2017E	2018E	2019E
DB EPS (CNY)	0.06	0.08	0.10	0.11	0.13	0.15
Reported EPS (CNY)	0.06	0.10	0.08	0.11	0.13	0.15
DPS (CNY)	0.01	0.02	0.02	0.02	0.02	0.03
BVPS (CNY)	0.3	0.5	0.5	0.6	0.7	0.8
Weighted average shares (m)	5,626	6,101	6,317	6,317	6,317	6,317
Average market cap (CNYm)	6,709	11,947	11,825	8,174	8,174	8,174
Enterprise value (CNYm)	7,542	13,282	13,336	9,418	9,174	8,430

### Valuation Metrics

P/E (DB) (x)	21.1	23.3	18.3	12.0	9.8	8.7
P/E (Reported) (x)	20.0	20.0	22.8	12.0	9.8	8.7
P/BV (x)	6.16	4.51	2.61	2.14	1.81	1.54
FCF Yield (%)	0.8	nm	1.0	5.7	6.1	12.5
Dividend Yield (%)	1.2	1.1	0.8	1.6	1.9	2.1
EV/Sales (x)	9.2	9.3	7.1	4.8	3.8	3.2
EV/EBITDA (x)	15.7	15.0	14.3	7.9	6.3	5.2
EV/EBIT (x)	18.3	18.0	19.0	10.1	7.8	6.4

### Income Statement (CNYm)

Sales revenue	818	1,435	1,866	1,948	2,390	2,666
Gross profit	528	860	1,079	1,223	1,503	1,652
EBITDA	480	883	930	1,187	1,453	1,613
Depreciation	67	145	226	255	281	293
Amortisation	0	0	0	0	0	0
EBIT	413	739	703	932	1,172	1,320
Net interest income/(expense)	-43	-70	-88	-118	-130	-138
Associates/affiliates	3	2	2	2	2	2
Exceptionals/extraordinaries	0	0	0	0	0	0
Other pre-tax income/(expense)	0	0	0	0	0	0
Profit before tax	374	670	617	815	1,044	1,185
Income tax expense	35	69	102	138	208	248
Minorities	3	2	-5	-7	0	0
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	336	599	519	684	836	936
DB adjustments (including dilution)	-18	-85	128	0	0	0
DB Net profit	319	514	647	684	836	936

### Cash Flow (CNYm)

Cash flow from operations	472	352	734	1,188	1,134	1,331
Net Capex	-421	-1,243	-616	-719	-636	-306
Free cash flow	51	-891	118	469	498	1,025
Equity raised/(bought back)	280	920	-20	0	0	0
Dividends paid	-33	-79	-153	-97	-132	-154
Net inc/(dec) in borrowings	303	520	785	332	282	84
Other investing/financing cash flows	-798	-204	-79	-114	-124	-129
Net cash flow	-196	266	651	589	524	825
Change in working capital	95	109	413	138	-126	-47

### Balance Sheet (CNYm)

Cash and other liquid assets	117	383	1,034	1,623	2,147	2,972
Tangible fixed assets	1,249	2,151	2,412	2,826	3,191	3,214
Goodwill/intangible assets	310	1,295	1,461	1,511	1,501	1,492
Associates/investments	115	307	302	304	306	308
Other assets	1,062	1,370	1,663	1,574	1,706	1,752
Total assets	2,852	5,505	6,872	7,837	8,851	9,738
Interest bearing debt	1,041	2,010	2,837	3,169	3,450	3,534
Other liabilities	316	599	800	854	882	903
Total liabilities	1,357	2,608	3,637	4,023	4,333	4,437
Shareholders' equity	1,471	2,883	3,225	3,812	4,516	5,298
Minorities	23	14	9	2	2	2
Total shareholders' equity	1,495	2,897	3,235	3,814	4,518	5,301
Net debt	925	1,627	1,803	1,546	1,304	562

### Key Company Metrics

Sales growth (%)	111.5	75.4	30.0	4.4	22.6	11.5
DB EPS growth (%)	54.1	48.7	21.6	5.7	22.2	12.0
EBITDA Margin (%)	58.7	61.6	49.8	60.9	60.8	60.5
EBIT Margin (%)	50.5	51.5	37.7	47.8	49.1	49.5
Payout ratio (%)	23.0	22.8	18.8	19.2	18.4	18.4
ROE (%)	28.5	27.5	17.0	19.4	20.1	19.1
Capex/sales (%)	51.4	86.6	33.3	36.9	26.6	11.5
Capex/depreciation (x)	6.3	8.6	2.7	2.8	2.3	1.0
Net debt/equity (%)	61.9	56.2	55.8	40.5	28.8	10.6
Net interest cover (x)	9.7	10.5	8.0	7.9	9.0	9.6

Source: Company data, Deutsche Bank estimates

Thomas Zhu, CFA  
+852 2203 6235

thomas.zhu@db.com



Model updated: 03 May 2017

### Running the numbers

Asia

China

Utilities

## Dongjiang Environmental

Reuters: 0895.HK

Bloomberg: 0895 HK

### Buy

Price (8 May 17) HKD 12.18

Target Price HKD 16.00

52 Week range HKD 10.80 - 14.06

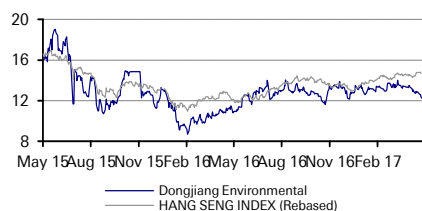
Market Cap (m) HKDm 16,307

USDm 2,095

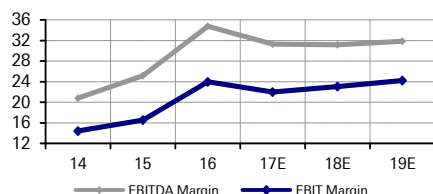
### Company Profile

Dongjiang Environmental Company Ltd is primarily focused on industrial waste treatment and recycling, with small business exposure to municipal waste treatment. The company is a leader in industrial hazardous waste treatment in China and holds permits to treat more than 40 different types of hazardous wastes. The company is dual-listed in Hong Kong and mainland China.

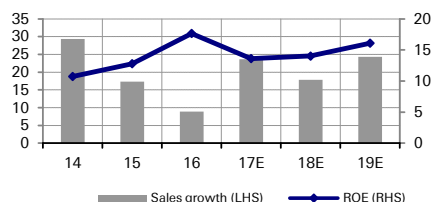
### Price Performance



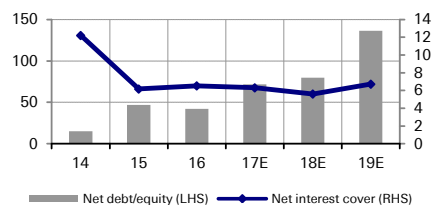
### Margin Trends



### Growth & Profitability



### Solvency



Thomas Zhu, CFA

+852 2203 6235

thomas.zhu@db.com

Fiscal year end 31-Dec

### Financial Summary

	2014	2015	2016	2017E	2018E	2019E
DB EPS (CNY)	0.28	0.34	0.43	0.54	0.64	0.83
Reported EPS (CNY)	0.30	0.38	0.61	0.54	0.64	0.83
DPS (CNY)	0.15	0.08	0.13	0.11	0.13	0.17
BVPS (CNY)	2.8	3.2	3.7	4.3	4.8	5.5
Weighted average shares (m)	846	869	878	890	896	902
Average market cap (CNYm)	8,758	15,224	14,055	14,454	14,454	14,454
Enterprise value (CNYm)	9,481	17,051	16,108	18,068	18,877	22,705

### Valuation Metrics

P/E (DB) (x)	27.0	31.4	23.7	19.9	16.9	12.9
P/E (Reported) (x)	25.7	28.1	16.8	19.9	16.9	12.9
P/BV (x)	3.04	3.34	3.12	2.53	2.24	1.95
FCF Yield (%)	nm	nm	0.1	nm	nm	nm
Dividend Yield (%)	1.9	0.7	1.2	1.1	1.2	1.6
EV/Sales (x)	4.6	7.1	6.2	5.6	5.0	4.8
EV/EBITDA (x)	22.3	28.2	17.7	17.9	15.9	15.0
EV/EBIT (x)	32.1	42.8	25.7	25.4	21.5	19.8

### Income Statement (CNYm)

Sales revenue	2,048	2,403	2,617	3,235	3,813	4,740
Gross profit	786	968	1,190	1,450	1,707	2,154
EBITDA	426	605	910	1,012	1,189	1,510
Depreciation	96	143	175	210	234	290
Amortisation	35	64	108	90	76	71
EBIT	295	398	627	712	879	1,149
Net interest income/(expense)	-24	-65	-96	-113	-157	-171
Associates/affiliates	32	28	16	17	17	18
Exceptionals/extraordinaries	-47	-13	-8	0	0	0
Other pre-tax income/(expense)	65	100	134	0	0	0
Profit before tax	322	449	674	615	740	996
Income tax expense	39	64	97	97	127	187
Minorities	31	53	43	35	42	55
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	252	333	534	484	571	753
DB adjustments (including dilution)	-13	-35	-155	0	0	0
DB Net profit	239	298	379	484	571	753

### Cash Flow (CNYm)

Cash flow from operations	166	228	690	-198	645	745
Net Capex	-978	-925	-681	-1,375	-1,358	-4,461
Free cash flow	-813	-697	9	-1,573	-714	-3,716
Equity raised/(bought back)	132	8	160	146	48	64
Dividends paid	-128	-248	-249	-107	-102	-120
Net inc/(dec) in borrowings	903	714	420	666	1,103	3,595
Other investing/financing cash flows	-4	14	-16	-4	-17	-22
Net cash flow	89	-208	324	-873	319	-199
Change in working capital	-296	-432	-119	-1,017	-277	-424

### Balance Sheet (CNYm)

Cash and other liquid assets	1,028	858	1,160	287	606	407
Tangible fixed assets	790	1,300	1,397	2,528	3,654	4,723
Goodwill/intangible assets	849	1,413	1,947	1,857	1,781	1,710
Associates/investments	101	150	153	153	153	153
Other assets	2,217	2,965	3,532	4,301	4,655	8,308
Total assets	4,985	6,685	8,189	9,125	10,848	15,300
Interest bearing debt	1,455	2,369	2,790	3,456	4,559	8,155
Other liabilities	691	1,097	1,534	1,260	1,339	1,465
Total liabilities	2,147	3,466	4,323	4,716	5,898	9,620
Shareholders' equity	2,442	2,753	3,289	3,811	4,327	5,024
Minorities	396	466	577	598	623	656
Total shareholders' equity	2,839	3,220	3,866	4,409	4,950	5,680
Net debt	428	1,511	1,629	3,169	3,954	7,748

### Key Company Metrics

Sales growth (%)	29.3	17.4	8.9	23.6	17.9	24.3
DB EPS growth (%)	29.9	20.3	26.1	25.9	17.2	31.0
EBITDA Margin (%)	20.8	25.2	34.8	31.3	31.2	31.9
EBIT Margin (%)	14.4	16.6	24.0	22.0	23.1	24.2
Payout ratio (%)	50.4	20.9	20.7	20.9	20.9	20.9
ROE (%)	10.7	12.8	17.7	13.6	14.0	16.1
Capex/sales (%)	47.8	44.8	46.5	42.5	35.6	94.1
Capex/depreciation (x)	7.5	5.2	4.3	4.6	4.4	12.4
Net debt/equity (%)	15.1	46.9	42.2	71.9	79.9	136.4
Net interest cover (x)	12.2	6.2	6.5	6.3	5.6	6.7

Source: Company data, Deutsche Bank estimates





Model updated: 04 May 2017

### Running the numbers

Asia

China

Utilities

### Guangdong Investment

Reuters: 0270.HK

Bloomberg: 270 HK

### Buy

Price (8 May 17) HKD 11.50

Target Price HKD 13.30

52 Week range HKD 9.65 - 12.82

Market Cap (m) HKDm 71,455

USDm 9,180

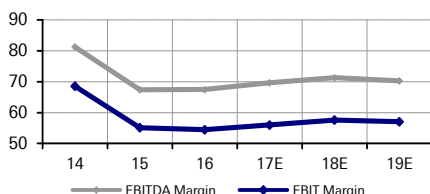
### Company Profile

Guangdong Investment's (GDI) primary business is the supply of raw water to Hong Kong and Dongguan/Shenzhen. In addition, the company owns stakes in several power plants and toll roads located in Guangdong. The company also has a property portfolio, which includes office towers, hotels and department stores located in Guangdong, Tianjin and Hong Kong. GDI is controlled by GDH Limited, which is a provincial-owned conglomerate.

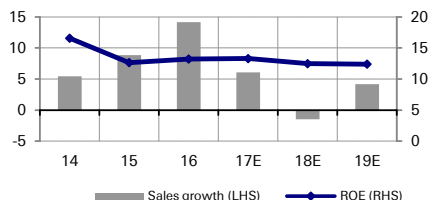
### Price Performance



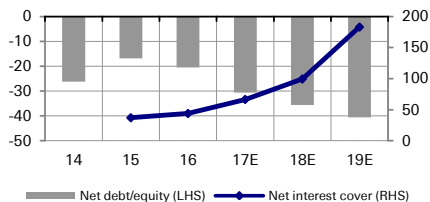
### Margin Trends



### Growth & Profitability



### Solvency



Fiscal year end 31-Dec

### Financial Summary

	2014	2015	2016	2017E	2018E	2019E
DB EPS (HKD)	0.58	0.65	0.69	0.72	0.72	0.74
Reported EPS (HKD)	0.76	0.62	0.67	0.72	0.72	0.74
DPS (HKD)	0.28	0.34	0.42	0.47	0.51	0.57
BVPS (HKD)	4.9	5.0	5.1	5.6	5.9	6.1
Weighted average shares (m)	6,240	6,254	6,263	6,403	6,544	6,547
Average market cap (HKDm)	51,722	64,264	67,815	71,455	71,455	71,455
Enterprise value (HKDm)	46,122	61,894	64,282	62,827	60,326	57,686

### Valuation Metrics

P/E (DB) (x)	14.4	15.7	15.8	16.0	16.0	15.5
P/E (Reported) (x)	10.9	16.5	16.1	16.0	16.0	15.5
P/BV (x)	1.98	2.14	1.99	2.04	1.96	1.88
FCF Yield (%)	7.2	2.6	3.5	7.5	8.1	8.7
Dividend Yield (%)	3.4	3.3	3.9	4.1	4.4	5.0
EV/Sales (x)	5.5	6.7	6.1	5.7	5.5	5.1
EV/EBITDA (x)	6.7	10.0	9.1	8.1	7.7	7.2
EV/EBIT (x)	8.0	12.2	11.3	10.1	9.6	8.9

### Income Statement (HKDm)

Sales revenue	8,426	9,172	10,468	11,105	10,942	11,398
Gross profit	6,848	6,182	7,061	7,737	7,798	8,011
EBITDA	6,848	6,182	7,061	7,737	7,798	8,011
Depreciation	261	275	403	569	549	562
Amortisation	810	850	955	951	945	945
EBIT	5,777	5,057	5,703	6,217	6,305	6,504
Net interest income/(expense)	310	-136	-130	-93	-63	-36
Associates/affiliates	312	325	179	138	172	186
Exceptionals/extraordinaries	0	0	0	0	0	0
Other pre-tax income/(expense)	78	0	0	0	0	0
Profit before tax	6,476	5,246	5,752	6,261	6,413	6,655
Income tax expense	1,138	957	1,100	1,228	1,264	1,323
Minorities	566	384	440	441	448	463
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	4,773	3,905	4,212	4,593	4,701	4,869
DB adjustments (including dilution)	-1,173	194	84	0	0	0
DB Net profit	3,600	4,099	4,296	4,593	4,701	4,869

### Cash Flow (HKDm)

Cash flow from operations	5,105	5,293	5,969	6,432	6,579	6,809
Net Capex	-1,385	-3,591	-3,581	-876	-477	-283
Free cash flow	3,720	1,702	2,388	5,556	6,102	6,526
Equity raised/(bought back)	2	92	61	2,835	0	0
Dividends paid	-1,498	-2,050	-2,464	-3,034	-3,314	-3,582
Net inc/(dec) in borrowings	1,281	2,855	-2,020	-1,500	-1,500	-1,293
Other investing/financing cash flows	-3,074	-1,200	350	0	-1,525	-2,744
Net cash flow	432	1,399	-1,684	3,858	-237	-1,094
Change in working capital	397	1,079	-792	-183	-141	-114

### Balance Sheet (HKDm)

Cash and other liquid assets	15,210	15,524	14,845	18,703	19,991	21,642
Tangible fixed assets	3,650	7,083	6,692	6,742	6,273	5,791
Goodwill/intangible assets	13,166	15,522	14,442	13,502	12,567	11,633
Associates/investments	1,659	1,893	1,721	1,659	1,582	1,498
Other assets	13,931	14,088	14,430	14,737	15,108	15,338
Total assets	47,615	54,110	52,130	55,343	55,522	55,902
Interest bearing debt	5,872	9,252	7,017	5,517	4,017	2,724
Other liabilities	6,079	7,590	6,875	6,752	6,596	6,519
Total liabilities	11,951	16,842	13,892	12,269	10,613	9,243
Shareholders' equity	30,267	31,472	32,222	36,856	38,482	40,011
Minorities	5,397	5,795	6,017	6,219	6,428	6,648
Total shareholders' equity	35,664	37,267	38,239	43,074	44,909	46,659
Net debt	-9,337	-6,272	-7,829	-13,186	-15,974	-18,918

### Key Company Metrics

Sales growth (%)	5.5	8.8	14.1	6.1	-1.5	4.2
DB EPS growth (%)	4.5	13.7	4.7	4.6	0.1	3.5
EBITDA Margin (%)	81.3	67.4	67.5	69.7	71.3	70.3
EBIT Margin (%)	68.6	55.1	54.5	56.0	57.6	57.1
Payout ratio (%)	36.7	54.5	62.4	65.5	71.0	76.7
ROE (%)	16.6	12.7	13.2	13.3	12.5	12.4
Capex/sales (%)	17.4	39.2	34.2	7.9	4.4	2.5
Capex/depreciation (x)	1.4	3.2	2.6	0.6	0.3	0.2
Net debt/equity (%)	-26.2	-16.8	-20.5	-30.6	-35.6	-40.5
Net interest cover (x)	nm	37.2	44.0	66.6	99.5	183.1

Source: Company data, Deutsche Bank estimates

Thomas Zhu, CFA

+852 2203 6235

thomas.zhu@db.com



Model updated: 04 May 2017

### Running the numbers

Asia

China

Utilities

### SIIC Environment

Reuters: SIIC.SI

Bloomberg: SIIC SP

### Buy

Price (8 May 17) SGD 0.52

Target Price SGD 0.67

52 Week range SGD 0.51 - 0.69

Market Cap (m) SGDm 1,173  
USDm 836

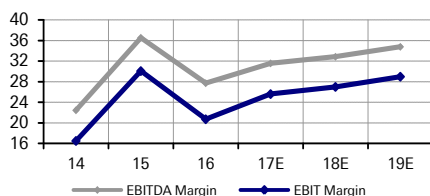
### Company Profile

SIIC Environment, formally known as Asia Water Technology (Asia Water), is listed in Singapore. The company's primary business is the operation of the wastewater and water supply business in China through BOT and TOT business models. As of end-2014, SIIC owns about 70 water projects with total designed capacity of 5.4m<sup>3</sup>/d and three WTE projects with total waste treatment capacity of 3,200t/d, located across 15 provinces and municipalities in China.

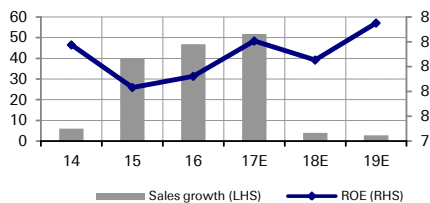
### Price Performance



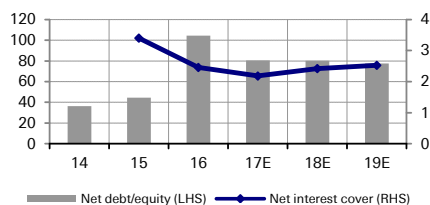
### Margin Trends



### Growth & Profitability



### Solvency



Fiscal year end 31-Dec

### Financial Summary

	2014	2015	2016	2017E	2018E	2019E
DB EPS (CNY)	0.12	0.17	0.15	0.22	0.24	0.27
Reported EPS (CNY)	0.14	0.17	0.20	0.22	0.24	0.27
DPS (CNY)	0.00	0.00	0.00	0.03	0.04	0.04
BVPS (CNY)	1.9	2.4	2.6	2.9	3.1	3.4
Weighted average shares (m)	1,812	2,137	2,257	2,490	2,607	2,607
Average market cap (CNYm)	7,402	8,368	6,903	5,764	5,764	5,764
Enterprise value (CNYm)	8,347	10,934	17,363	15,715	16,358	16,783

### Valuation Metrics

P/E (DB) (x)	32.7	23.4	20.2	11.4	10.5	9.4
P/E (Reported) (x)	28.6	23.2	15.2	11.4	10.5	9.4
P/BV (x)	1.74	1.43	1.06	0.87	0.82	0.76
FCF Yield (%)	1.1	nm	nm	nm	nm	3.1
Dividend Yield (%)	0.0	0.0	0.0	1.3	1.4	1.6
EV/Sales (x)	6.5	6.1	6.6	3.9	3.9	3.9
EV/EBITDA (x)	28.9	16.6	23.7	12.4	11.9	11.2
EV/EBIT (x)	39.3	20.2	31.6	15.3	14.5	13.5

### Income Statement (CNYm)

Sales revenue	1,288	1,804	2,648	4,020	4,180	4,301
Gross profit	446	829	998	1,697	1,799	1,925
EBITDA	289	659	734	1,269	1,373	1,496
Depreciation	11	11	24	24	24	24
Amortisation	66	105	161	216	221	226
EBIT	213	542	549	1,030	1,129	1,247
Net interest income/(expense)	114	-159	-223	-472	-466	-493
Associates/affiliates	60	78	71	62	64	66
Exceptionals/extraordinaries	4	0	155	0	0	0
Other pre-tax income/(expense)	18	63	113	221	241	268
Profit before tax	410	524	665	841	968	1,087
Income tax expense	76	100	124	167	198	229
Minorities	71	64	85	116	134	151
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	262	360	455	558	635	707
DB adjustments (including dilution)	-33	-3	-114	0	0	0
DB Net profit	229	358	341	558	635	707

### Cash Flow (CNYm)

Cash flow from operations	236	-72	-93	103	136	404
Net Capex	-151	-46	-102	-200	-200	-200
Free cash flow	84	-119	-195	-97	-64	204
Equity raised/(bought back)	751	0	0	1,087	0	0
Dividends paid	0	0	0	0	0	0
Net inc/(dec) in borrowings	-190	920	3,146	-506	625	561
Other investing/financing cash flows	-1,404	-1,126	-2,111	-379	-453	-480
Net cash flow	-760	-324	839	105	108	285
Change in working capital	-15	-717	-837	-1,254	-1,312	-1,157

### Balance Sheet (CNYm)

Cash and other liquid assets	1,119	795	1,635	1,740	1,847	2,132
Tangible fixed assets	108	105	184	160	136	112
Goodwill/intangible assets	1,530	3,682	6,903	6,842	6,776	6,706
Associates/investments	1,198	1,430	1,009	1,023	1,031	1,033
Other assets	4,211	6,233	13,308	15,024	16,378	17,538
Total assets	8,167	12,245	23,038	24,789	26,168	27,521
Interest bearing debt	2,676	3,724	10,543	10,036	10,662	11,223
Other liabilities	1,214	1,942	3,962	4,458	4,530	4,560
Total liabilities	3,890	5,666	14,505	14,494	15,192	15,782
Shareholders' equity	3,691	5,512	5,973	7,617	8,165	8,777
Minorities	586	1,068	2,560	2,677	2,811	2,961
Total shareholders' equity	4,277	6,579	8,533	10,294	10,976	11,739
Net debt	1,557	2,928	8,908	8,297	8,814	9,090

### Key Company Metrics

Sales growth (%)	6.0	40.1	46.8	51.8	4.0	2.9
DB EPS growth (%)	-10.0	34.0	-9.7	48.2	8.9	11.3
EBITDA Margin (%)	22.5	36.5	27.7	31.6	32.9	34.8
EBIT Margin (%)	16.5	30.1	20.7	25.6	27.0	29.0
Payout ratio (%)	0.0	0.0	0.0	15.0	15.0	15.0
ROE (%)	8.2	7.8	7.9	8.2	8.1	8.4
Capex/sales (%)	11.8	3.5	3.9	5.0	4.8	4.7
Capex/depreciation (x)	2.0	0.5	0.6	0.8	0.8	0.8
Net debt/equity (%)	36.4	44.5	104.4	80.6	80.3	77.4
Net interest cover (x)	nm	3.4	2.5	2.2	2.4	2.5

Source: Company data, Deutsche Bank estimates

Thomas Zhu, CFA

+852 2203 6235

thomas.zhu@db.com



# Appendix 1

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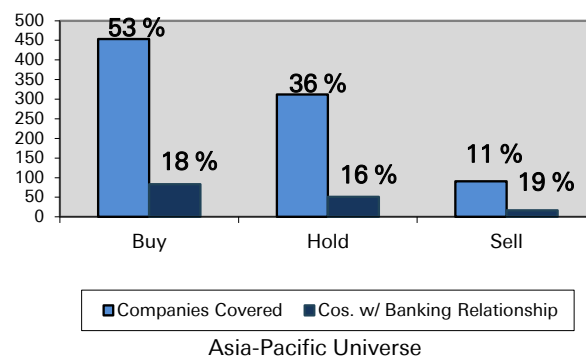
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Group Chief Economist and Global Head of Research

Raj Hindocha  
Global Chief Operating Officer  
Research

Michael Spencer  
Head of APAC Research  
Global Head of Economics

Steve Pollard  
Head of Americas Research  
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Anthony Klarman  
Global Head of  
Debt Research

Paul Reynolds  
Head of EMEA  
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Deutsche Bank Place  
Level 16  
Corner of Hunter & Phillip Streets  
Sydney, NSW 2000  
Australia  
Tel: (61) 2 8258 1234

#### Deutsche Bank AG

Große Gallusstraße 10-14  
60272 Frankfurt am Main  
Germany  
Tel: (49) 69 910 00

#### Deutsche Bank AG

Filiale Hongkong  
International Commerce Centre,  
1 Austin Road West, Kowloon,  
Hong Kong  
Tel: (852) 2203 8888

#### Deutsche Securities Inc.

2-11-1 Nagatacho  
Sanno Park Tower  
Chiyoda-ku, Tokyo 100-6171  
Japan  
Tel: (81) 3 5156 6770

#### Deutsche Bank AG London

1 Great Winchester Street  
London EC2N 2EQ  
United Kingdom  
Tel: (44) 20 7545 8000

#### Deutsche Bank Securities Inc.

60 Wall Street  
New York, NY 10005  
United States of America  
Tel: (1) 212 250 2500

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