

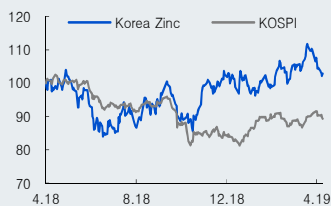
**Non-ferrous metal**

Results Comment  
April 26, 2019

(Maintain)	<b>Buy</b>
Target Price (12M, W)	<b>620,000</b>
Share Price (04/25/19, W)	450,000
Expected Return	38%

OP (19F, Wbn)	833
Consensus OP (19F, Wbn)	836
EPS Growth (19F, %)	19.1
Market EPS Growth (19F, %)	-16.3
P/E (19F, x)	13.5
Market P/E (19F, x)	11.9
KOSPI	2,190.50
Market Cap (Wbn)	8,492
Shares Outstanding (mn)	19
Free Float (%)	45.1
Foreign Ownership (%)	24.7
Beta (12M)	0.72
52-Week Low	367,500
52-Week High	489,000

(%)	<b>1M</b>	<b>6M</b>	<b>12M</b>
Absolute	-2.7	13.2	5.4
Relative	-4.7	6.6	17.8



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[Advanced Materials/Metals]

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# Korea Zinc

(010130 KS)

## Margins to improve on higher zinc TC

### 1Q19 review: In-line results

For 1Q19, Korea Zinc announced non-consolidated revenue of W1.2tr (-9.4% YoY, -8% QoQ) and operating profit of W154bn (-3.9% YoY, +10.2% QoQ), in line with the consensus. OP margin expanded 2.2%p QoQ to 12.9% (vs. 10.7% in 4Q18), driven by: 1) a rise in the spot treatment charges (TC) for zinc and lead; and 2) cost savings through ESS facility usage. On a QoQ basis, ASP gained 3.1% for zinc, 1.2% for lead, 5.2% for silver, and 6.5% for gold.

### Higher contract TC to lift margins from 2Q19

On April 1<sup>st</sup>, Fastmarkets MB reported that Korea Zinc and Teck Resources (TECK/CP: US\$23.73) had agreed to an annual zinc contract TC of US\$245/tonne. This year's contract TC, which is a US\$98/tonne increase from last year's US\$147/tonne, should reduce Korea Zinc's annual cost burden by roughly W100bn (profit gain), all else being equal. We believe the latest deal shows that smelters are gaining negotiating power over miners, a departure from the past two years, given: 1) the quick conclusion of the negotiations; 2) the absence of any terms unfavorable to smelters (such as an increase in payable rates); and 3) the return to price participation through the linkage of TC to zinc price changes (+5% above US\$3,000/tonne and -2% below US\$2,700/tonne). We expect the higher TC to lift margins from 2Q19.

### Growing cash pile to support dividend and investment increases

Korea Zinc's net cash has increased by W1.5tr over the past five years, to around W2.3tr at end-2018. During that period, dividend payments have more than doubled, from W88bn (DPS of W5,000) to W194bn (DPS of W11,000). The company has also carried out investments to expand capacity and reduce electricity costs. We believe such policies will continue going forward.

### Valuation

We maintain our target price of W620,000, which we derived using an EV/IC-ROIC valuation. In light of the upside potential, we retain our Buy rating. We expect ROIC to improve on higher zinc TC this year and thus see ample upside to share prices.

FY (Dec.)	12/16	12/17	12/18	12/19F	12/20F	12/21F
Revenue (Wbn)	5,848	6,597	6,883	6,525	6,584	6,774
OP (Wbn)	765	895	765	833	883	908
OP margin (%)	13.1	13.6	11.1	12.8	13.4	13.4
NP (Wbn)	592	629	527	628	643	661
EPS (W)	31,395	33,336	27,950	33,289	34,096	35,029
ROE (%)	11.2	11.0	8.6	9.7	9.3	9.0
P/E (x)	15.1	14.8	15.5	13.5	13.2	12.8
P/B (x)	1.6	1.5	1.3	1.3	1.2	1.1
Dividend yield (%)	1.8	2.0	2.5	2.4	2.4	2.4

Note: All figures are based on consolidated K-IFRS; NP refers to net profit attributable to controlling interests  
Source: Company data, Mirae Asset Daewoo Research estimates

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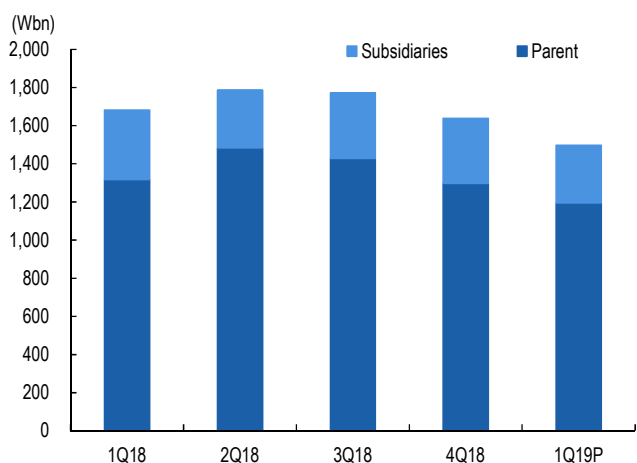
**Table 1. Quarterly and annual earnings**

(Wbn, %)

	1Q18	2Q18	3Q18	4Q18	1Q19P	2Q19F	3Q19F	4Q19F	2018	2019F	2020F
Revenue	1,683	1,788	1,773	1,639	1,497	1,676	1,676	1,676	6,883	6,525	6,584
Korea Zinc (parent)	1,318	1,483	1,429	1,298	1,194	1,356	1,356	1,356	5,528	5,262	5,272
Subsidiaries	365	305	345	341	303	320	320	320	1,356	1,263	1,312
Operating profit	200	218	195	151	177	210	219	226	765	833	883
Korea Zinc (parent)	160	184	164	139	154	190	197	203	648	744	791
Subsidiaries	40	34	31	12	24	20	23	23	117	89	92
OP margin	11.9	12.2	11.0	9.2	11.9	12.5	13.1	13.5	11.1	12.8	13.4
Korea Zinc (parent)	12.1	12.4	11.5	10.7	12.9	14.0	14.5	15.0	11.7	14.1	15.0
Subsidiaries	11.0	11.2	9.0	3.5	7.9	6.4	7.1	7.1	8.6	7.1	7.0
Pretax profit	210	220	202	136	212	221	230	237	769	900	928
Net profit (controlling interests)	146	151	140	90	151	153	159	164	527	628	643

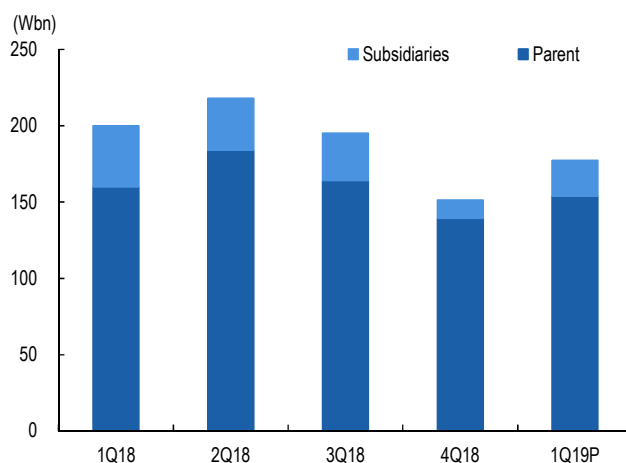
Source: Mirae Asset Daewoo Research estimates

**Figure 1. Revenue: Parent vs. subsidiaries**



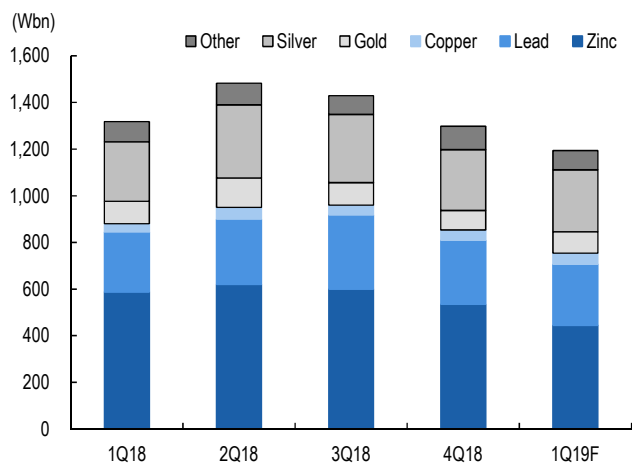
Source: Company data, Mirae Asset Daewoo Research

**Figure 2. OP: Parent vs. subsidiaries**



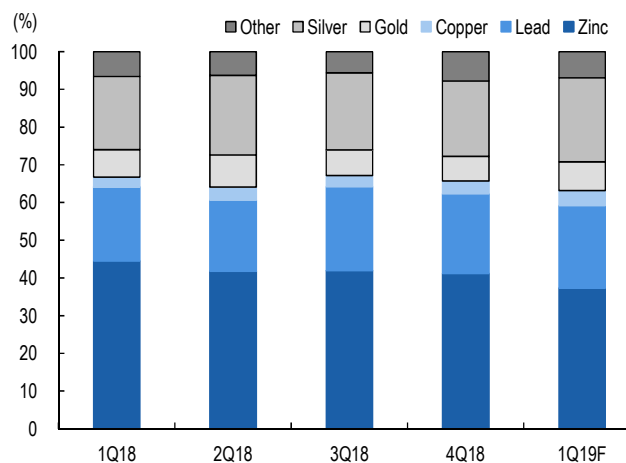
Source: Company data, Mirae Asset Daewoo Research

**Figure 3. Parent revenue by product**



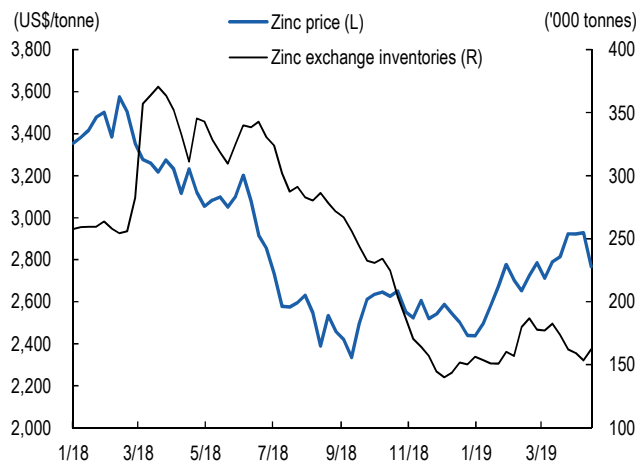
Source: Company data, Mirae Asset Daewoo Research

**Figure 4. Parent revenue breakdown by product**



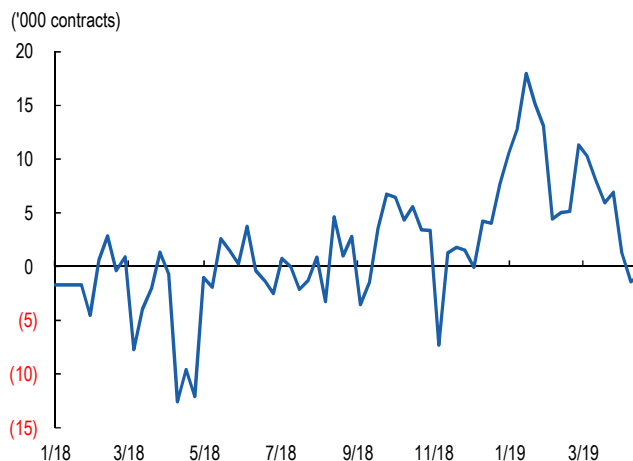
Source: Company data, Mirae Asset Daewoo Research

**Figure 5. Zinc price and inventories**



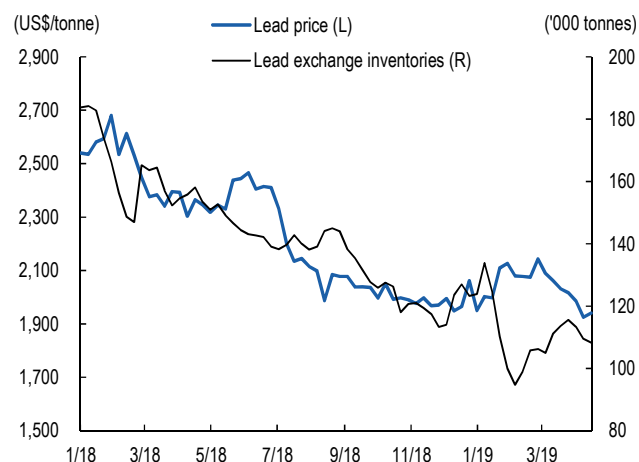
Source: Industry data, Mirae Asset Daewoo Research

**Figure 6. Net zinc purchases by institutional investors**



Source: Industry data, Mirae Asset Daewoo Research

**Figure 7. Lead price and inventories**



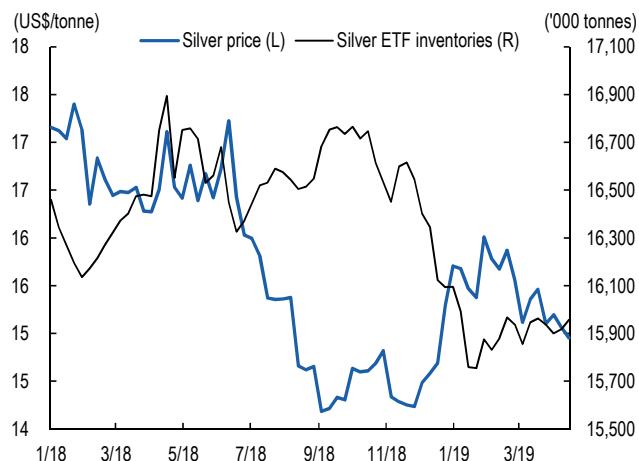
Source: Industry data, Mirae Asset Daewoo Research

**Figure 8. Net lead purchases by institutional investors**



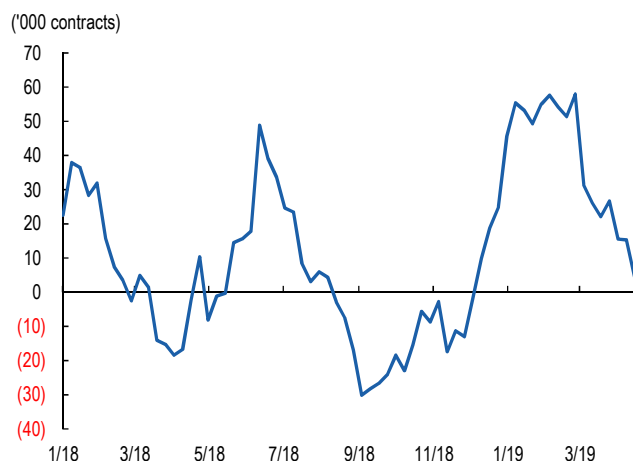
Source: Industry data, Mirae Asset Daewoo Research

**Figure 9. Silver price and ETF inventories**



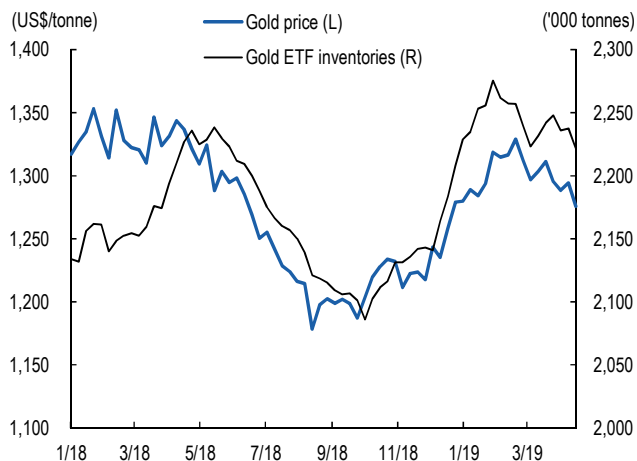
Source: Industry data, Mirae Asset Daewoo Research

**Figure 10. Net silver purchases by institutional investors**



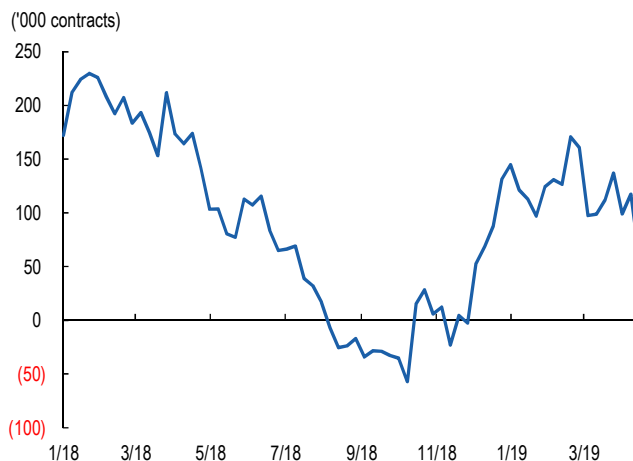
Source: Industry data, Mirae Asset Daewoo Research

**Figure 11. Gold price and ETF inventories**



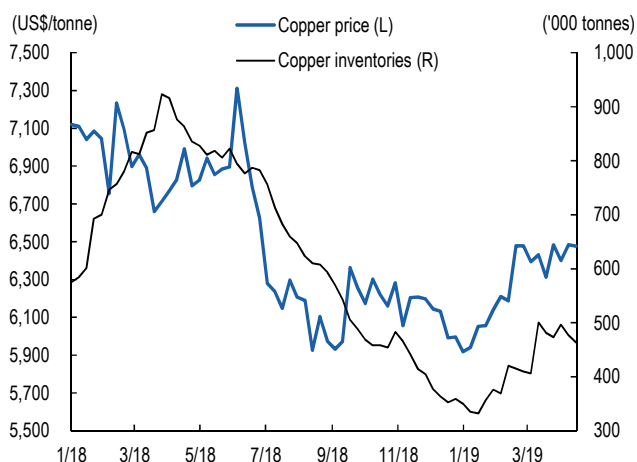
Source: Industry data, Mirae Asset Daewoo Research

**Figure 12. Net gold purchases by institutional investors**



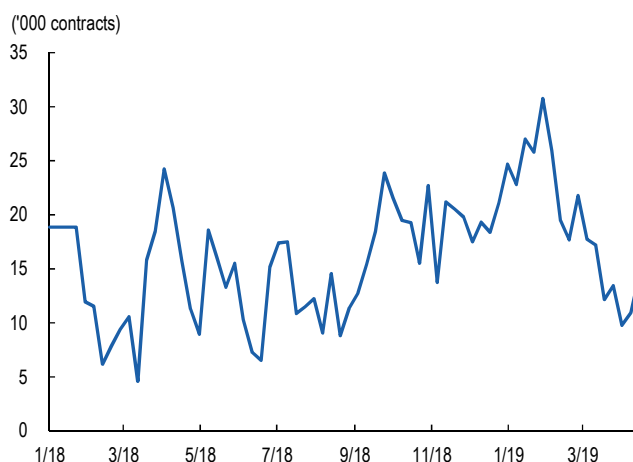
Source: Industry data, Mirae Asset Daewoo Research

**Figure 13. Copper price and inventories**



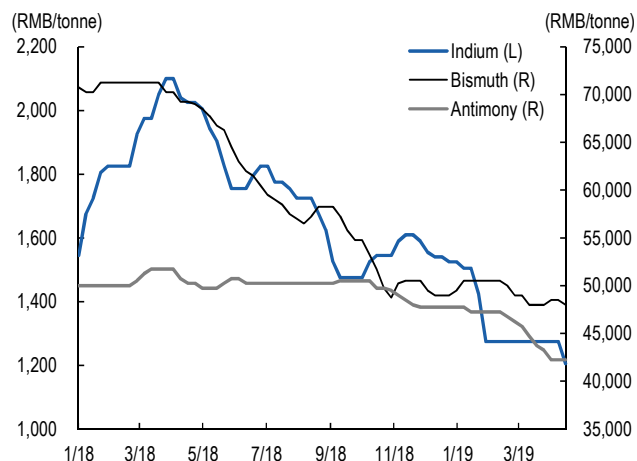
Source: Industry data, Mirae Asset Daewoo Research

**Figure 14. Net copper purchases by institutional investors**



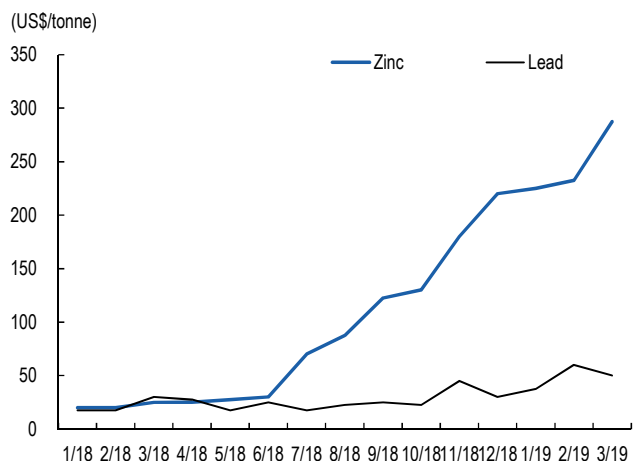
Source: Industry data, Mirae Asset Daewoo Research

**Figure 15. Indium, bismuth, antimony prices**



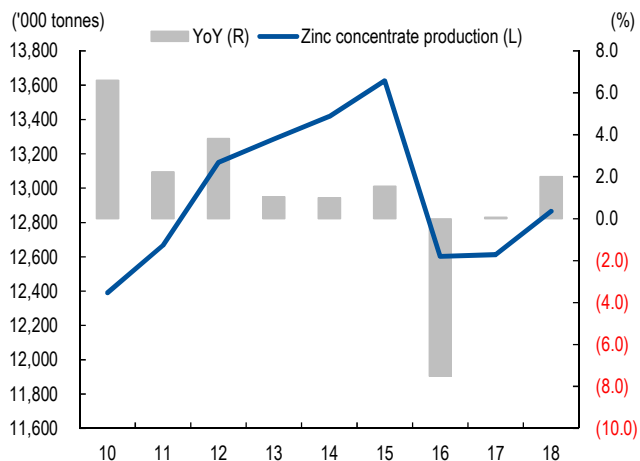
Source: Industry data, Mirae Asset Daewoo Research

**Figure 16. Zinc and lead spot TC trends**



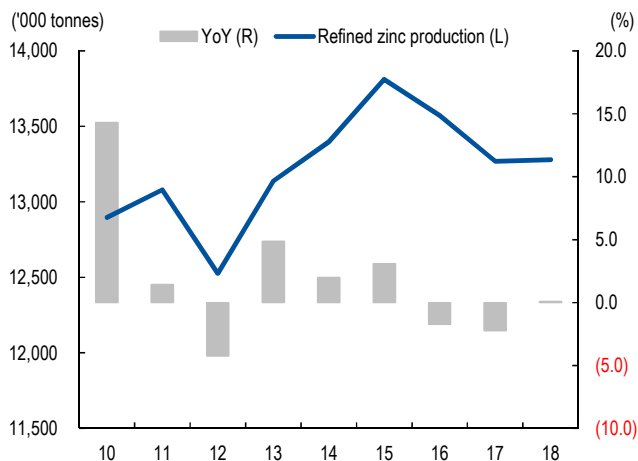
Source: Industry data, Mirae Asset Daewoo Research

**Figure 17. Global zinc concentrate production**



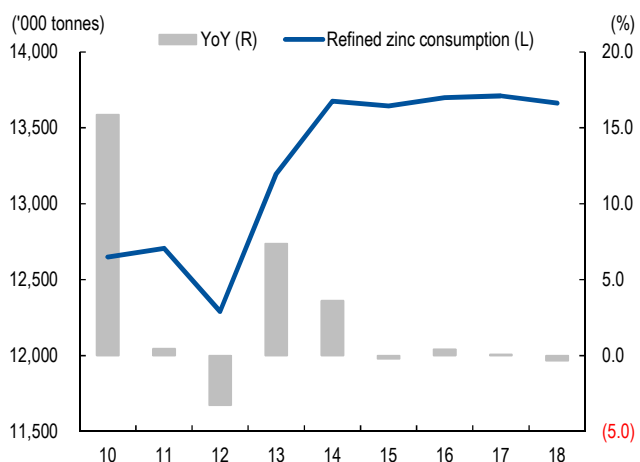
Source: Industry data, Mirae Asset Daewoo Research

**Figure 18. Global refined zinc production**



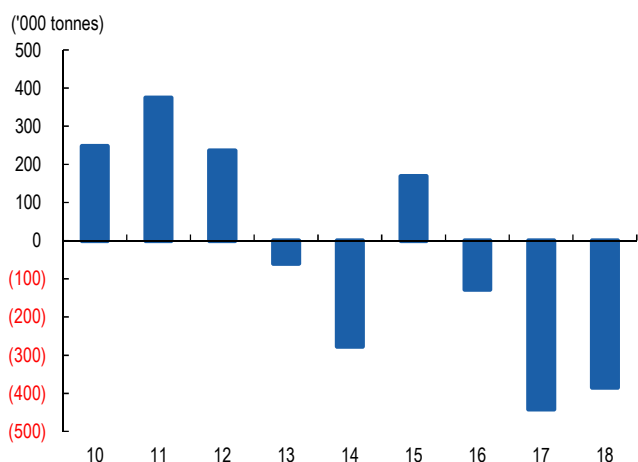
Source: Industry data, Mirae Asset Daewoo Research

**Figure 19. Global refined zinc consumption**



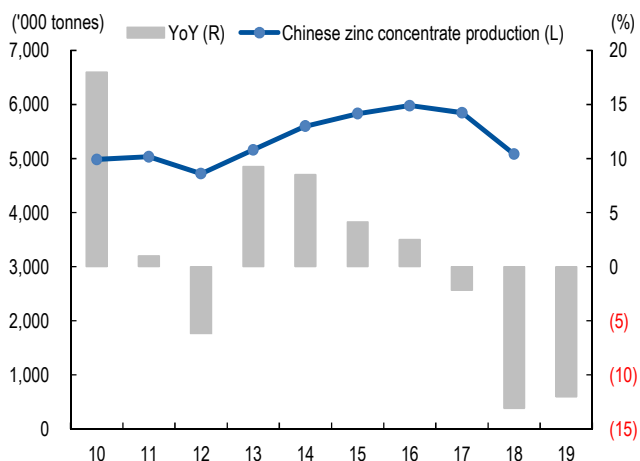
Source: Industry data, Mirae Asset Daewoo Research

**Figure 20. Refined zinc production - consumption**



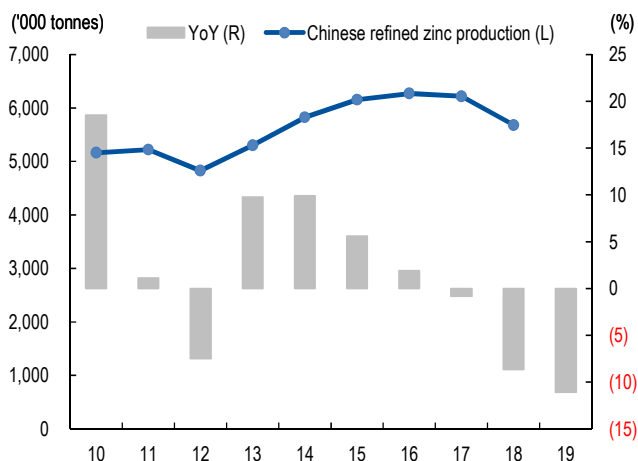
Source: Industry data, Mirae Asset Daewoo Research

**Figure 21. Chinese zinc concentrate production**



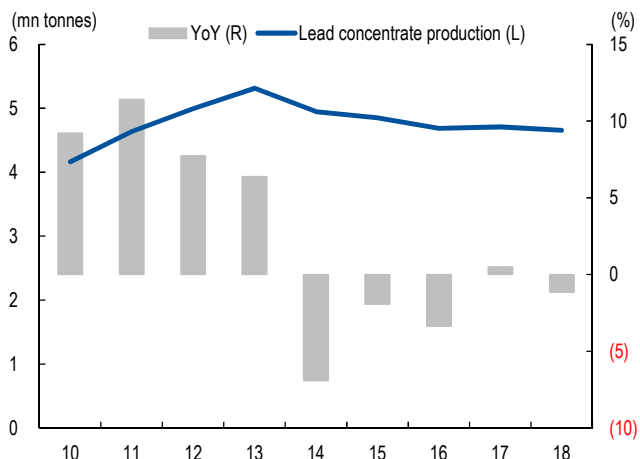
Source: Industry data, Mirae Asset Daewoo Research

**Figure 22. Chinese refined zinc production**



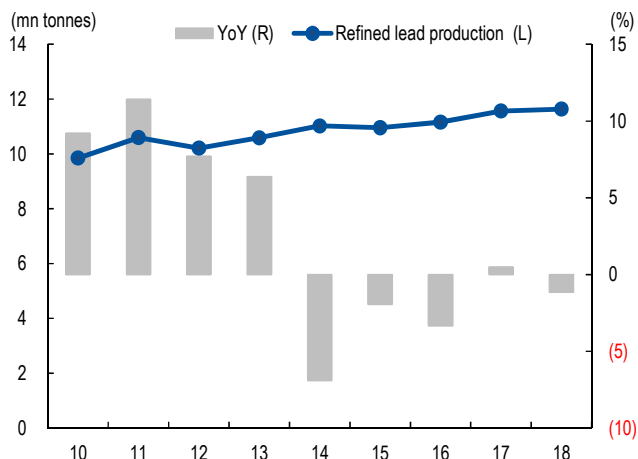
Source: Industry data, Mirae Asset Daewoo Research

**Figure 23. Global lead concentrate production**



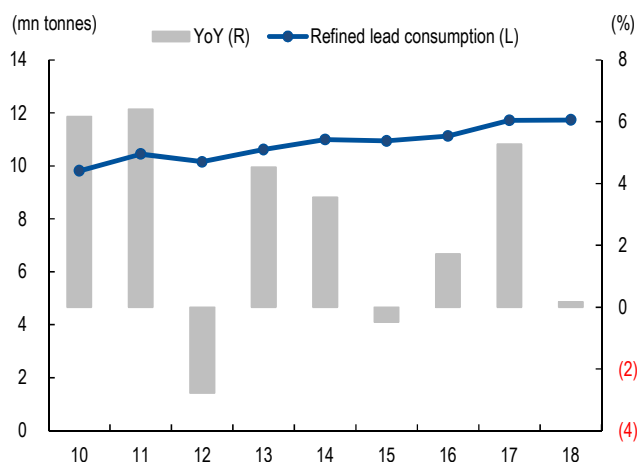
Source: Industry data, Mirae Asset Daewoo Research

**Figure 24. Global refined lead production**



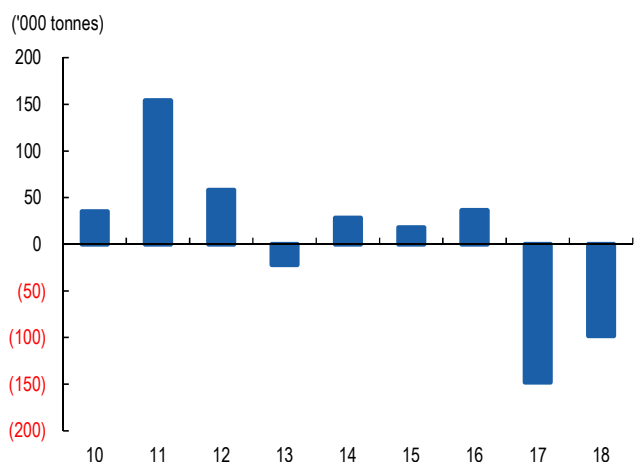
Source: Industry data, Mirae Asset Daewoo Research

**Figure 25. Global refined lead consumption**



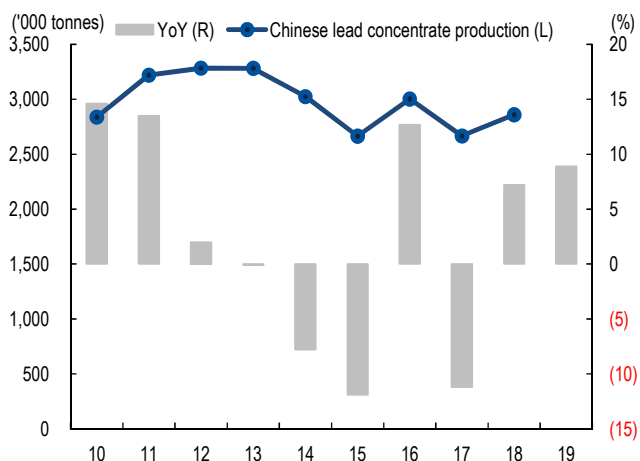
Source: Industry data, Mirae Asset Daewoo Research

**Figure 26. Global refined lead production - consumption**



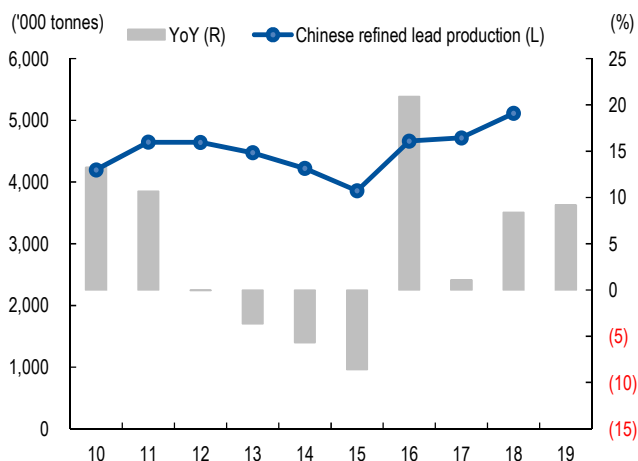
Source: Industry data, Mirae Asset Daewoo Research

**Figure 27. Chinese lead concentrate production**



Source: Industry data, Mirae Asset Daewoo Research

**Figure 28. Chinese refined lead production**



Source: Industry data, Mirae Asset Daewoo Research

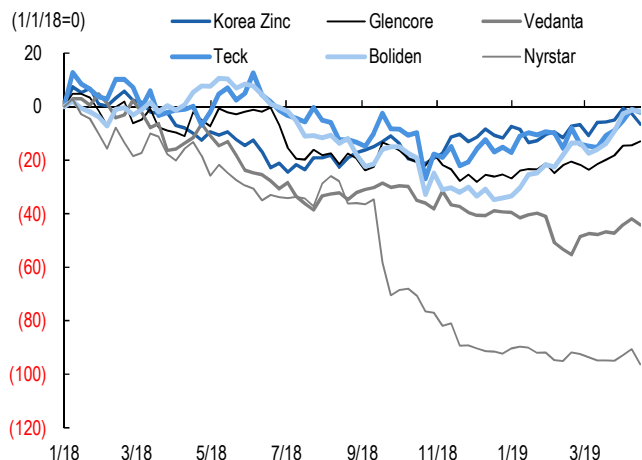
Table 2. Global peer comparison table

(Wbn, x, %)

	Market cap	Revenue		Operating profit		OP margin		P/E		P/B		ROE		EV/EBITDA	
		18	19F	18	19F	18	19F	18	19F	18	19F	18	19F	18	19F
Korea Zinc	8,633	6,883	6,647	765	828	11.1	12.5	14.5	14.0	1.2	1.3	8.6	9.5	5.4	5.9
Major global zinc/lead peers															
Glencore	69,031	241,849	241,523	8,447	9,609	3.5	4.0	15.5	12.4	1.1	1.3	7.1	10.6	6.0	6.1
Vedanta	10,876	15,750	14,057	3,255	4,390	20.7	31.2	9.8	10.0	1.6	1.1	16.7	10.7	5.7	4.3
Teck	16,102	10,668	10,462	4,062	3,214	38.1	30.7	7.2	8.8	0.7	0.8	14.5	9.2	3.3	4.4
Boliden	9,580	6,645	6,592	1,141	1,016	17.2	15.4	7.3	12.1	1.3	1.9	19.4	16.5	3.8	5.8
Nyrstar	36	4,507	4,760	230	3	5.1	0.1	67.1	-	1.1	0.1	7.7	(23.8)	5.4	7.7
Hindustan Zinc	19,683	3,726		1,860		49.9		13.7	14.3	3.5	-	27.8	25.6	8.7	-
Nexa Resources	1,866	2,742	2,554	368	318	13.4	12.4	22.7	15.7	0.6	0.7	3.0	4.0	3.8	4.5
Youngpoong	1,479	2,971		(109)		(3.7)		11.6	-	0.4	-	3.7	-	25.6	-
Average						18.0	15.6	19.4	12.2	1.3	1.0	12.5	7.5	7.8	5.5
Major Chinese zinc/lead peers															
MMG	4,514	4,039	4,382	903	1,075	22.4	24.5	53.1	21.4	2.8	3.2	5.5	17.6	7.3	6.7
Zhonglin Lingnan	3,400	3,289	3,485	249	233	7.6	6.7	15.4	19.7	1.4	1.8	9.1	8.4	7.7	10.1
Chihong Zinc	4,729	3,114	3,562	343	273	11.0	7.7	33.5	22.2	1.5	1.8	4.4	7.7	10.2	11.9
Yuguang Gold	931	3,199		91		2.8		29.1	-	1.2	-	4.0	-	-	-
Zhuzhou Smelter	924	2,303		50		2.2		77.5	-	22.0	-	30.3	-	15.7	-
Huludao Zinc	942	1,111		41		3.7		32.1	20.7	3.0	-	10.0	10.0	24.7	-
Average						8.3	13.0	40.1	21.0	5.3	2.3	10.6	10.9	13.1	9.6
Major global precious metals peers															
Barrick Gold	26,320	7,971	9,498	438	2,358	5.5	24.8	201.7	32.8	2.1	2.0	(18.3)	8.0	11.7	8.5
Newmont	20,067	7,982	9,344	869	1,356	10.9	14.5	26.7	26.1	1.8	1.6	3.2	6.2	10.0	6.7
Newcrest	15,753	3,911	4,261	473	1,078	12.1	25.3	61.3	24.5	1.7	1.8	2.7	7.4	11.0	8.9
AngloGold	6,170	4,339	4,665	360	915	8.3	19.6	24.8	14.7	2.0	1.0	5.0	11.1	7.3	4.6
Kinross Gold	4,602	3,536	3,681	221	359	6.2	9.7	57.4	26.1	0.9	0.9	(0.5)	3.3	5.6	4.7
Average						8.6	18.8	74.4	24.8	1.7	1.5	(1.6)	7.2	9.1	6.7
Major Chinese precious metals peers															
Zijin Mining	13,283	17,367	18,526	1,061	1,331	6.1	7.2	14.5	16.5	1.5	1.8	10.9	11.5	9.8	8.9
Shandong Gold	10,312	9,054	9,591	385	365	4.3	3.8	67.2	43.5	3.1	2.9	4.6	6.9	15.6	13.2
Zhongjin Gold	4,937	5,466	5,877	205		3.8		123.6	108.2	2.5	2.2	2.2	2.2	18.9	14.6
Humon Smelting	1,626	3,263		130		4.0		26.6	-	2.3	-	9.0	-	12.9	-
Hunan Gold	1,716	2,062	2,227	66	74	3.2	3.3	34.9	26.3	2.0	2.0	5.8	6.7	16.4	11.9
Jingui	1,304	1,887		100		5.3		40.1	57.2	3.0	1.9	9.0	5.9	19.7	-
Zhaojin Mining	3,369	1,194	1,216	185	262	15.5	21.5	46.5	27.1	2.1	1.3	4.5	5.6	19.7	15.3
Average						6.0	9.0	50.5	46.5	2.4	2.0	6.6	6.5	16.1	12.8

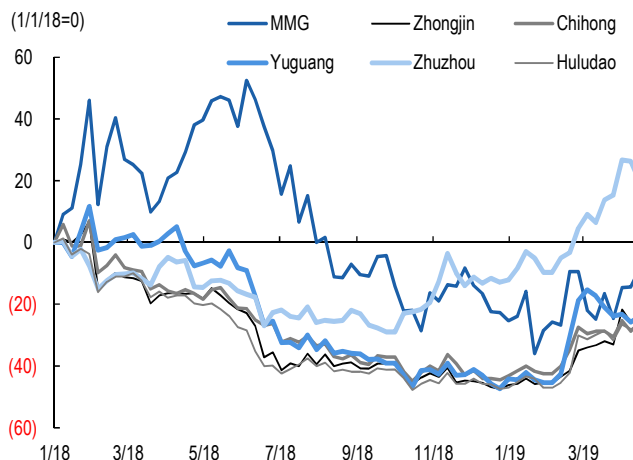
Source: Bloomberg, Mirae Asset Daewoo Research

**Figure 29. Share performances of major global zinc/lead companies**



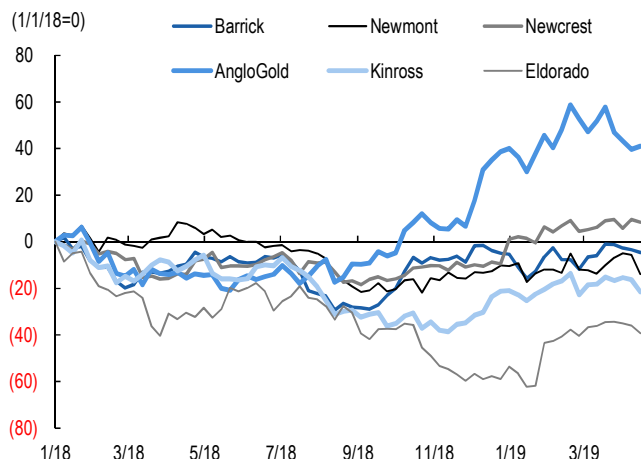
Source: Bloomberg, Mirae Asset Daewoo Research

**Figure 30. Share performances of major Chinese zinc/lead companies**



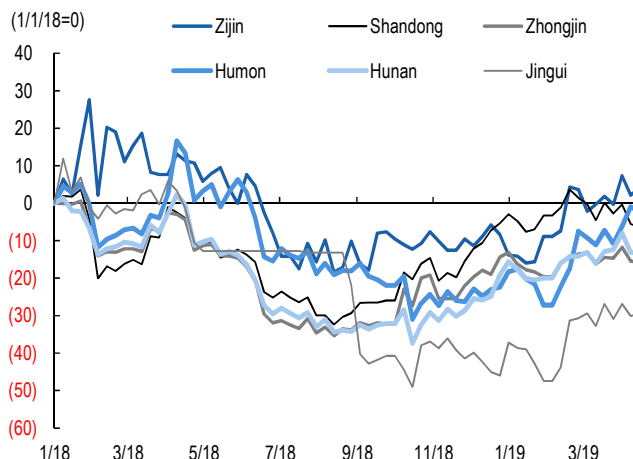
Source: Bloomberg, Mirae Asset Daewoo Research

**Figure 31. Share performances of major global precious metals companies**



Source: Bloomberg, Mirae Asset Daewoo Research

**Figure 32. Share performances of major Chinese precious metals companies**



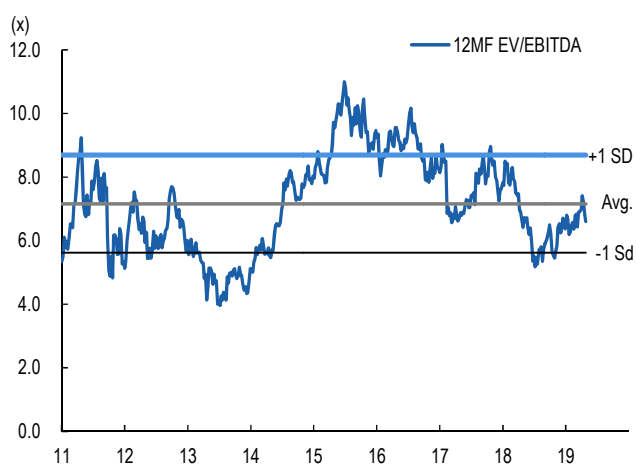
Source: Bloomberg, Mirae Asset Daewoo Research

**Table 3. TP calculation**

Target ROIC	%	21.0
WACC	%	10.0
Fundamental EV/IC	x	2.1
IC	Wbn	4,100
EV	Wbn	8,610
Net debt	Wbn	(2,500)
Minority interest	Wbn	125
Fair market cap	Wbn	10,985
No. of shares	mn	18
Target price	W	620,000

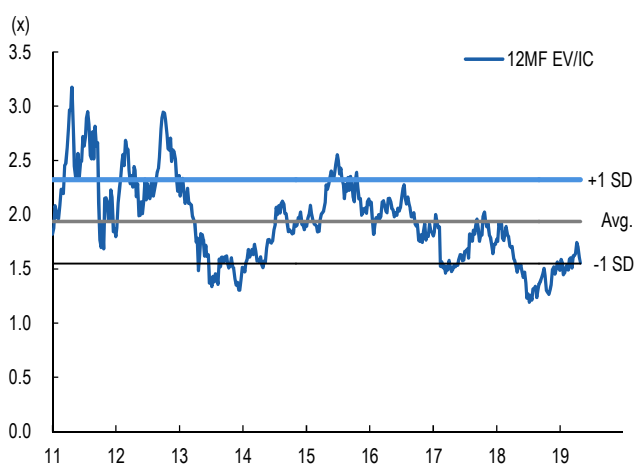
Source: Mirae Asset Daewoo Research estimates

**Figure 33. EV/EBITDA**



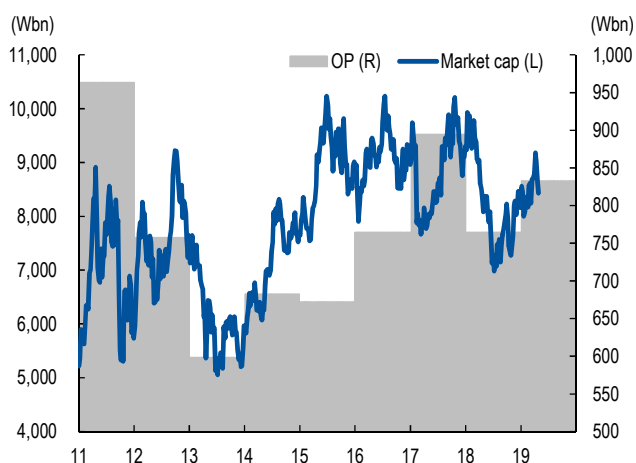
Source: FnGuide, Mirae Asset Daewoo Research

**Figure 34. EV/IC**



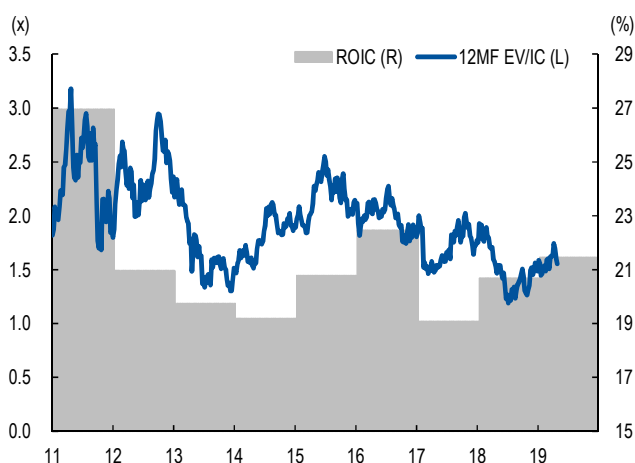
Source: FnGuide, Mirae Asset Daewoo Research

**Figure 35. Market cap and operating profit**



Source: FnGuide, Mirae Asset Daewoo Research

**Figure 36. EV/IC and ROIC**



Source: FnGuide, Mirae Asset Daewoo Research

## Korea Zinc (010130 KS/Buy/TP: W620,000)

## Comprehensive Income Statement (Summarized)

(Wbn)	12/18	12/19F	12/20F	12/21F
<b>Revenue</b>	<b>6,883</b>	<b>6,525</b>	<b>6,584</b>	<b>6,774</b>
<b>Cost of Sales</b>	<b>5,979</b>	<b>5,544</b>	<b>5,551</b>	<b>5,712</b>
<b>Gross Profit</b>	<b>904</b>	<b>981</b>	<b>1,033</b>	<b>1,062</b>
<b>SG&amp;A Expenses</b>	<b>139</b>	<b>148</b>	<b>150</b>	<b>154</b>
<b>Operating Profit (Adj)</b>	<b>765</b>	<b>833</b>	<b>883</b>	<b>908</b>
<b>Operating Profit</b>	<b>765</b>	<b>833</b>	<b>883</b>	<b>908</b>
<b>Non-Operating Profit</b>	<b>4</b>	<b>67</b>	<b>45</b>	<b>46</b>
Net Financial Income	51	44	44	44
Net Gain from Inv in Associates	-2	22	0	0
Pretax Profit	769	900	928	954
Income Tax	234	259	279	286
Profit from Continuing Operations	535	641	650	668
Profit from Discontinued Operations	0	0	0	0
<b>Net Profit</b>	<b>535</b>	<b>641</b>	<b>650</b>	<b>668</b>
Controlling Interests	527	628	643	661
Non-Controlling Interests	7	13	6	7
<b>Total Comprehensive Profit</b>	<b>449</b>	<b>641</b>	<b>650</b>	<b>668</b>
Controlling Interests	466	632	640	658
Non-Controlling Interests	-18	10	10	10
EBITDA	1,023	1,107	1,165	1,197
FCF (Free Cash Flow)	572	478	614	569
EBITDA Margin (%)	14.9	17.0	17.7	17.7
Operating Profit Margin (%)	11.1	12.8	13.4	13.4
Net Profit Margin (%)	7.7	9.6	9.8	9.8

## Cash Flows (Summarized)

(Wbn)	12/18	12/19F	12/20F	12/21F
Cash Flows from Op Activities	888	828	964	919
Net Profit	535	641	650	668
Non-Cash Income and Expense	521	490	517	531
Depreciation	258	274	282	288
Amortization	0	0	0	0
Others	263	216	235	243
Chg in Working Capital	-3	-88	32	-38
Chg in AR & Other Receivables	40	-33	14	-9
Chg in Inventories	75	19	-21	-37
Chg in AP & Other Payables	-53	-43	24	8
<b>Income Tax Paid</b>	<b>-223</b>	<b>-259</b>	<b>-279</b>	<b>-286</b>
Cash Flows from Inv Activities	-650	-703	-354	-354
Chg in PP&E	-315	-350	-350	-350
Chg in Intangible Assets	-8	-4	-4	-4
Chg in Financial Assets	1,627	-349	0	0
<b>Others</b>	<b>-1,954</b>	<b>0</b>	<b>0</b>	<b>0</b>
Cash Flows from Fin Activities	-183	-194	-194	-194
Chg in Financial Liabilities	-3	0	0	0
Chg in Equity	0	0	0	0
Dividends Paid	-178	-194	-194	-194
<b>Others</b>	<b>-2</b>	<b>0</b>	<b>0</b>	<b>0</b>
Increase (Decrease) in Cash	59	241	416	370
Beginning Balance	597	656	897	1,313
<b>Ending Balance</b>	<b>656</b>	<b>897</b>	<b>1,313</b>	<b>1,683</b>

Source: Company data, Mirae Asset Daewoo Research estimates

## Statement of Financial Condition (Summarized)

(Wbn)	12/18	12/19F	12/20F	12/21F
<b>Current Assets</b>	<b>3,966</b>	<b>4,241</b>	<b>4,654</b>	<b>5,072</b>
Cash and Cash Equivalents	656	897	1,313	1,683
AR & Other Receivables	318	371	348	358
Inventories	1,288	1,268	1,290	1,327
Other Current Assets	1,704	1,705	1,703	1,704
<b>Non-Current Assets</b>	<b>3,260</b>	<b>3,378</b>	<b>3,450</b>	<b>3,515</b>
Investments in Associates	21	21	21	21
Property, Plant and Equipment	2,785	2,861	2,929	2,991
Intangible Assets	86	90	93	97
<b>Total Assets</b>	<b>7,226</b>	<b>7,619</b>	<b>8,104</b>	<b>8,587</b>
<b>Current Liabilities</b>	<b>538</b>	<b>484</b>	<b>514</b>	<b>524</b>
AP & Other Payables	358	304	334	343
Short-Term Financial Liabilities	24	24	24	24
Other Current Liabilities	156	156	156	157
<b>Non-Current Liabilities</b>	<b>313</b>	<b>313</b>	<b>313</b>	<b>313</b>
Long-Term Financial Liabilities	7	7	7	7
Other Non-Current Liabilities	306	306	306	306
<b>Total Liabilities</b>	<b>851</b>	<b>797</b>	<b>827</b>	<b>837</b>
<b>Controlling Interests</b>	<b>6,250</b>	<b>6,683</b>	<b>7,133</b>	<b>7,599</b>
Capital Stock	94	94	94	94
Capital Surplus	56	56	56	56
Retained Earnings	6,138	6,572	7,021	7,487
<b>Non-Controlling Interests</b>	<b>125</b>	<b>138</b>	<b>144</b>	<b>151</b>
<b>Stockholders' Equity</b>	<b>6,375</b>	<b>6,821</b>	<b>7,277</b>	<b>7,750</b>

## Forecasts/Valuations (Summarized)

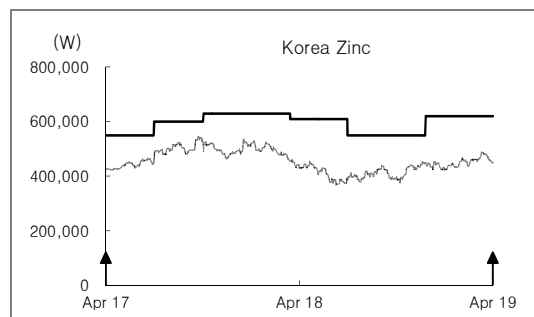
	12/18	12/19F	12/20F	12/21F
P/E (x)	15.5	13.5	13.2	12.8
P/CF (x)	7.7	7.5	7.3	7.1
P/B (x)	1.3	1.3	1.2	1.1
EV/EBITDA (x)	7.3	6.8	6.1	5.7
EPS (W)	27,950	33,289	34,096	35,029
CFPS (W)	55,967	59,935	61,822	63,528
BPS (W)	334,050	357,036	380,829	405,555
DPS (W)	11,000	11,000	11,000	11,000
Payout ratio (%)	36.4	30.3	29.9	29.1
Dividend Yield (%)	2.5	2.4	2.4	2.4
Revenue Growth (%)	4.3	-5.2	0.9	2.9
EBITDA Growth (%)	-8.9	8.2	5.2	2.7
Operating Profit Growth (%)	-14.5	8.9	6.0	2.8
EPS Growth (%)	-16.2	19.1	2.4	2.7
Accounts Receivable Turnover (x)	22.1	20.4	20.0	20.7
Inventory Turnover (x)	5.2	5.1	5.1	5.2
Accounts Payable Turnover (x)	19.1	21.2	22.0	21.3
ROA (%)	7.5	8.6	8.3	8.0
ROE (%)	8.6	9.7	9.3	9.0
ROIC (%)	11.2	10.6	10.9	11.0
Liability to Equity Ratio (%)	13.4	11.7	11.4	10.8
Current Ratio (%)	736.6	875.4	904.8	967.8
Net Debt to Equity Ratio (%)	-13.1	-15.7	-20.5	-24.0
Interest Coverage Ratio (x)	726.2	1,246.8	1,321.4	1,359.4

## APPENDIX 1

### Important Disclosures & Disclaimers

#### 2-Year Rating and Target Price History

Company (Code)	Date	Rating	Target Price
Korea Zinc (010130)	12/19/2018	Buy	620,000
	07/25/2018	Buy	550,000
	04/25/2018	Buy	610,000
	04/25/2018	Buy	590,000
	04/08/2018	Buy	610,000
	10/26/2017	Buy	630,000
	07/25/2017	Buy	600,000
	02/07/2017	Buy	550,000



#### Stock Ratings

Buy	: Relative performance of 20% or greater
Trading Buy	: Relative performance of 10% or greater, but with volatility
Hold	: Relative performance of -10% and 10%
Sell	: Relative performance of -10%

#### Industry Ratings

Overweight	: Fundamentals are favorable or improving
Neutral	: Fundamentals are steady without any material changes
Underweight	: Fundamentals are unfavorable or worsening

Ratings and Target Price History (Share price (—), Target price (—), Not covered (≡), Buy (▲), Trading Buy (■), Hold (●), Sell (◆))

\* Our investment rating is a guide to the relative return of the stock versus the market over the next 12 months.

\* Although it is not part of the official ratings at Mirae Asset Daewoo Co., Ltd., we may call a trading opportunity in case there is a technical or short-term material development.

\* The target price was determined by the research analyst through valuation methods discussed in this report, in part based on the analyst's estimate of future earnings.

\* The achievement of the target price may be impeded by risks related to the subject securities and companies, as well as general market and economic conditions.

#### Equity Ratings Distribution & Investment Banking Services

	Buy	Trading Buy	Hold	Sell
Equity Ratings Distribution	83.52%	8.24%	8.24%	0.00%
Investment Banking Services	82.61%	4.35%	13.04%	0.00%

\* Based on recommendations in the last 12-months (as of March 31, 2019)

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