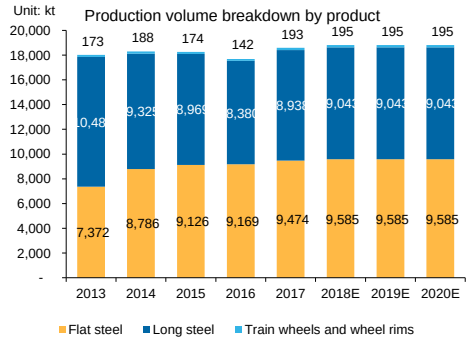
5 December 2018 Hong Kong

EQUITIES

Magang – balanced product exposure



Source: Company data, Macquarie Research, Dec. 2018

323 HK	Outperform
Price (at 14:02, 30 Nov 2018 GMT)	HK$3.60

Valuation - none	HK$	4.80
12-month target	HK$	4.80
Upside/Downside	%	+33.3
12-month TSR	%	+42.9
Volatility Index		High
GICS sector		Materials
Market cap	HK$m	27,722
Market cap	US$m	3,544
Free float	%	53
30-day avg turnover	US$m	17.6
Number shares on issue	m	7,701

Investment fundamentals

Year end 31 Dec		2017A	2018E	2019E	2020E
Revenue	m	73,228	81,181	73,079	69,877
EBIT	m	5,649	8,701	8,934	8,778
EBIT growth	%	223.5	54.0	2.7	-1.7
Reported profit	m	4,129	6,892	6,680	6,565
EPS rep	Rmb	0.54	0.89	0.87	0.85
EPS rep growth	%	236.0	66.9	-3.1	-1.7
PER rep	x	6.0	3.6	3.7	3.7
PER adj	x	6.0	3.6	3.7	3.7
Total DPS	Rmb	0.16	0.31	0.30	0.29
Total div yield	%	5.2	9.7	9.4	9.2
ROA	%	8.2	11.5	11.1	10.4
ROE	%	18.9	26.4	21.8	18.8
EV/EBITDA	x	2.8	2.1	2.0	2.1
Net debt/equity	%	24.3	4.0	-14.8	-27.5
P/BV	x	1.0	0.9	0.8	0.7

Source: FactSet, Macquarie Research, December 2018
(all figures in Rmb unless noted, TP in HKD)

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Maanshan Iron & Steel (323 HK)
Long steel exposure to infrastructure upside

Key points

- We like Magang's relatively high ~48% exposure to long steel, our preferred steel type in 2019, given upside from the govt's infrastructure stimulus.
- Magang could play a key role in the industry consolidation in the next few years given its strong balance sheet (less than 20% net gearing).
- Initiate with Outperform and HK$4.80 TP. We believe its valuation is attractive at a 4x FY19E PER, 0.8x P/BV, 9.4% dividend yield.

Being long at the right time

We initiate coverage on Maanshan Iron & Steel (Magang) with an Outperform rating and a TP of HK$4.80. We like Magang's relatively high exposure to long steel (~48% vs. Baosteel/ Angang <20%), which benefits from improving infrastructure demand from govt stimulus. Magang is among the top 3 H-beam producers in China with a 12% market share, which can benefit from rising demand for the pre-fabricated buildings that have 50% higher steel intensity. China targets to increase the proportion of pre-fab to >15% nationwide and >20% in specific regions by 2020 (vs. currently 5%). Magang is also the leading **train wheel/ axels** manufacturer in China with a 90% market share in 2017 – we estimate >10% pa train wheel demand in the next three years, outperforming 1-2% for other products. GP/t train wheels are also much higher at >Rmb1,000/t, vs. Rmb600-800/t for others. We believe the current valuation is attractive at just a 4x FY19E PE, 0.7x PB (vs. LT avg. 0.9x), given >21% 2019E ROE (highest in our coverage), and 9.5% div. yield. We are 15-25% above consensus for our FY19-20E EPS. **Catalysts:** rebar price hikes post CNY 2019 when construction demand picks up, and newsflow on M&A.

Good regional exposure to East China

Magang is the largest steel company in Anhui, accounting for ~55% crude steel capacity in Anhui, with ~70% of its 2017 sales targeted for East China. FAI YTD growth in Anhui has outpaced the national average since March 2016. Despite a slowing macro-economy, FAI growth was 11.8% in 8M18, vs the 5.3% national average. Rebar and HRC are sold at a 2-9% premium in Anhui vs. the national average of surrounding regions, as it is a major manufacturing base for home appliances. With easy access to the Maanshan port, one of the top 10 in China, transportation to East China is also very cheap and efficient. Magang has already planned well ahead for winter production cuts – while it has not received any official communication on the cuts, it plans to overhaul its less profitable 2500m³ BFs during Oct-Feb (170kt/m).

Primary beneficiary of sector consolidation on strong balance sheet

China targets to increase the top 10 steel players' market share to 60-70% (currently 37%) by 2025, with 3-4 players >80mt and 6-8 players with >40mt and some specialised steel mills. We believe a major consolidation in the steel sector is underway, and expect accelerated M&A among the major steel players in the next few years. With ~23mt of crude capacity, Magang could be one of the key consolidators among the tier-two players (>40mt) – it has a strong balance sheet with only <20% net gearing and could be one of the acquirers for another player with a similar size. Magang is also a probable target for one of the top 3 players like Baosteel, according to Reuters, which would put it much closer to the global leader, ArcelorMittal, and help Baowu's target to reach 100mt by 2021. Baowu/ Magang also have geographical (East China) and product (long/ flat complementary) synergies, in our view. **Key risks:** weaker-than-expected infra demand; weaker-than-expected property demand.

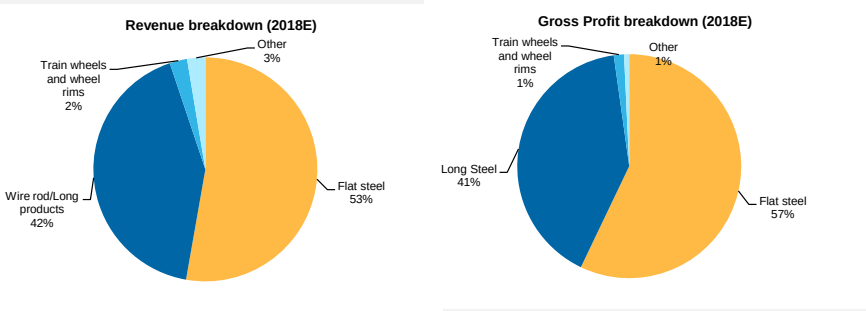
Inside

Long steel exposure to infrastructure upside

Company profile

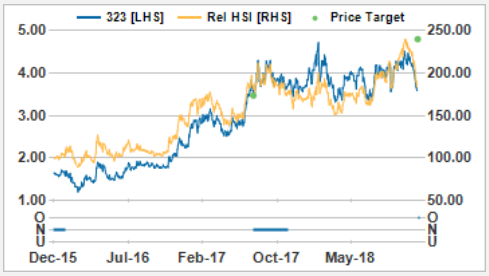
- Maanshan Iron & Steel Company (Magang) is one of the largest iron and steel producers and sellers in China. It is the 16th largest steel producer globally in 2017 in terms of crude steel output, according to the World Steel Organization.
- In 1H18, the company produced 9.17mt of pig iron, 9.99mt of crude steel and 9.52mt of finished steel products. Magang's major products comprise three main categories, namely plates, long products (rebars, wire rods and sections), and train wheels & axles. Magang is a market leader in train wheels and axles in China. To further strengthen this competitive advantage, Magang acquired Sas Valdunes in 2014, which is the fourth-largest producer of high-speed rail train wheels and axles globally.
- Formerly known as Maanshan Steel Company before listing, the company was found in 1985. It was listed on the Shanghai Stock Exchange and HKSE in 1993. As of 1H18, the parent company, Magang (Group) Holdings, held a 46% stake in the company.

Fig 1 Magang revenue and gross profit breakdown (2018E)



Source: Company data, Macquarie Research, December 2018

Fig 2 323 HK rel HSI performance, & rec history



Note: Recommendation timeline - if not a continuous line, then there was no Macquarie coverage at the time or there was an embargo period.

Source: FactSet, Macquarie Research, December 2018

(all figures in Rmb unless noted, TP in HKD)

Long steel exposure to infrastructure upside

Prefer long steel – highest long-steel exposure with the high-speed train wheel business as a bright spot

Magang has a well-balanced and high-end product profile, including flat steel, long steel and train wheels. Its capacity is roughly equally split between long steel and flat steel, which makes it easier to switch product lines. Within the well-balanced product profile, Magang is particularly strong in H beam, which is a long steel product used in property construction and infrastructure projects. It is the third largest player in the H beam market, with a 14% market share in 2017. Magang is also a market leader in the high-speed train wheels, automobile plates and home appliance plates.

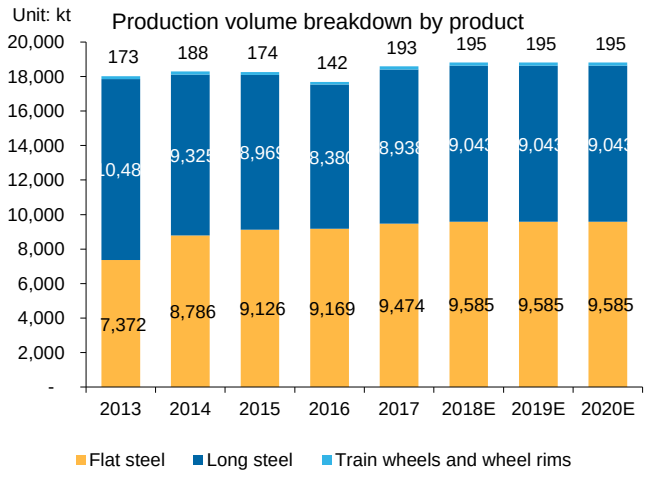
Flat steel, long steel and train wheels accounted for 51%, 48% and 1% of total production volume in 2017, respectively. If we assume that 10% of monthly production (150kt) could be switched between flat steel and long steel, and take into account the GP/t difference of Rmb200/t, it could be translated to a monthly gross profit of Rmb30m, namely an annual GP of Rmb300-400m.

Fig 3 Magang key operational metrics by product (2017)

Main product	Capacity (kt)	Production volume (kt)	Sales volume (kt)	Sales (Unit: RMB mn)	GP (Unit: RMB bn)	GP/t (Unit: RMB/t)
Flat steel	9,910	9,474	9,202	35,651	5,131	558
Long steel	11,040	8,938	8,279	29,881	4,992	603
Train wheels and rims	320	193	144	1,802	178	1,236
Total	**21,270**	**18,605**	**17,625**	**67,334**	**10,301**	
	% of total	**% of total**	**% of total**	**% of total**	**% of total**	**GP margin**
Flat steel	47%	51%	52%	53%	50%	14%
Long steel	52%	48%	47%	44%	48%	17%
Train wheels and rims	2%	1%	1%	3%	2%	10%

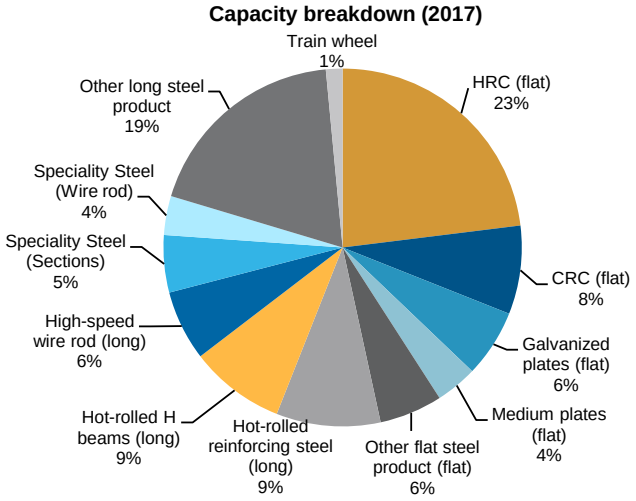
Source: Company data, Macquarie Research, December 2018

Fig 4 Production volume breakdown by product



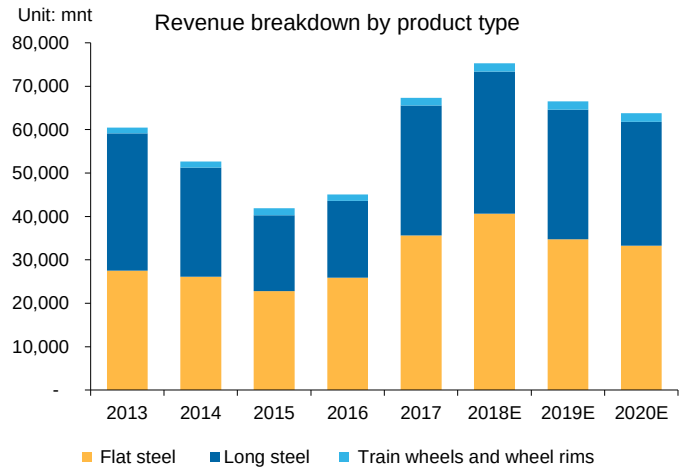
Source: Company data, Macquarie Research, December 2018

Fig 5 Detailed capacity breakdown (2017)



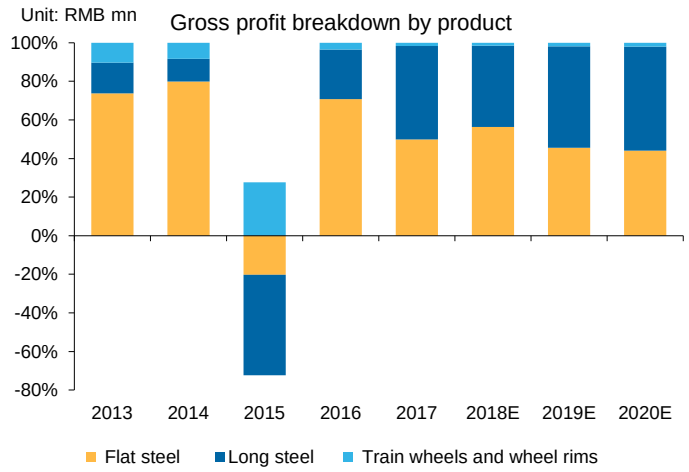
Source: Company data, Macquarie Research, December 2018

Fig 6 Revenue breakdown by product type



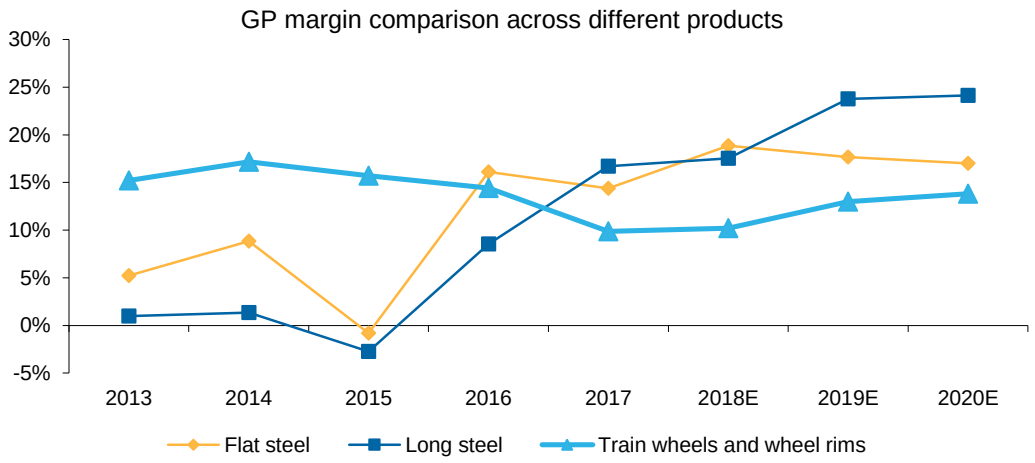
Source: Company data, Macquarie Research, December 2018

Fig 7 Gross profit breakdown by product type



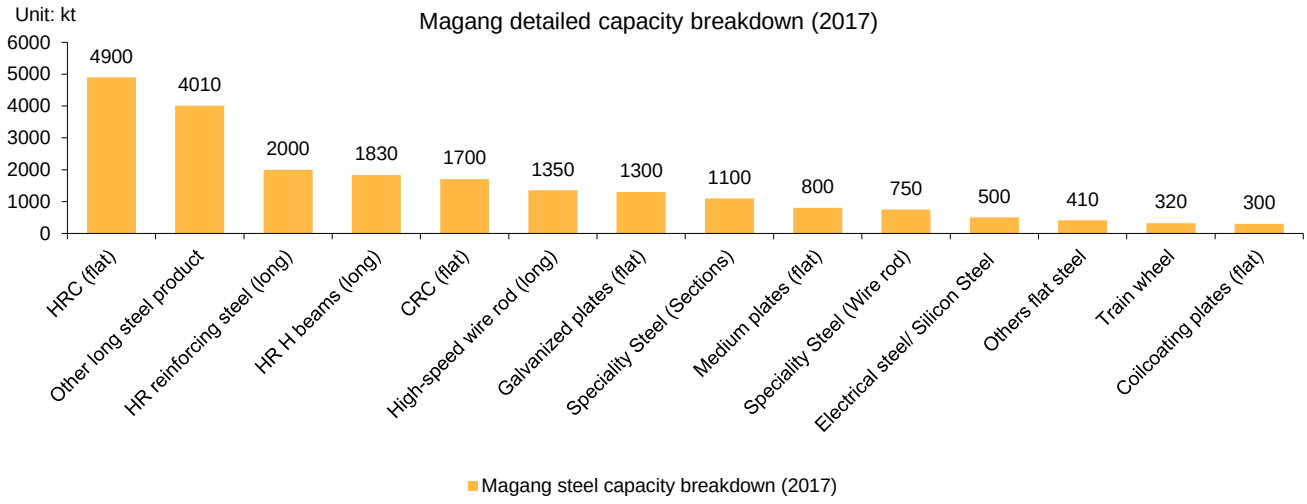
Source: Company data, Macquarie Research, December 2018

Fig 8 Long steel is expected to have higher margins vs flat steel



Source: Company data, Macquarie Research, December 2018

Fig 9 Magang steel production line and capacity summary (2017)



Source: Company data, Macquarie Research, December 2018

Fig 10 Magang targets high-end products to account for over 50% of its total production volumes

Product focus		2015	2020E
Target	Portion of the focus products	23%	>50%
Product focus	Automobile sheet	150	300
	Home appliance sheet	80	180
	High-grade electrical steel/silicon steel	7	35
	High-end section steel	8	45
	Train wheel products	14	24
	Industrial wire rod	30	75
	High-grade steel wire rod	10	85

Source: Company data, Macquarie Research, December 2018

Good long steel exposure

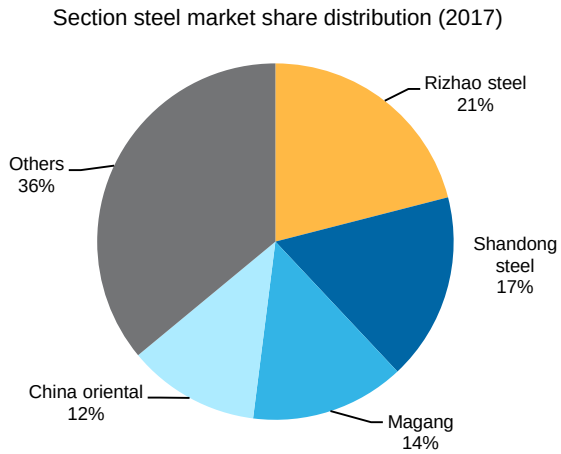
Magang started out its business as a long-steel player and has developed award-winning long steel products over the years. Its major long steel products include section steel and wire rod. It is the first steel company in China that can produce H beam products (a type of section steel). It established its first hot-rolled H beam production line in September 1998.

In 2017, it produced around 1.9mt of section steel, which accounts for 12% of total national production. Its takes up around 60% market share of high-end H beam product, including specialty steel used for marine engineering in the low-temperature environment. Its H-beam product price sells at a premium of Rmb500-800/t compared to the market price.

Magang is currently establishing another hot-rolled H beam production line, which targets high value-added H beam product that cannot be massively produced in China. The production line is expected to commerce in Jun 2019, with annual capacity of 0.8mt. The beam height, width and flange width will be 1108mm, 476mm and 115mm, respectively.

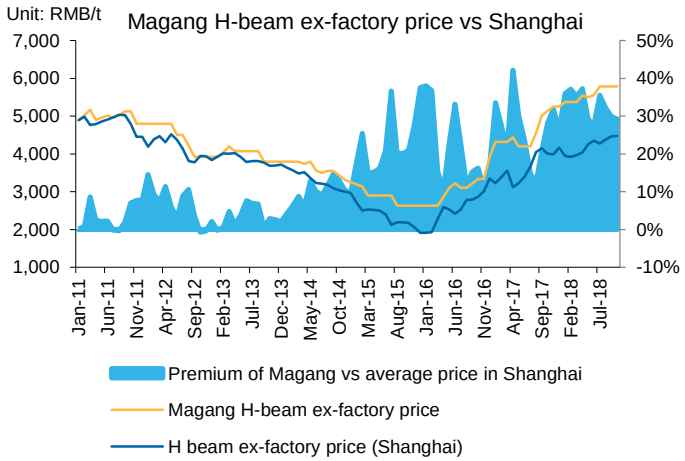
We believe that long steel could also benefit from rising demand from the pre-fabricated buildings. The Chinese state council released the official policy to promote the use of prefabricated building in Sep 2016. The local government needs to raise the portion of pre-fabricated buildings to 30% in Beijing-Tianjin-Hebei, Yangtze River Delta region, Pearl River Delta region in ten years. In the Xiongan New Area, 80-90% of the buildings will be pre-fabricated buildings. According to the 13th FYP from the Ministry of Housing and Urban-Rural Development, prefabricated buildings need to account for over 15% nationwide and over 20% in several specific regions by 2020. Assuming 6.7% growth of GFA started (CAGR in the past five years), 15% of prefabricated buildings, 50% of steel-structured prefabricated buildings, and 70kg/m2 steel usage, we estimate that there will be around 9.7mt of section steel demand from pre-fabricated buildings.

Fig 11 Magang is the third largest section steel player with a market share of 14%



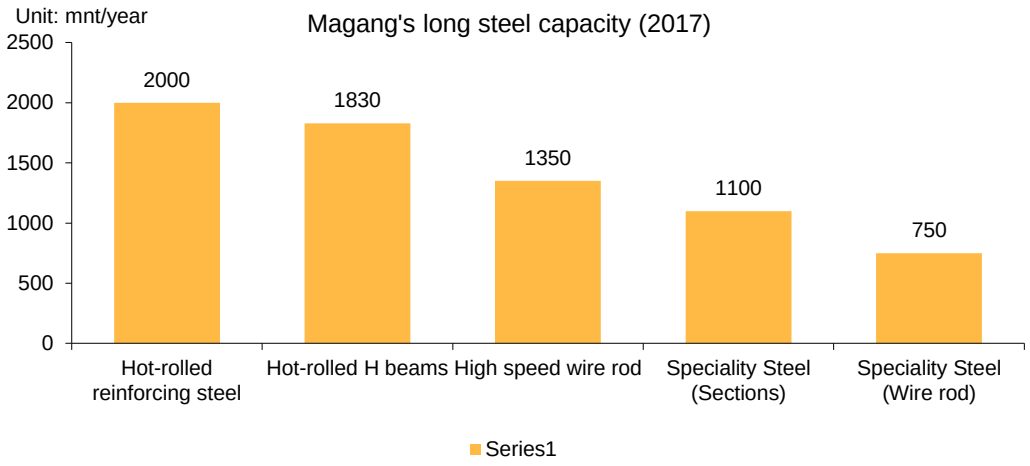
Source: Mysteel, Macquarie Research, December 2018

Fig 12 Magang ex-factory H beam sells at a premium vs the H beam product in Shanghai



Source: Wind, Macquarie Research, December 2018

Fig 13 Magang's long steel capacity breakdown by product



Source: Company data, Macquarie Research, December 2018

Wheels and axles

The wheels and axles business accounts for 2-3% of Magang's total revenue in the past five years. Its major products include train wheels, axles and rings, which are widely used in railway transport, port machinery, petrochemical industries, the aerospace industry, etc. Magang owns core technology and patents of train wheels used for high-speed railroads. Its high-speed wheels have passed the CRCC product certification and obtained the first CRCC certificate in China. Its train wheel products are accredited with the IRIS quality assurance system, AAR (issued by the North American Railway Committee) and RISAS (issued by British wheel). Magang is the only domestic player that has realized the integrated production of high-speed train wheel products, which gives Magang a strong competitive edge.

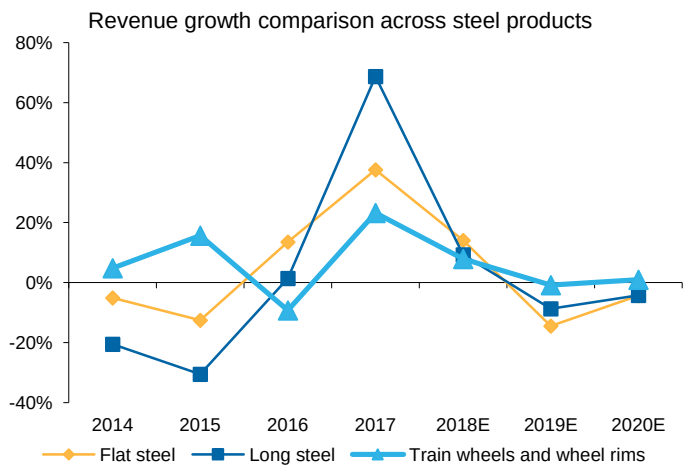
Magang is the largest and the oldest player in the train wheel business in China, with a market share of 90% in 2017. Compared to its other business lines, its train wheel business has more stable growth compared to its flat and long steel business. Its train wheel business accounts for only 2-3% of total revenue over the years, but we expect it to contribute more in the long term. Its GP/t was Rmb1,236/t, vs Rmb558/t for its flat steel and Rmb603/t in its long steel business in 2017.

We believe train wheel demand could rise further driven by the rapid development of URT and HSR. The HSR rail length was 25,162 km in 2017 and our in-house industrial team estimates it to reach 32,062km in 2020E. According to our in-house forecast of the no. of multiple units, assuming 8 wheels per multiple unit, 1 ton per wheel, and replacement for every 6 months, we expect wheel steel demand to be around 175kt during 2018-20E.

Apart from the domestic market, Magang see potential for overseas orders. China HSR length accounts for 60% of total. Other countries have a total railway length of 12.7k km. Based on public information and industry experts' views, we estimate that the overseas railway length under construction will be 43.6k km. We assume 30% will be completed before 2020 and the remaining 70% will be constructed during 2020-25, which is equivalent to 13k km in the 13th FYP. Assuming a density of 1.2 unit/km, this will translate into 16k units of HSR. We estimate that this is equivalent to train wheel demand of 80kt.

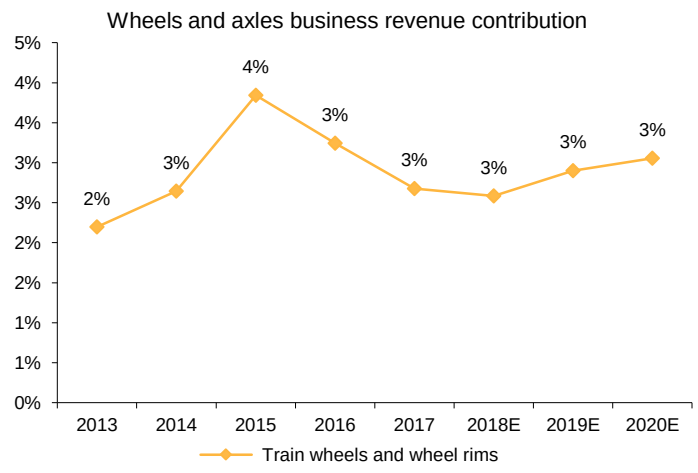
In terms of the competitive landscape, Magang enjoys over 90% market share in railway passenger wheels and 60% in freight train wheels. It also established a JV with Jinxi Axle to produce axle products, with an axle capacity of 40kt.

Fig 14 Train wheel business has the least volatile revenue growth rate



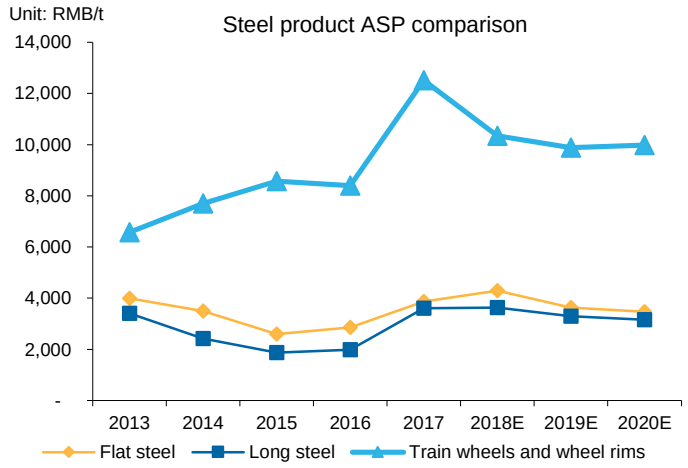
Source: Company data, Macquarie Research, December 2018

Fig 15 Train wheel business accounts for 2-3% of total revenue



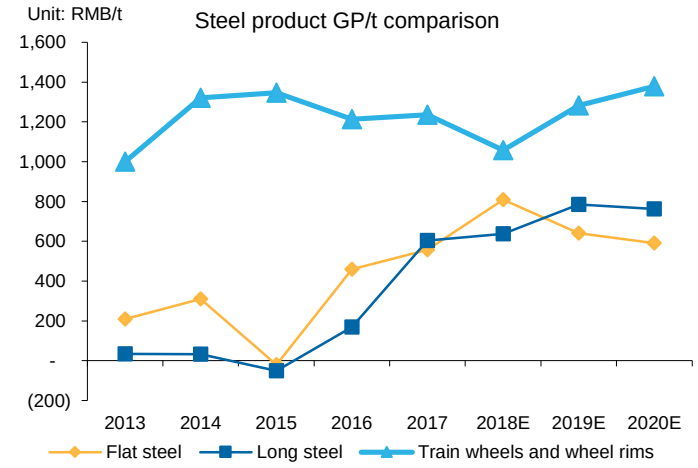
Source: Company data, Macquarie Research, December 2018

Fig 16 Train wheel products have a significantly higher ASP compared to flat and long steel



Source: Company data, Macquarie Research, December 2018

Fig 17 Train wheel products have the highest GP/t



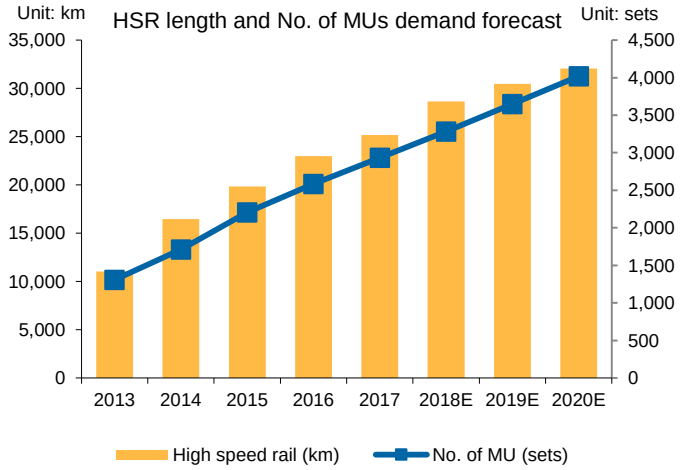
Source: Company data, Macquarie Research, December 2018

Fig 18 HSR steel wheel demand estimate

	2013	2014	2015	2016	2017	2018E	2019E	2020E
High speed rail (km)	11,028	16,456	19,838	22,980	25,162	28,662	30,462	32,062
YoY growth		*49%*	*21%*	*16%*	*9%*	*14%*	*6%*	*5%*
No. of MU (sets)	1,308	1,712	2,206	2,586	2,935	3,285	3,650	4,021
YoY growth		*31%*	*29%*	*17%*	*13%*	*12%*	*11%*	*10%*
Density (set/km)	0.12	0.10	0.11	0.11	0.12	0.11	0.12	0.13
No. of trains	164	214	276	323	367	411	456	503
No. of wheels required	10,464	13,696	17,648	20,688	23,480	26,280	29,200	32,168
Replacement every six months	2	2	2	2	2	2	2	2
Wheel steel demand (Unit: t)	20,928	27,392	35,296	41,376	46,960	52,560	58,400	64,336
YoY growth		*31%*	*29%*	*17%*	*13%*	*12%*	*11%*	*10%*

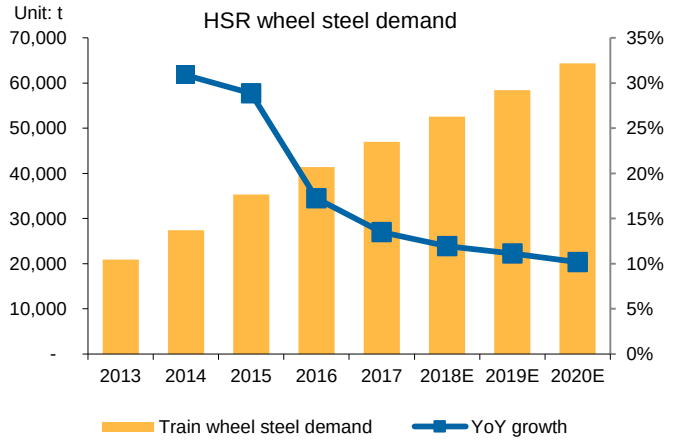
Note: the HSR length and No. of MU forecast is made by our in-house industrial team.
Source: Company data, Macquarie Research, December 2018

Fig 19 HSR length and demand is expected to continue to rise



Source: Company data, Macquarie Research, December 2018

Fig 20 HSR wheel steel demand



Source: Company data, Macquarie Research, December 2018

Fig 21 Major train wheel companies in China

Companies	Major products	Capacity ('000 units)
Magang	High-speed train wheels	1100
Taiyuan Heavy Industry	Wheel, axle, wheelset	600
Xinyang Amsted Tonghe Wheels	Cast steel wheels	250
Datong CRRC Amsted Castings Company	Cast steel wheels	160

Source: Company data, Wind, Macquarie Research, December 2018

Fig 22 Train wheel product summary

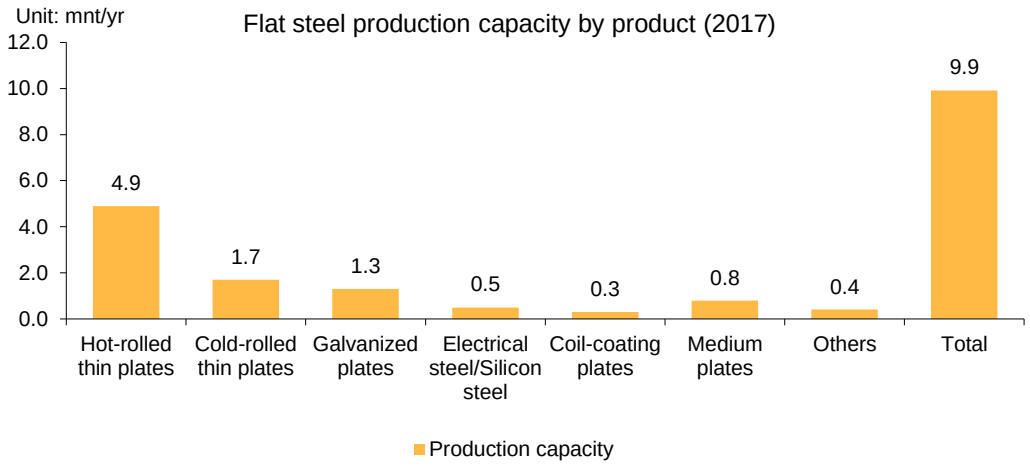
Product	Description	Capacity ('000 unit/yr)
GE-P3 wheels	Export to GE since 2003	10
AT840	Export to Alstom since 2003	1.5
ZC970	Export to Australia	4.5
KKD	Supply to the Ministry of Railway (China) (max speed 120 km/hr)	45
HDSA	Supply to the Ministry of Railway (China) (max speed 120 km/hr)	160
HDEA	Supply to the Ministry of Railway (China) (heavy-load wheel)	150
K1250A	Locomotive wheels, export to Korea	NA
Wheel hub/assembly	Sole supplier in China and export to Thailand, US, Germany	700
Total		**1071**

Source: Company data, Macquarie Research, December 2018

Flat steel

Compared to its competitors, Magang is a late-starter in the flat steel business. Magang established its flat steel production line in 2004, with 2mt of hot-rolled plate capacity, 1.5mt of cold-rolled plate capacity and 0.35mt of galvanized plate capacity. Magang established another production line for its high-end plate product, with a capacity of 5mt. So far Magang has established around 10mt of capacity of flat steel, including hot-rolled thin plates, cold-rolled thin plates, galvanized plates, silicon steel, coil-coating plates and medium/thick plates. Among these products, Magang is very strong in the appliance and automobile plate business.

Fig 23 Flat steel production capacity by product (2017)

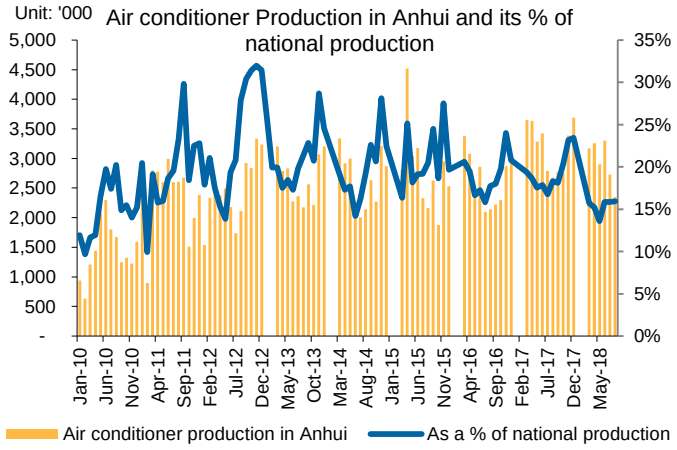


Source: Company data, Macquarie Research, December 2018

Home appliance plate

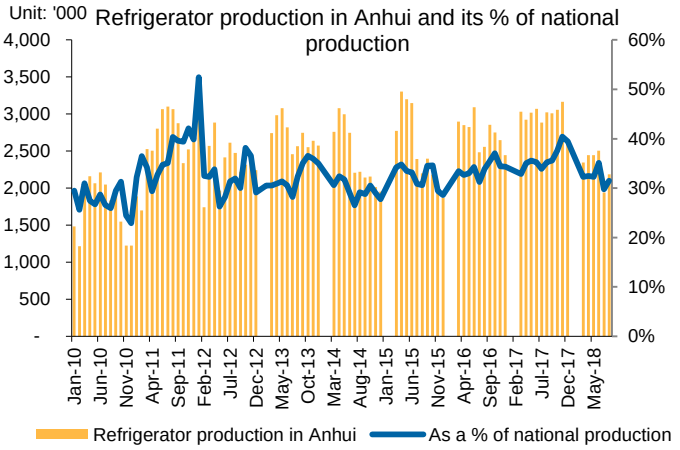
Magang is the third largest player in the home appliance market, thanks to its strong local sales channel in Anhui. Anhui has a large appliance market in Anhui, with refrigerators, air conditioners and washing machines accounting for 38.5%, 21.0% and 27.4% of national sales YTD, respectively. Maanshan recorded an appliance plate production volume of 3.1mt in 2017, the third largest player in the country.

Fig 24 Anhui accounts for 16% of national air conditioner production



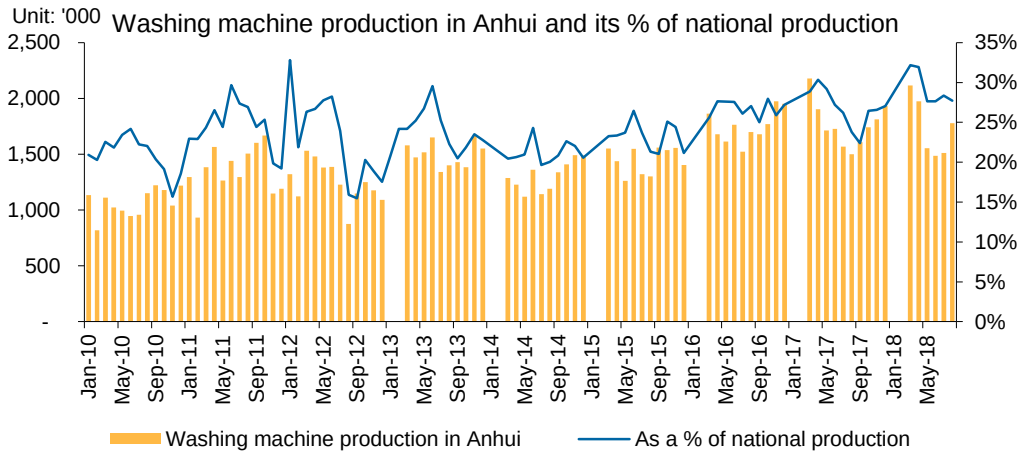
Source: Wind, Macquarie Research, December 2018

Fig 25 Anhui accounts for 28% of national refrigerator production volume



Source: Wind, Macquarie Research, December 2018

Fig 26 Anhui accounts for 32% of national washing machine production



Source: Wind, Macquarie Research, December 2018

Automobile plate

Magang entered the automobile plate business in 2007 and targets high-end products. It has been establishing an R&D centre and high-end production bases since 2013. In 2015, Magang realized full coverage of the first generation of high-strength steel product. It is currently doing research on the third generation high-strength auto steel and light-weight steel products. In 2017, Magang's automobile plate products obtained the IATF16949 system certification, SAICGM, FAW Group and multiple original equipment manufacturers certification.

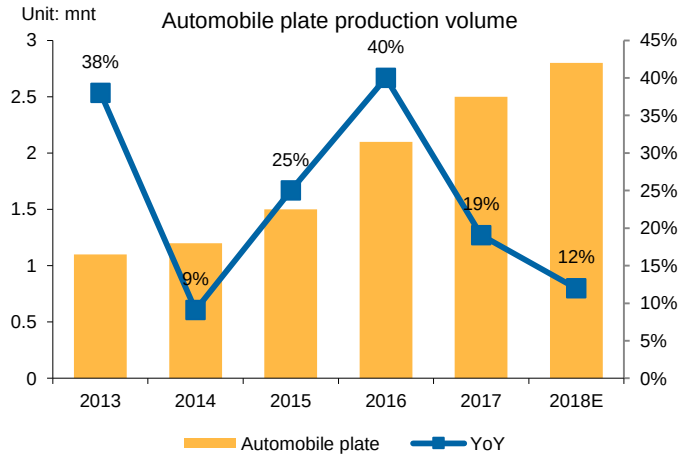
Magang's automobile plate production volumes have been witnessing a CAGR of 30% over the past five years. In 2017, Magang's auto plate production volume grew by 19% and amounted to 2.5mt. The company has guided 2.8mt production volume in 2018, up by 12% YoY. It achieved 50% of the target in 1H18. We expect the automobile sales and production volume to exceed its guidance in 2018.

Magang has been targeting the high-strength automobile plate business. The sales volume of high-strength auto plates witnessed a 38.5% CAGR during 2014-17. Its percentage of total automobile plates also rose from 32.5% in 2014 to 50.8% in 1H18.

Leveraging its high-end automobile product, Magang has become the fifth largest automobile plate producer over the years. The automobile sheet market is very concentrated, with the top 7 companies taking up 93% of market share in 2017. Among them, Baosteel accounts for 41% of market share, with the rest of them accounting for 8-12% market share.

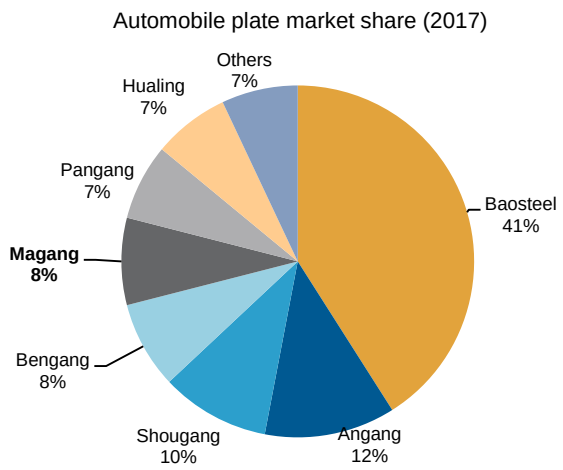
Magang's sales channels cover 26 provinces in China. It has established strategic partnerships with many auto companies, including JAC Motors, Chery, Donghua, Geely, etc. It has also established business relationships with high-end auto companies, such as SAIC Motor, Dongfeng, and Hyundai Motor.

Fig 27 Magang's auto plate production volume has grown rapidly over the years



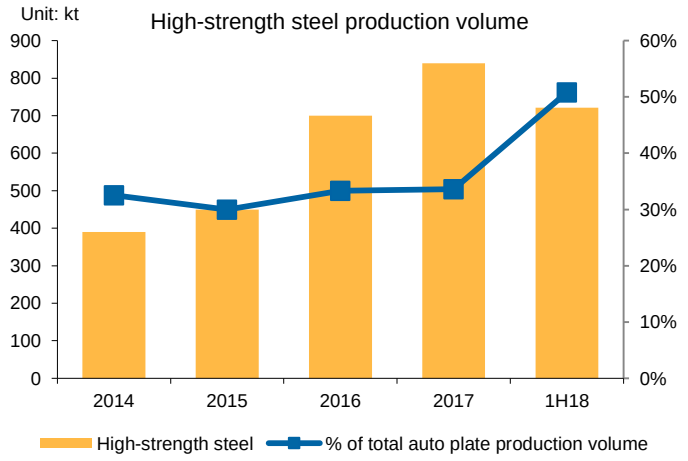
Note: 2018E estimate is based on the company guidance
Source: Company data, Macquarie Research, December 2018

Fig 28 Magang is the 5th largest automobile plate producer



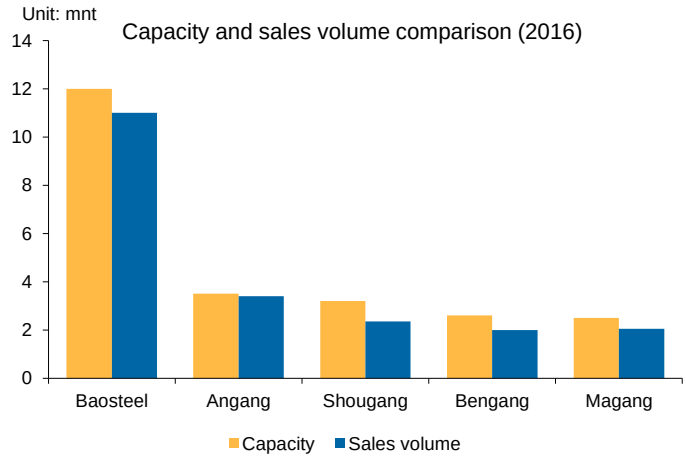
Source: Company data, Macquarie Research, December 2018

Fig 29 The high-strength steel's production volume and its portion of total auto plate continue to rise over the years



Source: Company data, Macquarie Research, December 2018

Fig 30 Capacity and sales volume comparison among the top 5 players



Source: Company data, Macquarie Research, December 2018

Advantageous location in Anhui

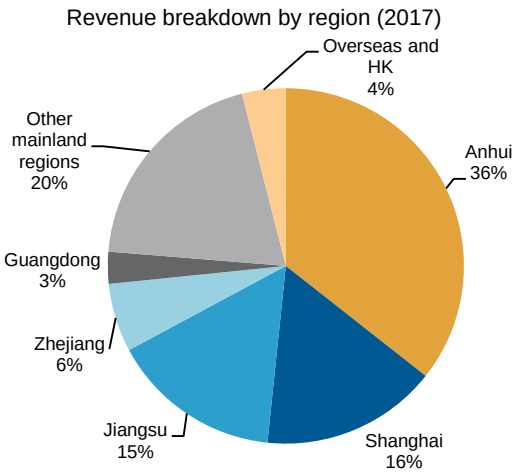
Magang is the largest steel company in Anhui with its capacity accounting for 63%, 55% and 45% of pig iron, crude steel and steel capacity in Anhui, respectively. Anhui is also the most revenue-contributing region for Magang, accounting for 36% of its 2017 revenue, followed by 16% in Shanghai and 15% in Jiangsu.

Compared to other regions, Anhui has stronger steel demand. FAI YTD growth in Anhui has outpaced the national average since March 2016. Despite the macroeconomic slowdown, FAI growth was 11.8% in 8M18, vs. 5.3% national average. Property is the largest downstream sector for long steel products. Property FAI YTD growth has outpaced the national average since March 2017. Property FAI YTD growth was 20.4% in 8M18, vs 10.1% national average.

Anhui is also a major appliance-producing province. Its TV, refrigerator, air conditioner, and washing machine production accounted for 9%, 36%, 20% and 27% of national production YTD, respectively.

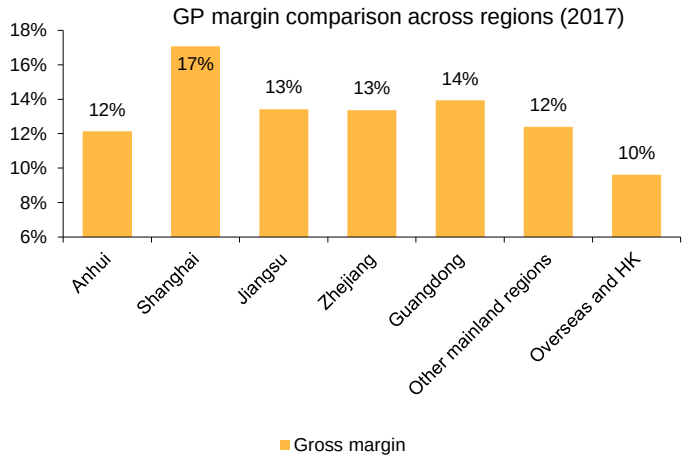
Rebar and HRC are sold at a 5-10% premium in Anhui to the national average or surrounding regions. We compared the price difference between Hefei (capital city of Anhui province) vs Shanghai vs national average and observed a sustainable price premium in Anhui for both rebar and HRC. Rebar is priced at a 9% premium in Hefei vs Shanghai and 4% vs national average. HRC is priced at a 3% premium in Hefei vs Shanghai and 2% vs national average.

Fig 31 Anhui accounts for 36% of total sales, followed by 16% in Shanghai



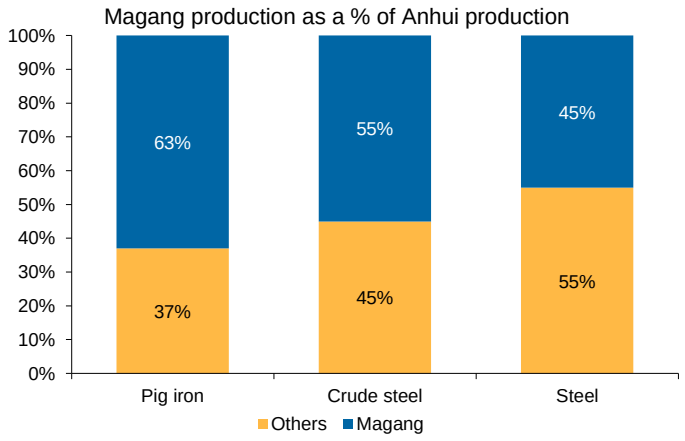
Source: Company data, Macquarie Research, December 2018

Fig 32 Shanghai has the highest margin while other regions have similar levels



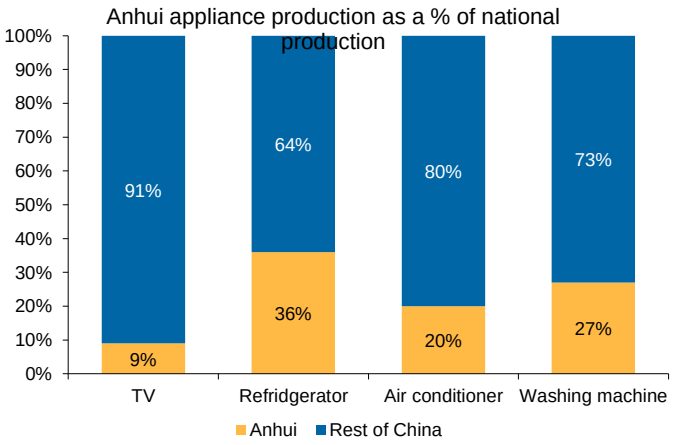
Source: Company data, Macquarie Research, December 2018

Fig 33 Magang production as a % of total production in Anhui



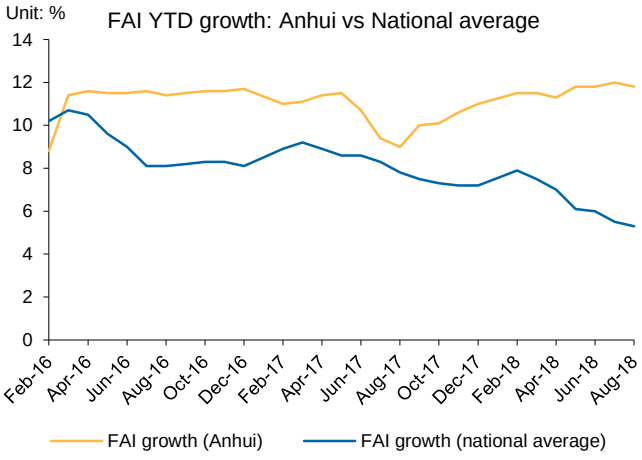
Source: Wind, Macquarie Research, December 2018

Fig 34 Anhui appliance production as a % of national production (5-yr average)



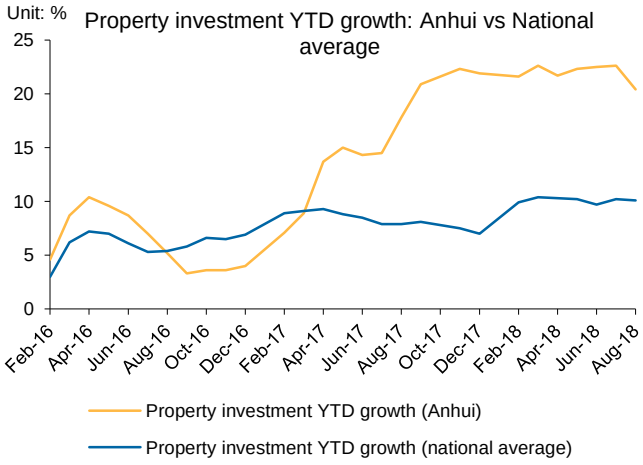
Source: Wind, Macquarie Research, December 2018

Fig 35 Anhui has a higher FAI growth compared to the national average



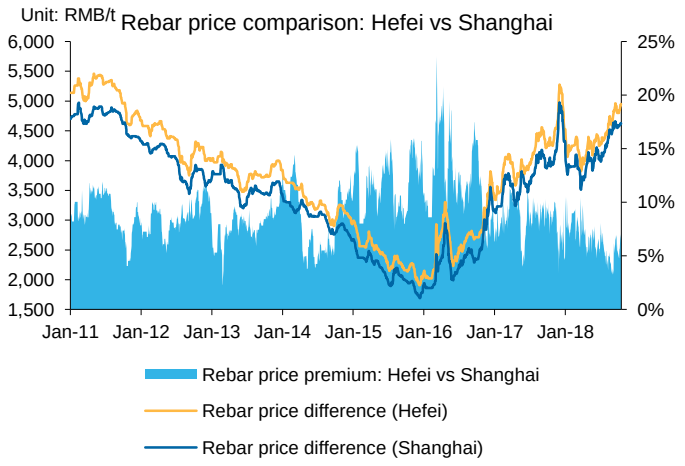
Source: Wind, Macquarie Research, December 2018

Fig 36 Property investment YTD growth: Anhui vs national average



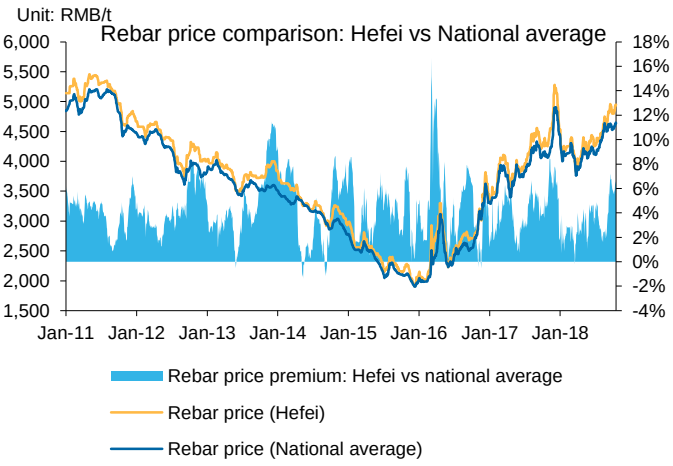
Source: Wind, Macquarie Research, December 2018

Fig 37 Rebar is sold at a premium in Anhui vs Shanghai



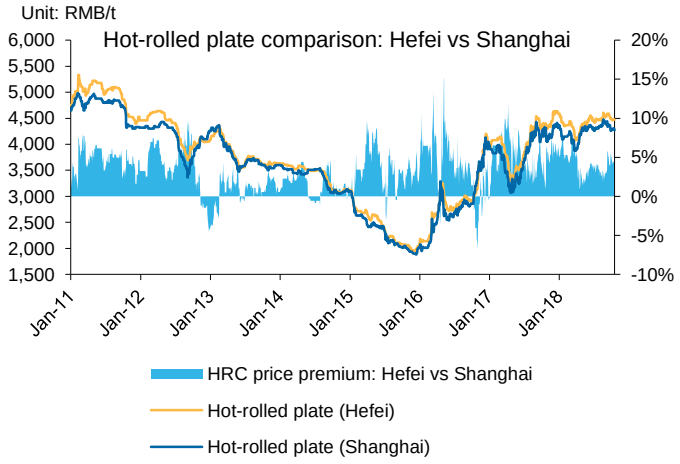
Source: Wind, Macquarie Research, December 2018

Fig 38 Rebar is sold at a premium in Anhui vs national average



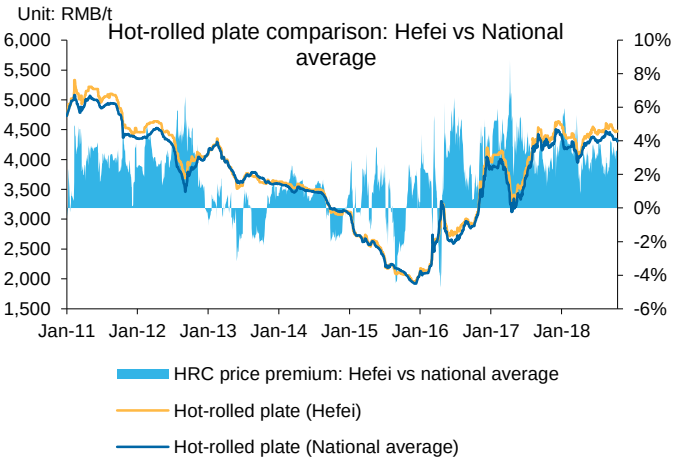
Source: Wind, Macquarie Research, December 2018

Fig 39 Hot-rolled plate is sold at a premium in Anhui vs Shanghai



Source: Wind, Macquarie Research, December 2018

Fig 40 Hot-rolled plate is sold at a premium in Anhui vs national average



Source: Wind, Macquarie Research, December 2018

Effective phase-out of obsolete capacity

The Anhui government released the excess steel capacity reduction plan in August 2016 and required Magang to reduce its iron capacity by 2.24mt and steelmaking by 2.69mt in three years. Magang has already completed the 2.24mt ironmaking capacity reduction and is about to complete the 2.69 steelmaking capacity reduction. Magang has already closed 1mt iron making capacity in April 2018 by closing #9 BF and #13 BF and will close 1.28mt of steel-making capacity by October 2018 by closing 2x40t/d converter at its long steel division. With this, all of Magang's BF of below 500m³ would have been closed. We believe the removal of obsolete capacity will further increase utilisation and reduce pollutant emissions; this is essential because the incoming differentiated winter production cut is based on respective companies' emissions. We still estimate 1% sales volume growth for 2018E YoY due to improvements in utilisation and efficiency.

Magang's operational efficiency has improved significantly as it gradually phased out its obsolete capacity. Its crude steel production volume rose from 18.8mt in 2015 to 23.0mt in 2017 while the number of employees declined from 39,432 to 30,236. Its crude steel production per employee rose from 477t/person to 652t/person. Asset write-offs and employee benefits amounted to Rmb386m and Rmb806m, respectively, in the past two years. Until now, Angang has phased out all its blast furnace below 500m³. We believe that there is not much room for asset write-offs in the future which could further improve Magang's profitability.

Fig 41 Obsolete capacity closed down in Magang

Year	Production facilities	Iron making capacity (mt)	Steelmaking capacity (mt)
2016	1 blast furnace (500 m³) at Ertie headquarters, 1 converter(40t) at Long Steel Department, 1 EAF (15t) at heavy machinery department, 1 electric furnace(20t)	0.62	0.77
2017	1 blast furnace #10 at Ertie headquarters (North), 1 converter (#1 at Long Steel Department)	0.62	0.64
2018	2 blast furnaces (ErTie Headquarters #9, #13) in Apr 18 and 2 converter (40t) at Long Steel Department by Oct 18	1.00	1.28

Source: Company data, Macquarie Research, December 2018

Except for the traditional BF-to-converter steelmaking technique, Magang is very experienced in the short-process EAF technique. Magang Group started its EAF production in 1958 and still has one 110t electric arc furnace. Moreover, Magang plans to expand its EAF capacity by capacity swap. Its approved capacity swap plan includes two 100t EAF and one 140t EAF.

Fig 42 Magang's approved capacity swap plan

New equipment	New equipment capacity (mnt)	Construction commencement date	Production commencement date	Note
Two 100t EAF	1.5	Jun-22	Dec-22	20kt of steel capacity will be phased out
One 140t EAF	1.1	Mar-19	Mar-21	
TOTAL	2.6			
Phased-out equipment	**Capacity to be swapped out (mnt)**	**Dismantle commencement date**	**Dismantle completion date**	**Note**
One 450 m3 blast furnace	0.6	Dec-19	Mar-21	- 550kt of iron capacity is saved for the capacity swap in the future. - 1.1mnt of steel capacity is used for capacity swap. - 100kt of steel capacity will be phased out.
Two 40t converter	1.2	Mar-21	Mar-21	
TOTAL	1.8			

Source: Company data, Macquarie Research, December 2018

Winter cuts in Anhui and impact on Magang. The target is a 3% reduction in PM2.5 in 2018-19 winter for Anhui. The government will also monitor the energy consumption. Magang is not required to cut production yet. As a precautionary measure, however, the company overhauled one of its 2500m³ BFs in October, and this should last until early February. This overhaul will reduce 170kt/month of production, lasting for ~4 months. The company is also considering overhaul of another 1080m³ BF at the Changjiang plant should air quality deteriorate.

The company will follow the government policy of achieving ultra-low emissions by 2022. The cost of environmental protection was Rmb160/t in 2017; it is higher this year and should trend above Rmb200/t. Magang has a 16% stake in Xinchuang, an environmental protection company, and has been investing in environmental protection. Capex will not be higher than depreciation.

Convenient waterway transportation

70% of Magang's iron ore supply relies on imports. Magang has signed a long-term iron supply contract with Vale and holds a 10% stake in BHP Billiton. It imported iron ore of 15.7mt in 2017, which accounts for 70% of its usage volume. Magang is located in Maanshan city, a 24-minute drive from Maanshan harbor. It is 460km away from Shanghai port, 26km away from Nanjing airport and 40km away from Shanghai-Nanjing highway. Imported iron ore could be easily transported along the Yangtze River and steel products could also be easily transported to East China, Central China and overseas. Magang purchased another containership (20kt) in March 2018 for cargo transportation.

Fig 43 Magang has a convenient access to waterway transportation through Maanshan Harbor

Source: Google, Macquarie Research, December 2018

Fig 44 Containerships at the Maanshan Harbor

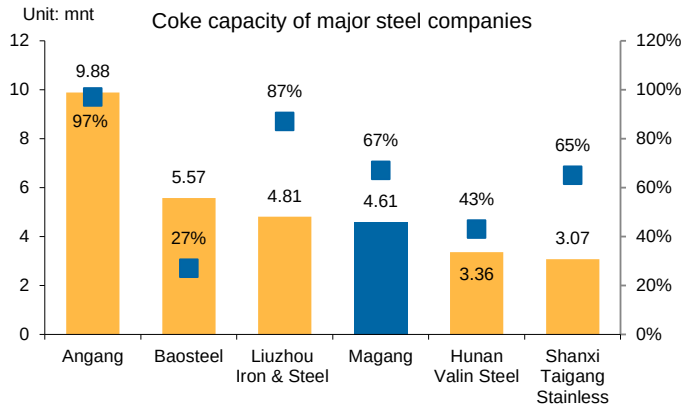
Source: Company data, Macquarie Research, December 2018

Coking coal cost advantage

China coking price has risen by 38% since April 2018 to ~Rmb1,700/t driven mainly by the expectation of obsolete capacity phase-out. Shanxi provincial government required 40% of coke companies to complete their facility upgrades by October 2018 and all coke companies to upgrade their facilities by October 2019. In the official document of the winter anti-air pollution campaign, it required Shanxi government to phase out all obsolete capacity that has been operating for 10 years. Hebei, Shandong and Henan need to accelerate the phase-out of obsolete coke capacity and make the capacity ratio of coke-to-steel to around 0.4.

We believe the coke price could continue rising given the tightened supply. As a result, the steel companies that are self-sufficient in coke resources could have a comparative advantage. Magang has an annual coke capacity of 4.61mt, ranking No.4 among the major steel companies. Its 67% of coke supply is self-produced, which could reduce the energy cost.

Fig 45 Magang has the fourth largest coke capacity among the major steel companies in 2017



Source: Wind, Mysteel, Macquarie Research, December 2018

Fig 46 China coke prices have been rising since April 2018

Source: Wind, Steel Home, Macquarie Research, December 2018

Fig 47 Coking coal self-sufficient ratio comparison (2017): 67% of Magang's coke is self-supplied

Unit: mnt	Coke production	Crude steel production	Coke consumption	Self-sufficient ratio
SGIS Songshan Co., Ltd.	2.8	6.0	2.7	104%
Xinjiang Ba Yi Iron and Steel	2.3	5.2	2.3	97%
Angang Steel	9.9	22.6	10.2	97%
Liuzhou Iron & Steel Co. Ltd.	4.8	12.3	5.5	87%
Anyang Iron & Steel Inc.	2.3	7.4	3.3	69%
Maanshan Iron and Steel	4.6	15.4	6.9	67%
Shanxi Taigang Stainless	3.1	10.5	4.7	65%
Xinyu Iron & Steel Co., Ltd.	2.4	8.6	3.8	61%
Nanchang Changli Iron & Steel	0.8	3.6	1.6	50%
Hunan Valin Steel	3.4	17.3	7.8	43%
Nanjing Iron and Steel Company	1.7	9.8	4.4	38%
Sansteel MinGuang Co., Ltd., Fujia	0.9	6.5	2.9	29%
Baosteel	5.6	46.2	20.8	27%

Source: Wind, Company data, Mysteel, Macquarie Research, December 2018

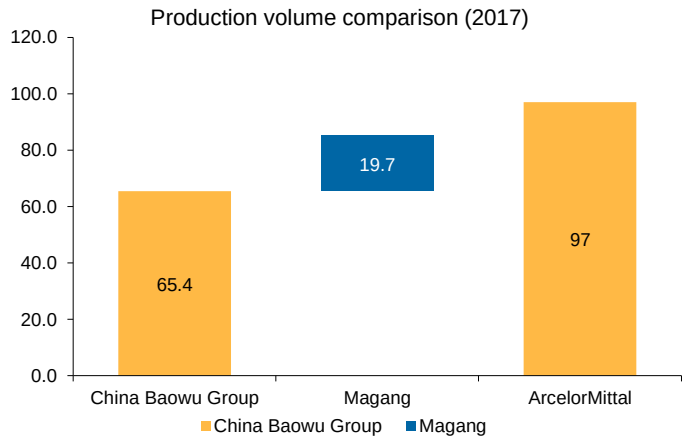
Scrap usage <20%. The company uses scrap in its EAF and converters but not in its BFs, as: 1) Magang believes it is harmful to the BF, and 2) it reduced the quality of the company's steel products, especially flat products, where customers usually have a very strict requirement on the alloy content. Scrap price purchase price is largely in line with market price. Magang only has one EAF, which is used to produce special steel, mainly train wheels.

Possible M&A opportunity with Baosteel

There have been rumours about the possible merger between Baosteel and Magang. In September 2018, Reuters reported a possible M&A with Magang. Although Baosteel clarified in November 2018 that there is no information to share, we believe that this M&A makes sense from the following three perspectives.

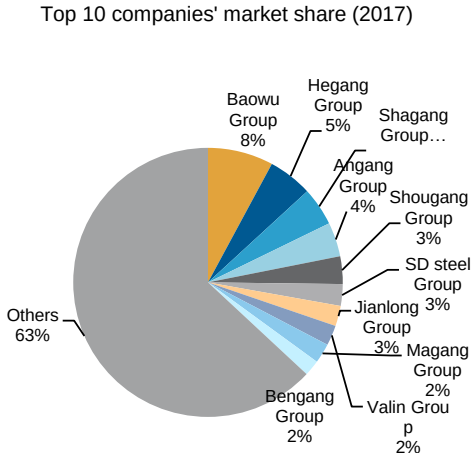
- **It could sharply narrow Baowu's gap with ArcelorMittal**, the largest steel company in the world. Baosteel produced 65.4 mt of crude steel in 2017 while Magang produced 19.7mt, vs 97.0mt crude steel production of ArcelorMittal. Their combined output of 85.1mt would be just 11.9mt below ArcelorMittal's production last year, and higher than the total crude steel production volume of 81.6mt in the US. It would also put Baowu closer to its plan to expand its capacity to 100mt by 2021 from around 70mt currently.
- **Synergies between the two companies**. Baosteel and Magang are geographically close. Magang is based in Maanshan city in Anhui province, which is only 4-hour drive from Shanghai. Baosteel's products focus mainly on flat steel used in manufacturing, such as auto, appliances, machinery. Magang's products are evenly-split between long steel and flat steel products. There could be synergies and cross-sell opportunities between the two companies.
- **Higher market concentration**. Chinese government guided that the top 10 steel companies should account for 60% of the total steel capacity in China, while the current concentration is only 37%. Higher market concentration could make it easier to reduce the excess capacity and upgrade the environmental facilities. We believe that there could be more M&A in the coming two years.

Fig 48 The gap between Baowu and ArcelorMittal could be sharply narrowed after the acquisition of Magang



Source: Company data, Macquarie Research, December 2018

Fig 49 Top 10 companies currently account for 37% of total steel capacity, still quite far away from the 60% target set by the Chinese government



Source: Company data, Macquarie Research, December 2018

Financial analysis – healthy balance sheet

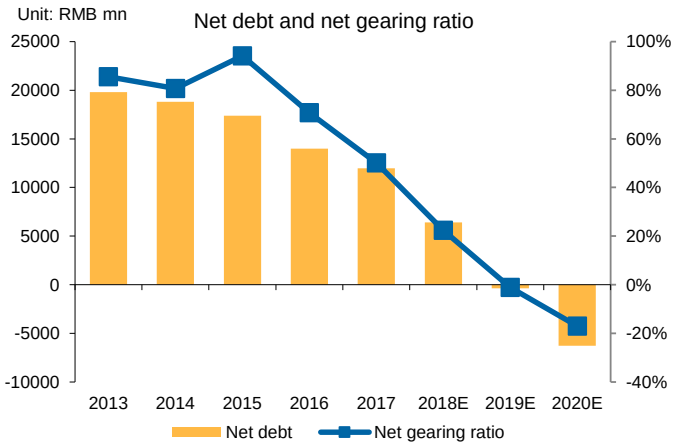
Deferred tax assets from previous loss. Magang booked a loss of Rmb4.8bn in 2015, and it resulted in deferred tax assets, which could be used to reduce the tax expense. Magang recorded a pre-tax profit of Rmb5.8bn in 2017, with a theoretical tax expense of Rmb1.45bn. However, by utilising the deferred tax assets, Magang recorded a tax expense of only Rmb737m, implying an effective tax rate of 13%. Its effective tax rate is only 8-13%, because many of the company's entities are still using the previous losses to offset the tax. Magang has almost fully utilized those losses now, so going forward, the effective tax rate will likely go up.

Magang's net gearing has been declining sharply since 2015. Thanks to the improving profitability over the years, it is able to pay down its debt and improve its balance sheet. Its net gearing declined from 94% in 2015 to 50% in 2017. While the company does not set a specific gearing reduction target, we expect net gearing to keep declining to -17% in 2020 thanks to its stable profitability and management's determination to lowering the debt level.

Magang has been able to maintain positive free cash flows since 2015, driven by increasing cash flows from operations and controlled capital expenditure. Going forward, we expect companies' cash flows to remain strong at above Rmb8bn during 2018-20E.

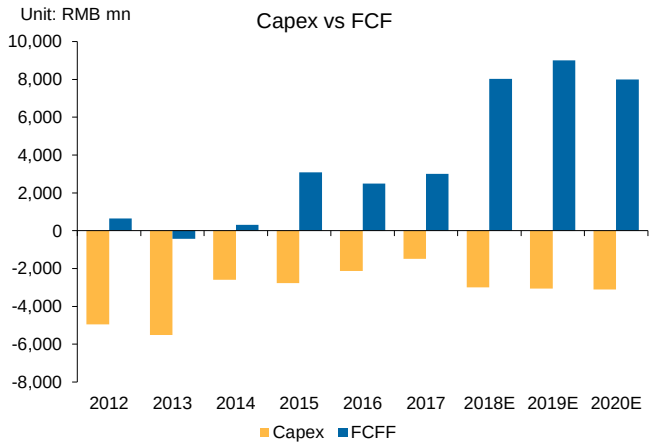
Magang targets Rmb3bn capex for 2018 and it should remain at this level for the next three years. Environmental-related capex was Rmb100-300m pa for the past few years but this may increase to Rmb1bn on upgrading the equipment for environmental protection.

Fig 50 Net gearing continues to decline



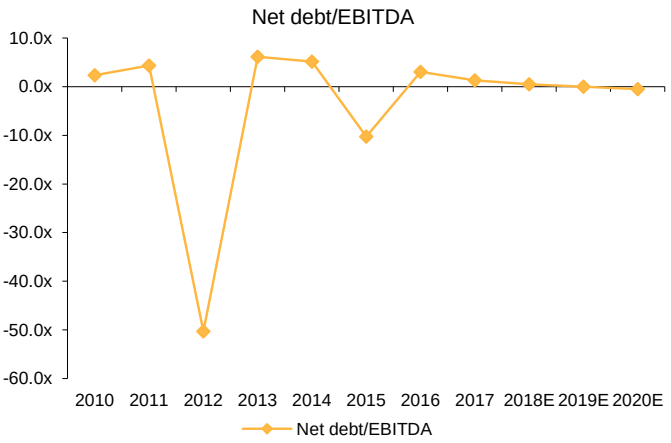
Source: Company data, Macquarie Research, December 2018

Fig 51 Capex vs FCF



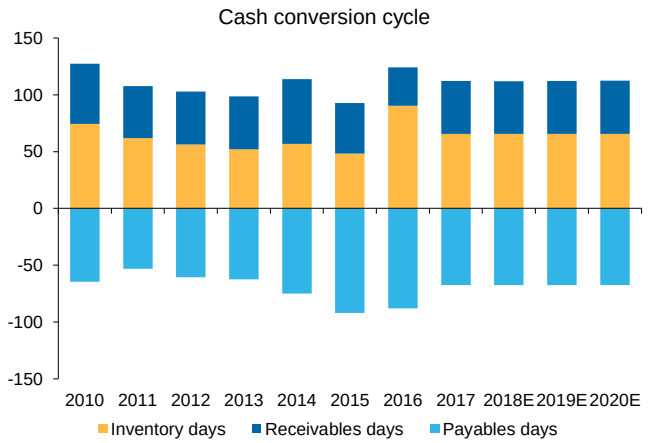
Source: Company data, Macquarie Research, December 2018

Fig 52 Net debt/EBITDA



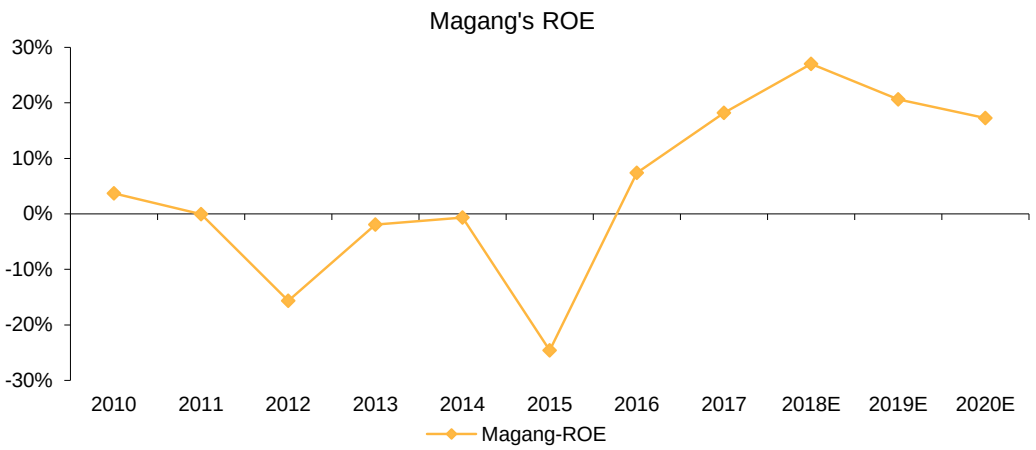
Source: Company data, Macquarie Research, December 2018

Fig 53 Cash conversion cycle



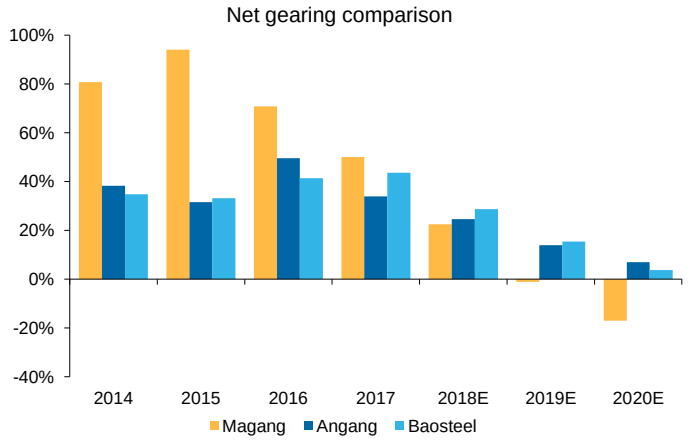
Source: Company data, Macquarie Research, December 2018

Fig 54 Magang's ROE continues to rise



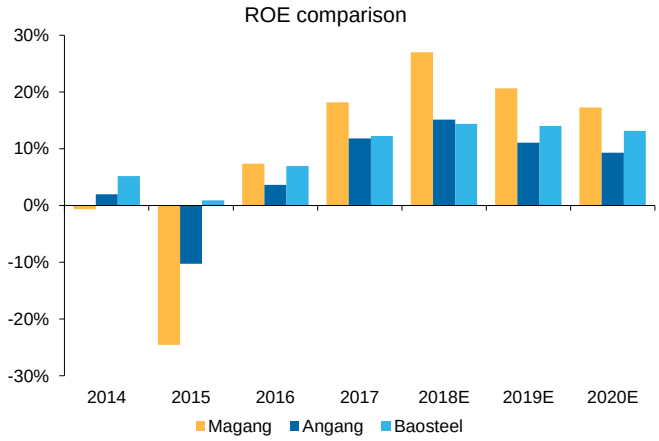
Source: Company data Macquarie Research, December 2018

Fig 55 Net gearing comparison



Source: Company data, Macquarie Research, December 2018

Fig 56 ROE comparison



Source: Company data, Macquarie Research, December 2018

Valuation, recommendation, risks

Valuation

Magang is currently trading at 0.8x 2019E P/B, vs long-term average of 0.9x and global peers of 1.1x P/B. We believe this valuation is attractive given its 22% 2019E ROE, highest among our coverage. We value the stock 1x PB valuation, largely in line with the historical average. Our price target of HK$4.8 implies a FY19E PE of 5x.

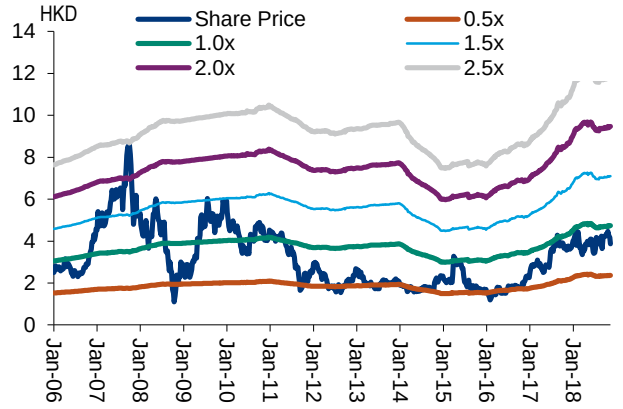
Fig 57 Magang's valuation

Methodology	Year used	Value (Rmb mn)	Multiple used	Firm value implied (Rmb mn)	Equity value implied (Rmb mn)	Equity value per share (HK$/sh)
Book value	2019	32788	1.0x		32788	4.88
EBITDA	2019	12670	4.0x	50680	45607	7.46
EPS (Rmb/sh)	2019	0.86	6.0x		39572	5.89
Average (HK$/sh)						**6.08**
Target price (HK$/sh)						**4.80**
Current price						3.6
Upsdie/dow nside						33%

	FY18E	FY19E	FY20E
P/E - Current	3.6x	3.7x	3.7x
P/E - PO Implied	4.7x	4.8x	4.9x
EV/EBITDA - Current	2.1x	2.0x	2.1x
EV/EBITDA - PO Implied	3.5x	2.9x	2.5x
P/B Current	0.9x	0.8x	0.7x
P/B - PO Implied	1.1x	1.0x	0.9x
ROE %	26%	22%	19%
5-year average P/E	6.8x		
5-year average P/B	0.9x		
5-year average EV/EBITDA	9.5x		

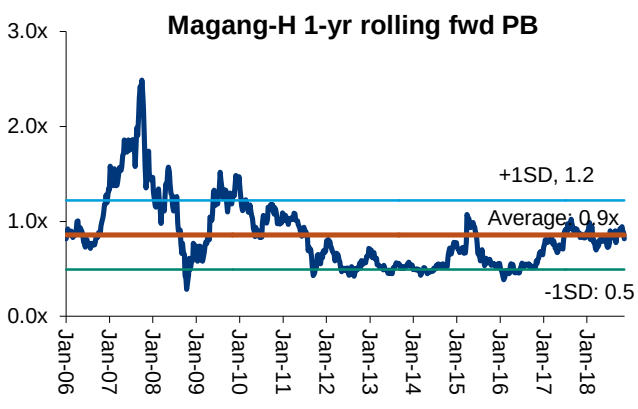
Source: Company data, Macquarie Research, December 2018

Fig 58 Magang H: P/BV band



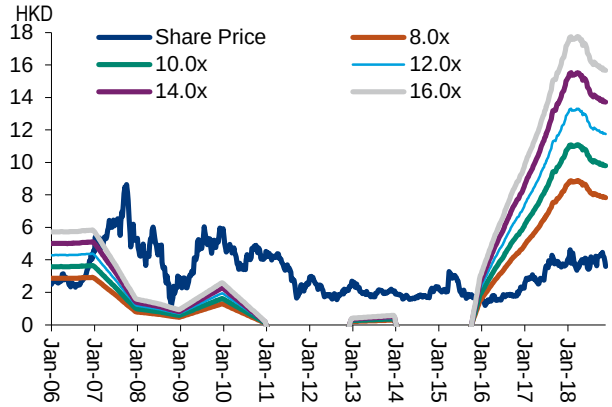
Source: Bloomberg, Company data, Macquarie Research, December 2018

Fig 59 Magang H: P/BV band



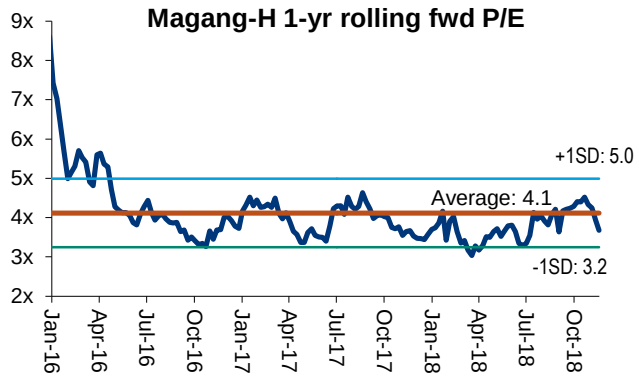
Source: Bloomberg, Company data, Macquarie Research, December 2018

Fig 60 Magang H: PER band



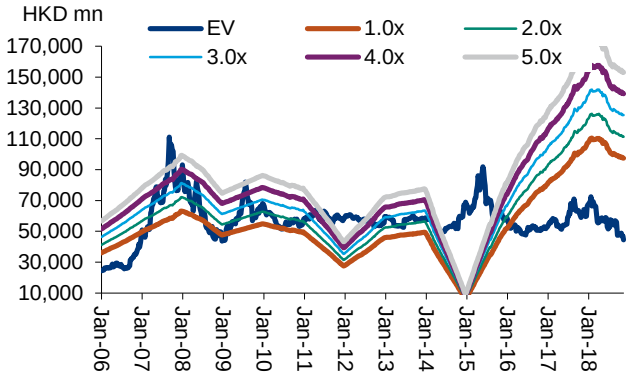
Source: Bloomberg, Company data, Macquarie Research, December 2018

Fig 61 Magang H: PER band



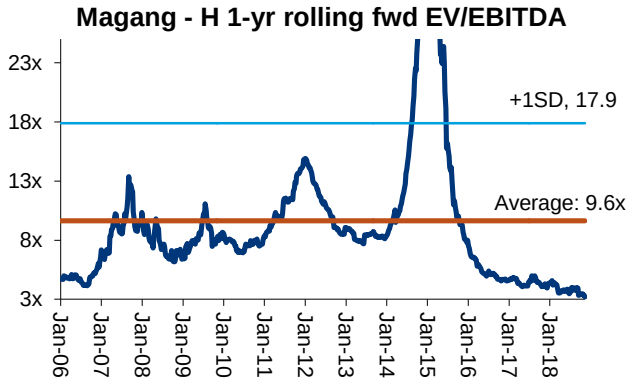
Source: Bloomberg, Company data, Macquarie Research, December 2018

Fig 62 Magang H: EV/EBITDA band



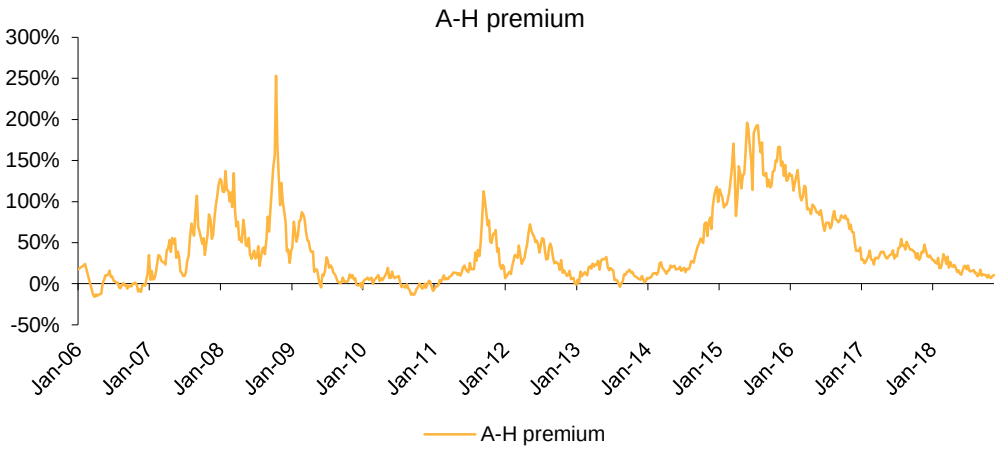
Source: Bloomberg, Company data, Macquarie Research, December 2018

Fig 63 Magang H: EV/EBITDA band



Source: Bloomberg, Company data, Macquarie Research, December 2018

Fig 64 Magang: A-H premium

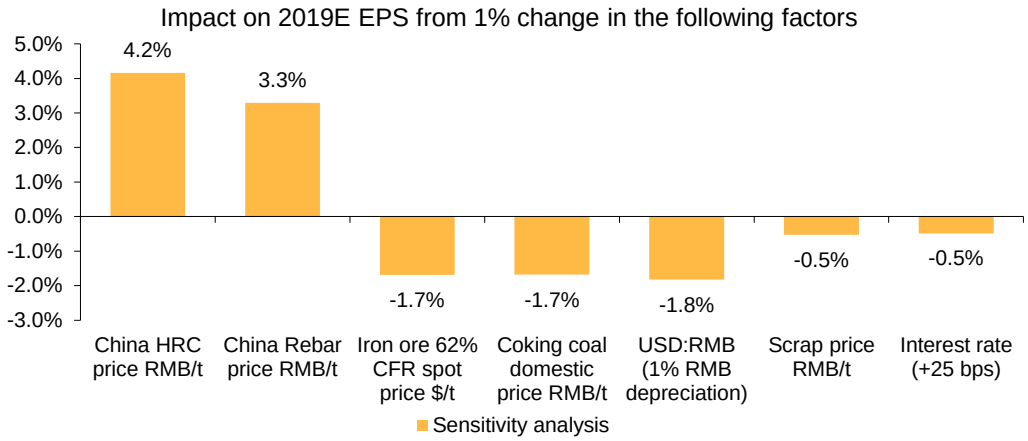


Source: Bloomberg, Macquarie Research, December 2018

Sensitivity analysis

As a pure play in the steel sector, Magang sees high earnings sensitivity to steel and raw material prices. We estimate that every 1% increase in the HRC price would lead to a 4.2% increase in 2019 net earnings. Every 1% increase in the iron ore price would result in a 1.7% fall in 2019 earnings.

Fig 65 Sensitivity analysis of key earnings drivers



Source: Company data, Macquarie Research, December 2018

Investment risks

- **Steel price risk:** Magang's earnings and share price are sensitive to the underlying steel prices. Therefore, changes in the industry supply/demand and inventory might affect our steel price assumptions.
- **Raw material price risk:** Both iron ore and coking coal are the key components of the production cost, which should have impacts on the company's earnings. Therefore, changes in the iron ore and coking coal prices may affect our earnings estimates.

Key financials and assumptions

Fig 66 Financial statements

P&L (RMB mn)	2013	2014	2015	2016	2017	2018E	2019E
Total Revenue	73,849	59,821	45,109	48,275	73,228	81,181	73,079
Total cost of revenue	-70,394	-55,840	-45,488	-42,557	-63,556	-68,623	-59,838
Gross Profit	**3,455**	**3,981**	**-380**	**5,718**	**9,672**	**12,558**	**13,241**
Business tax and surcharges	-226	-235	-201	-432	-741	-822	-740
SG&A	-1,757	-1,823	-2,174	-2,475	-2,285	-2,517	-2,265
Impairment losses on assets	-1,164	-770	-1,619	-1,064	-746	-186	-1,014
Investment income	289	150	95	295	687	450	500
Other income (inlcuding gain/loss on disposal of assets)	0	0	0	0	62	0	0
Total EBIT	**596**	**1,302**	**-4,280**	**2,042**	**6,648**	**9,484**	**9,722**
Net interest expense	-1,154	-1,244	-813	-794	-999	-782	-789
Other income/expense (excl. interest income/exp)	880	454	367	121	159	100	100
Profit before tax	**322**	**512**	**-4,727**	**1,369**	**5,809**	**8,801**	**9,034**
Income taxes	-114	-248	-378	-112	-737	-880	-1,355
Profit for the year	208	264	-5,104	1,257	5,072	7,921	7,678
Minority Interest	51	43	-300	28	943	1,030	998
Profit attributable to shareholders	**157**	**221**	**-4,804**	**1,229**	**4,129**	**6,892**	**6,680**
Basic EPS	**0.02**	**0.03**	**-0.62**	**0.16**	**0.54**	**0.89**	**0.87**

Balance Sheet (RMB mn)	2013	2014	2015	2016	2017	2018E	2019E
PP&E	30,668	37,041	34,605	35,523	33,130	32,465	31,785
Construction in progress and materials	8,760	2,831	4,246	2,258	1,806	1,806	1,806
Intangible assets	1,900	1,826	1,891	1,822	1,884	1,884	1,884
Long-term investment	1,141	1,279	1,221	1,877	2,795	2,795	2,795
Others	755	648	330	348	478	478	478
Total Non Current Assets	**43,225**	**43,626**	**42,294**	**41,827**	**40,093**	**39,428**	**38,747**
Bank balances and cash	5,107	4,655	5,143	5,312	4,978	10,305	17,241
Notes and trade receivables	9,430	9,340	5,486	4,468	9,342	10,251	9,325
Other receivables	1,996	257	192	132	285	285	285
Inventories	10,050	8,684	6,018	10,548	11,446	12,358	10,776
Prepayments	1,022	649	634	925	751	751	751
Other current assets	991	1,300	2,687	3,033	5,297	5,297	5,297
Total Current assets	**28,597**	**24,885**	**20,160**	**24,418**	**32,099**	**39,248**	**43,675**
Total assets	71,822	68,511	62,454	66,246	72,192	78,675	82,422
Notes and account payables	12,067	11,482	11,489	10,253	11,778	12,717	11,089
Other payables	1,652	1,517	1,840	2,854	4,352	4,352	4,352
Deposits	6,516	5,401	4,504	7,391	6,991	6,991	6,991
Borrowing due within 1 year	8,898	12,058	6,791	7,540	4,938	4,938	4,938
Other current liabilities	7,956	2,246	5,107	5,514	8,059	8,059	8,059
Total current liabilities	**37,088**	**32,705**	**29,731**	**33,550**	**36,118**	**37,057**	**35,429**
Borrowing due after 1 year	8,388	8,672	10,635	9,151	7,186	7,186	7,186
Other non-current liabilities	647	1,245	1,347	1,464	1,650	1,650	1,650
Total non-current liabilities	**9,034**	**9,917**	**11,982**	**10,615**	**8,836**	**8,836**	**8,836**
Total Liabilities	**46,123**	**42,622**	**41,713**	**44,165**	**44,954**	**45,893**	**44,265**
Share capital	7,701	7,701	7,701	7,701	7,701	7,701	7,701
Reserves	12,231	12,281	12,289	12,373	12,676	12,676	12,676
Retained earnings	3,272	3,451	-1,369	-191	3,643	8,159	12,535
FX effect	-72	-137	-165	-119	-124	-124	-124
Minority interests	2,568	2,594	2,286	2,316	3,342	4,371	5,369
Total Equity	**25,699**	**25,889**	**20,742**	**22,081**	**27,237**	**32,782**	**38,157**
Total Equity and Liabilities	**71,822**	**68,511**	**62,454**	**66,246**	**72,192**	**78,675**	**82,422**

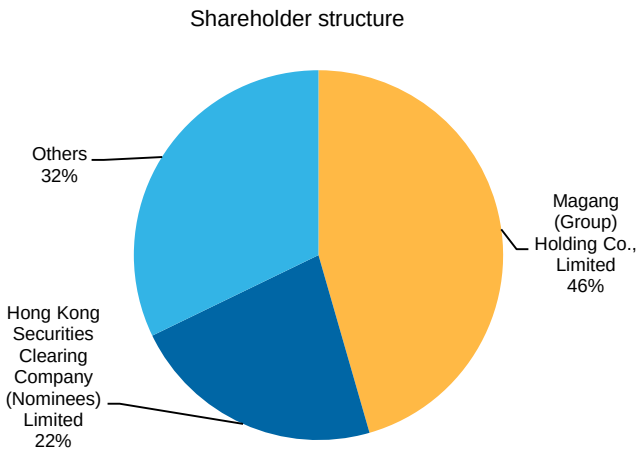
Cashflow (RMB mn)	2013	2014	2015	2016	2017	2018E	2019E
Net profit	208	264	-5,104	1,257	5,072	7,921	7,678
Adjustment for non-cash items	3,766	3,558	3,380	3,326	3,550	3,663	3,737
Adjustment for non-operating items	1,210	1,708	2,581	1,481	1,047	0	0
Change in working capital	-97	-2,623	4,999	-1,619	-5,180	-883	881
Others	4	6	10	175	0	0	0
Cashflow from operating activities	**5,092**	**2,913**	**5,865**	**4,620**	**4,490**	**10,701**	**12,296**
Capex	-5,521	-2,599	-2,773	-2,131	-1,485	-2,998	-3,056
Acquistions & Disposal	694	1,520	-51	21	-31	0	0
Investment	419	142	-5,162	-390	-2,611	0	0
Others	-134	2,264	63	104	6	0	0
Cashflow from investing activities	**-4,543**	**1,326**	**-3,621**	**-1,938**	**-3,414**	**-2,998**	**-3,056**
Proceeds from issues of shares and other equity	281	30	5	0	303	0	0
Dividend paid	-1,294	-1,401	-1,081	-963	-956	-2,376	-2,304
Net borrowing	-4,288	-1,974	-4,455	-1,128	-4,723	0	0
Cashflow from financing activities	**-5,301**	**-3,344**	**-1,555**	**-2,091**	**-2,377**	**-2,376**	**-2,304**
Net increase/(decrease) in cash	**-4,815**	**895**	**837**	**778**	**-1,384**	**5,327**	**6,936**

Source: Company data, Macquarie Research, December 2018

Appendices

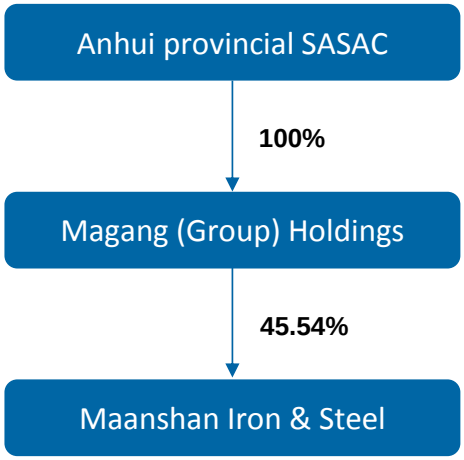
Shareholder structure

Fig 67 Shareholder structure (3Q18)



Source: Company data, December 2018

Fig 68 Shareholder structure (3Q18)



Source: Company data, December 2018

Macquarie Quant View

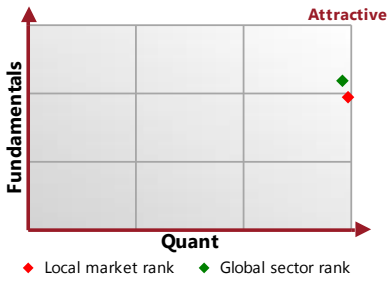
The Quant View page below has been derived from models that are developed and maintained by Sales and Trading personnel at Macquarie. The models are not a product of the Macquarie Research Department.

The quant model currently holds a strong positive view on Maanshan Iron & Steel. The strongest style exposure is Earnings Momentum, indicating this stock has received earnings upgrades and is well liked by sell side analysts. The weakest style exposure is Profitability, indicating this stock is not efficiently converting investments to earnings; proxied by ratios like ROE or ROA.

46/1623

Global rank in Materials

% of BUY recommendations	85% (11/13)
Number of Price Target downgrades	1
Number of Price Target upgrades	2

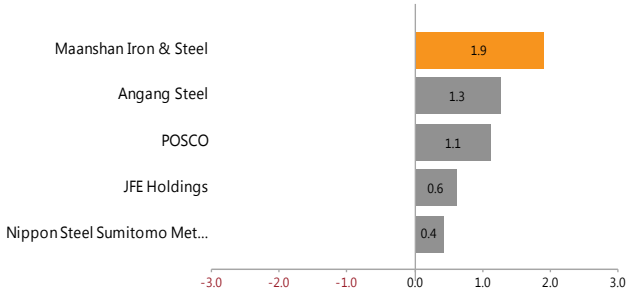


Displays where the company's ranked based on the fundamental consensus Price Target and Macquarie's Quantitative Alpha model.

Two rankings: Local market (Hong Kong) and Global sector (Materials)

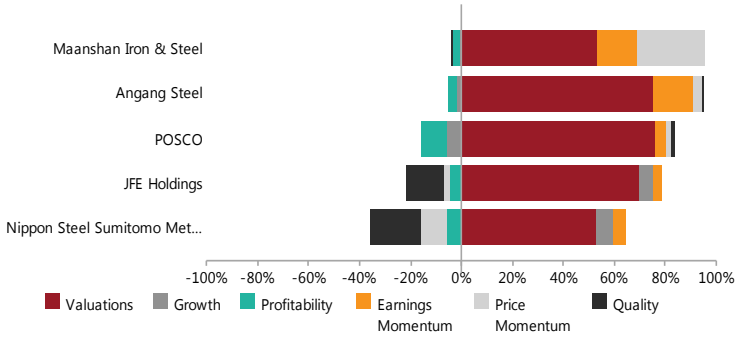
Macquarie Alpha Model ranking

A list of comparable companies and their Macquarie Alpha model score (higher is better).



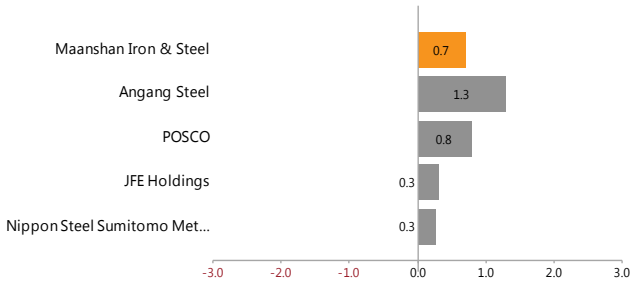
Factors driving the Alpha Model

For the comparable firms this chart shows the key underlying styles and their contribution to the current overall Alpha score.



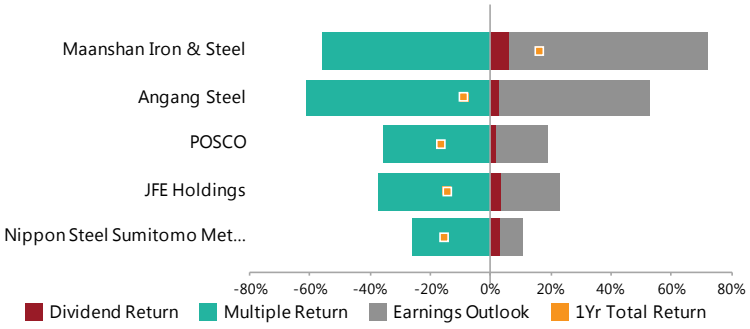
Macquarie Earnings Sentiment Indicator

The Macquarie Sentiment Indicator is an enhanced earnings revisions signal that favours analysts who have more timely and higher conviction revisions. Current score shown below.



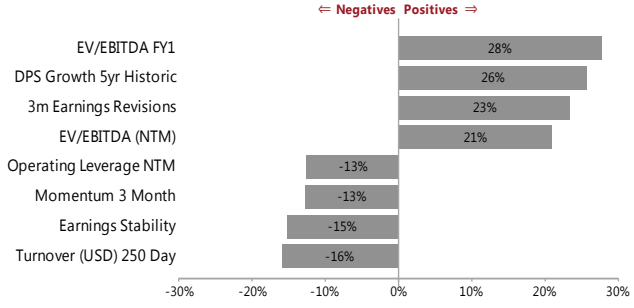
Drivers of Stock Return

Breakdown of 1 year total return (local currency) into returns from dividends, changes in forward earnings estimates and the resulting change in earnings multiple.



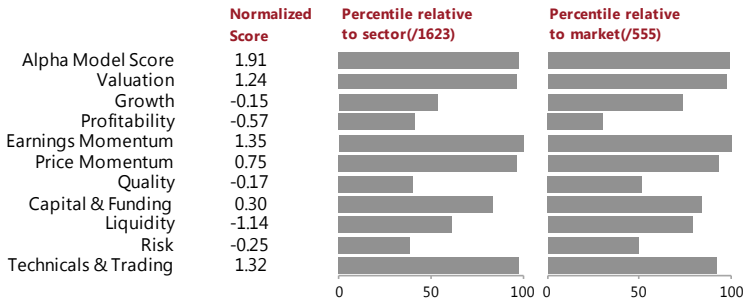
What drove this Company in the last 5 years

Which factor score has had the greatest correlation with the company's returns over the last 5 years.



How it looks on the Alpha model

A more granular view of the underlying style scores that drive the alpha (higher is better) and the percentile rank relative to the sector and market.



Source (all charts): FactSet, Thomson Reuters, and Macquarie Quant. For more details on the Macquarie Alpha model or for more customised analysis and screens, please contact the Macquarie Global Quantitative/Custom Products Group (cpg@macquarie.com)

Maanshan Iron & Steel (323 HK)

Interim Results		1H/18A	2H/18E	1H/19E	2H/19E
Revenue	**m**	**40,591**	**40,591**	**36,540**	**36,540**
Gross Profit	**m**	**6,279**	**6,279**	**6,621**	**6,621**
Cost of Goods Sold	m	34,312	34,312	29,919	29,919
EBITDA	**m**	**6,182**	**6,182**	**6,335**	**6,335**
Depreciation	m	1,832	1,832	1,868	1,868
Amortisation of Goodwill	m	0	0	0	0
Other Amortisation	m	0	0	0	0
EBIT	**m**	**4,351**	**4,351**	**4,467**	**4,467**
Net Interest Income	m	0	0	0	0
Associates	m	0	0	0	0
Exceptionals	m	0	0	0	0
Forex Gains / Losses	m	0	0	0	0
Other Pre-Tax Income	m	50	50	50	50
Pre-Tax Profit	**m**	**4,401**	**4,401**	**4,517**	**4,517**
Tax Expense	m	-440	-440	-678	-678
Net Profit	**m**	**3,961**	**3,961**	**3,839**	**3,839**
Minority Interests	m	-515	-515	-499	-499
Reported Earnings	**m**	**3,446**	**3,446**	**3,340**	**3,340**
Adjusted Earnings	**m**	**3,446**	**3,446**	**3,340**	**3,340**
EPS (rep)		0.45	0.45	0.43	0.43
EPS (adj)		0.45	0.45	0.43	0.43
EPS Growth yoy (adj)	%	66.9	66.9	-3.1	-3.1
EBITDA Margin	%	15.2	15.2	17.3	17.3
EBIT Margin	%	10.7	10.7	12.2	12.2
Earnings Split	%	50.0	50.0	50.0	50.0
Revenue Growth	%	10.9	10.9	-10.0	-10.0
EBIT Growth	%	54.0	54.0	2.7	2.7

Profit & Loss		2017A	2018E	2019E	2020E
Revenue	**m**	**73,228**	**81,181**	**73,079**	**69,877**
Gross Profit	**m**	**9,672**	**12,558**	**13,241**	**12,844**
Cost of Goods Sold	m	63,556	68,623	59,838	57,033
EBITDA	**m**	**9,209**	**12,365**	**12,670**	**12,589**
Depreciation	m	3,560	3,663	3,737	3,811
Amortisation of Goodwill	m	0	0	0	0
Other Amortisation	m	0	0	0	0
EBIT	**m**	**5,649**	**8,701**	**8,934**	**8,778**
Net Interest Income	m	0	0	0	0
Associates	m	0	0	0	0
Exceptionals	m	0	0	0	0
Forex Gains / Losses	m	0	0	0	0
Other Pre-Tax Income	m	159	100	100	100
Pre-Tax Profit	**m**	**5,809**	**8,801**	**9,034**	**8,878**
Tax Expense	m	-737	-880	-1,355	-1,332
Net Profit	**m**	**5,072**	**7,921**	**7,678**	**7,546**
Minority Interests	m	-943	-1,030	-998	-981
Reported Earnings	**m**	**4,129**	**6,892**	**6,680**	**6,565**
Adjusted Earnings	**m**	**4,129**	**6,892**	**6,680**	**6,565**
EPS (rep)		0.54	0.89	0.87	0.85
EPS (adj)		0.54	0.89	0.87	0.85
EPS Growth (adj)	%	236.0	66.9	-3.1	-1.7
PE (rep)	x	6.0	3.6	3.7	3.7
PE (adj)	x	6.0	3.6	3.7	3.7
Total DPS		0.16	0.31	0.30	0.29
Total Div Yield	%	5.2	9.7	9.4	9.2
Basic Shares Outstanding	m	7,701	7,701	7,701	7,701
Diluted Shares Outstanding	m	7,701	7,701	7,701	7,701

Profit and Loss Ratios		2017A	2018E	2019E	2020E
Revenue Growth	%	53.1	10.9	-10.0	-4.4
EBITDA Growth	%	84.5	34.3	2.5	-0.6
EBIT Growth	%	223.5	54.0	2.7	-1.7
Gross Profit Margin	%	13.2	15.5	18.1	18.4
EBITDA Margin	%	12.6	15.2	17.3	18.0
EBIT Margin	%	7.7	10.7	12.2	12.6
Net Profit Margin	%	5.6	8.5	9.1	9.4
Payout Ratio	%	30.8	34.5	34.5	34.5
EV/EBITDA	x	2.8	2.1	2.0	2.1
EV/EBIT	x	4.6	3.0	2.9	3.0
Balance Sheet Ratios					
ROE	%	18.9	26.4	21.8	18.8
ROA	%	8.2	11.5	11.1	10.4
ROIC	%	12.9	23.1	22.3	22.9
Net Debt/Equity	%	24.3	4.0	-14.8	-27.5
Interest Cover	x	nmf	nmf	nmf	nmf
Price/Book	x	1.0	0.9	0.8	0.7
Book Value per Share		3.1	3.7	4.3	4.8

Cashflow Analysis		2017A	2018E	2019E	2020E
EBITDA	**m**	**9,209**	**12,365**	**12,670**	**12,589**
Tax Paid	m	-737	-880	-1,355	-1,332
Chgs in Working Cap	m	-5,180	-883	881	352
Net Interest Paid	m	942	0	0	0
Other	m	255	100	100	100
Operating Cashflow	**m**	**4,490**	**10,701**	**12,296**	**11,709**
Acquisitions	m	-44	0	0	0
Capex	m	-4,235	-2,998	-3,056	-3,115
Asset Sales	m	967	0	0	0
Other	m	-103	0	0	0
Investing Cashflow	**m**	**-3,414**	**-2,998**	**-3,056**	**-3,115**
Dividend (Ordinary)	m	-956	-2,376	-2,304	-2,264
Equity Raised	m	0	0	0	0
Debt Movements	m	-4,723	0	0	0
Other	m	3,303	0	0	0
Financing Cashflow	**m**	**-2,377**	**-2,376**	**-2,304**	**-2,264**
Net Chg in Cash/Debt	**m**	**-1,384**	**5,327**	**6,936**	**6,330**
Free Cashflow	**m**	**255**	**7,703**	**9,240**	**8,594**

Balance Sheet		2017A	2018E	2019E	2020E
Cash	m	4,978	10,305	17,241	23,571
Receivables	m	966	966	966	966
Inventories	m	11,446	12,358	10,776	10,271
Investments	m	58	58	58	58
Fixed Assets	m	33,130	32,465	31,785	31,089
Intangibles	m	0	0	0	0
Other Assets	m	21,613	22,523	21,596	21,230
Total Assets	**m**	**72,192**	**78,675**	**82,422**	**87,185**
Payables	m	7,179	7,734	6,771	6,463
Short Term Debt	m	4,630	4,630	4,630	4,630
Long Term Debt	m	6,976	6,976	6,976	6,976
Provisions	m	0	0	0	0
Other Liabilities	m	26,170	26,553	25,888	25,676
Total Liabilities	**m**	**44,954**	**45,893**	**44,265**	**43,745**
Shareholders' Funds	m	24,020	28,535	32,912	37,213
Minority Interests	m	3,342	4,371	5,369	6,350
Other	m	-124	-124	-124	-124
Total S/H Equity	**m**	**27,237**	**32,782**	**38,157**	**43,439**
Total Liab & S/H Funds	**m**	**72,192**	**78,675**	**82,422**	**87,185**

All figures in Rmb unless noted.
Source: Company data, Macquarie Research, December 2018

Important disclosures:

Recommendation definitions

Macquarie - Australia/New Zealand
Outperform – return >3% in excess of benchmark return
Neutral – return within 3% of benchmark return
Underperform – return >3% below benchmark return

Benchmark return is determined by long term nominal GDP growth plus 12 month forward market dividend yield, which is currently around 9%.

Macquarie – Asia/Europe
Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Mazi Macquarie – South Africa
Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie - Canada
Outperform – return >5% in excess of benchmark return
Neutral – return within 5% of benchmark return
Underperform – return >5% below benchmark return

Macquarie - USA
Outperform (Buy) – return >5% in excess of Russell 3000 index return
Neutral (Hold) – return within 5% of Russell 3000 index return
Underperform (Sell)– return >5% below Russell 3000 index return

Volatility index definition*

This is calculated from the volatility of historical price movements.

Very high–highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.

High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.

Medium – stock should be expected to move up or down at least 30–40% in a year.

Low–medium – stock should be expected to move up or down at least 25–30% in a year.

Low – stock should be expected to move up or down at least 15–25% in a year.
* Applicable to Asia/Australian/NZ/Canada stocks only

Recommendations – 12 months
Note: Quant recommendations may differ from Fundamental Analyst recommendations

Financial definitions

All "Adjusted" data items have had the following adjustments made:
Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense
Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / efpowa*
ROA = adjusted ebit / average total assets
ROA Banks/Insurance = adjusted net profit /average total assets
ROE = adjusted net profit / average shareholders funds
Gross cashflow = adjusted net profit + depreciation
*equivalent fully paid ordinary weighted average number of shares

All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).

Recommendation proportions – For quarter ending 30 September 2018

	AU/NZ	Asia	RSA	USA	CA	EUR	
Outperform	51.56%	59.51%	45.05%	46.88%	67.86%	46.70%	(for global coverage by Macquarie, 3.70% of stocks followed are investment banking clients)
Neutral	33.20%	28.92%	37.36%	47.70%	25.00%	42.73%	(for global coverage by Macquarie, 2.04% of stocks followed are investment banking clients)
Underperform	15.23%	11.57%	17.58%	5.42%	7.14%	10.57%	(for global coverage by Macquarie, 0.47% of stocks followed are investment banking clients)

323 HK vs HSI, & rec history

(all figures in HKD currency unless noted)

Note: Recommendation timeline – if not a continuous line, then there was no Macquarie coverage at the time or there was an embargo period.
Source: FactSet, Macquarie Research, December 2018

12-month target price methodology

323 HK: HK$4.80 based on a Price to Book methodology

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Date	Stock Code (BBG code)	Recommendation	Target Price
05-Dec-2018	323 HK	Outperform	HK$4.80
24-Jul-2017	323 HK	Neutral	HK$3.47

Target price risk disclosures:
323 HK: Macro economy fluctuation: Steel consumption can be significantly impacted by the fluctuation of FAI in China, such as for property infrastructure. Nation-wide cooling measures for property sales and liquidity tightening can also adversely impact the sentiment of property developers for investment near-term. Regulatory risk: If the new environment law and supply-side reform were more strictly implemented, this may result in larger-than-expected decline in the national steel output of China and larger-than-expected market share gain of the leading producers. Excessive market competition: China steel market still suffers from low concentration and over-supply. With steel prices recovery, it is possible to see the rapid release of steel production capacity which will negatively impact the ASP of steel producers and put pressure on profitability.

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