China Steel M&A

CRU Shanghai Metals Briefing

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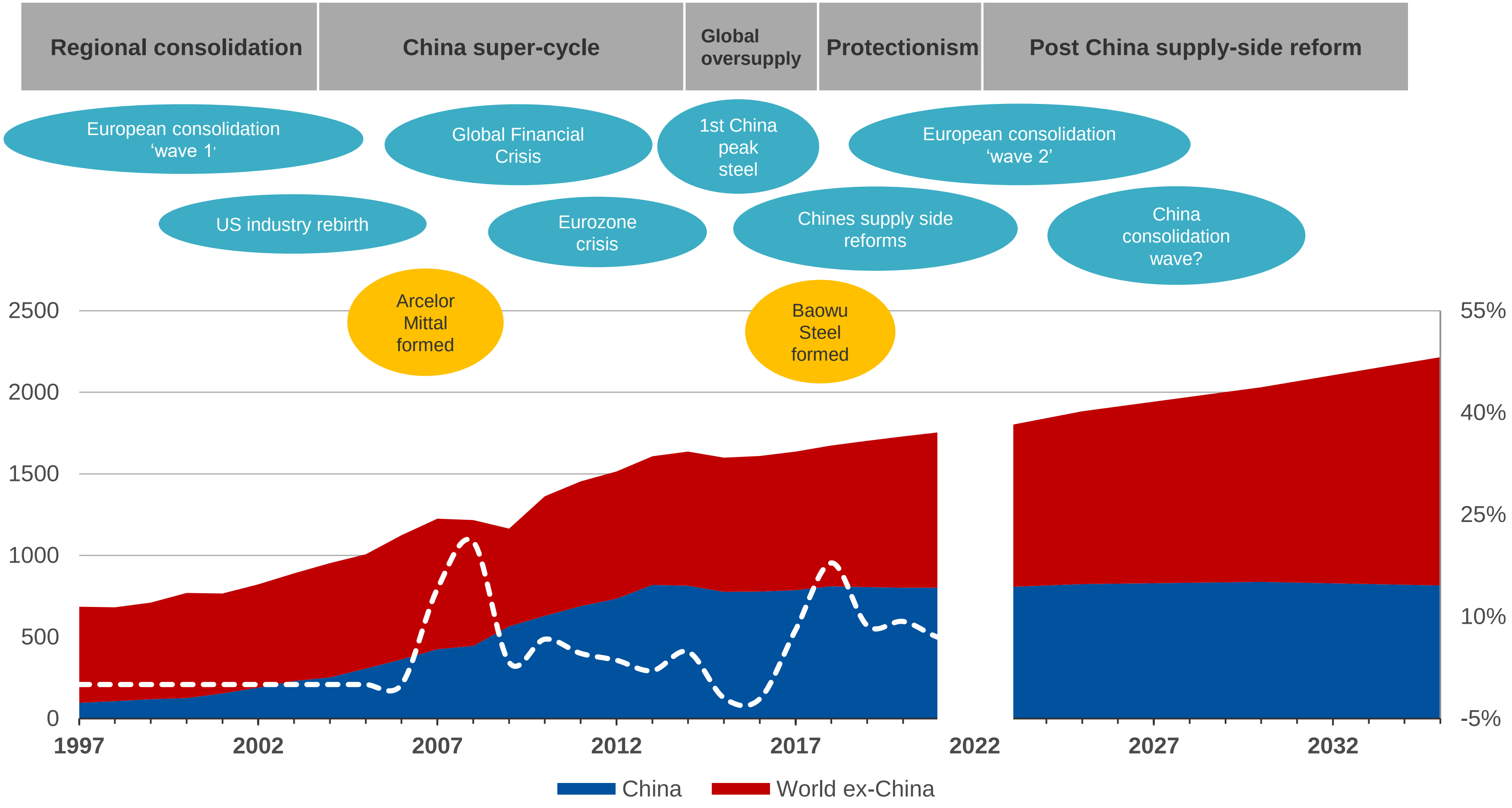
China Steel M&A

1. Introduction: setting the scene - China reborn
2. Current and planned levels of China consolidation – Will it be different this time?
3. Theory and practice of M&A – consolidation has not always delivered value creation
4. Conclusions - productivity, not just consolidation, will be the key to success

Global steel timeline – have we moved into a new steel era?

LHS: Global apparent steel consumption, Mt
RHS: Industry profitability (% EBITDA/Sales margin)



After success of recent supply reforms, ‘Phase 2’ reforms

- Reforms have so far focused on crude steel, where utilisation rates have increased in the last two years, leading to higher industry profitability.
- China’s steel industry will this year switch from reducing overall capacity to **focusing on optimising capacity structure**, including products, location and ownership.
- **‘Industry Reform Phase Two’** is beginning in pilot regions, before a full national rollout. Rules restrict existing capacity as well as new additions, incentivising M&A to drive growth. This new phase also looks set to support the ongoing “battle for blue sky” as facilities are relocated away from areas suffering from poor air quality.

Phase 2 is expected to focus on optimising the downstream sector

Phase 1	**Reduce crude steel capacity**	- Induction furnaces - Closures - Swap programme - Additions / creep
Phase 2	**Optimise capacity structure**	- Products - Location - Ownership - Production efficiency

Actual and forecast outcomes

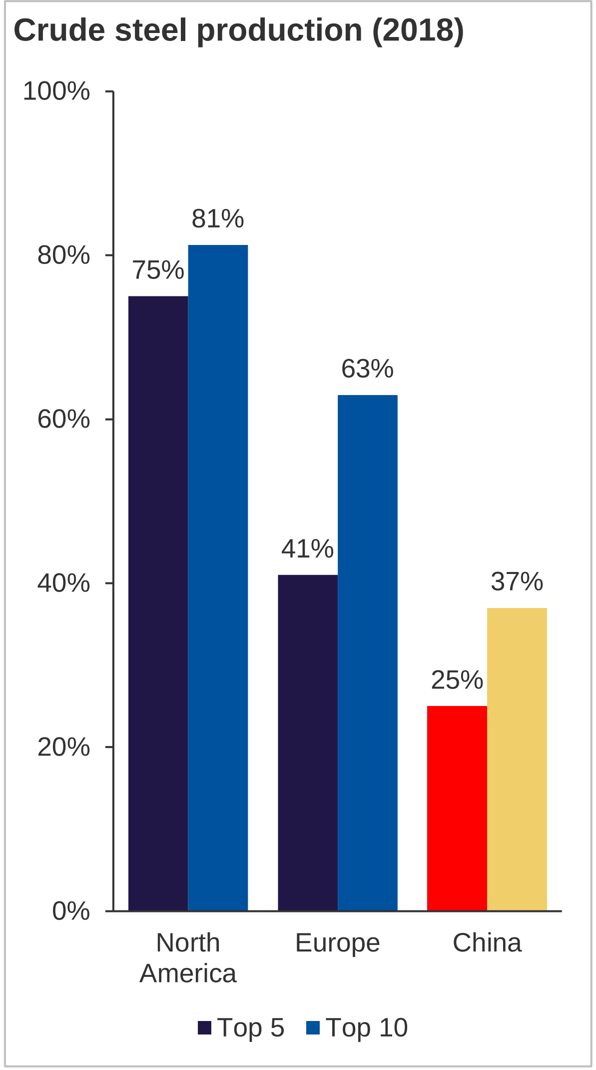
▼ -244 Mt net capacity reduced by 2023
▲ Improved industry EBITDA by 2017/2018 -6.7% 2016 to +23.4% 2018*

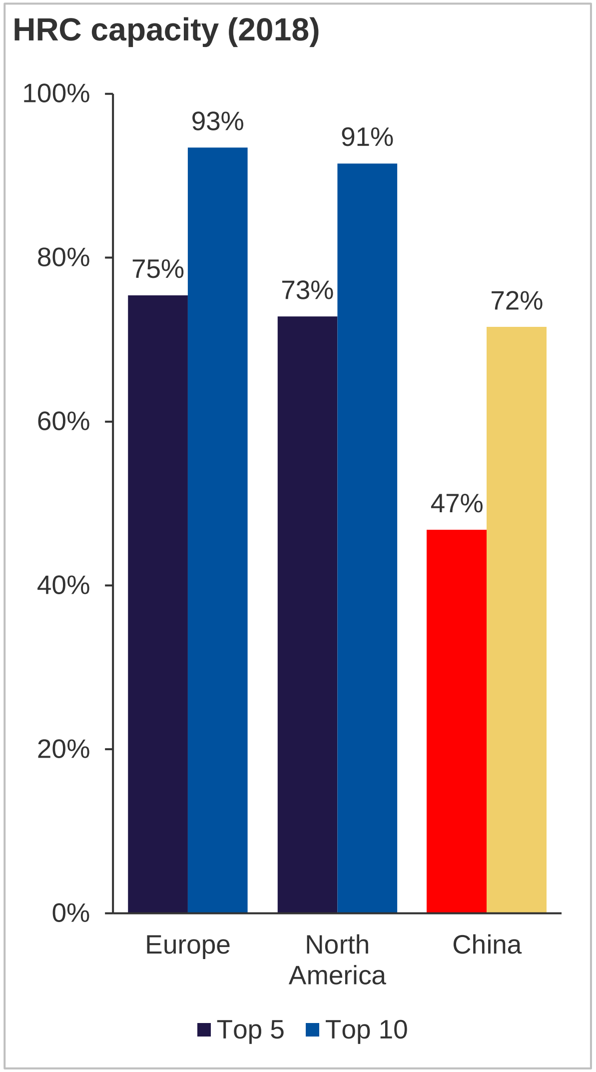
Possible Outcomes

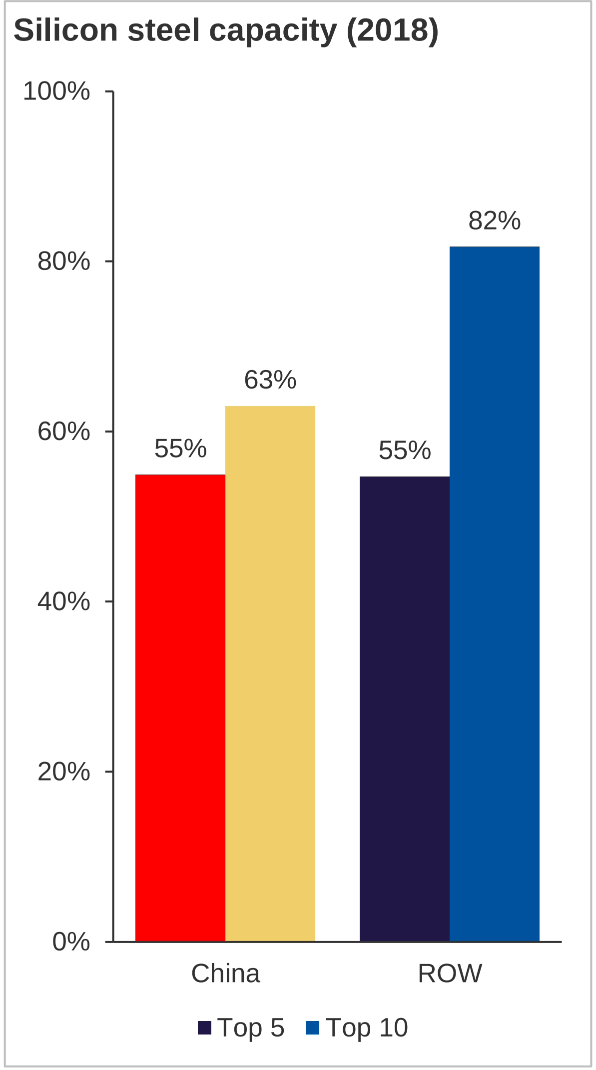
▲ Better EBITDA downstream
▼ M&A: consolidation
▲ Assets more focused on high value
▲ Production efficiency

* CRU notional China steel mills EBITDA margin HRC from CRU Steel Cost Review

China market is less concentrated than developed markets







Will it be different this time? Obstacles vs. enabling factors

Obstacles

- **A previous attempt at a similar policy failed in 2005, largely as a result of significant growth in investment** between 2008 and 2013 during which an extra 500 Mt/y of capacity was added.
- In the past, **issues have occurred at a local and provisional level**, vested interests were unable to cede power, profits and taxation revenues as consolidation conflicted with targets to maintain employment, local taxes and local autonomy.
- Historically, there has also been issues around the **complexity of ownership**, **lack of transparency in accounting** an **the inability of companies to use the capital markets** to fund a merger.
- **The majority of SOEs are under the jurisdiction of regional and municipal governments** (13% centrally owned), hence there is a **political challenge** when merging centrally owned SOEs with provincial SOEs and/or private sector companies.

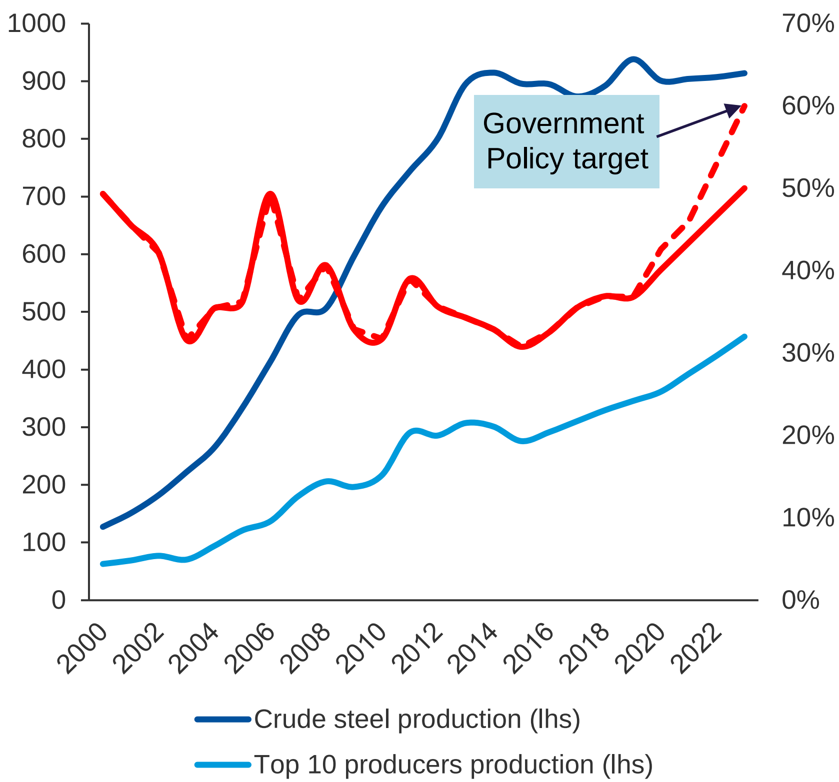
Enabling factors

- The central government can now resort to “special political instruments” to enforce its authority.
- The government is **reforming the process** so it can forge M&As between SOEs. **Local and provincial governments are now being judged and rewarded according to different criteria** and have already conceded interests in the closure programme.
- Industry conditions with “low to no” steel demand growth means **priorities have shifted** since the previous policy attempt in 2005. There is now a need to:
    - Reduce high corporate debt levels
    - Close “zombie” companies
    - And improve productivity and add value across the industry
- The government is also encouraging mixed ownership with **private investors being invited to participate**. Debt for equity swaps are being permitted, for example.
- **Accounting standards are also improving**, making it easier for M&A to take place.
- **SASAC is also promoting partial privatisation and stock market flotation** across the board with the number of centrally owned SOEs (all industries) falling from 117 to 96 since 2015 through mergers.

Since domestic expansions are effectively banned, M&A provides only option for expansion

What will China’s steel industry look like in the future?

China steel industry consolidation levels, 2000-2023



Likely steel landscape:

- Although **CRU believes that China will make significant progress** over the next few years, the government target of **60% concentration by 2020-2025 looks ambitious**. In order to achieve this target, a significant amount of M&A would need to take place.
- The recent **M&A between BaoWu and Magang Group creating a 90M tpy company has only maintained concentration levels at circa 37%.**
- **To reach the consolidation levels targeted**, there would need to be at least two x 100Mtpy companies (national champions), and significant consolidation among mid-tier producers with 5-6 x 30-50Mty steel companies, including
  - large regional/provincial players,
  - leading private steel companies,
  - specialist players (speciality steels/pipes & tubes), and
  - private groups potentially formed by investment funds.
- CRU expects that China will fall short of the 60% target with **40-50% a more likely level of concentration**. Such a landscape seemed unimaginable jus a few years ago, but will also upport investment in larger BFs and EAFs.

Failure to reach this concentration level could slow the pace of forecast trends such as the shift to EAFs and larger blast furnaces

Theory of M&A: Why conduct M&A in steel?

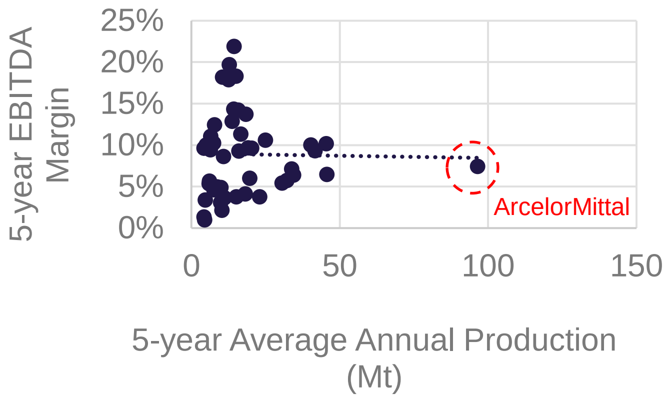
	M&A Strategy	Strategic Rationale	Driver / Benefit
1	**Consolidation**	• Supply existing market / customer base with fewer / more efficient assets	• Cost reduction • Efficiency • Increased market power
2	**Access to new markets**	• Enter new geographic markets and /or product segments	• Revenue growth • Diversification of market / cyclical risk • Outlet for existing capacity
3	**Access to raw materials and /or low cost steelmaking**	• Security of supply of raw materials (iron ore, metallic, coking coal)	• Reduce costs / increased margin • Reduced volatility in margins
4	**Move downstream**	• Capture value added from distribution/ processing /converting steel products	• Increased price / tonne • Product differentiation • Customer intimacy
5	**Acquire technology / capabilities**	• Capture value added from distribution/ processing /converting steel products	• Improved product or process capability • Higher value added or lower cost processes
6	**Company diversification**	• Threat of substitution in core market positions • Decline in 'core' business	• Maintain customers / markets • Solutions orientation to key customers eg automotive

In practise consolidation has not always delivered value

ArcelorMittal's global footprint spans 5 continents…

Source: Company report, VDEh plant facts, CRU databases

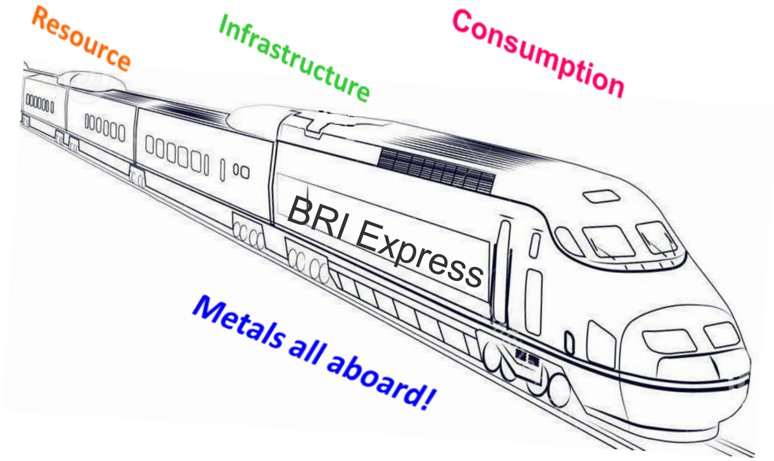
…but hasn't delivered superior value creation.



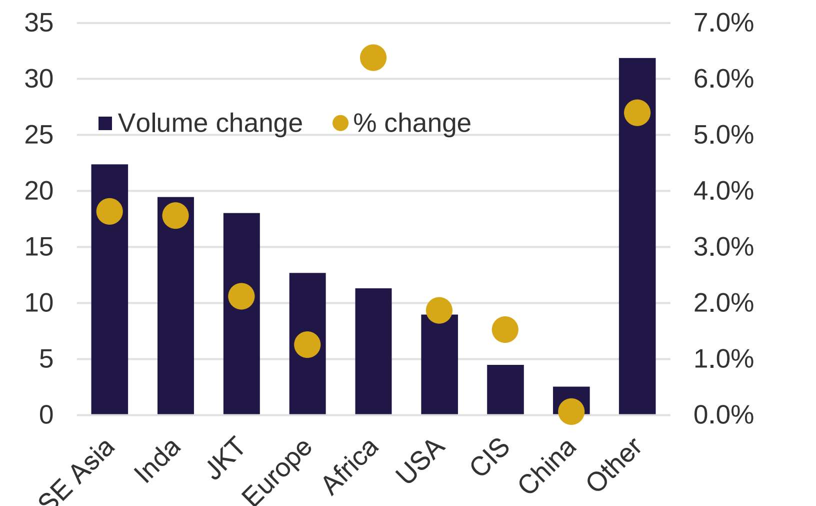
- Arcelor Mittal only 'real' global steel company.
- Will appetite for M&A see 'transformational' moves like Arcelor Mittal repeated in the near future.
- Trade measures and protectionism tending to promote the development of regional champions
- Alternative option is a looser form of strategic partnership or alliances to replicate AM's global footprint?
  - Technology and R&D sharing
  - Balancing heavy end steelmaking capacity with downstream capacity and market access
  - Better meet global customer (eg automotive) demands for wide product range and service globally

Source: Bloomberg , World Steel Association

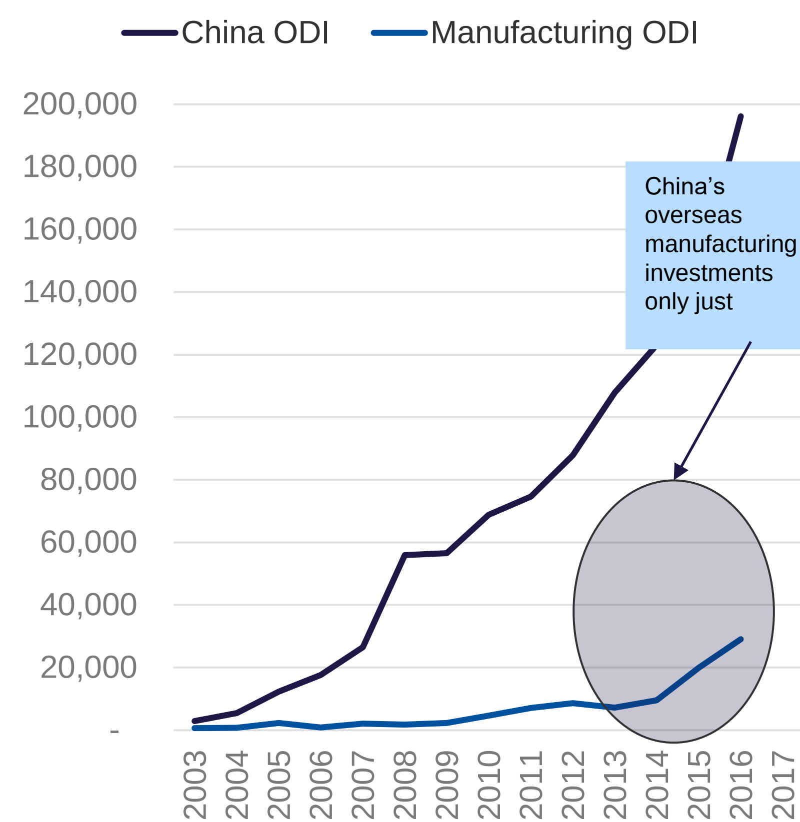
BRI supporting overseas investments, creating global giants?



Cumulative change in finished steel demand, 2019-2023, Mt



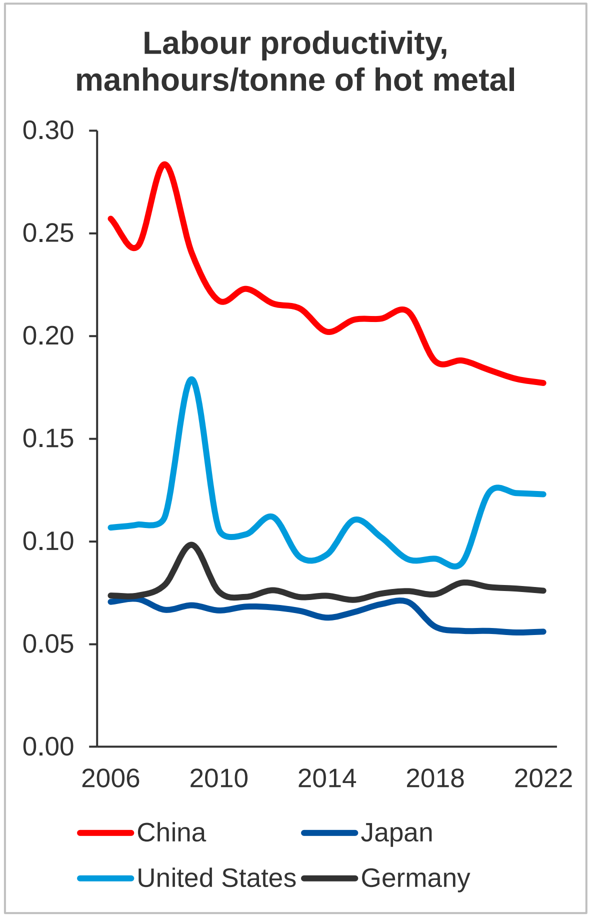
$m ODI in non financial assets per annum

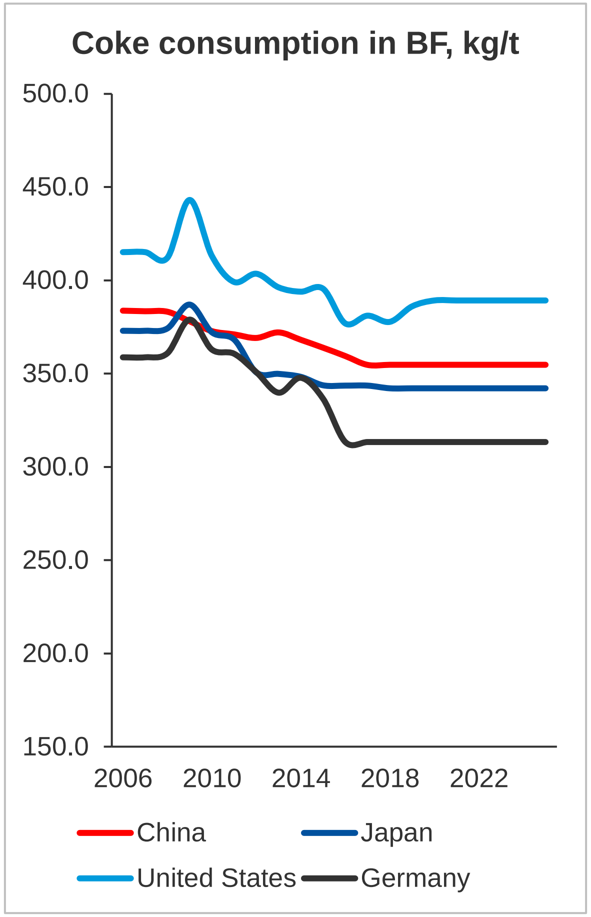


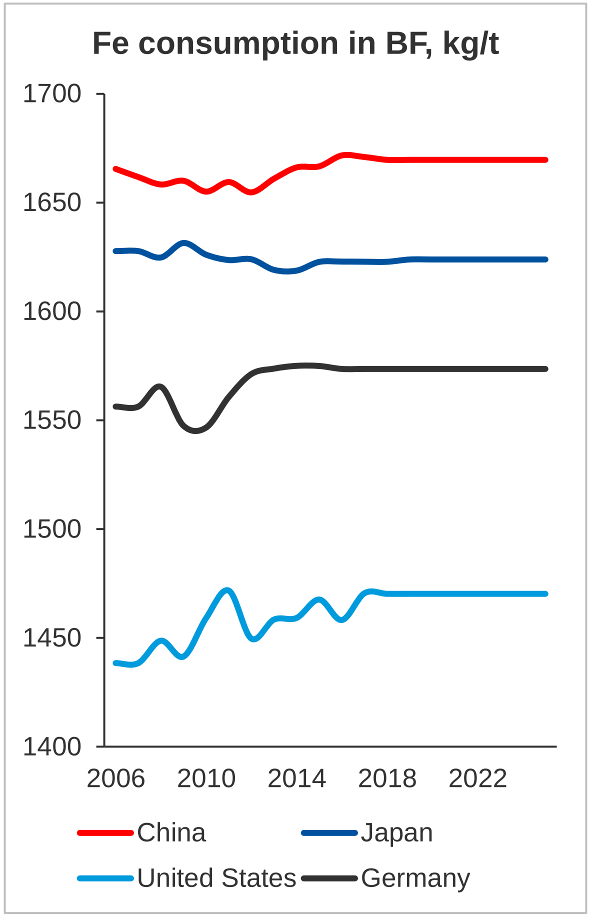
Source: NBS

Ex-China steel demand growing more quickly than in China

Current profitability may mask inefficiencies in state sector







Costs wills also continue to rise in China, eroding China's competitiveness

Conclusion: More M&A moves in/from China likely coming

- China's steel industry is moving into a second stage of development beyond supply-side reforms (cutbacks).
- An important part of this development includes consolidation of China's steel industry which still operates at a much lower level than developed regions/markets.
- Hitherto, consolidation has faced numerous obstacles and targets have been unfulfilled, but various enablers may pave the way for change in the future.
- Given the sheer size of China's steel industry, relatively modest moves towards these targets would create giant steel companies. BRI (and ex-China steel demand) is also encouraging Chinese steel companies to make moves overseas.
- M&A does not necessarily deliver value creation. If China is to successfully reform its steel industry (indeed the whole economy) it must improve productivity levels through SOE reform.

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BACK UPs

What will China's steel industry look like in the future?

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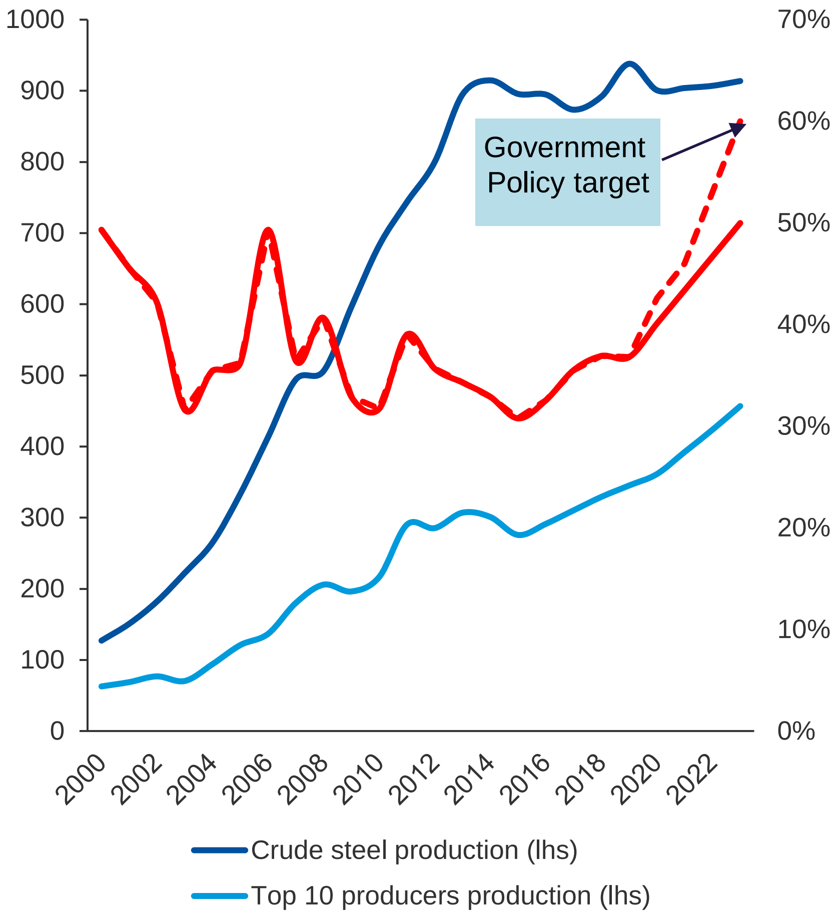
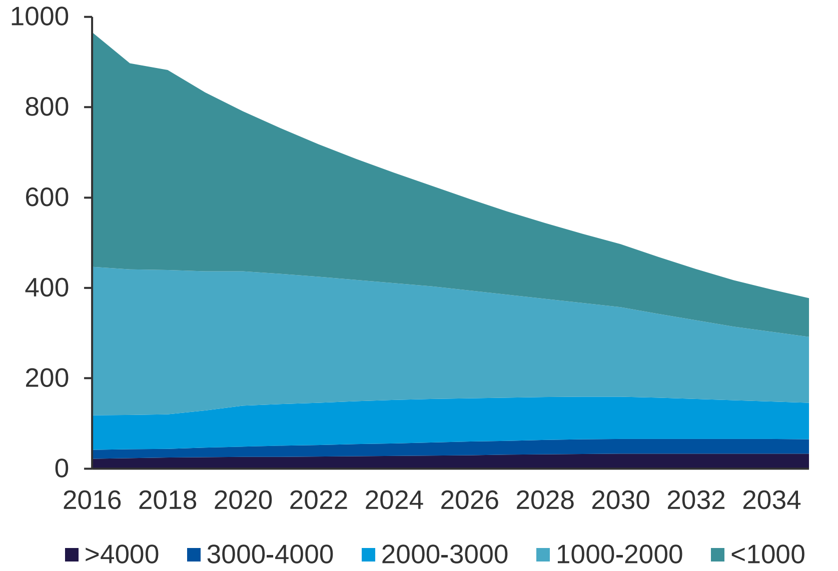


China blast furnace size distribution, No. BF



	2016	2018	2025	2030
> 4,000 m^3	22	25	29	33
3,000-4,000 m^3	20	19	29	32
2,000-3,000 m^3	76	76	97	81
1,000-2,000 m^3	329	320	249	146
<1,000 m^3	519	442	222	85
Total No.	**966**	**882**	**626**	**377**
Total Capacity	**985**	**937**	**809**	**604**

CRU has proven process for helping clients with M&A

1. *Establish strategic rationale*
   - What is the driver for the acquisition?

2. *Set investment criteria*
   - Scale, value, returns

3. *Profile 'ideal' target company*
   - The 'perfect fit'

4. *Develop key selection criteria*
   - 1st cut and 2nd cut selection criteria (see next slide)

5. *Preliminary research*
   - Desk based research using public domain and CRU proprietary sources

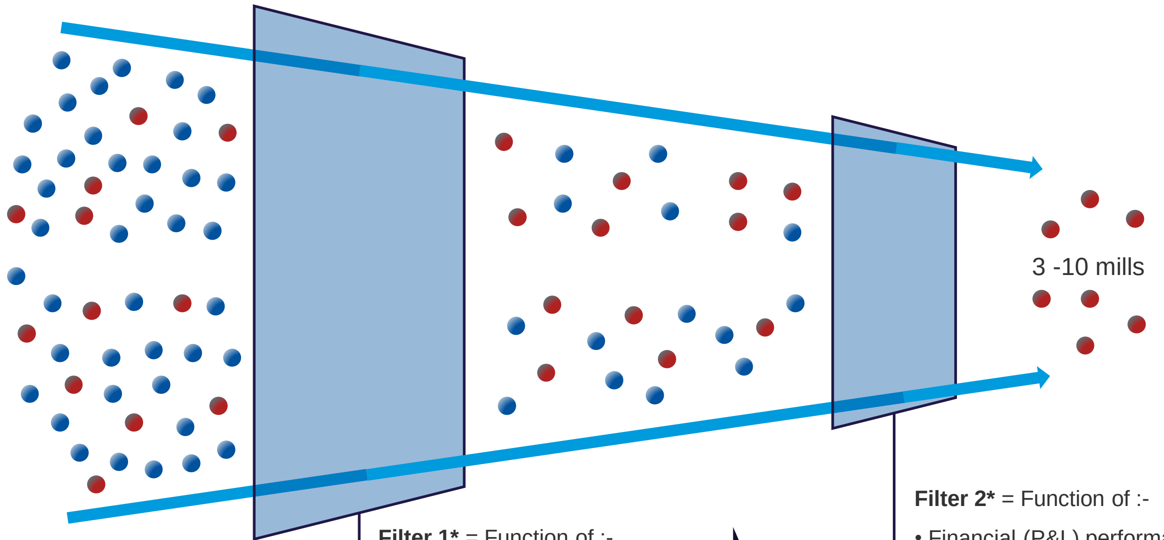
6. *Additional research on reduced list*
   - Primary research on reduced list as necessary to develop company profiles

7. *Develop profiles and score vs criteria*
   - Evaluate against consistent strategic selection criteria – rank short list

8. Review with client
   - Initiate approach directly or via 3rd party

Our approach relies on an evidence based filter process

For each target country / region CRU proposes a two stage filtering process to identify a short list of target mills for further evaluation and profiling



Filter 1* = Function of :-

- Ownership
- Location
- Scale / size
- Cost position etc.

Filter 2* = Function of :-

- Financial (P&L) performance
- Quality of management
- Product mix / market potential
- Technical capability.
- Fit with MC capabilities etc.

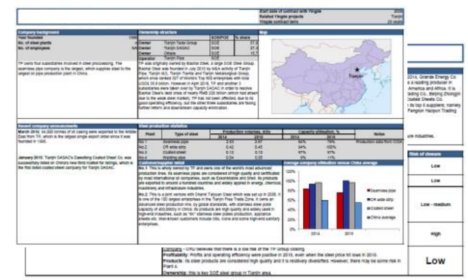
**Filters / selection criteria to be agreed with client management team at outset*

Preliminary search ‘Universe of businesses’

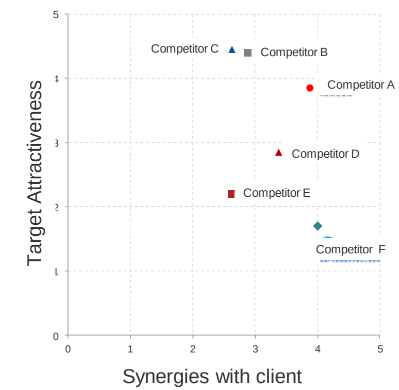
1st cut candidates

Potential targets for collaboration/ acquisition / strategic partnership

Target company profiles (illustrative)



Evaluation matrix (illustrative)



The selection criteria will be developed in collaboration with client’s management through which the total universe of mills will be ‘filtered’ down to a short list of between 3 -10 potential targets depending on the size of the target market / region.