The future of Chinese steel: exports, prices & influencing factors

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Chinese steel exports and prices – why so interesting?

3 key factors influencing exports:
- cost competitiveness
- strength of the domestic market
- strength of destination markets

Chinese exports and prices in the medium-term:
- a ‘nightmare’ scenario?

Conclusion
Chinese steel exports and prices – why so interesting?

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Chinese exports and prices in the medium-term:
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Conclusion
Chinese steel exports have increased significantly since 2013: as a proportion of global steel exports

LHS: Chinese exports of semi-finished and finished steel, Mt
RHS: Global exports of semi-finished and finished steel, Mt

Data: IHS.
Chinese steel exports have increased significantly since 2013: as a percentage of steel produced

LHS: Chinese exports of semi-finished and finished steel, Mt
RHS: Chinese exports of semi-finished and finished steel, % production of crude steel

Data: IHS.
And, in recent times, export prices have been at or below full costs of production

Chinese costs and domestic and export rebar prices, $/t

At end-2015/early-2016 (not shown) export rebar was being sold close to variable cost.

Data: CRU China Steel Service.
• Chinese steel exports and prices – why so interesting?
• **3 key factors influencing exports:**
  • cost competitiveness
  • strength of the domestic market
  • strength of destination markets
• Chinese exports and prices in the medium-term:
  • a ‘nightmare’ scenario?
• Conclusion
Chinese cost competitiveness has deteriorated relative to recent history

Relative cost competitiveness of Chinese steel versus trade-weighted costs of trade partners, $/t

Data: CRU Steel Cost Model.
Exports rise with competitiveness, unless outweighed by other factors (see next slide)

x-axis: trade-weighted cost competitiveness (relative), China versus trade partners, 2006-2010, $/t
y-axis: steel exports as a percentage of steel production, 2006-2010, %

Data: CRU Steel Cost Model, CRU Crude Steel Market Outlook, IHS.
2015 and 2016 were the worst years on record for the Chinese steel industry...

In 2015 and 2016, domestic market conditions had an over-riding impact on the export position.

Data: CRU Steel Cost Model and Steel Cost Review.
Exports fall when the domestic market is performing well and rise when performing poorly

x-axis: profitability of the Chinese steel sector, 2010-2016, notional EBITDA margin, %
y-axis: steel exports as a percentage of steel production, 2010-2016, quarterly, %

Outlier data (2014), significant cost advantage due to high scrap prices and strong US market lifted exports.

Data: CRU Steel Cost Model, CRU Crude Steel Market Outlook, IHS.
Under low growth conditions, capacity utilisation needs to be 85% or higher for sustainable profit.

x-axis: capacity utilisation of the Chinese steel sector, 2007-2016, %
y-axis: profitability of the Chinese steel sector, 2007-2016, notional EBITDA margin, %

Exports are higher when destination markets are performing strongly: US example

x-axis: US versus Chinese market profitability, 2010-2016, quarterly, delta, %
y-axis: Chinese exports of steel to the US, 2010-2016, quarterly, Mt

Data: CRU Steel Cost Review, CRU Finished Steel Market Outlooks, IHS
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Chinese cost competitiveness: forecast to improve, but will remain below historical levels

Relative cost competitiveness of Chinese steel versus trade-weighted costs of trade partners, $/t

Forecast of Chinese cost competitiveness implies exports of ~7-9% of steel production.

Data: CRU Steel Cost Model.
Performance of the domestic market: if capacity closures of >190 Mt are achieved, capacity utilisation will lift to 83%.

LHS: production and capacity of crude steel, Mt
RHS: capacity utilisation, %

Data: CRU Beijing office capacity database.
Domestic demand growth is forecast to be low out to 2021, therefore, the lower line is appropriate.

x-axis: capacity utilisation of the Chinese steel sector, 2007-2016, %
y-axis: profitability of the Chinese steel sector, 2007-2016, notional EBITDA margin, %

Forecast capacity utilisation implies a profitability of 5-7% EBITDA margin in 2021

x-axis: profitability of the Chinese steel sector, 2010-2016, notional EBITDA margin,%
y-axis: steel exports as a percentage of steel production, 2010-2016, quarterly, %

Outlier data (2014), significant cost advantage due to high scrap prices and strong US market lifted exports.

Data: CRU Steel Cost Model, CRU Crude Steel Market Outlook, IHS.
Destination markets to improve, but only expected to outperform the Chinese market marginally...

LHS: global crude steel production by country/region, Mt
RHS: crude steel production growth, China (red) and RoW (black), y/y, %

Data: CRU Crude Steel Market Outlook.
Performance of destination markets suggests marginal added incentive to export in the medium-term

x-axis: US versus Chinese market profitability, 2010-2016, quarterly, delta, %
y-axis: Chinese exports of steel to the US, 2010-2016, quarterly, Mt

Exports dropped following threat, and imposition, of anti-dumping measures.

Assuming successful implementation of closures and an improving steel market, net exports from China will fall

Net exports of semi-finished and finished steel, China, Mt

Exports of 8-9% of crude steel production equate to net exports of 60-70 Mt.

Data: CRU Finished Steel Market Outlooks.
In recent times, export prices have been at or below full costs of production

Chinese costs and domestic and export rebar prices, $/t

At end-2015/early-2016 (not shown) export rebar was being sold close to variable cost.

Data: CRU China Steel Service.
In the medium-term, costs will fall, but market conditions will improve with capacity utilisation (illustrative)

Chinese rebar costs, historical domestic prices and upper/lower price bounds for forecasting, 2011-2021, $/t

Data: CRU Steel Long Products Monitor and CRU Steel Cost Service.
Agenda

- Chinese steel exports and prices – why so interesting?
- 3 key factors influencing exports:
  - cost competitiveness
  - strength of the domestic market
  - strength of destination markets
- Chinese exports and prices in the medium-term:
  - a ‘nightmare’ scenario?
- Conclusion
'Nightmare!' scenario: only 140 Mt of closures and low steel demand – capacity utilisation drops to 70% in 2021

LHS: production and capacity of crude steel, Mt
RHS: capacity utilisation, %

The nightmare scenario points to unsustainable profitability levels and exports of >12-14% of steel production.

Data: CRU Beijing office capacity database, CRU Crude Steel Market Outlook, MPI.
Chinese steel exports and prices – why so interesting?

3 key factors influencing exports:
- cost competitiveness
- strength of the domestic market
- strength of destination markets

Chinese exports and prices in the medium-term: CRU’s forecast
- a ‘nightmare’ scenario?

Conclusion
Conclusion

• Steel exports are determined by 3 key factors:
  • strength of domestic market; cost competitiveness and strength of destination markets.
  • higher capacity utilisation will improve the structure of the domestic market and this will be a key
driver of exports and prices in the medium-term.

• Steel prices are determined by domestic market conditions, which will improve, as capacity
utilisation lifts, and underlying costs.

• CRU is optimistic that a nightmare scenario will be avoided:
  • the Chinese government has the financial firepower to ensure an orderly transition in the economy.
    Steel demand will be broadly stable.
  • information suggests we have already seen up to 130 Mt of steel capacity closures, including IF:
    • BOF scrap rates have lifted 4% in recent months; suggesting the BOF sector has taken up IF production.

Improved domestic market conditions in China will reduce the incentive to export and steel that is exported will be priced higher relative to costs.
Thank you for your attention

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Our services for steel

<table>
<thead>
<tr>
<th>Market Analysis</th>
<th>Cost Services</th>
<th>Consulting Capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steelmaking Raw Materials Monitor</td>
<td>Manganese Ferroalloy Market Outlook</td>
<td>Valuation</td>
</tr>
<tr>
<td>Iron Ore Market Outlook</td>
<td>Silicon Market Outlook</td>
<td>Strategy</td>
</tr>
<tr>
<td>Iron Ore Long Term Market Outlook</td>
<td>Steel Market Outlook</td>
<td>Negotiation Support</td>
</tr>
<tr>
<td>Metallurgical Coal Market Outlook</td>
<td>Crude Steel Market Outlook</td>
<td>Market Decisions</td>
</tr>
<tr>
<td>Metallurgical Coal Long Term Market Outlook</td>
<td>Steel Plate Market Outlook</td>
<td></td>
</tr>
<tr>
<td>Metallurgical Coke Market Outlook</td>
<td>Steel Sheet Products Monitor</td>
<td></td>
</tr>
<tr>
<td>Metals Monitor</td>
<td>Steel Sheet Products Market Outlook</td>
<td></td>
</tr>
<tr>
<td>Metallics Market Outlook</td>
<td>Steel Long Products Monitor</td>
<td></td>
</tr>
<tr>
<td>Bulk Ferroalloys Monitor</td>
<td>Steel Long Products Market Outlook</td>
<td></td>
</tr>
</tbody>
</table>

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