Background

- Proposal in December 2012 for further work on excess capacity:
  - Examine the issue at the product-specific level
  - Share experiences about how the industry has restructured in the past
- Difficulties with assessing excess capacity at the product level:
  - Very little official information on capacity at the product level
  - The publically available sources not necessarily fully reliable (exclusion of smaller firms and inconsistent with each other)
  - Methodological problems (overlapping/duplication issue when steel is further processed into products)
- More fruitful to assess excess capacity at the crude level
The issue should remain high on the agenda

- Excess capacity is currently one of the main problems facing the steel industry
- The problem has worsened since the economic and financial crisis
- Excess capacity will likely remain a problem in the medium to longer-term unless it is addressed in a comprehensive way
- Significant impacts on the viability of the steel industry
Excess capacity and industry’s profitability at the global level

Source: OECD, Factset

Excess capacity is a long-term problem

- The current level of capacity is probably sufficient to meet society’s needs for steel in 2020, under various assumptions for intensity of use per person across regions.

Demand for steel, millions of tonnes

- China
- Advanced OECD
- World excl. China & advanced OECD
Excess capacity is a problem facing many economies

Global level amounted to 542 mmt in 2012

Source: OECD

However, investment is still increasing rapidly

New additions of capacity announced by steelmakers, mmt

Source: Metal Bulletin Research
However, investment is still increasing rapidly

New additions of capacity announced by steelmakers, mmt

Share of the new additions in capacity, %

Source: Metal Bulletin Research
Global excess capacity scenarios (mmt)

Sources: IEA, MBR, BREE, Oxford Economics, OECD.

Will take very long for the market to expand its way out of excess capacity

What should be done?

- Little need for new investment
  - How to ensure that new additions of capacity will be economically sustainable in the long run?
  - Will there be markets for the steel produced?
  - Capacity expansion based on subsidies and government support may not be sustainable in the long run
- All regions need to address the problem – without contributions from all, there are risks that outcomes will be less open markets, more protectionism, less dynamic industry;
- What kind of incentives are available for encouraging the closure of economically unsustainable steel plants or discouraging new investment?
### Capacity by product

- Two data sources of capacity at the product level -

**WSD PLANTFACTS**

- **Characteristics**
  - Capacity by company and facility (over 12,000 facilities).
  - Technical information for a given plant.
  - Updated continuously.
  - Represents the current capacity situation as well as future projects.

- **Plant details**
  - Long products (e.g., Wire Rod Mills, Medium section Mills and Heavy Section Mills).
  - Flat products (e.g., Plate Mills, Hot Strip Mills, Reverse/Tandem cold Rolling Mills and Hot Dip Coating Lines).

- **Special notes**
  - Does not always capture small and medium sized enterprises.
  - Under-estimates capacity for some economies.

**MBR Steelmaking Capacity and Capital Expenditure Database**

- **Characteristics**
  - Capacity by company and product.
  - Broader and more comprehensive data.
  - Covers capacity for raw materials.
  - Updated every quarter.
  - Represents the current capacity situation as well as future projects.

- **Product details**
  - Long products (Rebar, Wire rod, Merchant bar and HR sections).
  - Flat products (e.g., Hot-rolled plate, Hot-rolled coil, Cold-rolled coil and Hot-dipped galvanized).
  - Pipe and tube products.

- **Special notes**
  - Much closer to the actual situation, given standard yield losses.
  - Relatively close to Asian steel association’s data for flat products.
  - Under-estimates a long product capacity.

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**Capacity by product**

-A comparison of capacity data by product (MBR vs. WSD)-

- Wide gaps between MBR and WSD's estimates

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**Rolling capacity by product and region (thousand metric tonnes)**

**Discrepancy = MBR - WSD by region**

**Sources:** Metal Bulletin Research, World Steel Dynamics.
Capacity by product
-A comparison of capacity data by product (MBR vs. Steel association data)-

- Capacity by product is not available from official sources except from some Asian economies
- MBR’s data are closer than WSD from these Asian association’s data but wide gaps remain for long products

<table>
<thead>
<tr>
<th></th>
<th>Total Long</th>
<th>Total Flat</th>
<th>Plate</th>
<th>Hot rolled</th>
<th>Cold rolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>China (2011)</td>
<td>496,650</td>
<td>364,650</td>
<td>92,580</td>
<td>272,070</td>
<td>87,570</td>
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<td>Korea (2011)</td>
<td>23,457</td>
<td>52,400</td>
<td>13,590</td>
<td>38,810</td>
<td>23,436</td>
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<td>Chinese Taipei (2011)</td>
<td>16,360</td>
<td>11,983</td>
<td>1,334</td>
<td>10,629</td>
<td>9,063</td>
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<td>Indonesia (2010)</td>
<td>7,474</td>
<td>3,610</td>
<td>3,610</td>
<td>1,540</td>
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<td>Malaysia (2010)</td>
<td>8,150</td>
<td>4,050</td>
<td>850</td>
<td>3,200</td>
<td>2,720</td>
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<td>Philippines (2010)</td>
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<td>Thailand (2010)</td>
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<td>1,300</td>
<td>7,100</td>
<td>2,700</td>
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<td>Vietnam (2010)</td>
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<td>600</td>
<td>2,780</td>
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<td>Australia (2010)</td>
<td>3,365</td>
<td>4,750</td>
<td>450</td>
<td>4,300</td>
<td>2,000</td>
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<td>Total Steel associations</td>
<td>582,828</td>
<td>452,123</td>
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<tr>
<td>Total, MBR data</td>
<td>471,122</td>
<td>460,777</td>
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</tr>
</tbody>
</table>

Notes: Total flat capacity is the sum of plate and hot-rolled coil capacity and thus avoids double counting.
Sources: CISA, KOSA, TSIIA, SEAISI, Metal Bulletin Research.

Other data-related problems

- Methodological concerns:
  – Assessing yield losses
  – Duplication/double-counting
- Competitive issues limit the possibility to share such data:
  – In some cases, only a few companies produce certain steel product lines.