ITEM 4: LATEST DEVELOPMENTS IN STEELMAKING CAPACITY

87th session of the Steel Committee
Paris, September 26, 2019

Contact:
Daichi MABASHI

Notes: This presentation will be public after the 87th Session of the OECD Steel Committee
Outline

1. Global summary of steelmaking capacity developments
2. Capacity developments by region
3. Global crude steelmaking capacity and crude steel production
4. Cross-border investments
5. Global steelmaking capacity of IF
1. Global summary of steelmaking capacity developments

**A. Level (mmt)**

- Non OECD/EU economies Total
- OECD/EU economies Total
- World Total

**B. Annual % change**

- OECD/EU economies Total
- Non OECD/EU economies Total
- World Total


Source: OECD Secretariat calculations
2. Capacity developments by region

Current nominal capacity and potential gross capacity additions by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Existing nominal capacity(mmt)</th>
<th>Expected nominal capacity(mmt)</th>
<th>% change expected</th>
<th>Potential gross capacity additions in 2020-22(mmt)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2018</td>
<td>2019</td>
<td>2019-2018</td>
<td>Underway</td>
</tr>
<tr>
<td>Africa</td>
<td>41.6</td>
<td>44.6</td>
<td>7.3%</td>
<td>1.0</td>
</tr>
<tr>
<td>Asia</td>
<td>1 462.7</td>
<td>1 515.9</td>
<td>3.6%</td>
<td>20.4</td>
</tr>
<tr>
<td>CIS</td>
<td>140.1</td>
<td>141.8</td>
<td>1.2%</td>
<td>1.5</td>
</tr>
<tr>
<td>Europe</td>
<td>274.0</td>
<td>275.7</td>
<td>0.6%</td>
<td>2.5</td>
</tr>
<tr>
<td>Latin America</td>
<td>74.7</td>
<td>74.9</td>
<td>0.3%</td>
<td>0.0</td>
</tr>
<tr>
<td>Middle East</td>
<td>67.6</td>
<td>76.1</td>
<td>12.6%</td>
<td>13.5</td>
</tr>
<tr>
<td>NAFTA</td>
<td>154.4</td>
<td>154.7</td>
<td>0.2%</td>
<td>3.3</td>
</tr>
<tr>
<td>Oceania</td>
<td>6.4</td>
<td>6.4</td>
<td>0.0%</td>
<td>0.0</td>
</tr>
<tr>
<td>OECD/EU economies Total</td>
<td>646.9</td>
<td>649.0</td>
<td>0.3%</td>
<td>5.8</td>
</tr>
<tr>
<td>Non OECD/EU economies Total</td>
<td>1 574.5</td>
<td>1 641.2</td>
<td>4.2%</td>
<td>34.9</td>
</tr>
<tr>
<td>World Total</td>
<td>2 221.4</td>
<td>2 290.1</td>
<td>3.1%</td>
<td>42.2</td>
</tr>
</tbody>
</table>

Notes: Capacity data reflects all information on changes up to June 2019.
Source: OECD Secretariat calculations
3. Global crude steelmaking capacity and crude steel production

Notes: “e” denotes estimation. Capacity data reflect information up to June 2019. Annual production data from 2000 to 2018 are based on “World Steel in Figures 2019” published by the World Steel Association. An assumption of annual production data for 2019 is made based on production data for the first six months of 2019—the 6-month total is multiplied by two to derive an annualised figure. Monthly production data for 2019 are based on World Steel Association’s press release on 24 June 2019 and a subsequent data release including June 2019 production figures.

Source: OECD for capacity and World Steel Association for production
3. Global crude steelmaking capacity and crude steel production - Crude steel production as a % of capacity

Notes: “e” denotes estimation. Capacity data reflect information up to June 2019. Annual production data from 2000 to 2018 are based on “World Steel in Figures 2019” published by the World Steel Association. An assumption of annual production data for 2019 is made based on production data for the first six months of 2019—the 6-month total is multiplied by two to derive an annualised figure. Monthly production data for 2019 are based on World Steel Association’s press release on 24 June 2019 and a subsequent data release including June 2019 production figures.

Source: OECD for capacity and World Steel Association for production
4. Cross-border investments
– Location of investments

Domestic, cross-border and joint-venture investments in new steelmaking capacity projects by location (Total number of new investments: 106)

<table>
<thead>
<tr>
<th>Region where the investment is taking place</th>
<th>Domestic Investments</th>
<th>Cross-Border Investments</th>
<th>Joint-Venture Investments</th>
<th>Total by Regions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Asia</td>
<td>29</td>
<td>5</td>
<td>9</td>
<td>43</td>
</tr>
<tr>
<td>CIS</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Europe</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Latin America</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Middle East</td>
<td>34</td>
<td>0</td>
<td>0</td>
<td>34</td>
</tr>
<tr>
<td>NAFTA</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Oceania</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>World Total</td>
<td>85</td>
<td>10</td>
<td>11</td>
<td>106</td>
</tr>
</tbody>
</table>

% share of total: 80.2% 9.4% 10.4% -

Notes: This figure includes all new investment projects that are, underway or planned, and which are scheduled to become operational in 2019 or later — including projects that have started operation in 2019, as well as projects for which the start date is not available. It does not include cancelled projects. A cross-border investment represents an investment that is based wholly on one or several foreign investors/owners. A joint venture, on the other hand, involves both foreign investors/owners and domestic counterparts. Please see Annex A of [DSTI/SC(2019)12] for details on the plant-level investments and their respective investors/owners.

Source: OECD Secretariat calculations
5. Global steelmaking capacity of IF

Classification of major steelmaking processes

Steelmaking

- Basic oxygen furnace (BOF)
- Electric furnace
  - Electric arc furnace (EAF)
  - Induction furnace (IF)
- Open hearth furnace (OHF)
- Energy optimising furnace (EOF)

Source: Metal Expert’s “World Steel Capacities Database”, World Steel Association and OECD.
5. Global steelmaking capacity of IF

Global expansion of steelmaking IF capacity (excluding China)

A. Global steelmaking capacity by process (as of June 2019)

- EAF: 48%
- BOF: 25%
- IF: 15%
- OHF: 2%
- EOF: 0%


- BOF: 15%
- EAF: 25%
- IF: 97%
- OHF: -51%
- EOF: 83%

Notes: Data are up to June 2019. These graphs do not include Chinese data because these are neither available from Metal Expert’s “World Steel Capacities Database” (the main source of information used) nor from other databases to which the Secretariat has access. Delegates are invited to share any available information on this issue with the Secretariat. Energy Optimising Furnaces (EOF) have been identified in only several plants around the world, with a total steelmaking capacity of around 3 mmt as of June 2019.

Source: OECD calculations based on Metal Expert’s “World Steel Capacities Database”
Thank you for your attention