DEVELOPMENTS IN THE WORLD & TURKISH STEEL MARKET
AND OUTLOOK

STEELORBIS TURKISH STEEL MARKET
CONFERENCE

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Secretary General
Turkish Iron and Steel Producers Association

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İstanbul
## World Crude Steel Production and Consumption (mmt)

<table>
<thead>
<tr>
<th>Year</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production</strong></td>
<td>851</td>
<td>904</td>
<td>970</td>
<td>1071</td>
<td>1144</td>
<td>1247</td>
<td>1346</td>
<td>1329</td>
<td>1232</td>
<td>1414</td>
<td>1500</td>
</tr>
<tr>
<td><strong>Consumption</strong></td>
<td>854</td>
<td>908</td>
<td>969</td>
<td>1058</td>
<td>1131</td>
<td>1239</td>
<td>1325</td>
<td>1309</td>
<td>1216</td>
<td>1384</td>
<td>1470</td>
</tr>
</tbody>
</table>

*expected

* Production
* Consumption
World Capacity Utilisation in Crude Steel Production (%)

* estimated
World Finished Steel Consumption (mmt) & Growth (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Consumption (mmt)</th>
<th>% Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>1224</td>
<td>7.2</td>
</tr>
<tr>
<td>2008</td>
<td>1206</td>
<td>-1.4</td>
</tr>
<tr>
<td>2009</td>
<td>1137</td>
<td>-5.8</td>
</tr>
<tr>
<td>2010</td>
<td>1289</td>
<td>13.4</td>
</tr>
<tr>
<td>2011*</td>
<td>1367</td>
<td>6.0</td>
</tr>
<tr>
<td>2012**</td>
<td>1442</td>
<td>5.5</td>
</tr>
</tbody>
</table>

* Estimated  
** forecasted  
Source: Worldsteel
Steel Consumption in Developed Economies (mmt) & Growth (%)

* Estimated
** forecasted
Source: Worldsteel
Steel Consumption in Developing & Emerging Economies (mmt) & Growth (%)

* Estimated  
** forecasted  
Source: Worldsteel
## World Steel Consumption (mmt) & Growth (%)

<table>
<thead>
<tr>
<th>Region</th>
<th>2010</th>
<th>2011*</th>
<th>2012**</th>
<th>11/10</th>
<th>12/11</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU27</td>
<td>144</td>
<td>156</td>
<td>161</td>
<td>8,1</td>
<td>3,1</td>
</tr>
<tr>
<td>Other Europe</td>
<td>30</td>
<td>33</td>
<td>35</td>
<td>11,5</td>
<td>6,1</td>
</tr>
<tr>
<td>CIS</td>
<td>49</td>
<td>56</td>
<td>60</td>
<td>14,4</td>
<td>7,6</td>
</tr>
<tr>
<td>NAFTA</td>
<td>111</td>
<td>122</td>
<td>128</td>
<td>9,6</td>
<td>5,6</td>
</tr>
<tr>
<td>C. &amp; S. America</td>
<td>46</td>
<td>48</td>
<td>53</td>
<td>4,8</td>
<td>9,8</td>
</tr>
<tr>
<td>Africa</td>
<td>25</td>
<td>22</td>
<td>24</td>
<td>-12,2</td>
<td>11,6</td>
</tr>
<tr>
<td>Middle East</td>
<td>48</td>
<td>49</td>
<td>53</td>
<td>2,3</td>
<td>7,8</td>
</tr>
<tr>
<td>Asia &amp; Oceania</td>
<td>838</td>
<td>883</td>
<td>929</td>
<td>5,4</td>
<td>5,2</td>
</tr>
<tr>
<td>China</td>
<td>576</td>
<td>611</td>
<td>641</td>
<td>6,0</td>
<td>5,0</td>
</tr>
<tr>
<td><strong>WORLD</strong></td>
<td><strong>1289</strong></td>
<td><strong>1367</strong></td>
<td><strong>1442</strong></td>
<td><strong>6,1</strong></td>
<td><strong>5,5</strong></td>
</tr>
</tbody>
</table>

*Estimated
**Forecasted
*Source: Worldsteel*
Apparent Crude Steel Consumption Per Capita (kg)

Source: Worldsteel

* Turkey’s figure is DCUD Data
World Semis & Finished Steel Export (mmt)

Source: Worldsteel
### Top 15 Steel Producers of the World, Jan-Sep 2011 (‘000 tonnes)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>2009</th>
<th>2010</th>
<th>2010-9m</th>
<th>2011-9m</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>China</td>
<td>573 567</td>
<td>626 654</td>
<td>474.900</td>
<td>525.700</td>
<td>10.7</td>
</tr>
<tr>
<td>2</td>
<td>Japan</td>
<td>87 534</td>
<td>109 600</td>
<td>81.934</td>
<td>81.015</td>
<td>-1.1</td>
</tr>
<tr>
<td>3</td>
<td>USA</td>
<td>58 196</td>
<td>80 594</td>
<td>60.886</td>
<td>64.682</td>
<td>6.2</td>
</tr>
<tr>
<td>4</td>
<td>India</td>
<td>62 838</td>
<td>66 848</td>
<td>51.179</td>
<td>53.906</td>
<td>5.3</td>
</tr>
<tr>
<td>5</td>
<td>Russia</td>
<td>60 011</td>
<td>67 021</td>
<td>49.728</td>
<td>51.870</td>
<td>4.3</td>
</tr>
<tr>
<td>6</td>
<td>S. Korea</td>
<td>48 572</td>
<td>58 453</td>
<td>42.653</td>
<td>50.628</td>
<td>18.7</td>
</tr>
<tr>
<td>7</td>
<td>Germany</td>
<td>32 670</td>
<td>43 815</td>
<td>32.969</td>
<td>34.139</td>
<td>3.6</td>
</tr>
<tr>
<td>8</td>
<td>Brazil</td>
<td>26 506</td>
<td>32 820</td>
<td>24.885</td>
<td>26.715</td>
<td>7.4</td>
</tr>
<tr>
<td>9</td>
<td>Ukraine</td>
<td>29 855</td>
<td>33 559</td>
<td>24.616</td>
<td>26.372</td>
<td>7.1</td>
</tr>
<tr>
<td>10</td>
<td>Turkey</td>
<td>25 304</td>
<td>29 143</td>
<td>21.078</td>
<td>25.058</td>
<td>18.9</td>
</tr>
<tr>
<td>11</td>
<td>Italy</td>
<td>19 848</td>
<td>25 751</td>
<td>19.099</td>
<td>21.260</td>
<td>11.3</td>
</tr>
<tr>
<td>12</td>
<td>Taiwan</td>
<td>15 873</td>
<td>19 641</td>
<td>14.555</td>
<td>17.023</td>
<td>17.0</td>
</tr>
<tr>
<td>13</td>
<td>Mexico</td>
<td>13 957</td>
<td>17 041</td>
<td>12.470</td>
<td>13.646</td>
<td>9.4</td>
</tr>
<tr>
<td>14</td>
<td>Spain</td>
<td>14 362</td>
<td>16 311</td>
<td>12.566</td>
<td>12.211</td>
<td>-2.8</td>
</tr>
<tr>
<td>15</td>
<td>France</td>
<td>12 840</td>
<td>15 416</td>
<td>11.625</td>
<td>11.913</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1 229 410</strong></td>
<td><strong>1 413 596</strong></td>
<td><strong>1 047.966</strong></td>
<td><strong>1 133.860</strong></td>
<td><strong>8.2</strong></td>
<td></td>
</tr>
</tbody>
</table>
Production Growth Performance of the Top 15 Steel Producing Countries

(2001/2010, %)

China: 313
India: 145
Turkey: 95
World (Excluding China): 33
S. Korea: 28
Mexico: 23
Brazil: 14
Taiwan: 14
Russia: 13
Japan: 7
Ukraine: -1
Spain: -2
Germany: -3
Italy: -11
USA: -20
France: -20

(2008/2010, %)

China: 25.3
India: 15.7
S. Korea: 9.0
Turkey: 8.7
World (Excluding China): 6.5
Mexico: -1.0
Taiwan: -1.2
Brazil: -2.2
Russia: -2.7
World Excluding China: -4.8
Germany: -4.4
Japan: -7.7
Ukraine: -10.0
USA: -11.8
Spain: -12.5
France: -13.8
Italy: -15.8

Crude Steel Production Growth (%) of The Largest 15 Producers (Jan-Sep 2011)
Development of Economy, Construction, Manufacturing and Steel Industries (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP</th>
<th>Construction</th>
<th>Manufacturing</th>
<th>Steel Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>8,4%</td>
<td>21,5%</td>
<td>8,2%</td>
<td>2,4%</td>
</tr>
<tr>
<td>2006</td>
<td>6,9%</td>
<td>19,4%</td>
<td>8,4%</td>
<td>11,8%</td>
</tr>
<tr>
<td>2007</td>
<td>4,7%</td>
<td>5,7%</td>
<td>5,6%</td>
<td>9,9%</td>
</tr>
<tr>
<td>2008</td>
<td>0,7%</td>
<td>-8,1%</td>
<td>-0,1%</td>
<td>4,1%</td>
</tr>
<tr>
<td>2009</td>
<td>-4,7%</td>
<td>-16,3%</td>
<td>-7%</td>
<td>-5,6%</td>
</tr>
<tr>
<td>2010</td>
<td>9,0%</td>
<td>17,1%</td>
<td>13,3%</td>
<td>15,2%</td>
</tr>
<tr>
<td>2011-H1</td>
<td>10,2%</td>
<td>13,9%</td>
<td>10,7%</td>
<td>21,3%</td>
</tr>
</tbody>
</table>
Turkey’s Crude Steel Production Capacity by Regions in 2011 (million tons)

- **Marmara Region**: 13.1 mt
  - Çanakkale: İcdaş
  - Bursa: Asil Çelik, Çemtaş
  - İzmir: Habaş, Ege Çelik, İzmir D.C., Sider, Ede, Çebitaş, Özkan

- **İzmir Region**: 11.2 mt
  - Kocaeli: EREĞLİ, Kromدان Diler, Kardemir
  - Tekirdağ: İpek, Kapan, Çolakoğlu
  - İzmir: Varto

- **Black Sea Region**: 6.3 mt
  - Samsun: Yeşilyurt
  - Sivas: Sivas D.C.
  - Mersin: KARABÜK, Kardemir, EREĞLİ, Diler

- **Iskenderun Region**: 16.2 mt
  - Mersin: KIRIKKALE, MKEK
  - Mersin: Sivas D.C.
  - Sivas: Sivas D.C.
  - Hakkari: Yeşilyurt

**Capacity (t/y)**
- 50,000 - 500,000
- 500,000 - 1,000,000
- 1,000,000 - 2,000,000
- 2,000,000 ve üzeri/above
Turkey’s Melting Capacity (million tons)

- 2000: 13.6
- 2005: 18.8
- 2008: 25.1
- 2009: 26.1
- 2010: 29.8
- 2011*: 33.4
- 2011: 36.3

*estimated
Turkey’s Slab Production Capacity (million tons)

*estimated*
Turkey’s Crude Steel Production (million tons) and Utilisation in Melting Capacity (%)
Turkey’s Crude Steel Production (million tons)

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2010 10m</th>
<th>2011 10m</th>
<th>% change (11/10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Billet</td>
<td>20.3</td>
<td>22.0</td>
<td>22.7</td>
<td>20.5</td>
<td>21.8</td>
<td>17.9</td>
<td>20.0</td>
<td>11.2</td>
</tr>
<tr>
<td>Slab</td>
<td>3.1</td>
<td>3.7</td>
<td>4.2</td>
<td>4.8</td>
<td>7.3</td>
<td>5.9</td>
<td>8.2</td>
<td>39.1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>23.4</strong></td>
<td><strong>25.8</strong></td>
<td><strong>26.8</strong></td>
<td><strong>25.3</strong></td>
<td><strong>29.1</strong></td>
<td><strong>23.8</strong></td>
<td><strong>28.1</strong></td>
<td><strong>18.1</strong></td>
</tr>
<tr>
<td>EAF</td>
<td>17.3</td>
<td>19.4</td>
<td>19.8</td>
<td>17.7</td>
<td>20.9</td>
<td>17.0</td>
<td>20.8</td>
<td>22.5</td>
</tr>
<tr>
<td>BOF</td>
<td>6.2</td>
<td>6.4</td>
<td>7.0</td>
<td>7.6</td>
<td>8.2</td>
<td>6.8</td>
<td>7.3</td>
<td>7.2</td>
</tr>
</tbody>
</table>

**2006**
- Slab: 3.1 mmt
- Billet: 20.3 mmt

**2011**
- Slab: 10 mmt
- Billet: 24 mmt

*2011 estimated*
Turkey’s Monthly Crude Steel Production (million tons)
Turkey’s Slab Production (million tons)

*estimated*
Turkey’s Total Finished Steel Production and Apparent Consumption (million tons)

*estimated*
Turkey’s Total Steel Export & Import (million tons)
Turkey’s Total Steel Export & Import (Billion USD)

Export
Import

2005: 7.6
2006: 9.4
2007: 8.6
2008: 20.5
2009: 12.0
2010: 13.3
2010-9m: 10.0
2011-9m: 12.4

2005: 7.0
2006: 8.6
2007: 12.2
2008: 15.0
2009: 8.0
2010: 9.4
2010-9m: 7.5
2011-9m: 9.0
Turkey’s Total Steel Export by Products (million tons)
Turkey’s Total Steel Export By Regions (million tons)

By Regions:
- Middle East & Gulf
- EU-27
- N. Africa
- Far East & SE Asia
- USA
- CIS
- Others

Export Data:
- 2006: 5.2, 1.6, 5.2, 6.3, 6.4, 10.2, 5.3
- 2007: 1.5, 1.4, 1.7, 4.4, 4.9, 2.7, 1.8
- 2008: 2.6, 2.1, 2.7, 2.7, 8.1, 5.4
- 2009: 5.0, 5.2, 6.4, 6.8, 5.3
- 2010: 1.3, 5.3, 5.4, 5.3
- 2011-9m:
Turkey’s Total Steel Import (million tons)
Turkey’s Total Scrap Import By Regions (million tons)
Conclusions

• Turkey is a dynamic economy with a fast growing steel industry.
• Dependency on imports in raw materials will stay as one of the main challenges.
• Recent investments to flat steel, quality steel, structural steel and stainless steel will enable Turkish steel industry to have a better production and trade structure and help Turkish steel industry to serve the domestic and export markets better.
• Investments to new products which are basically imported will increase the contribution of the steel industry to the elimination of the foreign trade and current account deficit.
• Considering the growing tendency of the steel using sectors in Turkey and enlarging product range, Turkish steel industry will grow in a more balanced structure in the future.
Conclusions

- Turkish steel industry has been practicing market diversification strategy due to the rapid changes in market conditions.
- In 2010 and 2011, Turkish steel industry balanced its losses in main export markets by focusing on neighbouring countries, South America and Far East markets.
- Despite increasing capacities, Middle East and North Africa will stay as important export destination for Turkish steel in the medium term.
- Slab casting investments of some long steel producers also relieved the pressure on long steel exports.