Global Market and Ukrainian Steel Industry Development

Vlasyuk V.S.
SE UPE Co. Research & Consulting, Ukraine

70th Session of the OECD Steel Committee Meeting,
Paris, 12-13 May 2011
I. Global market tendencies

1. Increase of crude steel production cost

During 2003 – 2011 production cost of crude steel has increased rapidly by almost 4 times from 161$/t (2003) to 567$/t (1Q-2011).
However, steel remains the main structural material and steel consumption continues to grow at an unprecedented rate. This year crude steel production in the world will reach a new record 1,500 million tonnes due to further consumption increase in the developing countries (especially in China +38-40 million tons) and further recovery of production to pre-crisis level in the advanced economies.
I. Global market tendencies

3. Raw material prices continue to increase

Average annual prices in 2011 are expected to be:

- for iron ore - 165 $/t fob Brazil (+43.5% in comparison with 2010)
- for coking coal - 280 $/t fob Australia (+50.4% in comparison with 2010).

Further increase of demand has led to growth of prices in 2nd quarter against 1st quarter of 2011:

- iron ore +23.5% up to 184 $/t fob Brazil
- coking coal +42.6% up to 328 $/t fob Australia

Source: SBB, UPE Co.
In 2011 the rise of steel cost (appx. +105$/t) is expected mostly due to increased price for iron ore, coking coal and scrap.
I. Global market tendencies

5. More rapid growth of the production cost in comparison with the market price for steel products

While the current production cost has already exceeded the 2008 peak level, steel product prices are still below the pre-crisis level of 2008.
Post-crisis situation in the global steel market is quite different from the pre-crisis one. The main distinction consists in the availability of two factors unfavorable for producers, namely “excess” of capacities and high production costs. This situation intensifies competition dramatically and bears substantial risks for numerous outdated and non-efficient mills, especially for those not integrated with raw material producers.
Since 2009 steelmakers operate with a much more modest margin as compared to the pre-crisis years.
I. Global market tendencies

8. Impact of steel production cost on the market

- Decrease of steelmakers profit
- Change of the seasonal price variations, namely more intensive price increase in 1st quarter
- Acceleration of vertical integration
I. Global market tendencies

9. Key macroeconomic and financial indicators still favorable for global economy

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Jul 08</th>
<th>Jan 09</th>
<th>Jun 10</th>
<th>Apr 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rate of Federal Reserve System (USA), %</td>
<td>2,0</td>
<td>0,25</td>
<td>0,25</td>
<td>0,25</td>
</tr>
<tr>
<td>Interest rate of European Central Bank (EU), %</td>
<td>4,25</td>
<td>2,0</td>
<td>1,0</td>
<td>1,25</td>
</tr>
<tr>
<td>Interest rate of Bank of Japan, %</td>
<td>0,5</td>
<td>0,1</td>
<td>0,1</td>
<td>0,0</td>
</tr>
<tr>
<td>3 month USD LIBOR/OIS spread, b.p.</td>
<td>70</td>
<td>120</td>
<td>33</td>
<td>16*</td>
</tr>
<tr>
<td>Commercial bank deposits at ECB, $ bn</td>
<td>0,6</td>
<td>360</td>
<td>214</td>
<td>24</td>
</tr>
<tr>
<td>Price per share JP Morgan Chase on NYSE, $</td>
<td>41</td>
<td>23</td>
<td>39</td>
<td>45</td>
</tr>
</tbody>
</table>

* Corresponds to pre-crisis level which made up 10-15 (June 2007)

Source: ECB, Bloomberg

Today's global financial situation looks to be quite stable owing to the governmental monetary policy (low interest rates and free access to liquidity). In 2011 quite comfortable conditions for crediting can be expected due to economic growth and lending renewal in developed countries.
I. Global market tendencies

10. ...Nevertheless alarms of the looming threat are coming ...

Soft monetary (easy-money) policy by the FED (during 2005-2007 interest rate decreased from 6% till 1%)

Over the 2008-2010 the FED issued aprox. 10 trln. $ which began to appear on the commodity market

New bubbles?

FED can not change its nature. Bail-out programs and huge amount of liquidity issued by the FRS during 2008-2010 cause risks of new bubbles in post-crisis global economy.

Rocketing price for oil and gold are the first warning signs

Source: Bloomberg, IMF, UPE Co.
II. Ukrainian steel industry development

II. Rates of economic development in Ukraine

Despite continuing economic recovery in the period of 2010-2011 Ukrainian key macroeconomic indicators are still below pre-crisis levels.
In 2011, steel production in Ukraine will reach 34,5 mln t, which corresponds only to 2002 level and is much lower than in pre-crisis 2007. So the impact of recent crisis on the steel output in Ukraine is still very essential.
Within 2005-2010, Ukraine has increased steelmaking capacities on the base of operating plants. Ukrainian ISW`s still use outdated OHF technology, but its share is continuously decreasing. Particularly, in the period of the last 5 years the volume of OHF in total steelmaking capacities has decreased from 21.6 mln t to 16.6 mln t. Capacity utilization in Ukraine in post-crisis period is below the world average level, which reflects the existence of excessive capacities and enhanced competition.
In line with the global tendencies, prices for raw materials in Ukraine in 1H2011 has risen as compared to 2010 levels:

- Iron ore – by 58% to 130 $/t
- Coking coal – by 27% to 188 $/t
- Scrap – by 41% to 376 $/t

Source: Production-Economic Association “Metallurgprom”
Due to rise in raw materials prices, this year cost of steel will increase by 24% y-o-y (for non-integrated mills) and surpass pre-crisis level.
In 2011, Ukrainian export will go up modestly – to 24.5 mln t, which is substantially less than 2007 level. Middle East and Africa, as well as EU will remain key partners of Ukraine.
After almost 2-times drop in 2008-2009, domestic steel consumption continues to recover. This year, internal consumption will add approximately 1 mln. t of finished steel products, which corresponds to the level 2005-2006.
In 2010, Ukraine has turned back to active import of steel. It is expected to import up to 2 mln t of steel products this year. The dominant share of imported products is not produced in Ukraine.

The share of import in covering of domestic demand will rise to 24%
II. Ukrainian steel industry development

19. Modernization projects for steel production

A key point of modernization is the replacement of OHF by OBC and EAF. The total capacity is expected to reach 51.1 mln t in 2018. Also we anticipate to abandon the use OHF.
The effect of modernization programs:

<table>
<thead>
<tr>
<th>Description</th>
<th>Before Energy Consumption (GJ)</th>
<th>After Energy Consumption (GJ)</th>
<th>Reduction in Energy Consumption (%)</th>
<th>CO2 Emission Reduction (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction by 6.6% specific energy consumption from 24.4 GJ to 22.8 GJ per</td>
<td>24.4</td>
<td>22.8</td>
<td>6.6%</td>
<td>-16.3%</td>
</tr>
<tr>
<td>1 t steel, incl. saving of up to 2.5 bln. m³ of natural gas annually</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cutting down CO2 emissions by 16.3% from 1.35 t to 1.13 t per 1 t of steel;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and other pollutants by 33% from 1.45 kg to 0.96 kg per 1 t of steel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Production-Economic Association “Metallurgprom”
II. Ukrainian steel industry development

21. The cost of modernization programs

Updating programs will allow to comply with advanced world environment protection standards

Total value of modernization programs makes up approximately $ 21 bln, incl. $15 bln in steel-melting properly

The main financial burden will be borne by companies. Also exists an essential need in loan capital
Steel market:
Analytics   Forecast   Scenario

tel/fax      (+38044) 484-64-83
e-mail       admin@delphicasteel.com
www          http://www.delphicasteel.com