

World Steel Semis Markets

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Raw Material Price Forecast and Its Effect On Global Semis Market

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Structure

PART I. RAW MATERIAL PRICES

PART II. GLOBAL SQUARE BILLET TRADE

**PART III. CIS SQUARE BILLET
PRODUCTION COST**

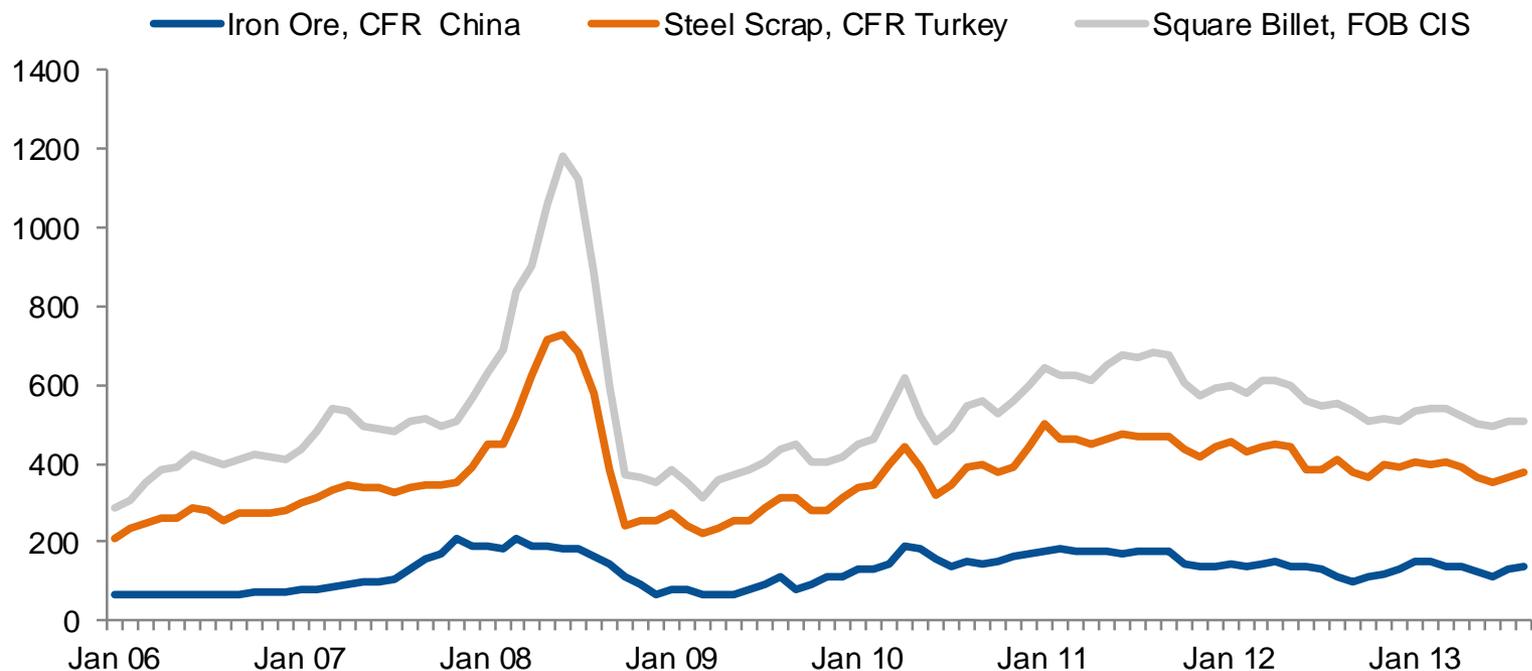
PART IV. CONCLUSIONS

Prices for metallurgical products in the global market develop in a similar way...

The main reasons:

- The growing influence of China on the global market
- Quarterly and monthly contracts for raw materials (iron ore, coking coal) instead of annual agreements
- Price indices for raw materials, depending on steel product and semis prices

Global benchmarks dynamics for raw materials and semis, \$/t



... and future prices will largely depend on the situation in China

- **How will steel consumption change in China?**

We expect that peak steel consumption (about 740 mt) will be reached in the near future (2014-2015).

- **How will excess steelmaking capacity be loaded?**

The total steel production capacity in China is estimated at 1 billion tons, and there is no chance that the domestic market will ensure growth of purchases. This way, steel production in China is close to the maximum too.

- **How will the steel production structure change in China?**

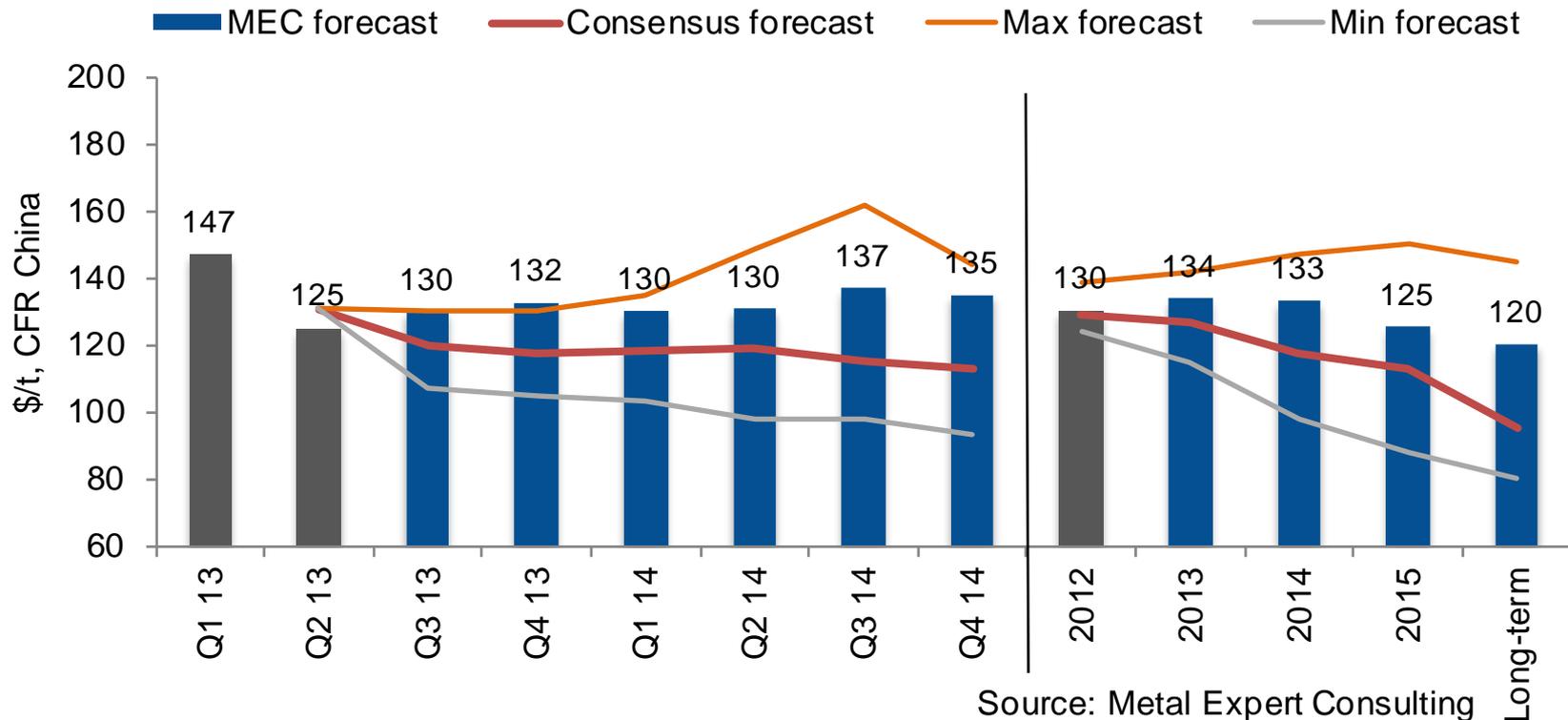
The country has a huge potential for increase in the EAF steel share due to growth of old steel scrap collection.

How about price forecast?

Metal Expert's methodology of forecasting global raw material and semis prices is based on mixed forecasting methods and includes non-linear dynamics models, demand and supply balance of the global market, estimate of key suppliers' costs.

- Metal Expert's **short-term forecast** (for the period of 1 year) is made based on the Company's internal methodologies with the use of non-linear dynamics methods.
- **The medium and long-term price forecast** (for the period of 10 years) is based on future relationship between demand and supply, suppliers' possibilities of cutting costs incurred during production and transportation to the major consumers.

Comparison of Metal Expert Consulting's current price forecast for Australian iron ore fines (62% Fe) in the Chinese market with the level of prices that investment and industry analysts expect adjusted to this basis.



In the medium term we expect decline in world prices for ALL raw materials (iron ore, steel scrap etc.) and semis!

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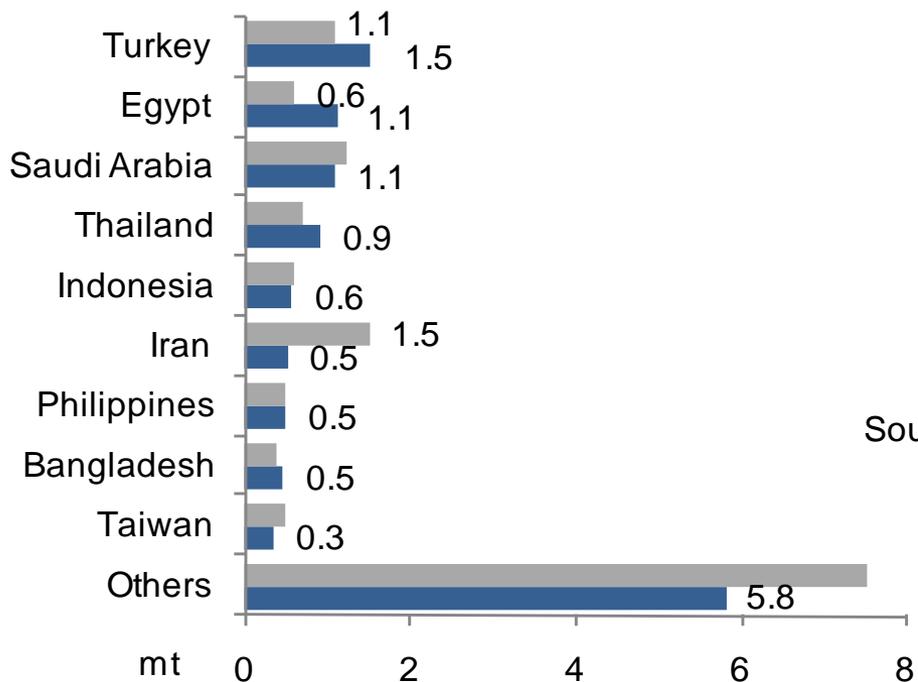
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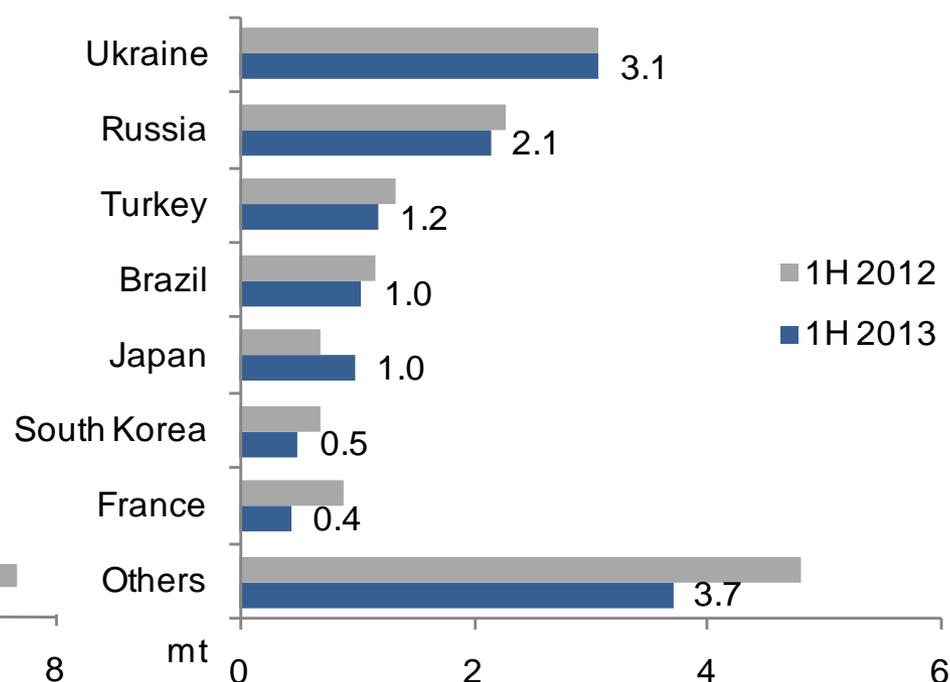
Turkey and MENA are the world's biggest importers of square billet...

In H1 2013 global square billet trade decreased to 12.9 mt (-13% year-on-year)

Import



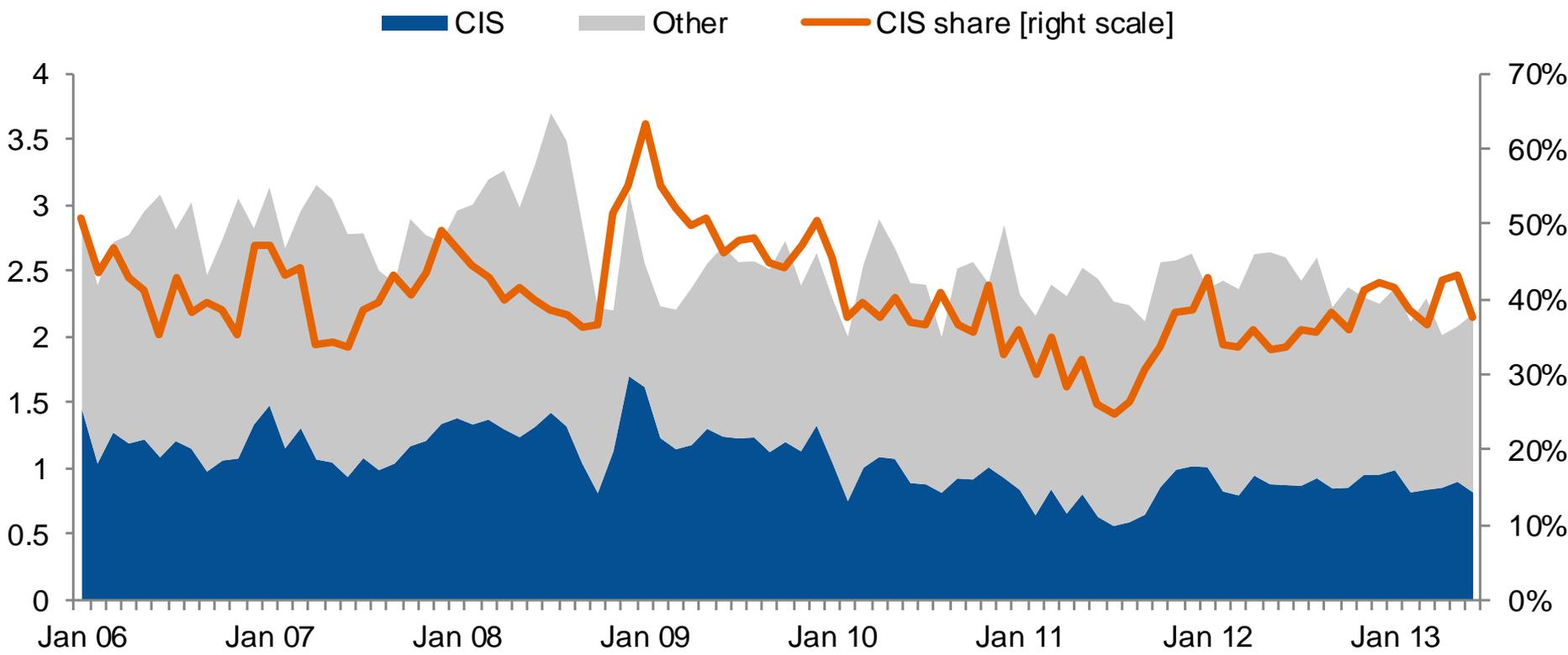
Export



Source: ISSB, Metal Expert

... and Russia and Ukraine are the biggest suppliers of square billet to the global market, incl. Turkey and MENA

Share of supply from Russia and Ukraine in global export of square billet is recovering after fall in 2009-2010.



Source: Metal Expert

PART I. RAW MATERIAL PRICES

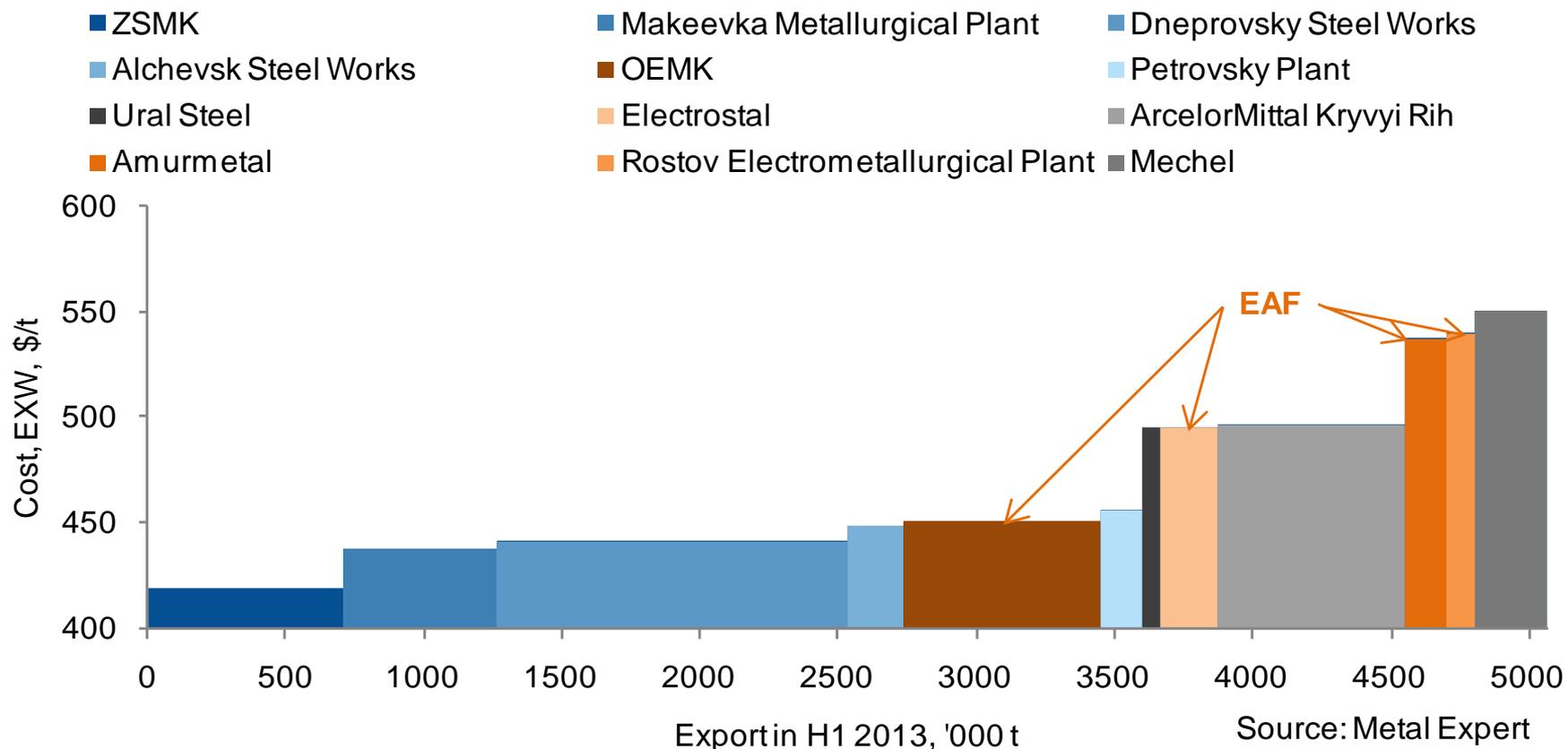
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How about CIS square billet production cost?

In H1 2013 production cost of square billet for Russian and Ukrainian suppliers varied from \$420 to \$550 EXW.

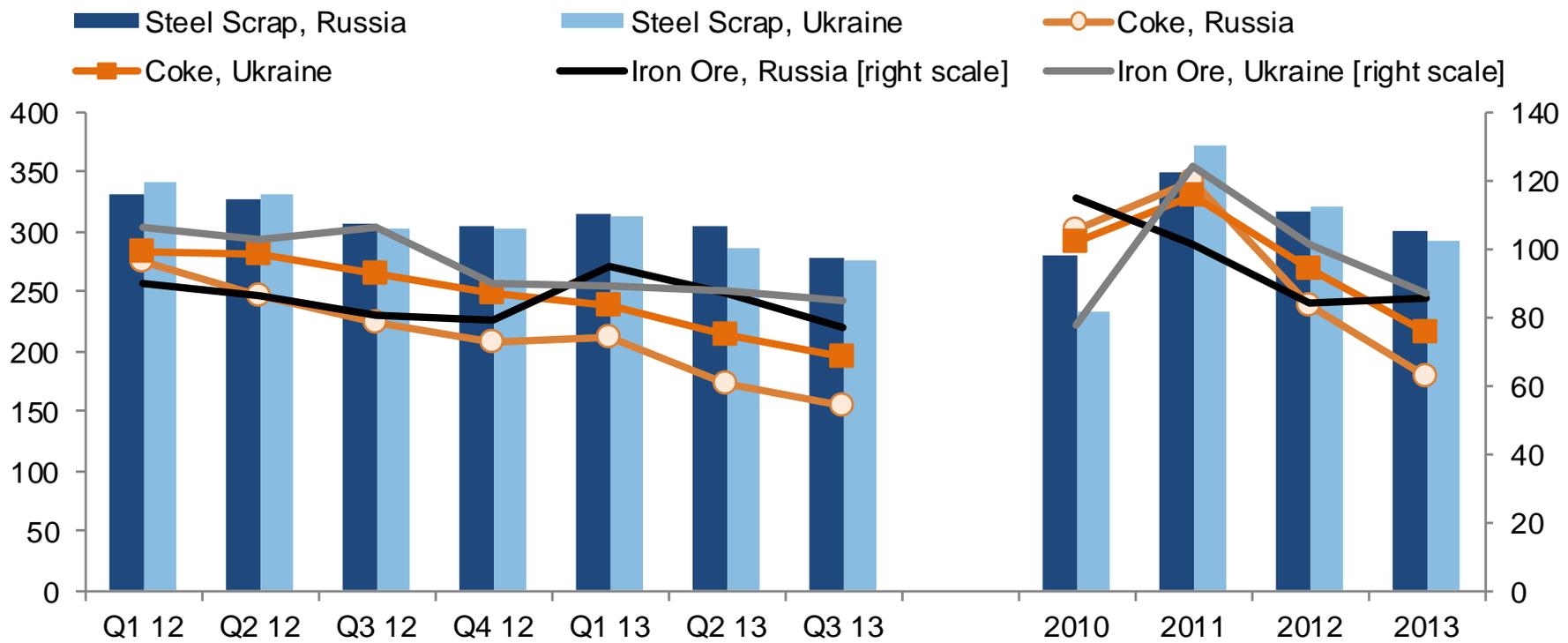


That is why vertically integrated producers in the CIS are currently more efficient than mini-mills. **And in the medium term this trend will increase even more.**

Price change in the CIS for steel scrap and other raw materials markets is different

Prices for iron ore, coke and coking coal in Russian and Ukrainian markets during 2012-2013 fell by 30-40%, and only by 10-20% for steel scrap.

Domestic prices for raw material in CIS, \$/t



Source: Metal Expert

How will iron ore prices change in the CIS?

The existing pricing system in **the Russian iron ore market** can be divided into the following two categories:

- *(about 20% volume)* free market purchases of material at spot prices set during negotiations
- *(about 80% volume)* supplies under long-term contracts at prices calculated by formulae and depending on a few parameters, including so-called “China index”- spot prices in China or index of their change.

The main pricing system in **the Ukrainian iron ore market** depends on a few parameters, including spot prices in the Chinese market (or index of their change) and Vale’s contract prices for the European market.



In the medium term iron ore domestic prices in the CIS will decrease under pressure of falling global iron ore prices!

How will steel scrap prices change in the CIS?

For **the Russian steel scrap market** we expect:

- demand for scrap will permanently increase due to the EAF steel production growth;
- falling scrap collection will lead to increasing competition between steelmakers and exporters;
- as a result of Russia's accession to the WTO duty on scrap exports declined in August 2013 to 12.5% (and will continue to gradually decline until it reaches 5% in August 2016). Therefore steel producers in the European part of Russia will be forced to maintain high scrap prices to avoid scrap outflow to the export market.

The Ukrainian scrap market is in a state of permanent deficit - over the last years scrap collection exceed scrap generation, while scrap export is minimal and steelmakers have been importing scrap.



In the medium term steel scrap domestic prices in the CIS will decrease much slower than in the global market, as well as slower than prices for other raw materials in the CIS (iron ore, coking coal, coke)!

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The main conclusions:

- In the medium term steel scrap domestic prices in Russia and Ukraine will decrease much slower than iron ore as well as coke. **Vertically integrated producers in the CIS will be even more efficient than EAF producers. Therefore they will retain a presence in the global billet market.**
- **At the same time, Russian mini-mills will not be able to face competition from integrated steel-making producers.** We see the prospects of selling to such companies primarily in the Russian domestic market of long products, where consumption growth in the coming years are expected to be high.
- Even under the most optimistic scenarios of the steel production growth in Russia, **we expect a minimum steel capacity utilisation of mini-mills, including the new ones, which will hit the market after 2013.** The main reason - a forced increase in purchase prices for scrap after the decline of export duties.

Our special research about semis market

Metal Expert Consulting plans to release a study of semi-finished steel markets in Russia and Ukraine – the countries that are the largest global exporters of semis.

Advantages of the research

The study presents a comprehensive review of all aspects of CIS semis business. There are considered the questions of raw material supply and cost of semis production, as well as the Russian and Ukrainian semis suppliers' potential in price competition in export markets. The study contains the forecasts for the period up to 2020, which are based on our own optimization models for the relevant markets and on the forecasting techniques that have been tested repeatedly for raw material and semis markets. As the input data, there were used only proven price and volume indices derived from the original sources.

To order the research

If you want to order the research and/or have any questions, please do not hesitate to contact us via e-mail expert@metalcourier.com.

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