

**IX International Conference
CIS Steel and Raw Materials in the World Markets
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Office in Russia:

73, Volokolamskoye shosse, Moscow, 123424
tel/fax: +7 495 775-60-55

Office in Ukraine:

48b, Naberezhna Peremogy, Dnipropetrovsk,
49094

tel./fax: +38 056 370-12-07,
+38 056 370-12-03 (ext. 105)

email: expert@metalcourier.com

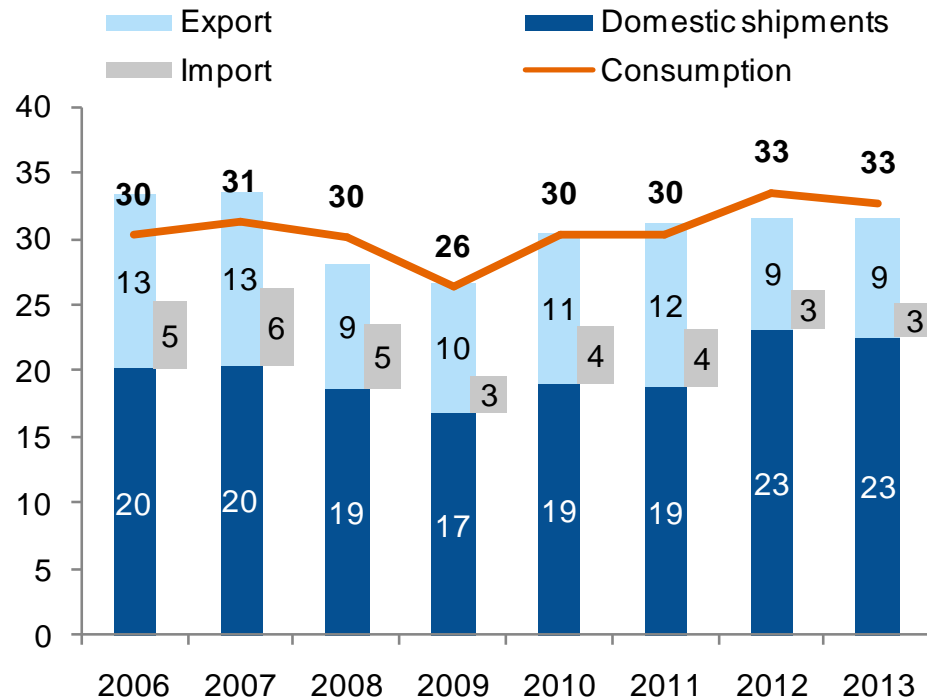
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CIS Iron Ore Export Outlook

**Nick Filkevich
Head of Research
Metal Expert Consulting**

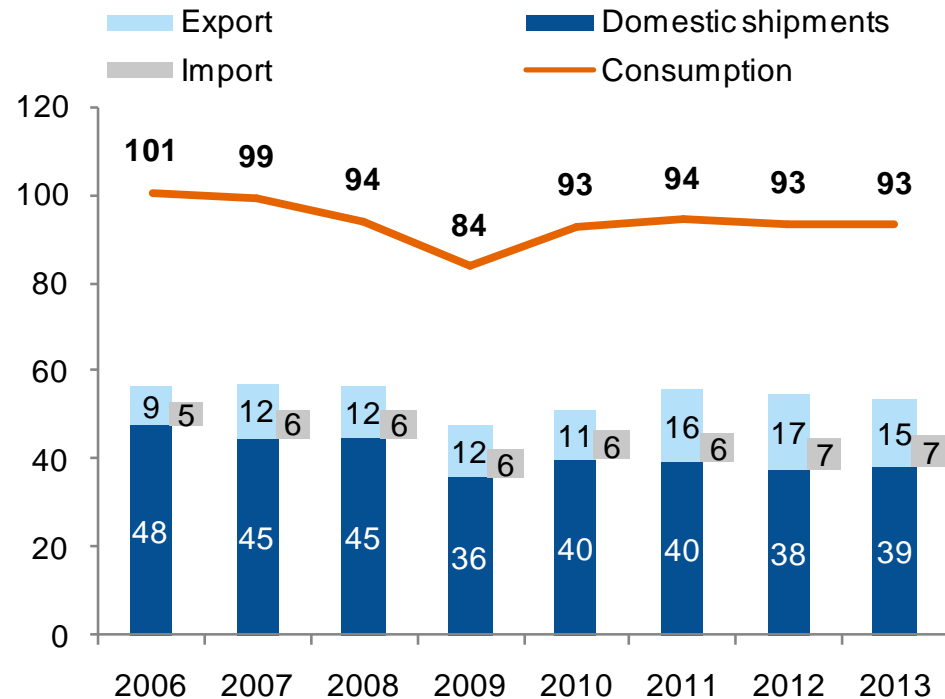
Russia: iron ore markets structure

Pellets



Source: Metal Expert Consulting

Concentrate & Sintering ore



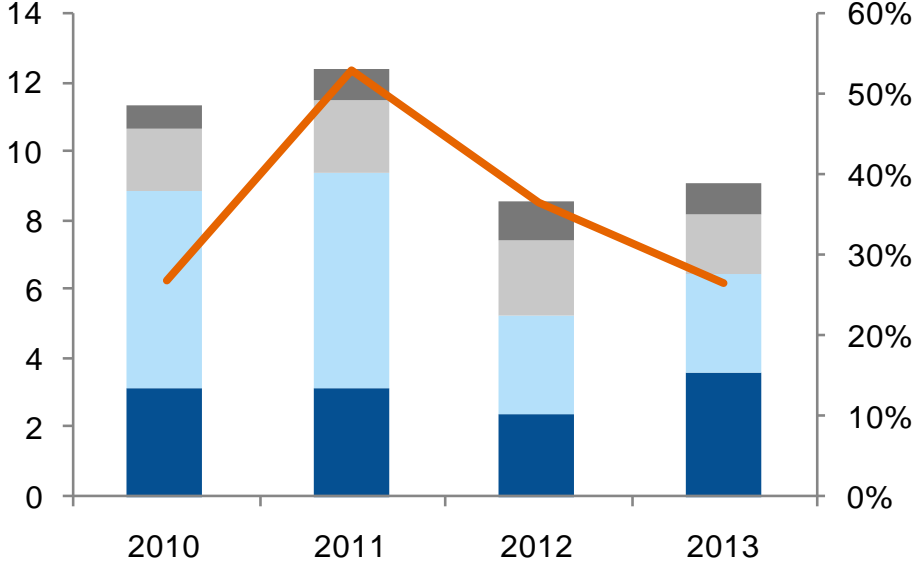
Source: Metal Expert Consulting

Share of export in shipments of merchant iron ore: for pellets, concentrate & sintering ore – 30% each

Russia: iron ore export

Pellets

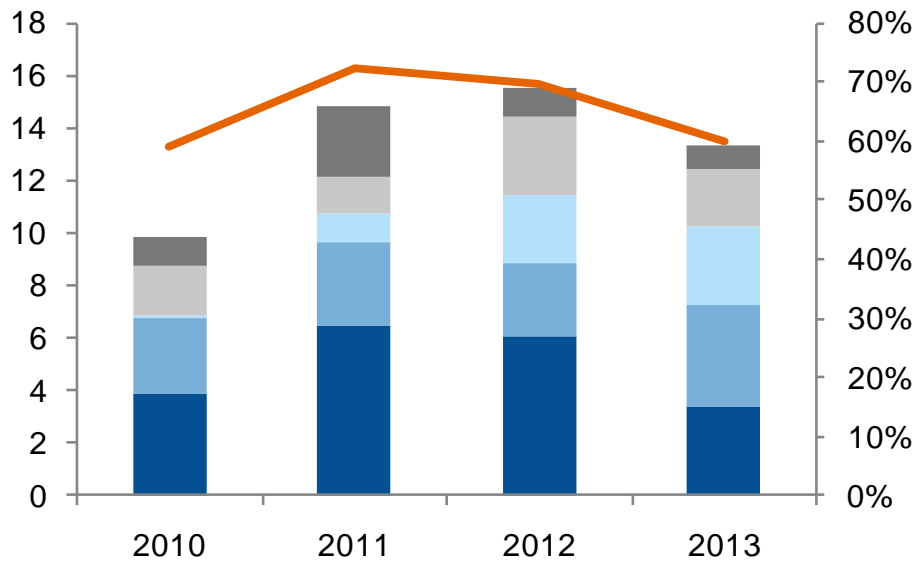
- Karelsky Okatysh
- Mikhailovsky GOK
- Lebedinsky GOK
- EVRAZ KGOK
- share of China, %



Source: Metal Expert Consulting

Concentrate

- Lebedinsky GOK
- Kovdorsky GOK
- Stoilensky GOK
- Korshunov GOK
- Mikhailovsky GOK
- share of China, %

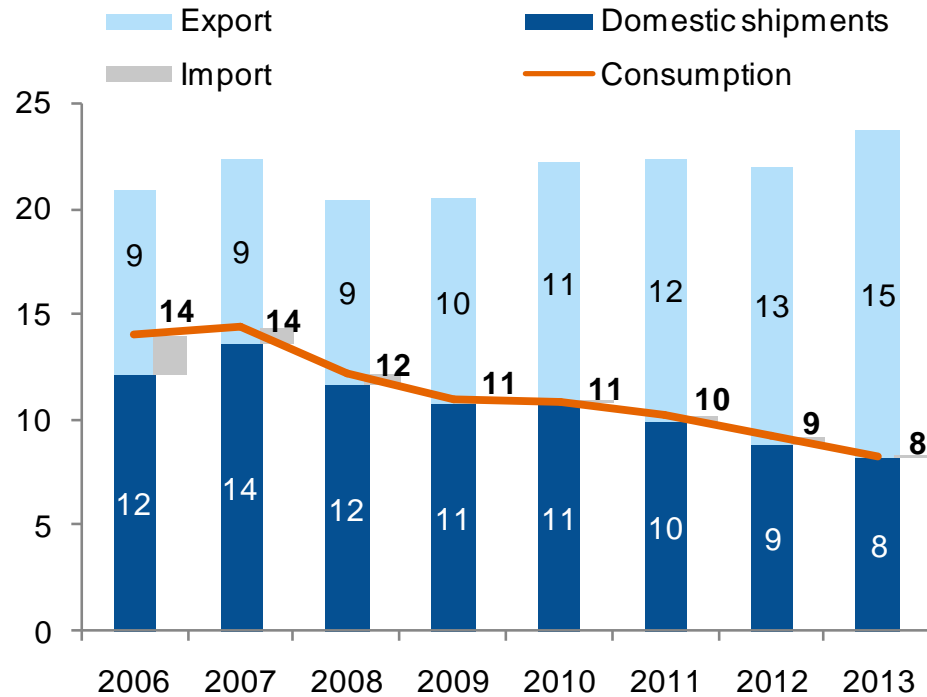


Source: Metal Expert Consulting

Iron ore exports from Russia to China continue to decline

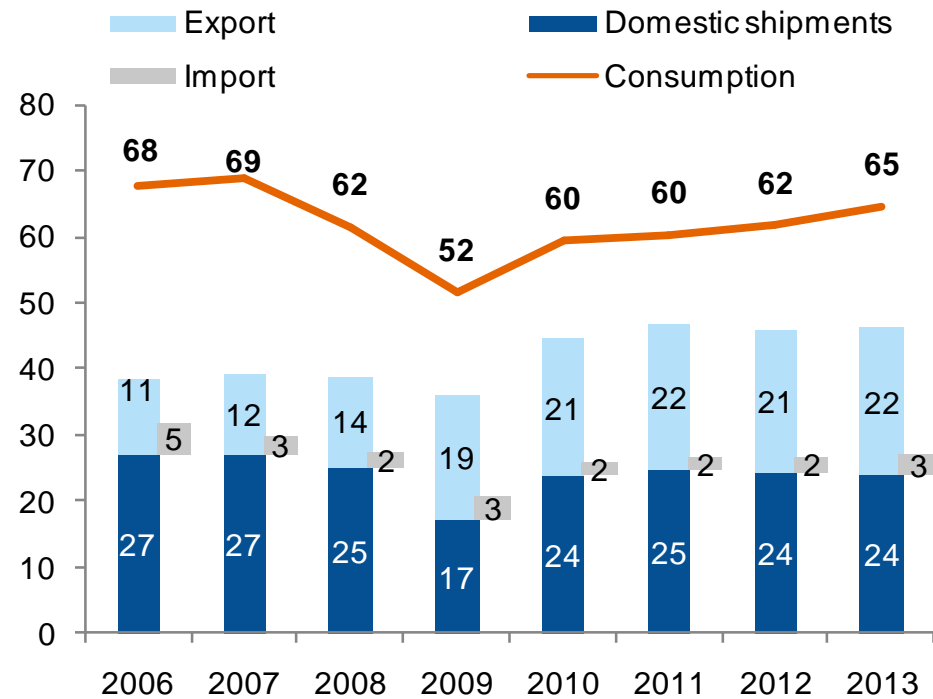
Ukraine: iron ore markets structure

Pellets



Source: Metal Expert Consulting

Concentrate & Sintering ore



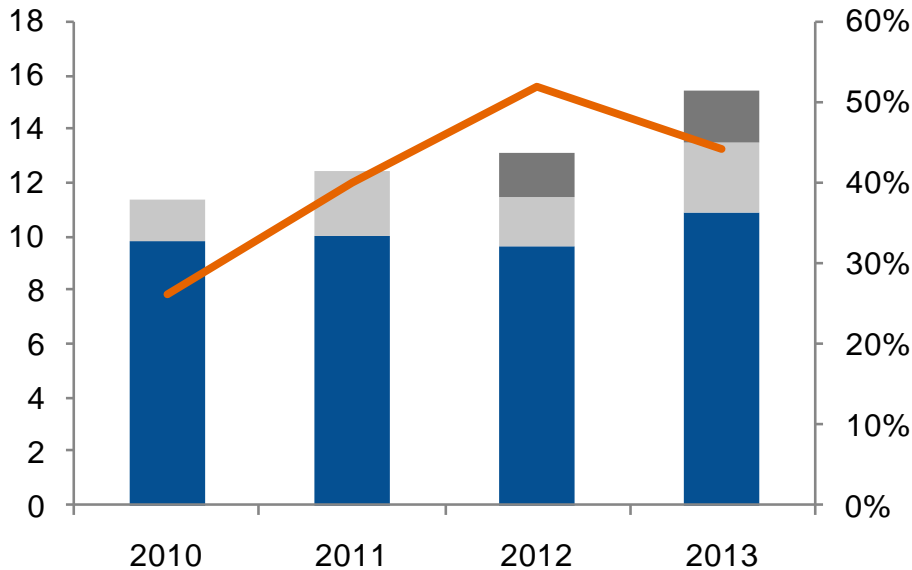
Source: Metal Expert Consulting

**Share of export in shipments of merchant iron ore:
for pellets – 65%, for concentrate and sintering ore – 50%**

Ukraine: iron ore export

Pellets

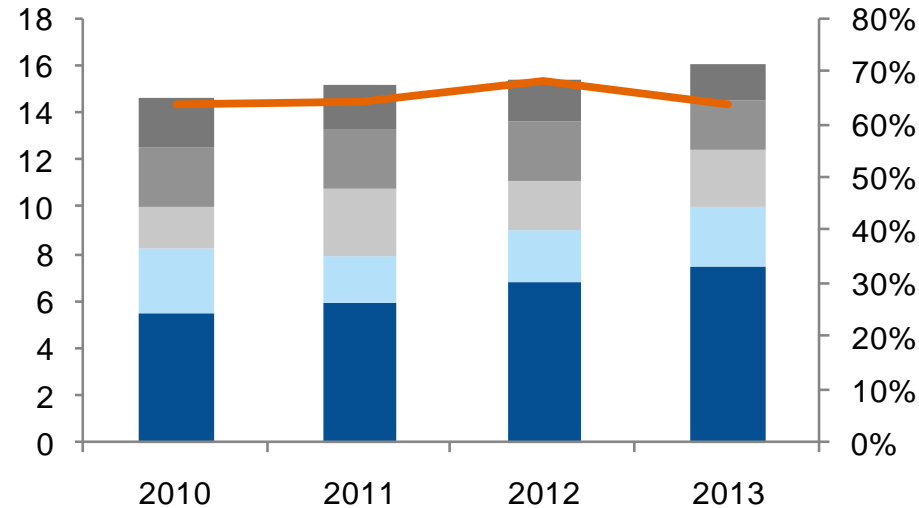
■ Ferrexpo Poltava Mining ■ Northern GOK
■ Central GOK — share of China, %



Source: Metal Expert Consulting

Concentrate

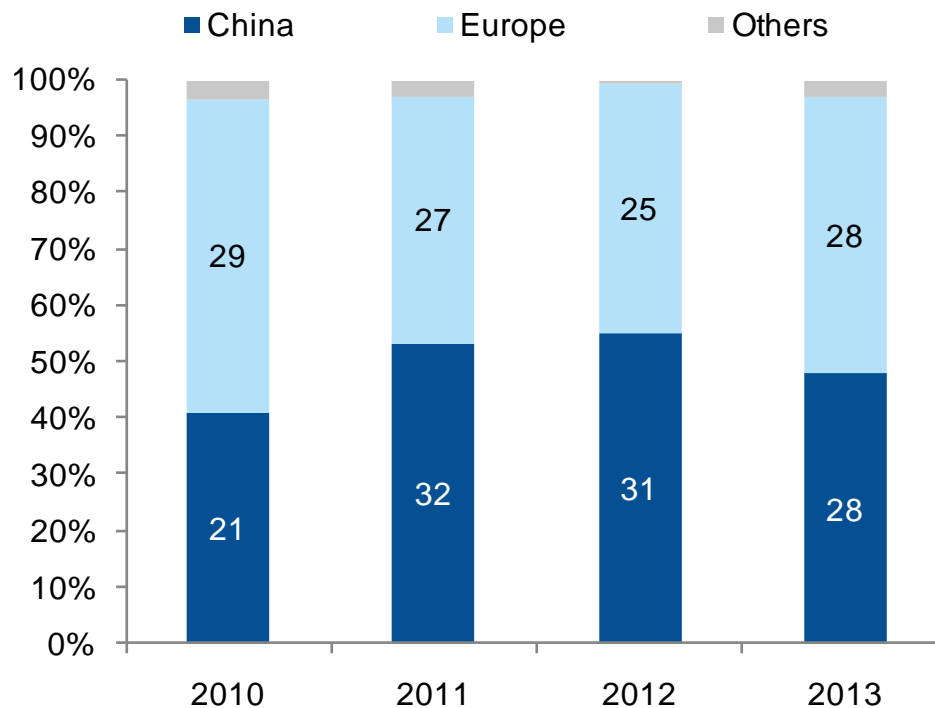
■ Yuzhny GOK ■ Ingulets GOK
■ ArcelorMittal Kryvyi Rih ■ Northern GOK
■ Central GOK — share of China, %



Source: Metal Expert Consulting

**Ukrainian iron ore exports increased in 2013...
but shipments to China declined!**

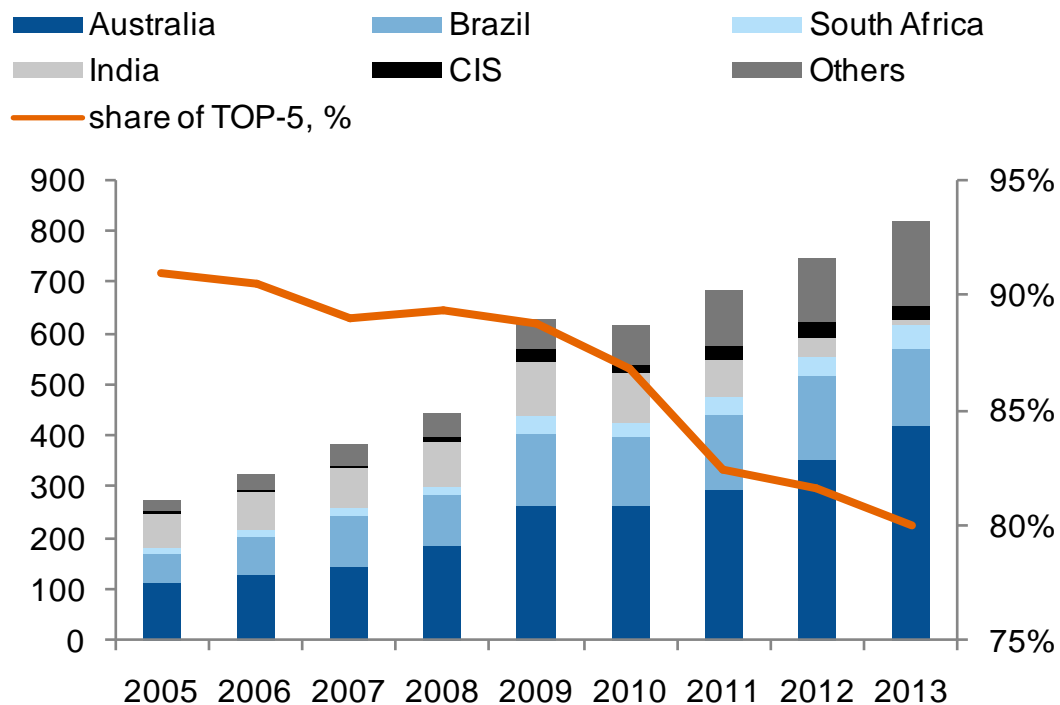
CIS iron ore export structure by region, %



Source: Metal Expert Consulting

Contractual pellets delivery to Europe and spot shipments of iron ore concentrate to China are still two major targets for CIS suppliers

Iron ore import in China in 2005-2013, mln. t

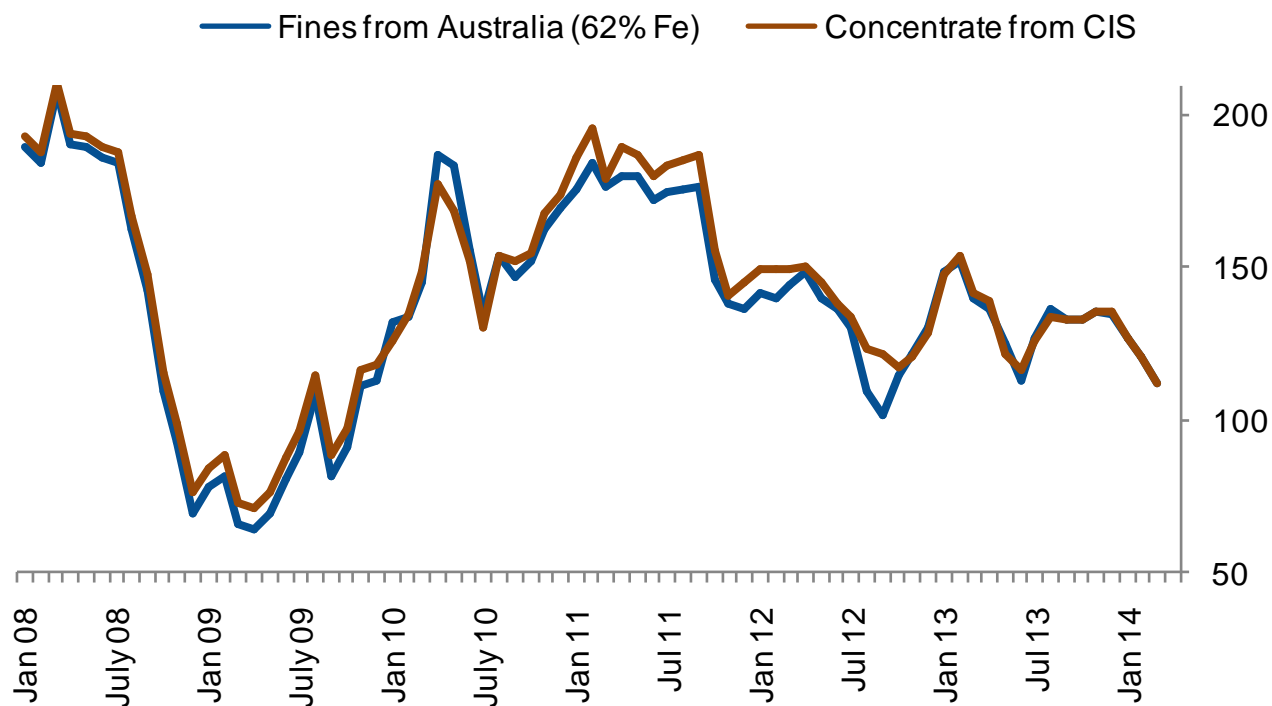


Source: Metal Expert Consulting

2013 imports of concentrate and pellets were 820 mln. t, up 10% from 2012

In Q1 2014 global iron ore prices fell 10-20%, and CIS export prices also dropped

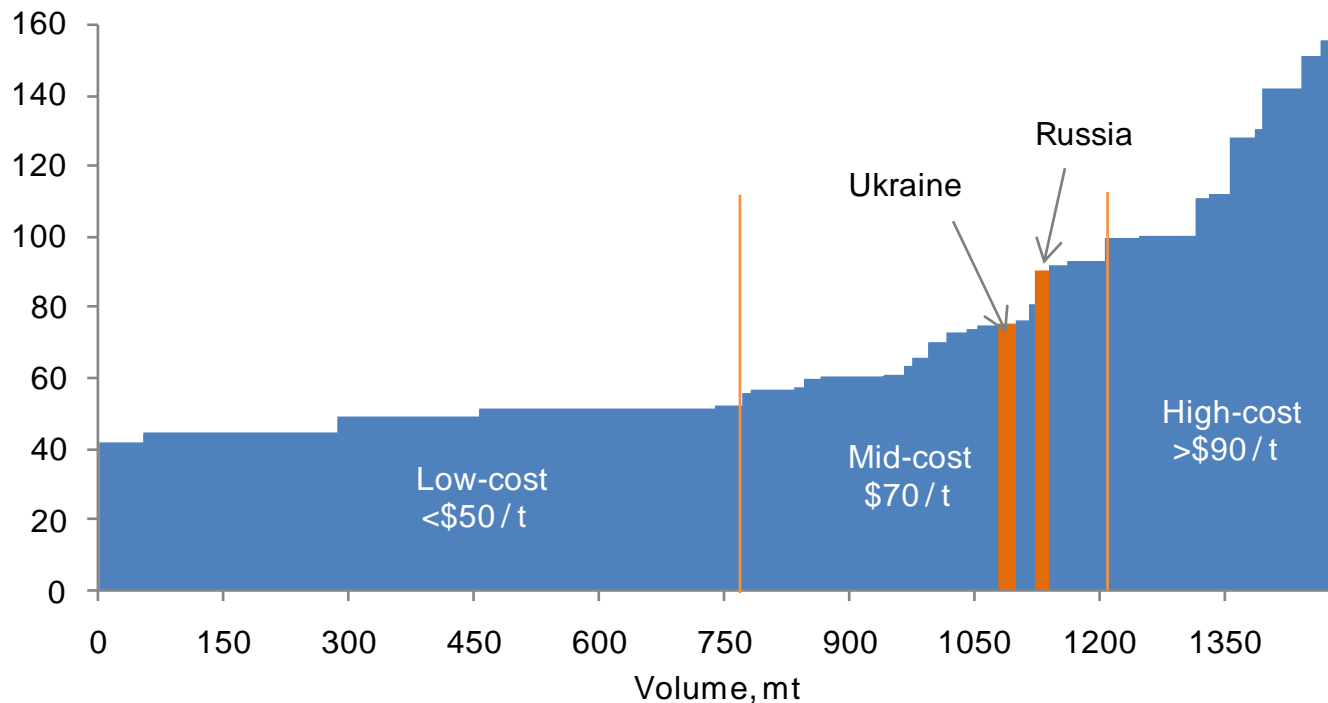
Export prices for Russian and Ukrainian iron ore, \$/t



Source: Metal Expert Consulting

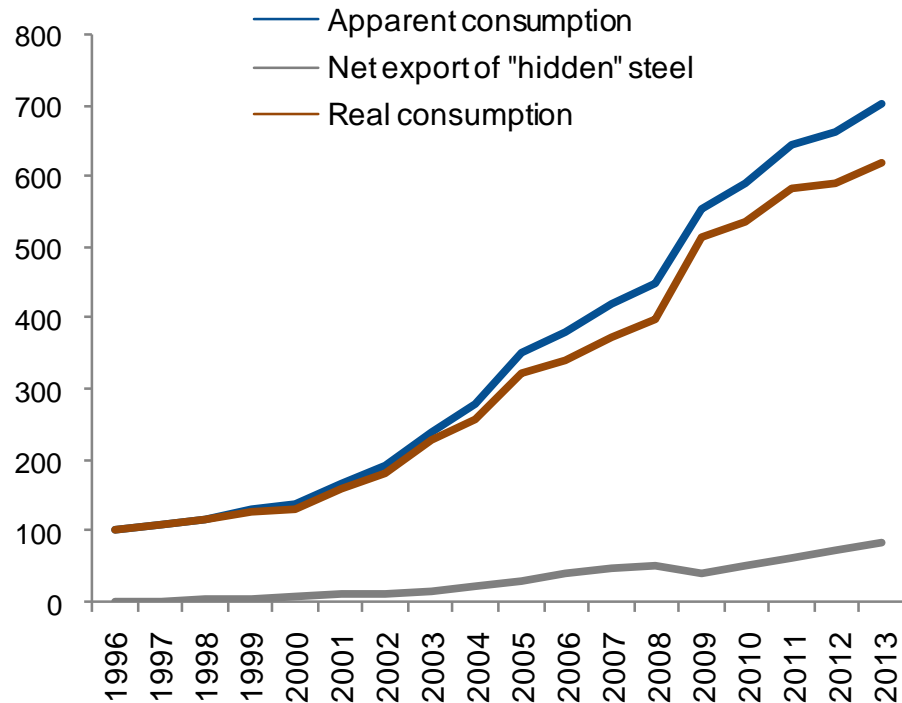
Minimum import price for Russian concentrate to Chinese buyers is \$75-80/t (for most suppliers it is above \$85-90/t)

Cost curve of iron ore fines and concentrate supply, \$/t, CFR / EXW China

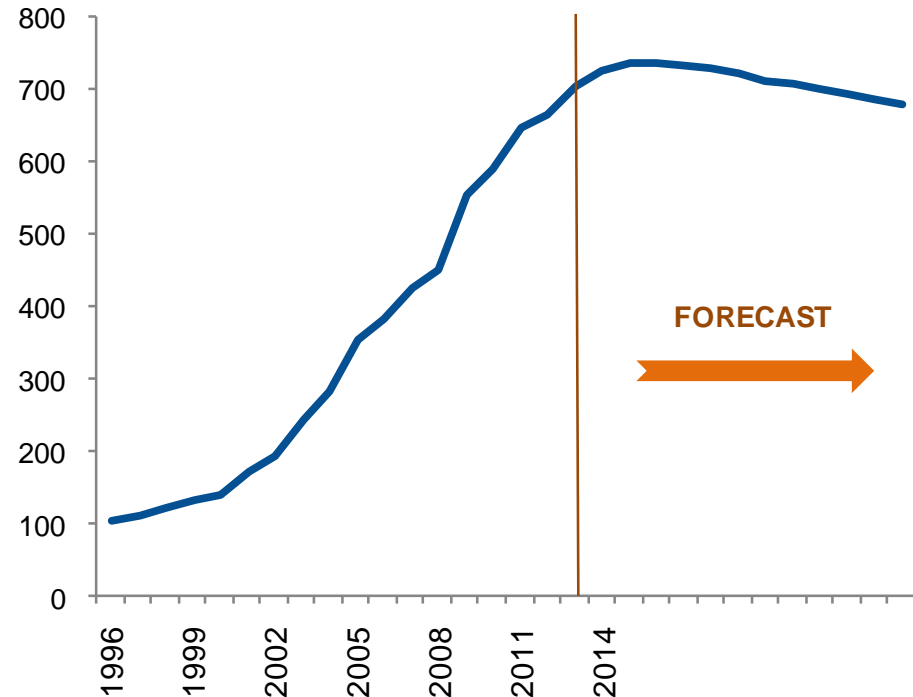


Chinese steel market will change

Apparent and real steel consumption in China, mln. t



Source: Metal Expert Consulting

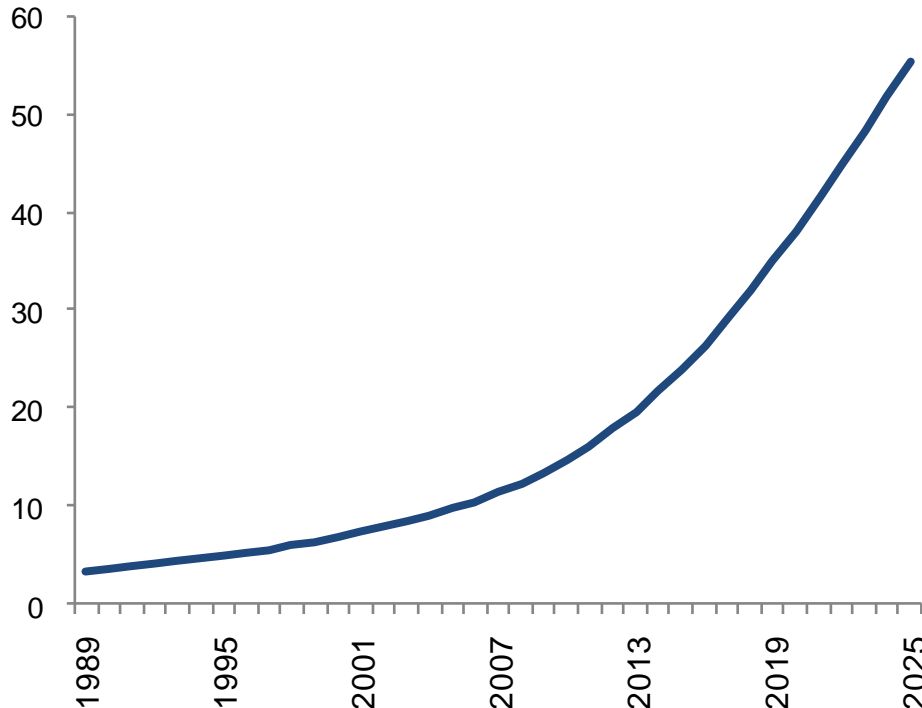


Source: Metal Expert Consulting

China's market is believed to be very close to its saturation point! Steel consumption will slow down and reduce

Scrap generation in China is growing

Obsolete scrap generation in China, mln. t



Source: Metal Expert Consulting

With rise in scrap availability the most effective way for Chinese steel producers is to increase scrap consumption and a share of EAF steel

Optimization model for iron ore market

Long-term contracts between consumers and producers, mln. t

Supplier \ Consumer	China	Japan	Korea	Taiwan	Europe	Total
Australia	120	33	16			169
Brazil	37	16	10	1	32	96
India						0
South Africa	20					20
Ukraine					10	10
Russia					3	3
Africa	5					5
South America	5					5
North America	7					7
Total	194	49	26	1	45	315

The optimization principle: minimizing buyers' expenses for iron ore purchase and transportation

Expenses for the iron ore bought

min

49240

Optimized trade of iron ore between key consumers and suppliers, mln. t

Supplier \ Consumer	China	Japan	Korea	Taiwan	Europe	Total	Actual
Australia	324	105	49	14	0	492	492
Brazil	162	16	10	1	68	257	257
India	36	0	0	0	0	36	36
South Africa	56	0	0	0	0	56	56
Ukraine	11	0	0	0	10	21	21
Russia	11	0	0	0	3	14	14
Africa	5	0	0	0	13	18	18
South America	25	0	0	0	0	25	25
North America	24	0	0	0	0	24	24
Total	654	121	59	15	94	943	
Actual volume	= 654	121	59	15	94	943	

Three ways for cost optimization

1. Crude ore mining & iron ore production

Using new equipment, improving labour efficiency, discounts on electricity etc.

2. Transportation to a port (Russian border) and handling

A drop in railway transportation costs for a few years, a rise in transportation efficiency (use of high-capacity cars, increase in a number of cars per train, decline in cars' own weight (pressure on axle can be lower), etc.)

3. Transportation to a foreign consumer

Construction of new ports (Taman etc) as well as reconstruction of actual ports for handling ships with higher deadweight (capesize)

Estimate of cost reduction potential for Russian concentrate export to China, \$/t

	Currently	Potential
Production cost	30	25-30
Railway transportation, port cost	25	20
Freight	35	15-20
Total, CFR China	90	65
<i>Source: Metal Expert Consulting</i>		

Estimate of change in Russian iron ore exporters' position in global market after cost reduction, mln. t

Supplier/ Consumer	Cost = \$90 per t CFR China						Cost = \$65 per t CFR China					
	China	Japan	Korea	Taiwan	Europe	Total	China	Japan	Korea	Taiwan	Europe	Total
Australia	352	111	52	15	0	530	352	111	52	15	0	530
Brazil	220	16	10	1	33	280	181	16	10	1	72	280
India	9	0	0	0	0	9	0	0	0	0	0	0
South Africa	58	0	0	0	0	58	58	0	0	0	0	58
Ukraine	11	0	0	0	10	21	11	0	0	0	10	21
Russia	0	0	0	0	3	3	11	0	0	0	3	14
Africa	5	0	0	0	16	21	21	0	0	0	0	21
S. America	5	0	0	0	23	28	28	0	0	0	0	28
N. America	27	0	0	0	0	27	25	0	0	0	0	25
Total	687	127	62	16	85	976	687	127	62	16	85	976

Source: Metal Expert Consulting

Iron ore markets forecast till 2025

Global market, Russia, Ukraine

Results of the research will enable

Steelmaking companies to:

- get an independent outlook of global and CIS iron ore markets
- build an efficient strategy of purchases and ensure iron ore security
- compare own costs to those of competitors
- work out an efficient sales strategy to domestic free market and/or export markets

Transport companies to:

- assess and forecast routes, volumes and structure of trade

Investment companies and banks to:

- get an evaluation of iron ore security and competitiveness of steelmaking assets
- find iron ore and transport assets attractive for investments

Our product is unique because it provides:

- ❑ deep and comprehensive review of all aspects of iron ore business in Russia and Ukraine
- ❑ only trustworthy source data on prices and volumes
- ❑ understanding of actual iron ore consumption outlook
- ❑ detailed characteristics of iron ore producers (chemical composition of their products, volumes, capacities expansion plans)
- ❑ analysis of customers' provision with various types of iron ore and possibility of purchases diversification
- ❑ analysis of domestic and export pricing
- ❑ analysis of production and transportation costs of iron ore
- ❑ analysis of issues related to development of ports and railway infrastructure
- ❑ own methods of iron ore market forecasts, in particular, an optimization model for evaluating outlooks of iron ore exports from the key regions, including CIS states

Metal Expert Consulting – research in ferrous metallurgy, chemical and coal industries

- Customized market analysis
- Product-mix, sales and procurement optimization
- Strategy and business planning
- Conceptual, pre-feasibility and feasibility studies

Among our clients:



Thanks for your attention!

Are there any questions, please?

Nick Filkevich
Head of Research
Metal Expert Consulting

Tel/fax +38 (056) 370-12-06, 370-12-07 (ext. 181)

Mob. +38 067 948 80 92

E-mail: n.filkevich@metalcourier.com,
expert@metalcourier.com

Web-sites: www.metalexpertresearch.com
www.metalexpertresearch.ru