

[expert@metalcourier.com](mailto:expert@metalcourier.com)

[www.metalexpert-group.com](http://www.metalexpert-group.com)

# OPTIMIZATION MODEL OF THE GLOBAL STEEL BILLET MARKET

Office in Russia:

73 Volokolamskoye av,  
Moscow, 123424  
+7 495 775 6055

Office in Ukraine:

48-6 Naberezhnaya Pobedy,  
Dnepropetrovsk, Ukraine,  
49094,  
+38 056 370 1207

**Nadezhda Komarova**  
**Market Analyst**  
**Metal Expert Consulting**

**2010**

## CHANGES IN REGIONAL STRUCTURE OF THE GLOBAL STEEL BILLET TRADE

MAIN SQUARE BILLET TRADE FLOWS IN 2010 EXCL. SUPPLIES WITHIN REGIONS  
(estimated on the basis of preliminary data), mln. tonnes

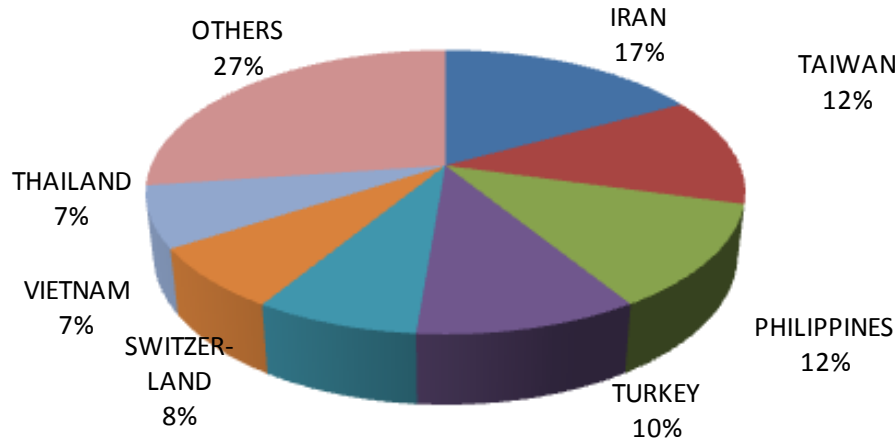
IMPORTER \ EXPORTER	MENA	GCC	TURKEY	IRAN	SEA (excl. VIETNAM)	VIETNAM	OTHER ASIA	EUROPE	S. AMERICA
CIS	4,45	0,34	2,44	1,37	1,41	0,45	1,11	2,03	
TURKEY	1,00	1,73		0,20	0,17		0,09	0,05	
EUROPE	0,61	0,20	0,21			0,01	0,15		
JAPAN					0,05	0,21	0,84		
N. AMERICA	0,06			0,04	0,15	0,05	0,19		0,51
BRAZIL		0,04			0,09	0,02	0,23	0,05	0,39
SEA (excl. VIETNAM)						0,67	0,03		
OTHER ASIA					0,33	0,16			
CHINA				0,08		0,12	0,02		

- reduction of Russian and Ukrainian export
- growth of supplies from Turkey and Japan
- decrease of Chinese imports and increase of its export

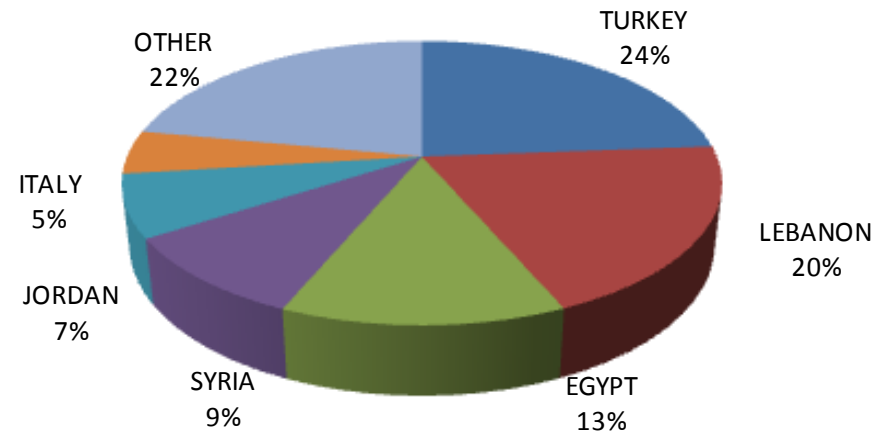
red and blue selections mark significant (more than by 100'000 tonnes) decrease or increase of supplies respectively

# REGIONAL STRUCTURE OF MAJOR EXPORTERS' SUPPLIES, 2010 est.

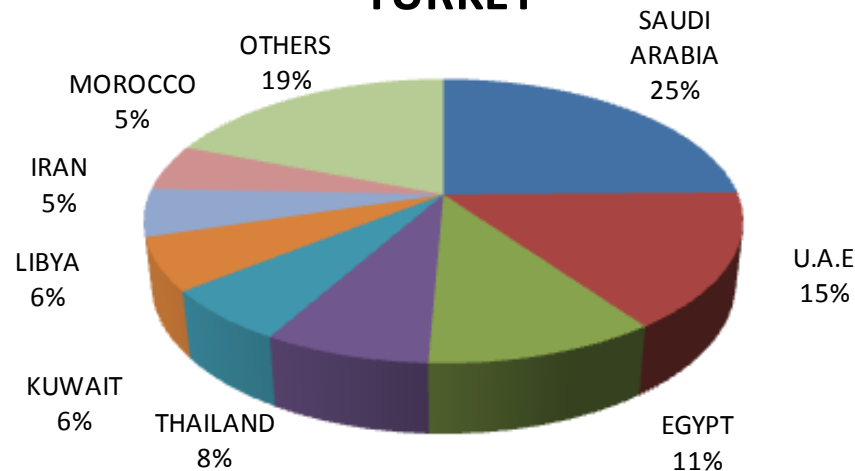
## RUSSIA



## UKRAINE

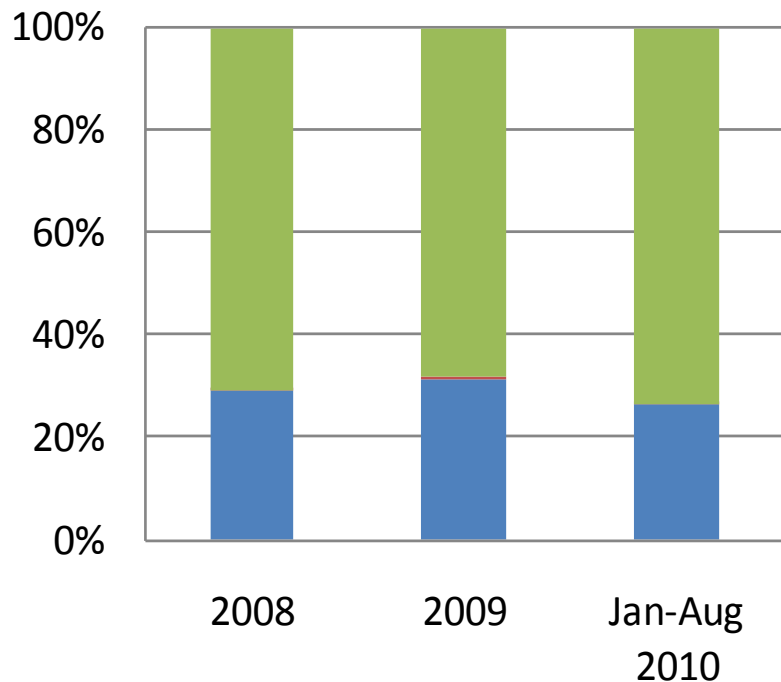


## TURKEY

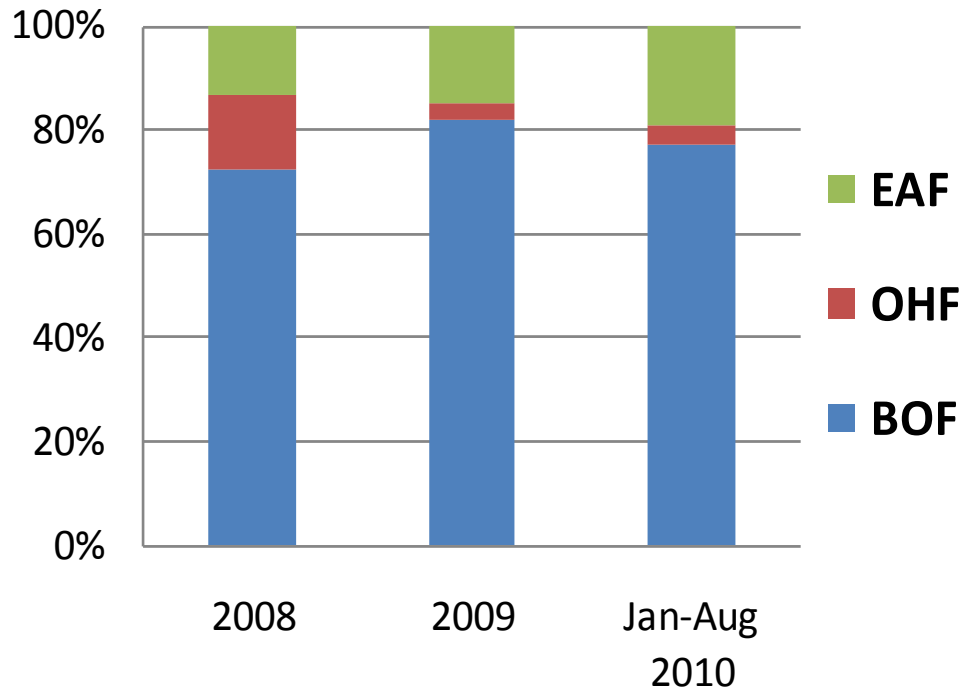


## CIS EXPORTERS INCREASE SHARE OF EAF STEEL BILLET IN EXPORT AND DECREASE SUPPLIES OF OHF STEEL BILLET

**RUSSIA**



**UKRAINE**



# MARKET OPTIMIZATION MODEL

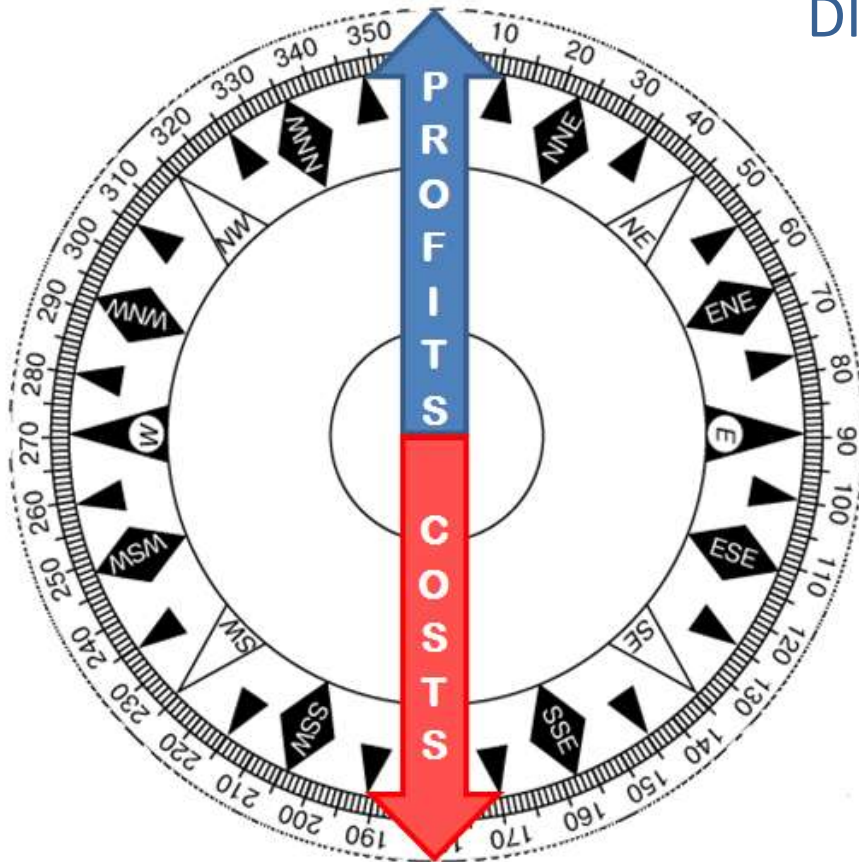
# WHAT IS OPTIMIZATION FOR MARKET PLAYERS

OPTIMIZATION OF ACTIVITY GIVES OPPORTUNITY TO FIND OPTIMAL

DIRECTION OF MARKET BEHAVIOUR

AND STRUCTURE OF

- PURCHASES TO **MINIMIZE COSTS**
- SUPPLIES TO **MAXIMIZE PROFITS**



## DESCRIPTION OF INPUT DATA FOR OPTIMIZATION MODEL

Metal Expert data and estimates

- **the world trade volumes**
- **production cost estimates**
- **FOB and CIF prices**
- **freight rates**

and results of Metal Expert Consulting recent studies

- **The world raw material markets (iron ore and coking coal markets)**
- **Turkey and MENA steel and raw material markets**
- **Balance and forecast of CIS steel scrap market**

# HOW OPTIMAL IS REAL TRADE STRUCTURE?

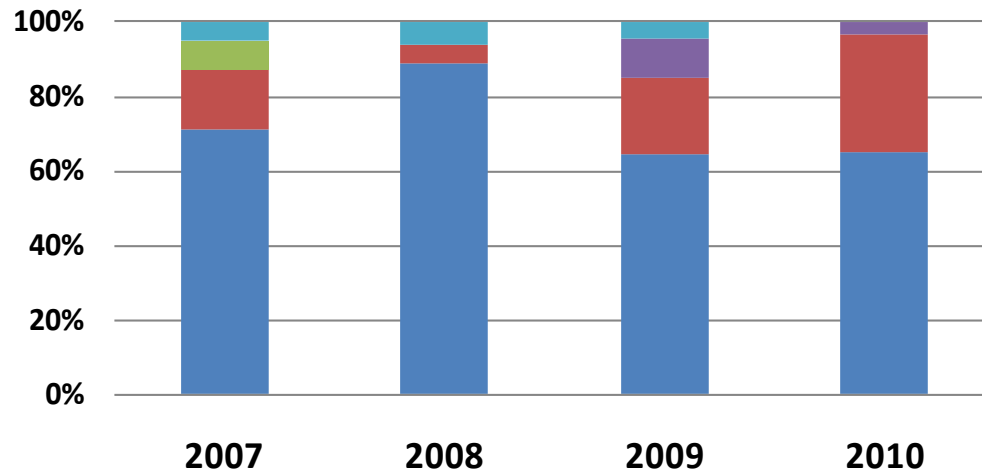


## IMPORT STRUCTURE OF MAJOR REGIONS-IMPORTERS IN 2010 IN LINE WITH IMPORTERS' OPTIMIZATION MODEL (excl. supplies within region)

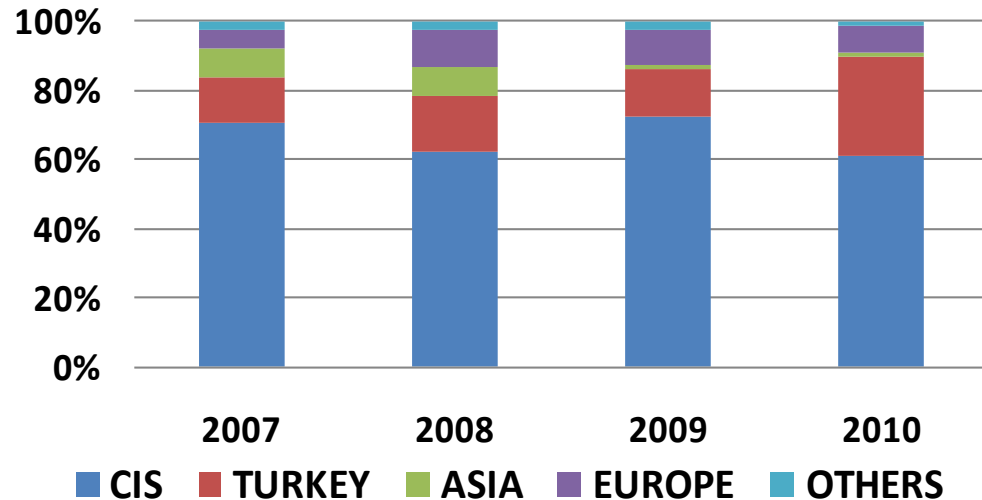
<i>IMPORTER</i> <i>EXPORTER</i>	MENA	GCC	TURKEY	IRAN	SEA (excl. VIETNAM)	VIETNAM	OTHER ASIA	EUROPE	S. AMERICA
<b>CIS</b>	<b>95%</b>		<b>100%</b>	<b>45%</b>	<b>40%</b>	<b>39%</b>	<b>56%</b>	<b>100%</b>	
<b>TURKEY</b>		<b>100%</b>		<b>55%</b>					
<b>EUROPE</b>	<b>5%</b>								
<b>JAPAN</b>							<b>44%</b>		
<b>N. AMERICA</b>					<b>38%</b>	<b>7%</b>			<b>6%</b>
<b>BRAZIL</b>									<b>94%</b>
<b>SEA (excl. VIETNAM)</b>						<b>41%</b>			
<b>OTHER ASIA</b>					<b>22%</b>				
<b>CHINA</b>						<b>13%</b>			

source: Metal Expert

## "OPTIMAL" STRUCTURE



## REAL STRUCTURE



## REGIONAL STRUCTURE OF MIDDLE EAST IMPORT

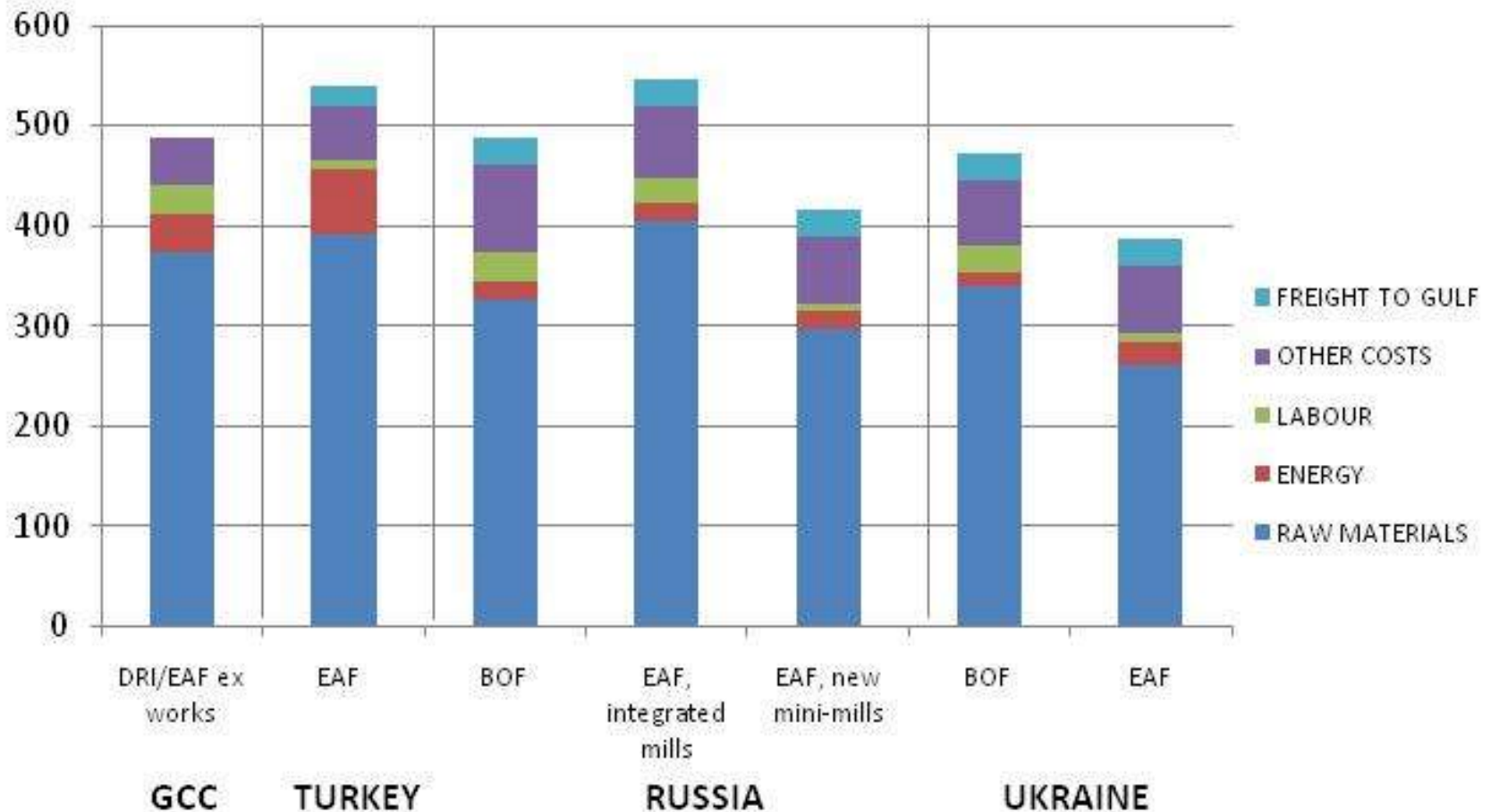
COMPARISON OF REAL AND OPTIMAL IMPORT STRUCTURE FOR MIDDLE EAST REGION (incl. MENA, GCC, IRAN):  
 REAL TRADE STRUCTURE TENDS TO OPTIMAL

# **WHAT IS GOING TO CHANGE IN THE GLOBAL SQUARE BILLET MARKET?**

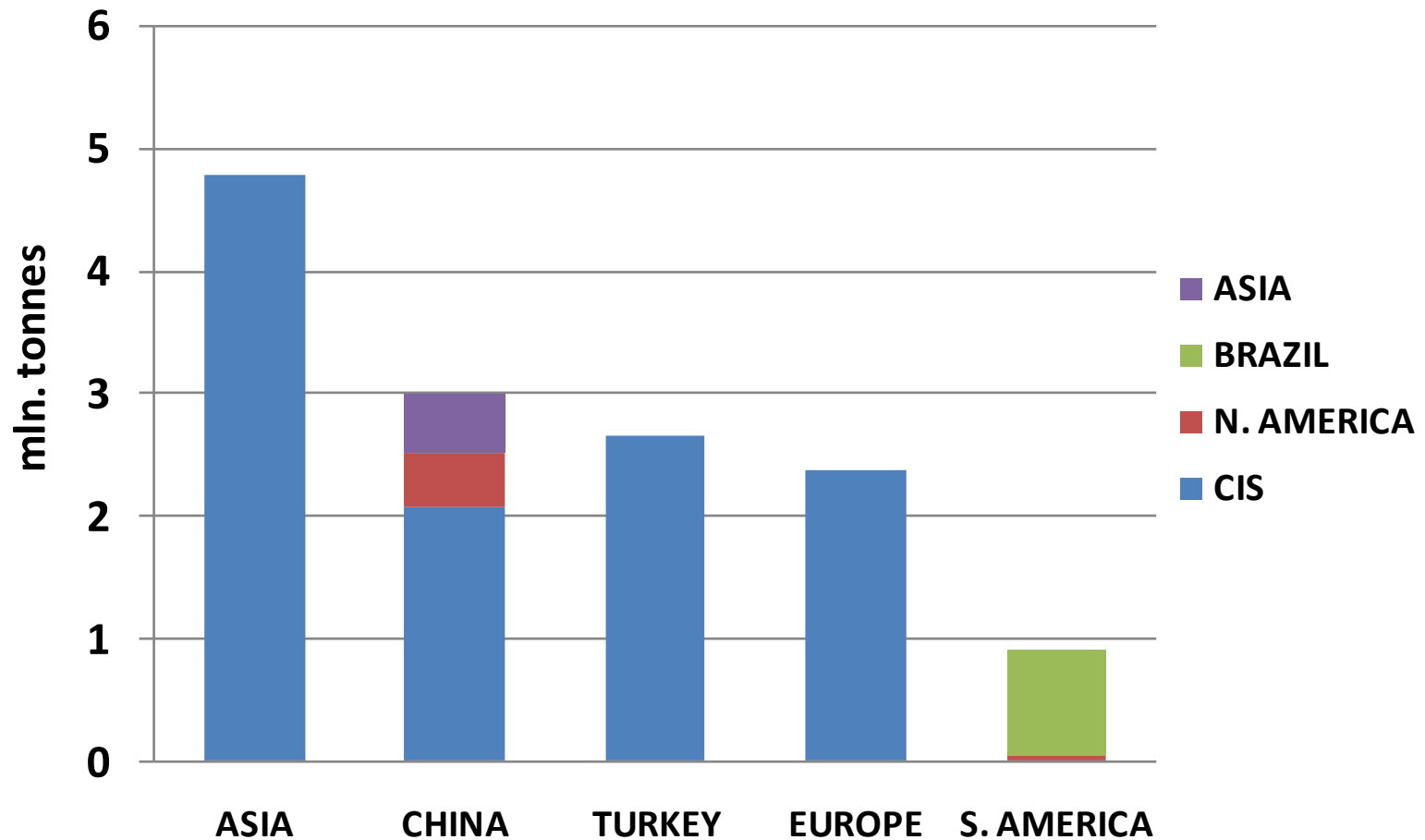
## MAIN ASSUMPTIONS

- slow recovery of the global economy
- balanced supply & demand in raw material markets until 2012
- overcapacity in billet and rolled product markets, new capacities in net importing regions will lead to increased competition between suppliers
- increase of steel production in the world will be accompanied by decrease of square billet trade
- as a consequence square billet market will remain a buyer's market and cost will be major factor for trade volumes
- scenario of world economy deterioration under the influence of instability in developed countries or sharp slowdown of Chinese economy were not considered

# COMPARISON OF SQUARE BILLET COST FOR RUSSIAN, UKRAINIAN, TURKISH AND MIDDLE EASTERN PRODUCERS, del. Gulf, \$/tonne



## EXPECTED OPTIMAL STRUCTURE OF SQUARE BILLET IMPORT IN 2012 ON THE ASSUMPTION OF MARKET EXIT OF MIDDLE EAST REGION



## MAIN EXPECTATIONS

- CIS suppliers will be able to sell all their export volumes due to low production costs
- Turkey will have to shorten export volumes, import will remain at present levels
- Sharp decrease of export supplies from Europe (without consideration of trade within the region)
- Expected oversupply of steel billet will lead to relatively low prices and potential for China to come back to the market as a large importer

# Metal Expert Consulting

expert@metalcourier.com

www.metalexpert-group.com

- Customized study on the steel and raw material markets

FLATS, LONGS, PIPES, HARDWARE, SEMIS,  
IRON ORE, COAL, COKE  
RUSSIA, UKRAINE, CIS, WORLDWIDE

- Strategy study and business planning



- Conceptual, pre-feasibility and feasibility study
- Project due diligence
- Product-mix, sales and procurement optimisation

Office in Russia:

73 Volokolamskoye av,  
Moscow, 123424  
+7 495 775 6055

Office in Ukraine:

48-6 Naberezhnaya Pobedy,  
Dnepropetrovsk, Ukraine,  
49094,  
+38 056 370 1207



Metal Expert Consulting

[expert@metalcourier.com](mailto:expert@metalcourier.com)

[www.metalexpert-group.com](http://www.metalexpert-group.com)

# Thank you for your attention!

Nadezhda Komarova  
Market Analyst

Metal Expert Consulting

Tel. +38 056 370 12 07 (ext. 116)  
E-mail: [N.Komarova@metalcourier.com](mailto:N.Komarova@metalcourier.com)  
URL: [www.metalexpert-group.com](http://www.metalexpert-group.com)

Office in Russia:

73 Volokolamskoye av,  
Moscow, 123424  
+7 495 775 6055

Office in Ukraine:

48-6 Naberezhnaya Pobedy,  
Dnepropetrovsk, Ukraine,  
49094,  
+38 056 370 1207