Research Group



Association of independent consultants and experts in the field of mineral resources, metallurgy and chemical industry

Steel Scrap Market Research in Russia

Moscow November 2007

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Annotation

The report is devoted to investigation of market of steel scrap in Russia and Central Federal District and forecast of its development. The report includes 3 Sections, 105 pages, including 105 Tables, 34 Figures and Appendix. The report is a desk study. As information sources, data of Federal Service of State Statistics (Rosstat), Federal Customs Service of Russia (FCS), official domestic railage statistics of Ministry of Railways of Russia, data of companies, received in the course of telephone interviews with their leaders, the sector and regional press, annual and quarterly repots of companies, internet-sites of company-collectors and consumers of steel scrap were used.

The first Section of the report describes development and standing of market of steel scrap in Russia and Central Federal District. It presents statistics of scrap collection in Russia in 2000-2006, regional structure of collection and consumption of steel scrap, characteristics of leading scrap collectors and consumers, analyses tendencies and prospects of Russian market of steel scrap.

The second Section presents review of export-import of steel scrap in Russia in 2001 - 1 half of 2007, as well as regional structure of the export-import supplies and review of export-import prices on of steel scrap in Russia.

The third Section is devoted to forecast of production and consumption of steel scrap, foreign trade, prices up to 2012.

1. Review of market of steel scrap in Russia

1.1. Statistics of scrap collection in Russia in 2000 – 2006

Statistics of scrap collection in Russia for the period from 1985 to 2006 is presented in Fig. 1. Annual volume of scrap collection was calculated as a sum of domestic consumption of scrap (expert's estimations) and export supplies of scrap (from data of customs statistics).

35 30 25 20 15 10 5 1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 ■ Domstic supplies ■ Exports

Figure 1. Dynamics of collection of ferrous metals scrap in Russia in 1985-2006, mln t

ource: expert's estimate, customs statistics

After bottom level in 1994 (11.5 mln t), the scrap collection steadily grew up to 2006 (except 2001-2002). In 2006 the collection reached 33.6 mln t and thus reached the 80s level.

In Table 1 dynamics of railway supplies of commodity scrap of ferrous metals in 2003 – 2006 by regions of Russia and Federal districts (FD) is presented.

In 2003-2005 the railway supplies (railage) of scrap increased, whereas in 2006 volume of the supplies (both domestic and export) dropped. Share of export railway supplies decreased on the background of overall decline in the export volumes. The domestic railage volumes in 2006 dropped 15% compared with 2005.

Table 1. Dynamics of supplies of commodity scrap by regions of Russia in 2003 - 2006, kt

in 2003 - 2006, kt									-			
Region and District		2003			2004		2005			2006		
(FD)	DS*	EX*	TOT*	DS*	EX*	TOT*	DS*	EX*	TOT*	DS*	EX*	TOT*
Belgorod region												
Bryansk region												
Vladimir region												
Voronezh region												
Ivanovo region												
Kaluga region												
Kostroma region												
Kursk region												
Lipetsk region												
Moscow and region												
Orel region												
Ryazan' region												
Smolensk region												
Tambov region												
Tver' region												
Tula region												
Yaroslavl' region												
Total for CFD												
Arkhangelsk region												
Vologda region												
Karelia												
Komi												
Murmansk region												
Novgorod region												
Pskov region												
St-Petersburg and												
Leningrad region												
Total for North-												
Western FD												
Adygea												
Astrakhan region												
Volgograd region												
Dagestan												
Kabardino-Balkaria												
Kalmykia												
Karachaevo-Cherkessia												
Krasnodar region												
Rostov region												
North Osetia				1								
Stavropol region				1								
Chechnya and Ingushetia				1								
Total for Southern FD				1								
Bashkortostan												
Kirov region												
Mary-El												
Mordovia				<u> </u>								
Nizhny Novgorod region				<u> </u>								
Orenburg region				<u> </u>								
Penza region												
Perm region				-								
Samara region				 								
Saratov region				 								
Tatarstan				-								
Udmurtia				-								
				-								
Ul'yanovsk region				l								

Region and District	2003			2004			2005			2006		
(FD)	DS*	EX*	TOT*									
Chuvashia												
Total for Privolzhsky												
FD												
Kurgan region												
Sverdlovsk region												
Tyumen' region												
Chelyabinsk region												
Total Ural FD												
Altai region (krai)												
Buryatia												
Irkurtsk region												
Kemerovo region												
Krasnoyarsk region												
Novosibirsk region												
Omsk region												
Tomsk region												
Khakassia												
Chita region												
Total Siberian FD												
Amursky region												
Evreisky region												
Primorsky region												
Sakhalin region												
Khabarovsk region												
Yakutia												
Total Rar Eastern FD												
Total												

^{*} DS – domestic supplies, EX – export supplies, TOT - total

Source: Russian railage statistics

Structure of railway supplies of ferrous metals scrap in 2006 by Federal Districts is presented in Fig. 2. The greatest shares in the domestic supplies belong to Privolzhsky (26.6%) and Central (25.0%) Federal Districts, and in exports to Central FD (50.9%). Notice that around 2/3 of the export supplies is conducted by sea and river transport, and, on the whole, export-oriented FD are Southern, North-Western and Privolzhsky Districts

In 2005, Russian steelmakers consumed 25.5 mln t scrap, and in 2006 – 30.1 mln t of steel scrap (including circulating scrap). Volumes of scrap consumption by large Russian steelmakers are presented in Table 2. The greatest consumers of steel scrap are JSC «Severstal» and JSC «MMK». In 2006 they used around 4.8 and 4.4 mln t scrap, respectively. JSC «NLMK» in 2006 consumed around 2.2 mln t.

The figures of scrap consumption were calculated on the basis of data on specific consumption of scrap in smelting open-hearth, converter and electric steels (per 1 t steel).

The same method (based on data on losses and wastes in metallurgical production stages) was applied to calculate generation of circulating scrap at enterprises of ferrous metallurgy in 2006.

60 50 40 % 30 20 10 4,9 6,3 <mark>5,1</mark> 25,0 <mark>50,9 29,4</mark> 4,5 9,9 <mark>5,4</mark> 26,6 10,2 23,8 **CFD** SouthFD UFD **NWFD PFD FEFD SibFD** ■ domestic supplies □ export supplies □ total supplies by railway

Figure 2. Structure of railway supplies scrap of ferrous metals by Federal Districts of Russia in 2006

Source: Russian railage statistics

Table 2. Consumption of steel scrap by Russian enterprises, mln t

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Severstal															
MMK															
NLMK															
CHMK															
ZSMK															
Ural Steel															
NKMK															
NTMK															
OEMK															

Source: expert estimation

In Table 3, data on scrap consumption by enterprises of ferrous metallurgy are presented, as well as data on scrap railage and circulating scrap generation in 2006.

Difference between total consumption of scrap and sum of volumes of the scrap railage and circulating scrap is connected with the fact that a part of scrap is supplied by motor and, possibly, river transport.

On results of 2006, share of the motor transport supplies of scrap estimates around 1/3 of the total supplies.

Table 3. Structure of scrap supplies to enterprises of ferrous metallurgy in 2006, mln t

Enterprise	Consumption of scrap	Supplied by railway	Generation of circulating scrap	Rest
Russia as a whole				
Severstal				
MMK				
NLMK				
CHMK				
ZSMK				
Ural Steel				
NKMK				
NTMK				
OEMK				

Source: expert estimation, Russian railage statistics

1.2. Regional structure of scrap collection in CFD

In the territory of CFD, around 800 companies are involved in collection and processing of scrap and wastes of ferrous metals. As of January 1, 2007, 789 companies had licenses on this business; their distribution by regions is presented in Table 4.

Table 4. Quantity of companies, having licenses on collection and processing of scrap and wastes of ferrous metals in CFD

				Of which				
Region	Quantity of licensees as of 1.01.2005	Quantity of licensees as of 1.01.2006	Quantity of licensees as of 1.01.2007	Submitted report in accordance with form N14-MET (scrap)	Did not operate in 2006			
Belgorod region								
Bryansk region								
Vladimir region								
Voronezh region								
Ivanovo region								
Kaluga region								
Kostroma region								
Kursk region								
Lipetsk region								
Moscow region								
Orel region								
Ryazan' region								
Smolensk region								
Tambov region								
Tver' region								
Tula region								
Yaroslavl' region								
Moscow								
Total for CFD								

Source: Rosstat (Federal Statistic Service of Russia)

In structure of scrap supplies in Central Federal District (CDF), 3 territorial zones can be distinguished from viewpoint of closeness to the Novolipetsk iron&steel works (NLMK): so-called "Near territories", "Far territories", and Moscow with Moscow region.

Distribution of supplies of steel scrap by these zones of CFD in 2006 is presented in Fig. 3. Notice that the shares of the zones in total scrap railage are not differ considerably from each other.

Below, description of each region is given, including data on domestic and export supplies, by distinct company-suppliers and company-consumers, as well as data of the exports. Description of regional structure of scrap collection is based on data of Russian railage statistics in 2005 – 2007.