# **Ukrainian Steel Industry**

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Konstantin Fisun, CFA kf@con-cap.com +380 44 206 8370 Locomotive of the Ukrainian Economy

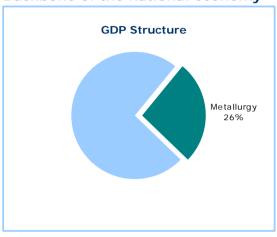


# Industry portrait

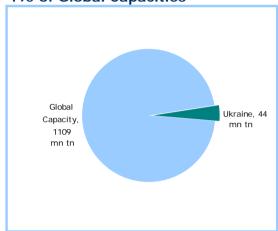


# What is Ukrainian Steel?

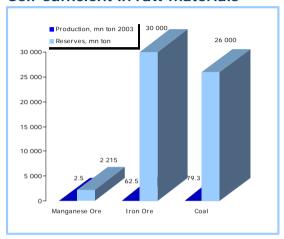
# **Backbone of the national economy**



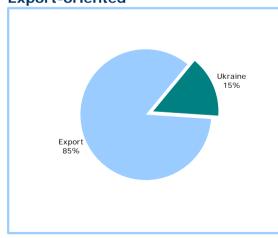
### 4% of Global Capacities



### Self-sufficient in raw materials



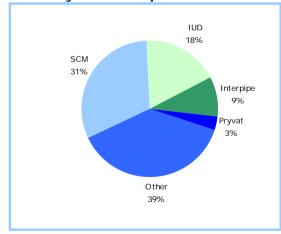
### **Export-oriented**



# of Steelmaking Mills	17
# of Employees, ths	250 ths

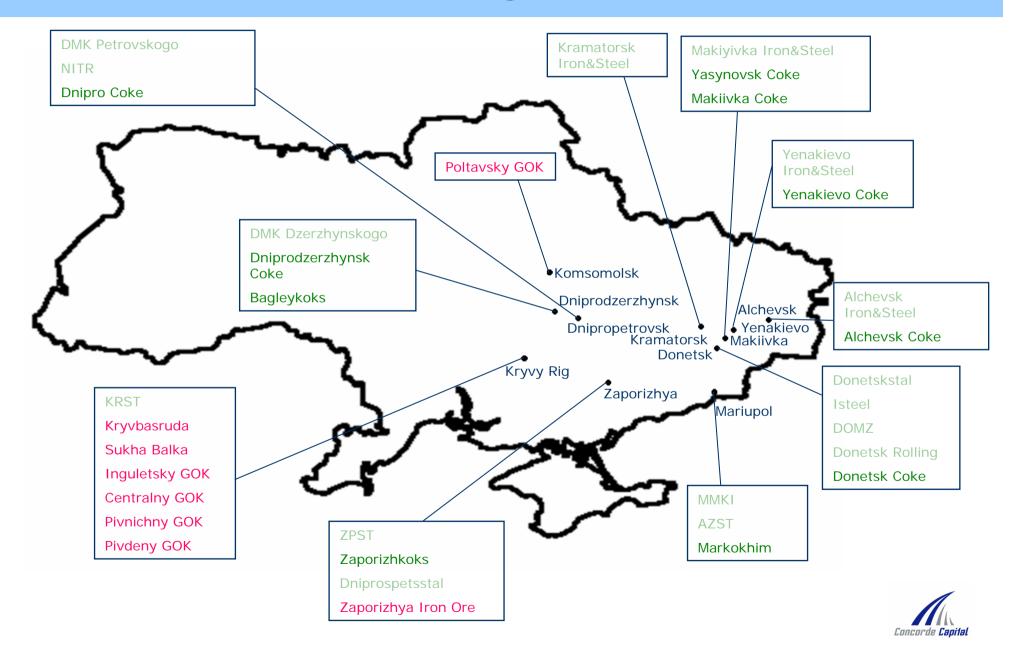
Capacity, mn tn	44.0
Output, mn tn	37.0
Import, mn tn	0.8
Export, mn tn	31.5
= Apparent Consumption, mn tn	6.3

# **Industry Ownership**





# **Ukrainian Steel & Mining Centers**



# Steel & Mining. Industry Output, mn tn

	Company	Iron	n Ore	Sinter	ed Ore	Со	ke	Crude	Steel	Rolled	Steel
	KRST	8.4	13%	9.7	22%	2.3	13%	7.1	19%	6.3	19%
	MMKI	_	_	13.1	30%	_	_	6.5	18%	5.5	17%
	AZST	_	_	1.3	3%	_	_	5.3	14%	4.8	15%
	ZPST	_	_	5.3	12%	_	_	4.4	12%	3.6	11%
	DMK Dzerzhynskogo	_	_	4.5	10%	_	_	3.2	9%	2.9	9%
	Alchevsk Metal	-	-	4.4	10%	_	_	3.5	9%	2.8	9%
	Metalen	-	-	-	-	_	_	2.3	6%	2.1	6%
Steel	DMK Petrovskogo	-	-	-	-	-	-	1.2	3%	1.1	3%
ē	Makiivsky Iron & Steel	-	-	-	-	-	-	0.9	2%	0.8	2%
S	Donetskstal	-	-	-	-	-	-	0.5	1%	-	-
	Nyzhnyodniprovskyy Pipe	-	-	-	-	-	-	0.7	2%	0.5	2%
	Isteel	-	-	-	-	-	-	0.7	2%	1.1	3%
	Dniprospetsstal	-	-	-	-	-	-	0.3	1%	0.2	1%
	Yenakievo Iron & Steel	-	-	2	5%	-	-	0.0	0%	0.6	2%
	Kramatorsk Iron & Steel	-	-	-	-	-	-	0.0	0%	0.0	0%
	DOMZ	-	-	-	-	-	-	0.5	1%	0.2	1%
	Donetsk Rolling	_	-	-	_	-	_	-	-	0.2	1%
	Avdeyevsky Coke	-	-	-	-	4.0	26%	-	-	-	-
	Alchevsk Coke	-	-	-	-	2.0	13%	-	-	-	-
	Markokhim	-	-	-	-	1.9	13%	-	-	-	-
	Zaporizhkoks	-	-	-	-	1.4	9%	-	-	-	-
	Makiivka Coke	-	-	-	-	0.3	2%	-	-	-	-
e	Bahleykoks	-	-	-	-	0.8	5%	-	-	-	-
Cok	Dnipro Coke	-	-	-	-	0.7	5%	-	-	-	-
O	Yenakievo Coke	-	-	-	-	0.7	5%	-	-	-	-
	Dniprodzerzhynsk Coke	-	-	-	-	0.7	5%	-	-	-	-
	Kharkiv Coke	-	-	-	-	0.0	0%	-	-	-	-
	Yasynovsk Coke	-	-	-	-	1.4	9%	-	-	-	-
	Makeevsky Coke	-	-	-	-	-	-	-	-	-	-
	Donetsk Coke	-	-	-		1.3	9%	-	-	-	_
	Kryvbasruda	6.3	10%	-	-	-	-	-	-	-	-
Ø	Sukha Balka	3.2	5%	-	-	-	-	-	-	-	-
ore	Zaporizhzhya Iron Ore	3.9	6%	-	-	-	-	-	-	-	-
	Inhuletskyy GOK	13.7	22%	-	-	-	-	-	-	-	-
ron	Centralnyy GOK	4.2	7%	-	-	-	-	-	-	-	-
_	Pivnichnyy GOK	7.5	12%	-	-	-	-	-	-	-	-
	Poltavskyy GOK	7.6	12%	-	-	-	-	-	-	-	-
	Pivdenny GOK	7.8	12%	3.4	8%	-	_	-		-	_
	Total	62.6	100%	43.9	100%	17.9	100%	36.9	100%	33.0	100%



# **Groups Involved in Steel Business**

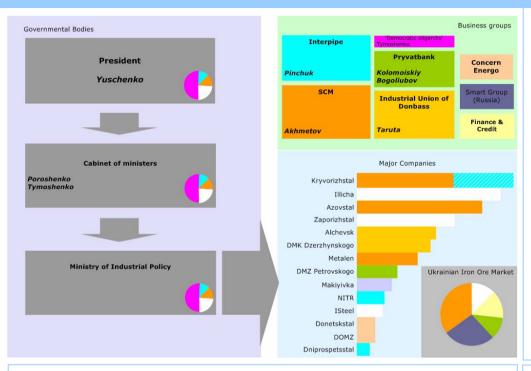


<sup>\*</sup>The size of each rectangle represents the influence of a business group in Ukraine



Domestic groups began entering Ukrainian

# **Authority & Business Interaction**



# **Presidential Election Implications**

Regardless of the fact that a new President (Viktor Yushchenko) has effectively been elected, the existing balance of power will be preserved in the metallurgy sector -- SCM will retain their dominance. Pryvatbank will not improve their position. Interpipe is likely to sell its 44% stake in Kryvorizhstal to another investor.

### What to expect from a Yushchenko's Presidency:

- SCM/Interpipe likely be forced to make an additional payment for Kryvorizhstal
- Minor redistribution of ownership in the iron ore industry
- MMKI will enjoy Yushchenko's favor due to its independence
- Rumors circulate that SCM and Interpipe will divest some of their assets

Recent history has evidenced that the President and Cabinet of Ministers were subject to lobbying power of influential business groups. We expect that business groups will continue to exert impact on state officials. The level of influence is shown by color sectors in the left panel

The size of a rectangle (top right) reflects the influence of each business group in the Ukrainian market

The bar & pie charts show steel producers' volumes of output and which group a steel mill belongs to

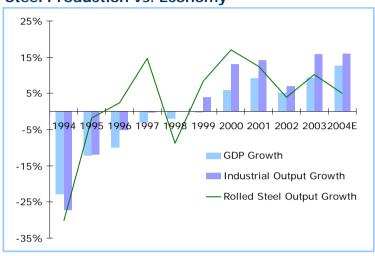
# State Regulation is implemented via Ministry of Industrial Policy (MIP):

- Regulation of relations between companies of the industry through *Balance distribution*: control of raw materials supplies to steelmakers and steel products to domestic endusers
- MIP can create trade barriers for violators: duties, licenses, quotas (example: MIP's warning of Ukrainian coke and iron ore exporters in 1H04 to ensure that steel mills receive satisfactory raw materials supply -- raw material supplies to domestic steelmakers were stabilized).



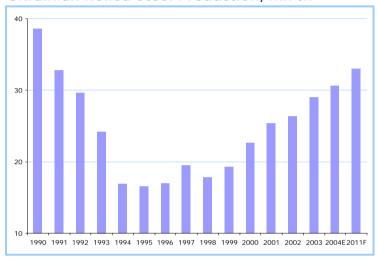
# **Ukrainian Steel Dynamics**

## Steel Production vs. Economy

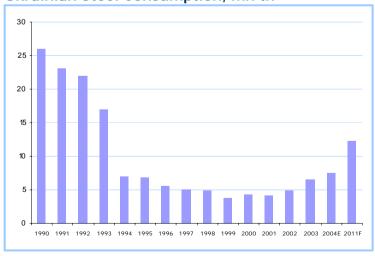


- In the late 90's (except for the 1998 crisis year) the steel industry led the economy by showing high expansion rates
- After the 2000 peak, industry growth slowed down to 5-10%, and we find it feasible that a 5% long term growth rate will be preserved
- Production plans declared by Ukrainian mills imply a rise of steel industry output of up to 12% in 2005 ...
- ... but we feel the Government's forecast of only 6-7% growth to be more accurate: at 8%+ growth rates a shortage of iron ore will be increasingly evident – and imports required

Ukrainian Rolled Steel Production, mn tn



Ukrainian Steel Consumption, mn tn





Source: State Statistics Committee, Ministry of Industrial Policy

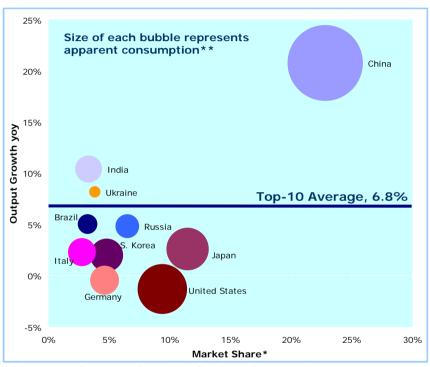
# Ukraine: global steel player



# World's Top-10 Steel Producers

Country	Market Share*	Output 03 mn tn	Output 02 mn tn	Change %
China	22.8%	220.1	182.2	20.8%
Japan	11.5%	110.5	107.7	2.6%
United States	9.4%	90.4	91.6	-1.3%
Russia	6.5%	62.7	59.8	4.8%
S. Korea	4.8%	46.3	45.4	2.0%
Germany	4.6%	44.8	45.0	-0.4%
Ukraine	3.8%	36.9	34.1	8.2%
India	3.3%	31.8	28.8	10.4%
Brazil	3.2%	31.1	29.6	5.1%
Italy	2.8%	26.7	26.1	2.3%
Other	30.1%	290.2	279.4	3.9%
World	100.0%	964.8	903.6	6.8%

<sup>\*</sup> Market Share by Output



\*\*Apparent Consumption = Production -Export + Import



# Ukrainian Steel Mills vs. World Top-10

Rank	Company	Country	Output 03 mn tn	Output 02 mn tn	Growth %
1	Arcelor	Luxembourg	42.8	44.0	-2.8%
2	Nippon Steel	Japan	31.8	30.9	2.9%
3	LNM Group	Netherland	31.1	27.5	13.2%
4	JFE Steel	Japan	29.8	N/A	N/A
5	Posco	South Korea	29.7	28.9	2.9%
6	Shanghai Baosteel	China	19.9	19.5	2.0%
7	Corus Group	UK	18.9	16.8	12.1%
8	US Steel	USA	17.9	14.5	24.0%
9	ThyssenKrupp Steel	Germany	17.0	17.0	-0.1%
10	Riva Group	Italy	15.7	15.2	3.0%
Mediai	n		24.8	19.5	2.9%
31	Kryvorizhstal	Ukraine	7.1	6.9	2.8%
33	MMKI	Ukraine	6.5	6.1	5.9%
41	AZST	Ukraine	5.3	4.7	13.4%
54	ZPST	Ukraine	4.4	3.9	11.5%
66	Alchevsk Iron & Steel	Ukraine	3.5	3.2	10.8%
 72 	DMK Dzerzhynskogo	Ukraine	3.2	2.8	14.9%
 96	Yenakievo/Metalen	Ukraine	2.3	2.0	14.7%
Mediai	า		4.4	3.9	11.5%

**Kryvorizhstal:** According to company management, only 2% output growth is expected in 2004

**MMK1** will speed up output growth to 8% in 2004. Installed capacities (7.9 mn tn) allow production expansion even more intensively

**AZST:** 8% growth is expected in 2004. AZST has ambitious plans to increase output to 7.3-7.5 mn tn by 2007

**ZPST:** running at almost full capacity limits output growth in 2004 to only 2%

**Alchevsk:** More than a 10% growth rate will be maintained in 2004. The company is implementing an investment program to increase capacity to 5.3 mn tn by 2007

**DMK Dzerzhynskogo:** A 7% output growth for 10m04 yoy is likely to be retained by the end of the year. The company's extremely outdated equipment is currently under reconstruction, but no radical modernization was declared by management

**Yenakievo/Metalen:** Based on 10m03 output results we expect 10% growth yoy in 2004.



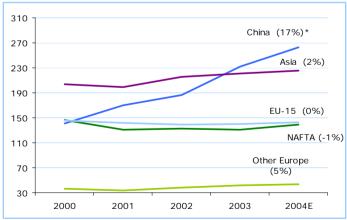
# **Chinese Factor**

### World Steel Production, mn tn



Source: Metal Strategies, IISI

# Steel Consumption by Region, mn tn



\*CAGR (01-04) is given in brackets Source: IISI

# Steel Price Indexes (April 94 = 100)



Source: CRU – index is formulated from weighed basket steel products prices by regions

### **Chinese Steel Demand**

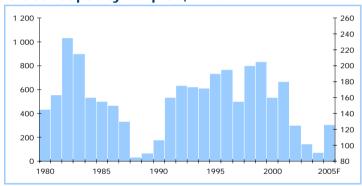




# **Capacity Factor**

- A long-term cycle of 15 years is observed in the pattern of global surplus capacity
- Currently, the steel industry seems to be entering the beginning of a new cycle
- Global construction of new steel capacities has started, with China accounting for more than 1/4 of the total capacities to be installed in 2005

### Global Capacity Surplus, mn tn



Source: IISI

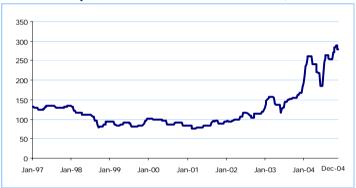
# Ukrainian New Projects. Capacity, mn tn

Company	Current	New	Year
Alchevsk	3.7	5.3	2007
Inguletsky GOK*	none	0.5-1.5	n/d
Poltavsky GOK*	none	2.5	2007

<sup>\*</sup> Project development in process

 Capacity utilization will be constrained by a global shortage of raw materials:

### Steel Scrap Shredded FOB Rotterdam, USD/tn



Source: Metal Bulletin, Bloomberg

### Iron Ore Price Index. Brazilian Ports

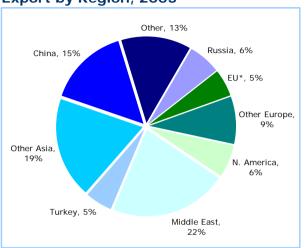


Source: Bloomberg



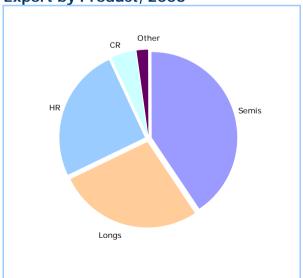
# **Ukrainian Steel Exports**

### Export by Region, 2003



\* EU-15 statistics only

# **Export by Product, 2003**



Source: Derzhzovnishinform

### **Trade Barriers**

- **EU** steel quota 600 ths tn Outlook: Increase of supplies possible, conditioned on Ukraine reducing a €30 scrap export duty
- USA quota 123 ths tn Outlook: No significant changes expected
- **Russian** duty on wire rods 21% for KRST Outlook: Ukraine's entry into the "United Economic Area" must remove the duty
- **Chinese** duty on flat products temporarily suspended Outlook: may be resumed in mid-term

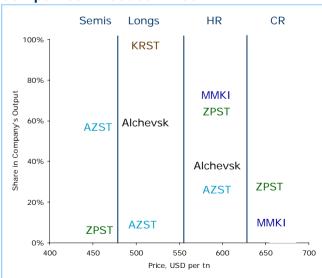
# **Bypass Strategies:**

- Takeovers abroad (Examples: acquisitions of Hungarian steelmaker Dunaferr and Polish steel retailer Centrostal by IUD)
- Partnership with global first-rate traders (Example: Duferco/IUD)

Ukrainian steel product mix is heavily skewed to low value-added products (semi-finished and long products)

The most highly-priced products are manufactured by MMKI, ZPST and Alchevsk (cold- and hot-rolled steel) as well as Dniprospetsstal (specialty steel)

# **Companies' Product Mixes**





# **Pricing**



**Exposure to market segment:** 

Mariupol Illicha, Zaporizhstal

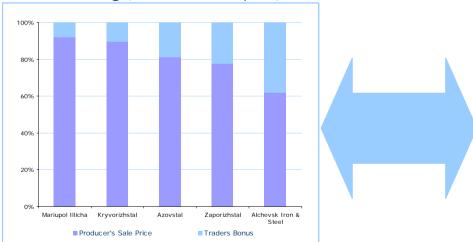
Mariupol Illicha, Zaporizhstal, Donetsk Iron & Steel

> Azovstal, Alchevsk

Kryvorizhstal Yenakievo

Source: Metal Bulletin





Source: Concorde Capital Estimates

- In 2003, as a result of untoward transactions, Ukrainian steel mills reported sales 20% lower than they could potentially post
- We estimate that transfer pricing remained at the same level in 2004, despite more than 60% steel prices growth
- Fade-out of related party transactions is anticipated during Yuschenko's presidency



# Competitive power drivers



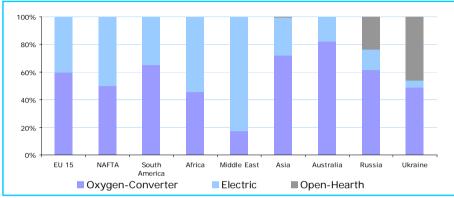
# **Global Competitiveness Matrix**

Country	Labo	r Technolog	y Transport	Resources	Final Score
Middle Eas	st 4	4	5 5	4	18
India	4	4	4 4	4	16
Brazil	4	4	3 4	. 5	16
Australia	;	3	3 5	5	16
Russia	ĺ	5	2 3	5	15
Ukraine		5	1	. 4	14
USA		2	4 / 5	3	/14
China	\	5	3 / 2	3	/ 13
Japan		3	3 / 5	1	/ 12
la 1	bor (salary USD per hour)  Over-mployment	(-) The least technologically developed metal industry in the world	(+) Proximity to sea ports  (-) Shortage in railroad cars	(+) Rich deposits of coking coal, iron and manganese ores (+) Sufficiency in ferroalloys and scrap	"Climbing up the technology ladder" (the realization of extensive investment programs) will push Ukrainian industry closer to world leaders in terms of competitiveness



# **Technology**

### **Crude Steel Production by Process**



Source: IISI

**Electric furnaces** have highly efficient production due to the usage of scrap as a raw material and through by-passing pig-iron production.

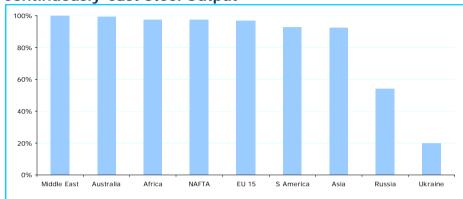
**Converters** require pig-iron for steel production. Integrated mills have cost advantages over electric based mini-mills.

The most outdated **Open-Hearth** type of production is the least efficient process.

# Ukrainian electric steel producers:

- Isteel
- Dniprospetsstal

# **Continuously-Cast Steel Output**



### What is Continuous Steel Casting?

Improves the efficiency of steel production

Increases the quality of the steel and decreases losses compared to ingot casting

Most efficient when utilizing synergy of electric or converter furnaces

Widespread utilization of open-hearths restricts usage of continuous process in Ukraine

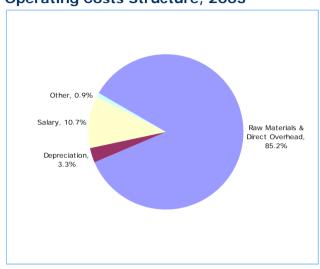
# Concasting machines are being installed at:

- AZST
- Alchevsk
- DMK Dzerzhynskogo
- DMZ Petrovskogo
- ZPST

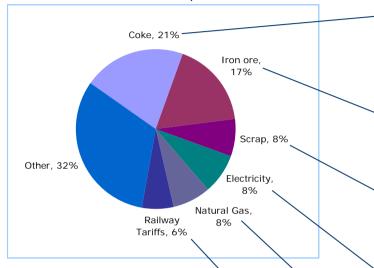


# **Ukrainian Steel Industry Cost Drivers**

### **Operating Costs Structure, 2003**



### Material Costs Structure, 2003



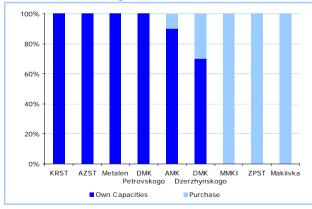
Self-sufficiency in coke. Preferential provision of domestic steel plants, monitored by the Government

One of the world largest deposits. Preferential provision of domestic steel plants

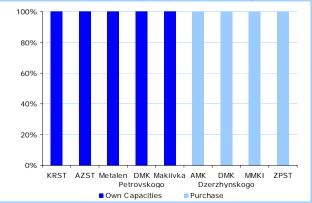
€30 export duty introduced in late 2002

One of the lowest tariffs in the world

# **Coke Sufficiency**



# **Iron Ore Sufficiency**



Dependency on imported gas. Ukraine imports more than 75% from Russia & Turkmenistan

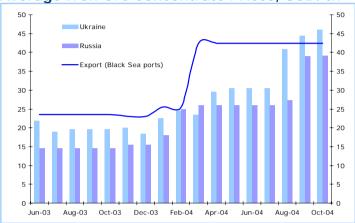
Lower than in Russia.

Shortage of railroad cars for iron ore and steel producers



# **Raw Materials Prices**

### Average Iron Ore Concentrate Prices, USD/tn



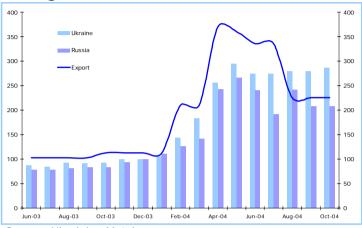
Source: Ukrainian Metal

### Scrap Price (Europe, HSM-1), USD/tn



Source: Ukrainian Metal

### Average Coke Prices, USD/tn



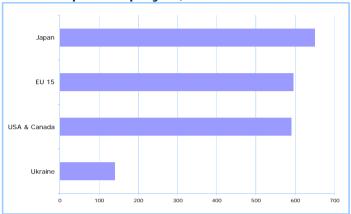
Source: Ukrainian Metal

- Higher prices for iron ore and coke in foreign markets during 2004 pushed Ukrainian producers to export, creating shortages in the domestic market
- Government initiated regulation of coke and iron ore distribution among Ukrainian steel producers
- Ukrainian steel is less dependent on scrap than on iron ore due to a prevalence of open-hearth and converter steel production, which consumes 2 – 4 times less scrap than electric



# **Labor Efficiency**

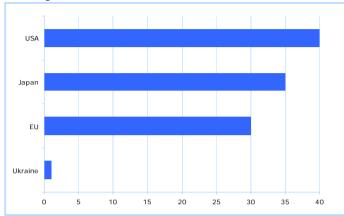
# Steel Output/Employee, tn/worker



Crude Steel/	# of
<b>Employee</b>	<b>Employees</b>
231.0	23 100
228.4	19 060
184.0	12 500
162.1	21 500
160.5	7 690
150.5	21 070
131.1	54 000
89.7	72 000
86.3	10 730
51.7	8 550
35.9	9 540
	Employee 231.0 228.4 184.0 162.1 160.5 150.5 131.1 89.7 86.3 51.7

We do not expect a significant increase of labor productivity in Ukraine in the mid term: Outdated steel production equipment, social and political pressures will not allow to cut excessive jobs dramatically

### **Hourly Salaries in Steel Industries, USD**



Source: IISI

# Ukraine will retain its labor-cost advantage in the long term:

Average salary in Ukrainian steel industry amounts to USD 1 per hour

Overall, average wages in Ukraine are about USD 0.7

During the last 3 years, salaries on average grew 20% annually. At this rate, it would take more than 15 years for wages in Ukraine to reach USD 10 per hour



# **Capital Expenditures**

Average CapEx by Region, 2003

Country	CapEx/tn of output
EU, USA	25-30
Russia	15.0
Ukraine	8.0

# ...International Peers, 2003

Russia,	2003
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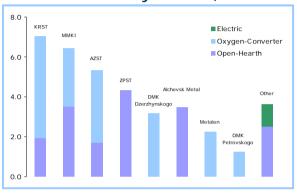
Country	<b>Capex</b> USD mn	CapEx/ Output	Company	Country	<b>Capex</b> USD mn	CapEx/ Output
South Koroa	136 07		Severstal	Russia	250	25.3
			MMK	Russia	202	22.7
South Africa	130.11		NLMK	Russia	188	16.3
Australia	106.66	16.5	NTMK		100	18.2
China	114.35	18.8	ZSMK		19	3.2
China	679.47	112.1	Average			17.1
USA	79.6	14.6				
Brazil	238.94	44.9	Ukraine			
China	58.63	11.6	Company	Total Investment	Years	CapEx/
Brazil	98.47	20.5	AZCT		2004	Output
China	79.96	17.4				37.5
						22.9
						23.2
USA	13.53	4.6	KRST	320	2002-03	22.6
		27.6	ZPST	310	2002-08	10.2
	South Korea South Africa Australia China China USA Brazil China	South Korea 136.97 South Africa 130.11 Australia 106.66 China 114.35 China 679.47 USA 79.6 Brazil 238.94 China 58.63 Brazil 98.47 China 79.96 Sweden 128.87	Country         USD mn         Output           South Korea         136.97         18.9           South Africa         130.11         18.4           Australia         106.66         16.5           China         114.35         18.8           China         679.47         112.1           USA         79.6         14.6           Brazil         238.94         44.9           China         58.63         11.6           Brazil         98.47         20.5           China         79.96         17.4           Sweden         128.87         33.0           USA         13.53         4.6	Country         USD mn         Output           South Korea         136.97         18.9           South Africa         130.11         18.4           Australia         106.66         16.5           China         114.35         18.8           China         679.47         112.1           USA         79.6         14.6           Brazil         238.94         44.9           China         58.63         11.6           Company         AZST           China         79.96         17.4           Sweden         128.87         33.0           MMKI         KRST	South Korea         136.97         18.9         MMK         Russia           South Africa         130.11         18.4         NLMK         Russia           Australia         106.66         16.5         NTMK         Russia           China         114.35         18.8         ZSMK         Russia           China         679.47         112.1         Average           USA         79.6         14.6        Ukraine           Brazil         238.94         44.9        Ukraine           China         58.63         11.6         Company         Total Investment           Brazil         98.47         20.5         AZST         200           China         79.96         17.4         Alchevsk         400           Sweden         128.87         33.0         MMKI         150           USA         13.53         4.6         KRST         320	Country         USD mn         Output         Severstal         Russia         250           South Korea         136.97         18.9         MMK         Russia         202           South Africa         130.11         18.4         NLMK         Russia         188           Australia         106.66         16.5         NTMK         Russia         100           China         114.35         18.8         ZSMK         Russia         100           China         679.47         112.1         Average         Verage           USA         79.6         14.6         Verage         Vears           Brazil         238.94         44.9         Indicate the company         Total Investment USD mn         Vears           Brazil         98.47         20.5         AZST         200         2004           China         79.96         17.4         Alchevsk         400         2004-08           Sweden         128.87         33.0         MMKI         150         2004           USA         13.53         4.6         KRST         320         2002-03

Source: Bloomberg, Aton Capital, Cabinet of Ministers of Ukraine, Ukrainian News, Interfax Ukraine

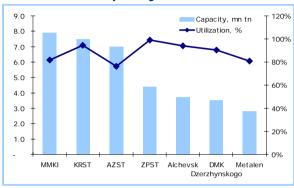


# **Efficiency Rankings**

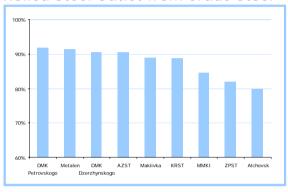
Steel Production by Process, mn tn



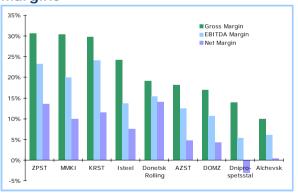
**Crude Steel Capacity/Utilization** 



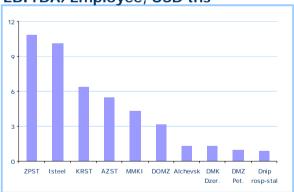
**Rolled Steel Outlet from Crude Steel** 



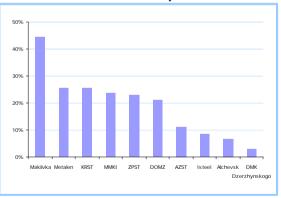
**Margins** 



EBITDA/Employee, USD ths



**Return on Invested Capital** 



Source: IISI, Company Data, Concorde Capital Estimates

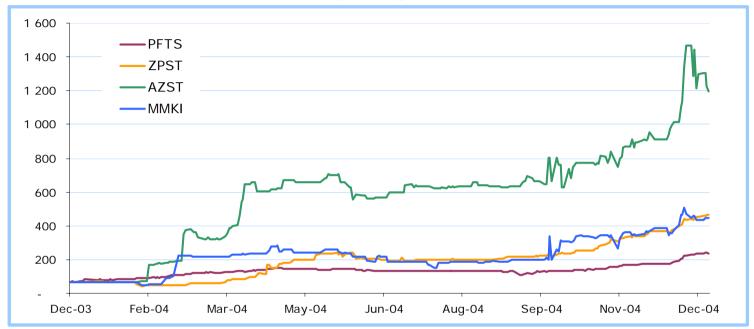


# Stock market and valuations



# **Trading**

# **Steel Stocks Performance Relative to PFTS (rebased)**



23-December, 2003: PFTS = 68.2

		Spread				FF MCap	Avg Monthly	Annual FF
Company	Liquidity	PFTS	before Elections	after Elections	Free Float	USD mn	Trading* USD mn	Turnover
Zaporizhstal	Medium	listed	12%	9%	5%	33.7	3.0	83.7%
Mariupol Illicha	Low	listed	7%	34%	7%	97.4	2.0	19.7%
Azovstal	Low	listed	18%	84%	4%	42.5	2.0	33.8%
Kryvorizhstal	Low	not listed	n/a	n/a	5%	63.7	n/a	n/a
Alchevsk	Illiquid	not listed	n/a	n/a	10%	3.0	n/a	n/a

<sup>\*</sup> Includes all OTC transactions, not limited to PFTS; based on last 6-month data

Source: PFTS, Bloomberg, Concorde Capital Estimates



# International Comparisons\*

Company	Country	Price, USD 04.01.05	Mcap USD mn 04.01.05	Steel Output, mn tn	Sales USD mn	EBITDA USD mn	EBITDA Margin	Net Income USD mn	Net Margin	P/S	EV/ EBITDA	P/E	MCap/ Output	ROE	ROA
Ukraine															
MMKI	Ukraine	0.52	1 742.9	6.5	1 553.4	312.2	20.1%	153.8	9.9%	1.12	5.5	11.3	269.7	19%	17%
KRST	Ukraine	0.35	1 350.8	7.1	1 412.6	342.1	24.2%	163.3	11.6%	0.96	3.7	8.3	190.9	20%	31%
AZST	Ukraine	0.56	1 777.6	5.3	1 025.8	127.1	12.4%	48.1	4.7%	1.73	14.1	37.0	333.1	8%	6%
ZPST	Ukraine	1.02	860.6	4.4	886.2	206.3	23.3%	119.9	13.5%	0.97	3.9	7.2	197.6	25%	20%
Alchevsk	Ukraine	0.06	43.4	3.5	480.9	29.1	6.0%	1.5	0.3%	0.09	1.7	29.1	12.5	2%	1%
DOMZ	Ukraine	0.14	50.7	0.4	248.2	26.6	10.7%	10.5	4.2%	0.20	2.2	4.8	114.7	19%	7%
Average			971.0	4.5	934.5	173.9	16.1%	82.8	7.4%	0.85	5.2	16.3	186.4	15%	14%
Median			1 105.7	4.8	956.0	166.7	16.2%	84.0	7.3%	0.96	3.8	9.8	194.3	19%	12%
Int'l Peer Group															
INI Steel	S. Korea		1 169.1	7.2	3 788.2	600.7	15.9%	219.7	5.8%	0.31	4.0	5.3	161.5	12%	5%
Iscor	S. Africa		4 585.5	7.1	3 099.0	628.7	20.3%	269.3	8.7%	1.48	7.1	17.0	646.8	21%	14%
Bluescope	Australia		4 736.5	6.5	3 807.0	634.5	16.7%	326.8	8.6%	1.09	7.5	14.5	732.1	24%	11%
Tangshan	China		995.6	6.1	1 698.9	275.2	16.2%	96.0	5.7%	0.59	4.6	10.4	163.7	12%	6%
Maanshan	China		2 975.8	6.1	1 899.5	486.4	25.6%	310.0	16.3%	1.57	7.0	9.6	491.1	20%	12%
AK Steel**	USA		1 393.0	5.4	4 041.7	-77.7	-1.9%	-560.4	-13.9%	0.34	neg	neg	256.1	n/a	-11%
CSN	Brazil		5 074.5	5.3	2 526.2	1 003.8	39.7%	373.3	14.8%	2.01	6.8	13.6	953.9	17%	5%
Jinan	China		699.9	5.1	1 216.1	169.0	13.9%	72.0	5.9%	0.43	4.9	9.7	138.6	37%	10%
CST	Brazil		2 468.4	4.8	1 350.3	481.4	35.7%	329.5	24.4%	1.83	6.5	7.5	513.2	20%	11%
Anyang	China		867.1	4.6	1 112.8	208.5	18.7%	99.5	8.9%	0.78	2.6	8.7	188.5	17%	12%
SSAB	Sweden		2 274.6	3.9	2 874.2	384.4	13.4%	130.5	4.5%	0.79	7.0	17.4	581.7	9%	5%
Ipsco**	USA		2 213.9	2.9	1 294.6	109.0	8.4%	12.4	1.0%	1.71	24.1	179.1	758.2	1%	1%
Average			2 454.5	5.4	2 392.4	408.7	18.5%	139.9	7.6%	1.08	5.8	11.4	465.4	17%	7%
Median			2 244.2	5.4	2 212.9	432.9	16.4%	175.1	7.3%	0.94	6.8	10.4	502.1	17%	8%
Russian Peers															
Severstal	Russia		3 553.9	9.9	3 202.0	1 035.0	32.3%	591.0	18.5%	1.11	3.5	6.0	359.3	24%	17%
NLMK	Russia		5 328.6	11.5	2 468.0	1 049.0	42.5%	657.0	26.6%	2.16	4.3	8.1	464.6	29%	25%
MMK	Russia		6 378.0	8.9	3 047.0	991.0	32.5%	630.0	20.7%	2.09	6.2	10.1	716.6	30%	19%
NTMK	Russia		1 193.4	5.5	1 040.0	202.0	19.4%	66.0	6.3%	1.15	6.5	18.1	218.2	15%	8%
ZSMK	Russia		1 214.4	5.9	1 026.0	221.0	21.5%	109.0	10.6%	1.18	5.9	11.1	205.8	45%	19%
Average Median			3 533.7 3 553.9	8.3 8.9	2 156.6 2 468.0	699.6 991.0	29.7% 32.3%	410.6 591.0	16.5% 18.5%	1.54 1.18	5.3 5.9	10.7 10.1	392.9 359.3	29% 29%	18% 19%

<sup>\*</sup>Based on 2003 results

Source: Bloomberg, Aton Capital, Company Data



<sup>\*\*</sup>AK Steel and Ipsco was excluded from averaged EV/EBITDA and P/E ratios as outliers

# **Alternative Valuations**

### **Recent Privatizations**

		VSZ Kosice	Sidex Galati	Nova Hut	Sartid	PHS	Dunaferr	PHC	KRST	Mean	Median
Privatized in year		2000	2001	2002	2003	2003	2004	2004	2004	Χ	X
Buyer		US Steel	LNM	LNM	US Steel	LNM	IUD	IUD	IMU	Χ	X
Capacity	mn ton	4.0	5.0	3.0	2.4	6.0	1.7	0.7	7.1	Χ	X
Output	mn ton	3.4	2.5	2.8	0.8	6.1	1.6	0.4	7.1	Χ	Χ
Revenues	USD mn	652.0	743.0	854.1	n/a	1 897.0	321.0	n/a	1 412.6	X	X
Net Income	USD mn	n/a	-279.0	21.6	n/a	7.7	2.4	n/a	163.3	Χ	Χ
Stake sold	%	100.0	91.6	67.3	n/a	69.0	79.5	100.0	93.0	X	X
Price per stake	USD mn	60.0	500.0	85.0	23.0	160.0	2.0	148.0	800.0	Χ	X
Obligations	USD mn	1 025.0	351.0	820.0	150.0	2 100.0	472.0	n/a	n/a	X	X
MCap (@ sale price)	USD mn	1 085.0	929.5	1 345.7	173.0	3 275.4	596.2	148.0	860.2	X	X
MCap/Capacity	USD/ths ton	271.3	185.9	448.6	72.1	545.9	350.7	211.4	121.2	275.9	241.3
MCap/Output	USD/ths ton	319.1	371.8	480.6	216.3	536.9	372.6	352.4	121.2	346.4	362.1
P/S	х	1.7	1.3	1.6	n/a	1.7	1.9	n/a	0.6	1.4	1.6
P/E	х	n/a	neg	62.3	n/a	425.4	248.4	n/a	5.3	No	t reliable

# **Cost of New Capacities**

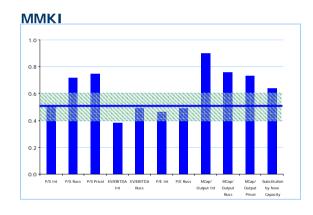
Company	Product	Year	Capacity	Cost	Cost of 1 tn of
Company	Froduct	i eai	mn tn	USD mn	capacity
Baosteel/CVRD/Arcelor	Intergrated mill, slab	n/d	4.0	8 000	2 000
Posco/ BHP Billton	Intergrated mill	n/d	11.0	8 500	773
Maanshan	flat steel, coke	2007	6.9	3 370	488
Pakistan Steel	cold-, hot-rolled steel	2006	1.9	1 000	526
Posco	flat steel	2006	1.9	660	347
Arcelor	flat steel	2005	0.2	27	150
Tangshan Iron & Steel	hot-rolled coils	2003	1.5	290	193
Baosteel	hot-rolled coils	2003	1.3	157	121
Panzhihua Iron & Steel	slab	2003	1.0	60	60
Tata Steel	cold-rolled steel	2002	1.2	350	292
Average					495
Median					320

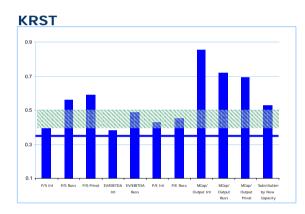
Source: World Metals Magazine, Company Data

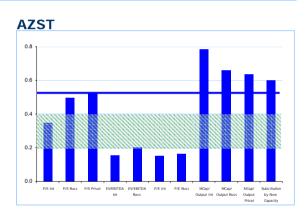


# Valuation Summary, USD

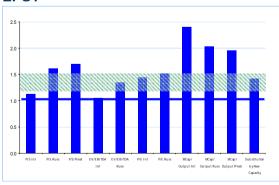
	Curr Price	P/S Int	P/S Russ	<b>P/S</b> Privat	EV/EBITDA Int	EV/EBITDA Russ	P/E Int	P/E Russ	MCap/ Output Int	MCap/ Output Russ	MCap/ Output Privat	Substitution by New Capacity	Target range	Recom.
MMKI	0.52	0.50	0.71	0.75	0.38	0.50	0.46	0.49	0.90	0.76	0.73	0.64	0.4-0.6	Hold
KRST	0.35	0.39	0.56	0.59	0.38	0.49	0.43	0.45	0.85	0.72	0.69	0.53	0.4-0.5	Buy
AZST	0.56	0.35	0.50	0.52	0.16	0.21	0.15	0.16	0.78	0.66	0.64	0.60	0.2-0.4	Sell
ZPST	1.02	1.13	1.62	1.70	1.05	1.35	1.44	1.52	2.40	2.03	1.95	1.42	1.2-1.5	Buy
Alchevsk	0.06	0.67	0.95	1.00	0.14	0.19	0.02	0.02	2.09	1.77	1.70	1.30	0.2-0.5	Buy
DOMZ	0.14	0.74	1.05	1.11	0.27	0.36	0.29	0.31	0.57	0.48	0.46	0.68	0.3-0.4	Buy



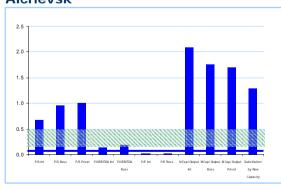




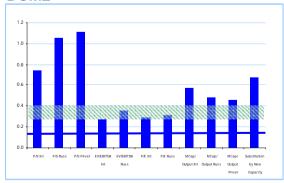








### **DOMZ**







# Financials per tn of Steel Produced

Company	<b>MMK I</b> Ukraine	<b>KRST</b> Ukraine	<b>AZ ST</b> Ukraine	<b>ZPST</b> Ukraine	<b>Alchevsk</b> Ukraine	<b>DOMZ</b> Ukraine	AVG Ukraine	AVG World	AVG Russian Peers	AVG Int Peers	<b>Severstal</b> Russia	<b>NLMK</b> Russia	<b>MIMK</b> Russia	<b>NTMK</b> Russia	<b>ZSMK</b> Russia	INI Steel South Korea	Iscor South Africa	<b>Bluescope</b> Australia	<b>Tangshan</b> China	<b>Maanshan</b> China	<b>AK Steel</b> USA	CSN Brazil	<b>Jinan</b> China	<b>CST</b> Brazil	<b>Anyang</b> China	<b>SSAB</b> Sweden	<b>Ipsco</b> USA
Output, mn tons	6.5	7.1	5.3	4.4	3.5	0.9					9.9	11.5	8.9	5.5	5.9	7.2	7.1	6.5	6.1	6.1	5.4	5.3	5.1	4.8	4.6	3.9	2.9
											USD I	per mn to	ns of ste	el, 03													
Sales	240.4	199.6	192.2	203.5	137.9	275.8	208.2	477.8	248.7	441.8	323.4	214.6	342.4	189.1	173.9	523.2	437.1	588.4	279.4	313.5	743.0	474.9	240.8	280.7	241.9	735.1	443.3
EBITDA	48.3	48.3	23.8	47.4	8.3	29.6	34.3	65.7	76.3	73.7	104.5	91.2	111.3	36.7	37.5	83.0	88.7	98.1	45.3	80.3	-14.3	188.7	33.5	100.1	45.3	98.3	37.3
EBITDA Margin, %	20%	24%	12%	23%	6%	11%	16%	14%	30%	19%	32%	43%	33%	19%	22%	16%	20%	17%	16%	26%	-2%	40%	14%	36%	19%	13%	8%
EBIT	42.9	43.8	18.3	41.0	2.0	24.1	28.7	38.6	58.6	49.0	81.4	77.5	87.5	21.6	24.9	60.3	69.1	64.0	29.5	57.6	-57.1	142.4	23.9	91.3	32.4	58.6	16.4
EBIT Margin, %	18%	22%	9%	20%	1%	9%	13%	9%	23%	13%	25%	36%	26%	11%	14%	12%	16%	11%	11%	18%	-8%	30%	10%	33%	13%	8%	4%
Net Income	23.8	23.1	9.0	27.5	0.4	11.7	15.9	11.0	43.6	24.6	59.7	57.1	70.8	12.0	18.5	30.3	38.0	50.5	15.8	51.2	-102.9	70.2	14.3	68.5	21.6	33.4	4.2
Net Income Margin, %	10%	12%	5%	14%	0%	4%	7%	4%	17%	8%	18%	27%	21%	6%	11%	6%	9%	9%	6%	16%	-14%	15%	6%	24%	9%	5%	1%
Gross Fixed Assets	162.9	182.4	166.1	133.3	108.3	149.0	150.3	678.4	n/a	521.6	n/a	n/a	n/a	n/a	n/a	420.6	382.8	660.7	242.4	480.1	881.2	920.3	110.9	753.4	153.5	733.3	519.9
Depreciation	5.4	4.5	5.6	6.4	6.3	5.5	5.6	28.1	17.7	24.6	23.1	13.7	23.8	15.1	12.5	22.6	19.6	34.1	15.8	22.6	42.8	46.3	9.6	8.8	13.0	39.7	20.9
CAPEX	23.2	n/a	37.5	10.2	24.4	n/a	23.8	29.5	17.1	26.9	25.3	16.3	22.7	18.2	3.2	18.9	18.4	16.5	18.8	112.1	14.6	n/a	11.6	20.5	n/a	33.0	4.6
Total Debt to Equity	0.2	0.1	0.4	0.2	2.3	1.5	0.8	0.7	0.3	0.5	0.2	0.0	0.2	0.4	0.5	0.8	0.0	0.1	0.5	0.4	-23.9*	1.2	1.6	0.4	0.0	0.4	0.5
Working Capital	38.9	31.3	35.6	24.8	-16.2	-11.4	17.2	62.7	41.1	67.9	72.1	55.7	49.6	10.4	17.8	-14.7	40.6	43.8	37.5	26.9	106.5	145.2	13.8	14.7	69.1	182.0	149.0
Total Debt	20.7	17.0	39.0	27.1	43.9	100.0	41.3	182.8	83.2	162.4	120.5	39.9	131.8	71.5	52.5	216.6	1.9	17.4	76.8	119.1	231.6	582.5	68.1	161.3	n/a	126.5	184.8
Long-Term Debt	0.3	0.0	2.9	7.9	0.0	10.4	3.6	115.4	27.5	115.5	34.6	0.2	63.4	30.0	9.3	96.1	1.7	6.9	49.0	79.1	220.1	427.4	35.9	103.6	n/a	77.3	173.0
Short-Term Debt	20.4	17.0	36.1	19.2	43.9	89.6	37.7	74.3	55.7	47.0	85.9	39.7	68.4	41.5	43.2	120.5	0.2	10.5	27.8	39.9	11.5	155.2	32.2	57.7	n/a	49.3	11.9
ROA	17%	31%	6%	20%	1%	7%	14%	11%	18%	7%	17%	25%	19%	8%	19%	5%	14%	11%	6%	12%	-11%	5%	10%	11%	12%	5%	1%
ROE	19%	19%	8%	25%	2%	19%	15%	6%	29%	17%	24%	29%	30%	15%	45%	12%	21%	24%	12%	20%	n/a	17%	37%	20%	16%	9%	1%

\*AK Steel was excluded from average Total Debt to Total Equity ratio as outlier Source: Bloomberg, Aton Capital, Company Data

Due to previously inadequate accounting, the book value of fixed assets at Ukrainian steel mills is understated compared to peers. This results in inflated ROA of Ukrainian steel makers and an unduly high CapEx/D&A ratio. In addition, Debt/Equity also is artificially high, as Shareholder Capital that balances Fixed Assets is low.

While ST financing is relatively in line with the world average, WC remains inadequate: 2.4x less than Russia and 3.8x less than world avg. Moreover, LT debt is negligible compared to peers: 7.6x less than Russian and 32x less than global averages.

Low level of Total Debt represents underutilization of credit and inefficient capital structures of Ukrainian steel companies. We expect a significant increase in Total Debt as a result of extensive modernization programs.

ROE is a more appropriate ratio for comparison than ROA. Yet, unlike their peers, Ukrainian mills have their ROE adversely affected by transfer pricing. Expected prevention of transfer pricing schemes in the future leaves room for ROE growth.



# Company profiles



# Kryvorizhstal (KRST)

# **BUY**

Target range	USD 0.40-0.50
Market Information	
No of Shares, mn	3 859.5
Par Value, USD	0.19
Market price, USD	0.35
MCap, USD mn	1 350.8
Free Float, %	5%
FF MCap, USD mn	81.0

Stock Ownership	
SCM/Interpipe	95%
Employees & Institutions	5%
# of Employees	54 000

**Profile:** By output KRST ranks #1 in Ukraine and #31 in the world. In 1H04, it was privatized by a consortium of Ukrainian business groups, SCM and Interpipe. KRST is the only full-cycle producer of steel in the country combining coke, iron ore, pig-iron, steel and rolling capacities. Only coking coal and pellets are lacking for pig iron production. Nevertheless, the main suppliers, Pavlogradvugillya and Pivnichny GOK, belong to the same business group as KRST (SCM), which practically eliminates any possible barriers for raw materials deliveries.

**Products & Markets:** Production of low-alloyed long steel products determines KRST's current distribution markets. These are mainly economies with a booming construction industry (Middle East and Africa). In Ukraine, the company is the major producer of wire rod (core raw material for the metal hardware industry).

We expect stronger competition for construction steel in the next few years, as China continuously raises its exports due to surplus of long steel capacities. Nevertheless, high efficiency enables KRST to be a strong competitor and to retain its markets in the future.

**Financials:** Transfer pricing substantially slashes KRST's sales: we forecast only 24% sales growth yoy for 2004 despite more than 50% global price growth. Cost of production will not change dramatically due to in-house raw materials. Therefore, margins improvement is expected.

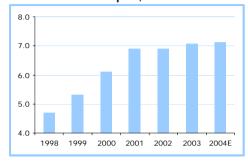
**CapEx:** Investing more than USD 31 per tn of steel produced in 2003, Kryvorizhstal's CapEx is comparable to European and US industries where investments of USD 25-30/tn are typical.

**Rumors:** Interpipe to sell its stake to SCM; the company is being prepared for resale; current owners to pay with Yuschenko's Presidency

	P/S	P/E	EV/ EBITDA
2002	1.2	13.7	6.5
2003	1.0	8.3	3.7
2004E	0.8	5.9	2.2

	Net Revenues	EE	BITDA	Net Income				
	USD mn	USD mn	margin	USD mn	margin			
2002	1 092.2	207.9	19.0%	98.8	9.0%			
2003	1 412.6	342.1	24.2%	163.3	11.6%			
2004E	1 756.3	614.7	35.0%	228.3	13.0%			

### Crude Steel Output, mn tn



	Capacity Ut	ilization
Sintered Ore	8.1	120%
Coke	2.8	92%
Pig Iron	7.8	77%
Crude Steel	7.5	95%
Rolled Steel	6.3	100%

Export Share 84%



# Kryvorizhstal: Financial Statements, UAS

	2002	2003
Current Assets	344	336
Cash & Equivalents	3	92
Trade Receivables	64	1
Inventories	133	132
Other current assets	143	112
Fixed Assets	595	626
PP&E. net	496	506
Other Fixed Assets	99	120
Total Assets	938	962
Shareholders' Equity	726	842
Share Capital	673	673
Reserves and Other	54	169
<b>Current Liabilities</b>	209	120
ST Interest Bearing Debt	67	9
Trade Payables	70	40
Accrued Wages	6	7
Accrued Taxes	9	5
Other Current Liabilities	58	58
LT Liabilities	3	0
LT Interest Bearing Debt	3	-
Other LT	0	0
Total Liabilities & Equity	938	962

### Income Statement Summary. USD mn

	2002	2003
Net Revenues	1 092	1 413
Change y-o-y	N/M	29%
Cost Of Sales	(823)	(991)
Gross Profit	269	421
Other Operating Income/Costs. net	(2)	(11)
SG&A	(59)	(68)
EBITDA	208	342
EBITDA margin. %	19.0%	24.2%
Depreciation	(31)	(32)
EBIT	177	310
EBIT margin. %	16.2%	21.9%
Interest Expense	(8)	(2)
Financial income	0	-
Other income/(expense)	(10)	(12)
РВТ	159	296
Tax	(60)	(132)
Effective tax rate	37.7%	44.8%
Extraordinary Income/(loss)	-	-
Net Income	99	163
Net Margin. %	9.0%	11.6%



# Mariupol Illicha (MMKI)

# **HOLD**

Target range USD 0.40 - 0.60

Market Information	
Bloomberg Ticker	MMKI UZ
No of Shares, mn	3 351.7
ADR/Ord Ratio	1:100
Par Value, USD	0.05
Market price, USD	0.52
52Wk H/L, USD	3.15/0.32
MCap, USD mn	1 742.9
Free Float, %	7%
FF MCap, USD mn	122.0

Stock Ownership	
Management	93%
Other	7%

# of employees 72 000

### MMKI Mid-Market vs. PFTS, UAH



	P/S	P/E	EV/ EBITDA
2002	1.6	34.0	11.9
2003	1.1	11.3	5.5
2004E	0.6	6.3	3.0

**Profile:** The largest Ukrainian steel producer in terms of sales. The company has to purchase feedstock (iron ore & coke) at market prices from domestic suppliers. Ukrainian iron ore prices are lower than international due to governmental control of iron ore pricing. Absence of in-house iron ore base is due to the fact that MMKI was not permitted to participate in tenders during the recent privatization of iron ore companies.

MMKI does not belong to any Ukrainian major business group and it is the most transparent Ukrainian steel producer. Its CEO is known as a seasoned professional NOT involved in scandalous privatization schemes. His reputation would put MMKI in an advantageous position under Yushchenko's presidency.

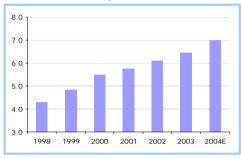
**Products & Markets:** MMKI's core products, hot-rolled and cold-rolled sheets, currently are the most demanded products in the steel market. Located in a sea port creates favorable conditions for MMKI to export.

**Financials:** MMKI posted strong 2003 financials having raised sales by 46% yoy and doubling EBITDA. In 2004, the company will reinforce its financial results - we expect more than an 80% growth of Sales, EBITDA and Net Income. In 2005, anticipated strong demand for flat steel in global markets will result in substantial top-line growth for the company. At the same time, increasing prices for raw materials will limit margin growth.

CapEx: Investing about USD 150 mn (USD 23 per tn of crude steel produced) in 2004, MMKI invests the second most in CapEx among Ukrainian steel producers. Major projects in 2004 are the installation of a third continuous casting machine with capacities of 1 mn tn of steel (completion planned in 2005) and a new oxygen block.

### **EBITDA Net Income Net Revenues** USD mn USD mn margin % USD mn margin % 2002 1 063.9 148.6 14.0% 51.2 4.8% 2003 1 553.4 9.9% 312.2 20.1% 153.8 2004E 2 789.7 571.9 20.5% 279.0 10.0%

### Crude Steel Output, mn tn



	Capacity	Utilization
Sinter	14.0	94%
Pig Iron	6.0	83%
Crude Steel	7.9	82%
Rolled Steel	6.5	85%

Export Share 82%



# Mariupol Illicha: Financial Statements, UAS

Balance Sheet Summary. USD mn		Income Statement Summary. USD mn			
	2002	2003		2002	2003
Current Assets	304	372	Net Revenues	1 064	1 553
Cash & Equivalents	2	16	Change y-o-y	N/M	46%
Trade Receivables	79	77	Cost Of Sales	(795)	(1 080)
Inventories	128	152			
Other current assets	95	128	Gross Profit	269	473
Fixed Assets	516	583	Other Operating Income/Costs. net	(58)	(78)
PP&E. net	400	418	SG&A	(65)	(83)
Other Fixed Assets	115	165	EBITDA	146	312
Total Assets	820	955	EBITDA margin. %	13.7%	20.1%
			Depreciation	(34)	(35)
Shareholders' Equity	665	822	EBIT	111	277
Share Capital	157	157	EBIT margin. %	10.5%	17.8%
Reserves and Other	507	664	_		
Current Liabilities	150	129	Interest Expense	(4)	(1)
ST Interest Bearing Debt	34	1	Financial income	0	0
Trade Payables	55	44	Other income/(expense)	(1)	(12)
Accrued Wages	5	6	РВТ	106	264
Accrued Taxes	2	10	Tax	(57)	(108)
Other Current Liabilities	55	68		, ,	
LT Liabilities	5	5	Effective tax rate	54.0%	41.0%
LT Interest Bearing Debt	0	0	Extraordinary Income/(loss)	(0.1)	(1.4)
Other LT	5	5	Net Income	48	154
Total Liabilities & Equity	820	955	Net Margin. %	4.7%	9.9%



# **Azovstal (AZST)**

# **SELL**

Target range 030 0.20 = 0.40	Target range	USD 0.20 - 0.40
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Market Information	
Bloomberg Ticker	AZST UZ
No of Shares, mn	3 174.2
ADR/Ord Ratio	1:10
Par Value, USD	0.05
Market price	0.56
52Wk H/L, USD	2.86/0.13
MCap, USD mn	1 777.6
Free Float, %	4.0%
FF MCap, USD	71.1

Stock Ownership	
SCM	96.0%
Other	4.0%
# of Employees	23 100

### AZST Mid-Market vs. PFTS, UAH



	P/S	P/E	EV/ EBITDA
2002	2.6	176.1	57.2
2003	1.7	37.0	14.1
2004E	1.1	15.5	7.3

**Profile:** The third largest, and one of the most up-to-date Ukrainian steel producers, AZST is a part of the largest Ukrainian business group, System Capital Management. SCM's coal, coke, iron ore and steel making companies, together with leading steel trader Leman Commodities, form a vertically integrated metallurgical group.

**Products & Markets:** Being exposed mainly to a semi-finished product segment, AZST is the major supplier of strips (semis for pipe production) for Khartsyzk Pipe, SCM's pipe company. A convenient location in the sea port city of Mariupol significantly simplifies exports and reduces delivery costs. According to the State Statistics Committee, the company exports only 44% of its output. However, we believe that real number is about 65% referring to the official data of Leman Commodities.

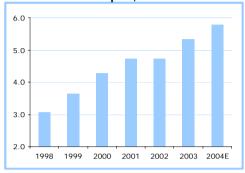
**Financials:** In 2004, AZST is going to enhance its financial results. We expect a 60% sales growth and improved EBITDA and net margins. At the same time, slight deterioration of financials is likely to occur in 2005 due to anticipated slackening of demand for non-flat steel products.

CapEx: An ambitious investment program has been undertaken to increase steel output to more than 7 mn tn by 2007. Capital expenditures in 2004 are planned at USD 200 mn (USD 38 per tn of crude steel output; European and US companies invest on average USD 25 – 30/tn). The program will be 50% financed with a syndicated loan of USD 100 mn received from Western banks. Currently, AZST is installing a new continuous casting machine, from Austrian Voest Alpine, with a capacity of 2.5 mn tn of steel annually. Construction of a new blast furnace will be undertaken in 2005 (cost USD 60 mn). Shortly, construction of a rolling mill to produce strips with a width up to 5000 mm for large-diameter pipes will be launched.

**Rumors:** AZST, together with Khartsyzk Tube, to be sold to Russian Gazprom.

	<b>Net Revenues</b>	EB	BITDA	Net	Income
	USD mn	USD mn	margin %	USD mn	margin %
2002	690.2	31.3	4.5%	10.1	1.5%
2003	1 025.8	127.1	12.4%	48.1	4.7%
2004E	1 640.0	246.0	15.0%	114.8	7.0%

### Crude Steel Output, mn tn



	Capacity	Utilization
Sinter	1.7	78%
Pig Iron	6.1	72%
Crude Steel	7.0	76%
Rolled Steel	5.1	94%

Export Share 65%



# **Azovstal: Financial Statements, UAS**

Balance	Sheet	Summary	USD mn

	2002	2003
Current Assets	345	380
Cash & Equivalents	0	7
Trade Receivables	118	75
Inventories	79	107
Other current assets	148	191
Fixed Assets	347	419
PP&E. net	310	331
Other Fixed Assets	37	87
<b>Total Assets</b>	692	799
Shareholders' Equity	544	591
Share Capital	149	149
Reserves and Other	396	442
<b>Current Liabilities</b>	141	193
ST Interest Bearing Debt	13	24
Trade Payables	100	111
Accrued Wages	2	2
Accrued Taxes	1	1
Other Current Liabilities	25	54
LT Liabilities	7	15
LT Interest Bearing Debt	-	-
Other LT	7	15
Total Liabilities & Equity	692	799

### **Income Statement Summary. USD mn**

	2002	2003
Net Revenues	690	1 026
Change y-o-y	N/M	49%
Cost Of Sales	(591)	(839)
Gross Profit	99	187
Other Operating Income/Costs. net	1	(12)
SG&A	(40)	(47)
EBITDA	60	127
EBITDA margin. %	8.7%	12.4%
Depreciation	(39)	(30)
EBIT	21	97
EBIT margin. %	3.1%	9.5%
Interest Expense	(1)	(2)
Financial income	0	0
Other income/(expense)	(0)	1
РВТ	20	97
Тах	(10)	(48)
Effective tax rate	50.2%	50.2%
Extraordinary Income/(loss)	-	-
Net Income	10	48
Net Margin. %	1.5%	4.7%



# **Zaporizhstal (ZPST)**

# **BUY**

Market Information	
Bloomberg Ticker	ZPST UZ
No of Shares, mn	843.7
ADR/Ord Ratio	1:50
Par Value, USD	0.05
Market price, USD	1.02
52Wk H/L, USD	5.43/0.53
MCap, USD mn	860.6
Free Float, %	5%
FF MCap, USD	43.0

Stock Ownership	
Zakhid-Reserv	28.5%
Weybridge Company	22.6%
Airol Beteiligungen	17.5%
Mawerton Ltd	17.4%
Other	14.0%
# of Employees	19 060

### **ZPST Mid-Market vs. PFTS. UAH**



	P/S	P/E	EV/ EBITDA
2002	1.4	16.6	7.6
2003	1.0	7.2	3.7
2004E	0.5	5.5	2.5

**Profile:** The fourth-largest Ukrainian steel mill by output, with total crude steel capacity of 4.4 mn tn. Outdated equipment (all steel is produced using open-hearth technology) and deficiency of in-house raw materials raise the company's production costs. Currently, company capacities are fully loaded. Further output expansion would only be possible after substantial investment.

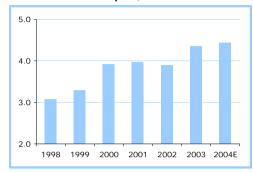
**Products & Markets:** ZPST focuses on production of steel sheets (one of the most value added segments). Pipe and machine building are the main purchasers, consuming 44% and 12.2% of total output respectively. China is the major buyer of ZPST's steel products, importing about 23% of its output. In 2004, we expect an increase in China's share due to a temporary suspension of an antidumping duty on flat steel and growing demand for this product. On the whole, exports comprise 65% of sales, which is significantly lower than Ukraine's average (85%). Being the only Ukrainian producer of auto steel, the company has a stable domestic consumer base (ZPST has direct contracts with Zaporizhya-based car producer, AvtoZAZ).

**Financials:** Despite rising production costs, we expect promising financial results due to favorable conditions in the flat steel market in 2005. ZPST is the only Ukrainian steel company who paid dividends in 2003 (USD 2.4 mn, DPS = USD 0.003).

**CapEx:** Given worn-out equipment, the cumulative investment of USD 310 mn (USD 10.2 per tn of crude steel) during 2002-08 declared by ZPST is inadequate for a meaningful improvement of the company's technological/outputs levels.

### **EBITDA Net Revenues** Net Income USD mn USD mn margin % USD mn margin % 2002 630.6 110.6 17.5% 8.2% 51.8 2003 886.2 23.3% 119.9 13.5% 206.3 2004E 1 580.0 347.6 22.0% 157.8 10.0%

### Crude Steel Output, mn tn



	Capacity	Utilization
Sinter	N/A	N/A
Pig Iron	3.3	72%
Crude Steel	4.4	100%
Rolled Steel	4.0	90%

Export Share 65%



# Zaporizhstal: Financial Statements, UAS

	2002	2003
Current Assets	159	188
Cash & Equivalents	28	62
Trade Receivables	18	14
Inventories	57	66
Other current assets	56	45
Fixed Assets	376	465
PP&E. net	243	253
Other Fixed Assets	133	212
<b>Total Assets</b>	535	654
Shareholders' Equity	418	536
Share Capital	39	40
Reserves and Other	379	496
<b>Current Liabilities</b>	83	84
ST Interest Bearing Debt	5	12
Trade Payables	43	37
Accrued Wages	2	1
Accrued Taxes	4	4
Other Current Liabilities	29	30
LT Liabilities	34	34
LT Interest Bearing Debt	-	-
Other LT	34	34
Total Liabilities & Equity	535	654

<b>Income Statement Summar</b>	у.	USD	mn
--------------------------------	----	-----	----

	2002	2003
Net Revenues	631	886
Change y-o-y	N/M	41%
Cost Of Sales	(467)	(615)
Gross Profit	163	271
Other Operating Income/Costs. net	(7)	(4)
SG&A	(46)	(61)
EBITDA	111	206
EBITDA margin. %	17.5%	23.3%
Depreciation	(24)	(28)
EBIT	86	179
EBIT margin. %	13.7%	20.1%
Interest Expense	(2)	(0)
Financial income	(0)	5
Other income/(expense)	(4)	(5)
РВТ	79	178
Tax	(27.6)	(57.7)
Effective tax rate	34.8%	32.5%
Extraordinary Income/(loss)	-	-
Net Income	52	120
Net Margin. %	8.2%	13.5%



# Alchevsk Iron & Steel (AMK)

# **BUY**

Target range	USD 0.20 - 0.50
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Market Information	
No of Shares, mn	775.3
Par Value, USD	0.02
Market price, USD	0.06
MCap, USD mn	43.4
Free Float, %	9.7%
FF Mcap, mn USD	4.2
Stock Ownership	

Stock Ownership	
IUD	74.3%
SCM	16.0%
Physical Persons	9.7%

# of Employees 21 500

**Profile:** AMK, a medium-sized Ukrainian steel producer, is controlled by the Industrial Union of Donbass. Sufficient in coke supplies through Alchevsk Coke (affiliated with IUD), the company lacks iron ore.

IUD, the main shareholder, together with its partner, world leading steel trader Duferco, undertook drastic modernization program at AMK, which will transform this technologically outdated company into one of the most efficient Ukrainian steel producers.

**Products & Markets:** The company produces both long and flat steel. Core products are sections (used in construction) and plates (machine building). Though, AMK plans to change its product mix switching its production mainly to slabs (semis for flat steel). The company has already concluded long-term contracts with Duferco's steel divisions and Hungarian Dunaferr. IUD's acquisition of Dunaferr opens for AMK unrestricted access to the European market.

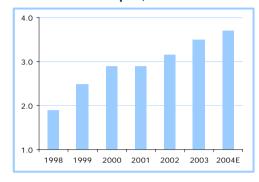
**Financials:** Rising steel prices will substantially increase AMK's revenue in 2004. Although, its margins will remain low as a result of low technology and substantial wear & tear in production facilities. In 2001, the company was on the edge of bankruptcy due to the collection of trade payables. As a result, creditors initiated a recovery process to resolve debts incurred in the late 90s. The recovery is being carried out under IUD surveillance and will be successfully completed shortly.

**CapEx:** Calls for a total investment of USD 400 mn by 2008. It envisions complete replacement of the current open-heath process with converter steel production equipped with a continuous casting line. This will enable AMK to increase its capacity to 5.3 mn tn and dramatically improve efficiency & margins.

### EV/ P/S P/E **EBITDA** 2002 0.12 4.7 neg 2003 0.09 29.1 1.7 2004E 0.05 8.7 3.0

	Net Revenues	EB	ITDA	Net	Income
	USD mn	USD mn	margin %	USD mn	margin %
2002	369.8	10.2	2.8%	-11.7	-3.2%
2003	480.9	29.1	6.0%	1.5	0.3%
2004E	810.0	39.0	4.8%	5.0	0.6%

### Crude Steel Output, mn tn



	Capacity	Utilization
Sintered Ore	5.4	81%
Pig Iron	3.1	85%
Crude Steel	3.5	99%
Rolled Steel	N/A	N/A

Export Share 83%



# Alchevsk: Financial Statements, UAS

# Balance Sheet Summary, USD mn

	2002	2003
Current Assets	76	100
Cash & Equivalents	0	0
Trade Receivables	23	20
Inventories	33	58
Other current assets	20	21
Fixed Assets	133	121
PP&E, net	128	112
Other Fixed Assets	5	9
Total Assets	209	221
Shareholders' Equity	77	67
Share Capital	23	23
Reserves and Other	114	103
Retained Earnings	(60)	(59)
Translation Adjustment	-	0
Current Liabilities	132	153
ST Interest Bearing Debt	5	7
Trade Payables	111	123
Accrued Wages	1	1
Accrued Taxes	1	1
Other Current Liabilities	15	22
LT Liabilities	0	-
LT Interest Bearing Debt	-	-
Other LT	0	-
Total Liabilities & Equity	209	221

### Income Statement Summary, USD mn

	2002	2003
Net Revenues	370	481
Change y-o-y	5%	30%
Cost Of Sales	(340)	(433)
Gross Profit	30	48
Other Operating Income/Costs, net	(5)	5
SG&A	(15)	(24)
EBITDA	10.2	29.1
EBITDA margin, %	2.8%	6.0%
Depreciation	(19)	(22)
EBIT	(8)	7
EBIT margin, %	-2.2%	1.5%
Interest Expense	(1)	(1.3)
Financial income/(expense)	0	0
Other income/(expense)	(2)	(1)
РВТ	(11)	4
Tax	(1)	(3)
Effective tax rate	-7.4%	66.5%
Extraordinary Income/(loss)	_	_
Net Income	(12)	1
Net Margin, %	-3.2%	0.3%



# **Dniprospetsstal (DPST)**

Market Information	
No of Shares, mn	1.1
Par Value, USD	8.7
Market price	6.6
MCap, USD mn	7.1
Free Float, %	4%
FF MCap, mn USD	0.3

Stock Ownership	
Baring Vostok Capital	60%
Sasta	25%
Other	15%
# of Employees	9 450

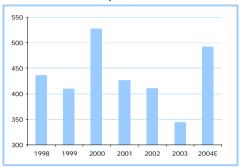
**Profile:** The only Ukrainian producer of specialty steel - encompasses different grades of high quality steel. A requirement for high quality in specialty steel production calls for utilization of electric furnaces. Only two companies in Ukraine, DPST and Isteel, use the process in steel making.

**Products & markets:** DPST's product mix is diversified (about 800 items) and includes stainless steel, alloyed construction steel, tool steel, steel for bearing production, etc. Respectively, major consumers of these grades of steel are the construction, machine building and metallurgy industries. A monopoly status in the Ukrainian market enables Dniprospetsstal to sell up to 40% of its output on the domestic market. The company concluded agreements with Ukrainian pipe/tube producers UVIS and Interpipe, to supply steel for stainless pipe production. DPST has opened representative offices in Russia and Germany to promote its products.

**Financials:** The middle of 2003 became a breaking point for DPST as it marked the end of a two year production crisis. The company embarked on a new strategy and transformed its product mix from low-priced carbon steel to higher quality and more expensive specialty steel. This fact, coupled with an immense growth of steel prices since 2003, will boost Dniprospetsstal's financials in 2004.

**CapEx:** Dniprospetsstal is conducting a process of rejuvenating its production assets. Among its 2004 plans was conservation of steel smelting shop #1 which previously operated outdated equipment. Increase of capacity utilization in other shops is to offset the closure of shop #1. A new powerful electric furnace will be installed in shop #3, which will cost Dniprospetsstal €10 mn.

### Crude Steel Output, ths tn



Export Share 63%

	P/S	P/E	EV/ EBITDA
2002	0.05	neg	neg
2003	0.04	neg	5.2
2004E	0.02	1.1	2.1

	Net Revenues	EBI	TDA	Net In	come
		USD mn	margin %	USD mn	margin %
2002	141.2	-9.4	-6.7%	-20.2	-14.3%
2003	150.5	8.1	5.4%	-4.8	-3.2%
2004E	300.0	27.0	9.0%	6.0	2.0%



# **Dniprospetsstal: Financial Statements**

	2002	2003
Current Assets	45	50
Cash & Equivalents	1	1
Trade Receivables	10	5
Inventories	24	26
Other current assets	11	18
Fixed Assets	105	102
PP&E. net	78	79
Other Fixed Assets	27	23
Total Assets	151	151
Shareholders' Equity	87	82
Share Capital	9	9
Reserves and Other	78	73
<b>Current Liabilities</b>	61	61
ST Interest Bearing Debt	28	28
Trade Payables	20	13
Accrued Wages	1	1
Accrued Taxes	0	0
Other Current Liabilities	12	18
LT Liabilities	2	8
LT Interest Bearing Debt	2	8
Other LT	0	0
Total Liabilities & Equity	151	151

### Income Statement Summary. USD mn

	2002	2003
Net Revenues	141	150
Change y-o-y	N/M	7%
Cost Of Sales	(133)	(130)
Gross Profit	9	21
Other Operating Income/Costs. net	(8)	(3)
SG&A	(10)	(10)
EBITDA	(9)	8
EBITDA margin. %	-6.7%	5.4%
Depreciation	(7)	(8)
EBIT	(17)	0
EBIT margin. %	-11.7%	0.1%
Interest Expense	(5)	(5)
Financial income	0	0
Other income/(expense)	(2)	(0)
PBT	(23)	(4)
Tax	-	(0)
Effective tax rate	0.0%	-7.6%
Extraordinary Income/(loss)	-	-
Net Income	(23)	(5)
Net Margin. %	-16.4%	-3.2%



# Other Steel Producers' Financials

	DM Dzerzhyi		Meta	alen	D! Petrov	/IK skogo	Maki Iron&		Donet	skstal	Ist	eel	DO	MZ
Income Statement Summary. USD mn	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	
Net Revenues	416.5	556.7	128.8	242.8	191.6	208.8	113.5	151.6	277.3	631.3	109.7	161.8	204.2	248.2
Change y-o-y	N/M	34%	N/M	88%	N/M	9%	N/M	34%	N/M	128%	N/M	48%	N/M	22%
Cost Of Sales	-337.4	-498.8	-100.2		-183.0	-188.0	-125.5	-164.4	-260.8	-565.3		-122.6	-178.8	
Gross Profit	79.1	57.9	28.6	77.0	8.6	20.9	-12.0	-12.8	16.4	66.0	28.9	39.2	25.3	
Other Operating Income	6.9	-30.8	-1.0	-2.5	-10.8	-13.6	-12.9	-16.5	-6.0	-29.7	-16.3	-17.0	-16.2	
EBITDA	86.0	27.1	27.6	74.5	-2.2	7.2	-24.9	-29.3	10.4	36.3	12.6	22.2	9.2	
EBITDA margin, %	<i>21%</i> -18.4	<i>5%</i> -16.4	<i>21%</i> -1.0	<i>31%</i> -2.8	-1% -6.7	<i>3%</i> -7.2	<i>-22%</i> -7.1	-19% -6.7	4% -2.6	6% -3.5	<i>12%</i> -9.1	<i>14%</i> -8.4	<i>5%</i> -5.0	11% -4.9
Depreciation EBIT	-10.4 <b>67.6</b>	-10.4 <b>10.8</b>	26.7	-2.6 <b>71.7</b>	-8.9	0.1	-32.0	-0.7 -36.0	-2.6 <b>7.8</b>	-3.5 <b>32.8</b>	3.5	-0.4 <b>13.8</b>	-5.0 <b>4.2</b>	
EBIT margin, %	16%	2%	21%	30%	-5%	0.1	-28%	-24%	3%	5%	3%	9%	2%	9%
Other income/(expense)	-9.0	-6.2	-3.0	-2.0	0.0	0.9	-24.1	-35.6	-0.7	-9.8	-1.3	-1.4	-6.5	
PBT	58.6	4.5	23.7	69.7	- <b>8.9</b>	0.9	-56.1	-71.6	7.0	23.0	2.3	12.5	-2.3	
Tax	-4.2	0.0	0.0	-1.4	0.0	-0.2	0.0	0.0	-3.2	-12.0	0.0	-0.2	-0.6	-8.4
Effective tax rate	7%	0%	0%	2%	0%	23%	0%	0%	45%	52%	0%	2%	-25%	45%
Extraordinary Income/(loss)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	54.4	4.5	23.7	68.3	-8.9	0.7	-56.1	-71.6	3.8	11.0	2.3	12.3	-2.9	10.5
Net Margin, %	13%	1%	18%	28%	-5%	0%	-49%	-47%	1%	2%	2%	8%	-1%	4%
Balance Sheet Summary, USD mn Current Assets	2002 165.2	2003 212.7	2002 68.8	2003 138.6	2002 153.5	2003 221.2	2002 59.5	2003 54.7	2002 111.2	2003 136.4	2002 49.7	2003 76.3	2002 95.7	2003 75.9
Cash & Equivalents	0.3	0.2	0.0	0.0	0.5	0.5	0.1	0.0	0.5	2.6	0.5	11.5	0.0	1.6
Trade Receivables	68.5	113.3	59.0	100.7	59.4	50.8	28.8	14.5	73.0	65.6	18.5	15.8	58.5	
Inventories	51.0	70.5	6.8	3.0	19.7	33.2	20.2	21.6	7.8	22.3	12.1	14.9	18.1	15.3
Other current assets	45.3	28.6	3.0	34.8	73.8	136.6	10.4	18.6	29.9	45.9	18.7	34.0	19.1	16.1
Fixed Assets	337.0	318.0	75.3	82.4	87.8	88.8	188.5	179.2	27.2	48.7	76.9	72.7	68.7	75.5
PP&E, net	170.5	162.0	32.3	72.4	72.0	66.7	47.0	43.1	19.9	27.1	68.4	64.4	48.5	55.2
Other Fixed Assets	166.5	156.0	43.0	10.0	15.7	22.1	141.5	136.1	7.3	21.6	8.5	8.3	20.1	20.3
Total Assets	502.3	530.7	144.1	221.0	241.3	310.0	248.0	233.9	138.4	185.2	126.6	149.0	164.3	151.4
Shareholders' Equity	257.1	242.9	99.8	167.8	28.1	34.4	-159.8	-226.3	8.9	19.6	65.6	77.5	51.0	60.4
Share Capital	111.4	116.2	25.6	25.6	39.8	39.8	66.4	66.4	5.2	5.2	73.7	73.7	17.0	
Reserves and Other	170.4	163.6	24.3	27.7	47.0	48.2	147.6	153.2	0.0	0.0	6.8	6.8	48.4	48.2
Retained Earnings	-24.7	-37.0	49.9	114.6	-58.7	-53.7	-373.9	-445.9	3.7	14.4	-14.9	-3.0	-14.4	-4.8
Translation Adjustment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Current Liabilities	237.6	272.0	33.9	34.3	199.6	270.5	255.6	280.2	128.6	150.1	47.8	53.9	103.9	81.6
ST Interest Bearing Debt Trade Payables	24.4 88.7	5.4 125.0	14.2 15.6	8.1 20.2	18.7 127.1	16.9 20.3	2.1 211.2	2.1 226.3	10.5 65.1	19.3 89.2	15.0 25.4	25.0 23.6	14.8 76.2	
Other Current Liabilities	124.6	142.1	4.2	6.4	54.0	20.3	42.4	52.3	53.2	42.0	25.4 7.5	23.6 5.7	13.1	9.8
LT Liabilities	7.6	15.8	10.5	18.9	13.5	∠აა.ი <b>5.2</b>	152.3	1 <b>80.0</b>	0.8	42.0 <b>15.5</b>	13.3	17.6	9.4	9.6 <b>9.4</b>
LT Interest Bearing Debt	6.5	15.8	10.5	18.9	0.0	0.0	150.9	167.0	0.0	12.8	0.0	8.0	0.0	
Other LT	1.1	0.0	0.0	0.0	13.5	5.2	1.4	12.9	0.8	2.7	13.3	9.6	9.4	9.4
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