Ukraine's Ferroalloy Industry

Andriy Gostik
aq@con-cap.com

+380 44 206 8370

Capitalizing On Ukraine's Vast Resource Base



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Executive Summary

Industry Synopsis

- The demand-supply side:

- > Demand for steel drives the demand for ferroalloys.
- > Ferroalloy price dynamics do not necessarily follow steel price dynamics; rather, they are determined by the balance of demand for and supply of alloys.
- > An unprecedented surge in ferroalloy prices in 2004 was the result of a temporary mismatch in demand and supply, allowing alloy producers to reap abnormal profits.
- > Structural overcapacity in the industry will prevent extremely high prices in the long run.
- > Demand for ferroalloys will grow primarily due to China's steel industry expansion.
- > Long term mid-cycle prices for ferroalloys will reach higher levels than before.

- The cost side:

- > The key cost components in ferroalloy production are electricity, ore, coke, labor and transportation.
- > Integration/ consolidation strategies are widely used in the industry to achieve cost efficiency.

Ferroalloy Sector In Ukraine

- Ukraine's competitive advantages:

- > Ukraine has the world's second largest manganese reserves, making it a leading player in the manganese alloy market.
- > The cost of labor is still among the cheapest in the world.
- > Self-sufficient in coke supplies.
- > Close proximity to Russia, one of the major ferroalloy markets.

- Industry specifics:

- > Exports account for lion's share of revenues.
- > Two powerful business groups, Privat and Interpipe, control key industry assets.
- > Corporate governance, ownership issues and re-privatization are all problems for the sector.
- > Transfer pricing and overstating costs have veiled the companies' true sales and earnings, but these practices will end in the medium term.

- Stocks:

- > Low liquidity, but spreads are shrinking rapidly in 2005.
- > No longer cheap, as prices have risen significantly since the beginning of the year.

Ticker	Company	Current Price, USD	Traget Price, USD	Recommendation
NFER	Nikopol Ferroalloy	1.55	1.26	SELL
ZFER	Zaporizhzhya Ferroalloy	0.13	0.10	SELL
SFER	Stakhanov Ferroalloy	0.013	0.010	SELL



Global Industry Portrait

What Are Ferroalloys?

- Alloys are less than 50% composed of iron, and include one or more elements other than carbon.
- Ferroalloys are used to introduce or "carry" elements into molten metal during pig iron manufacture and steel making.
- The principal ferroalloys made with chromium, manganese and silicon.

Mn Alloy Unit Consumption In (kg/mt steel):	າ 2004
China	10.8
CIS & Central Europe	9.5
World average	9.5
W. Europe	8.7
N. America	8.1

Ferroalloys produced in Ukraine:

- · Base alloys
- ferromanganese
- silicomanganese
- ferrosilicon
- Small-volumes
- ferronickel, ferromolybdenum, ferrotungsten and ferrovanadium



Specific Uses Of Ferroalloys

Manganese is used in steel and pig iron production to:

- Counteract the harmful effects of sulphur by removing it from molten metal.
- Remove oxygen (deoxidation) to improve the quality of metal.
- Impart additional properties, such as hardness, abrasion resistance, weldability and tensility.

High Carbon Ferromanganese (HCFeMn)

- Contains 65-79% of manganese and 6-8% of carbon.
- Can be produced by blast furnace or electric furnace method.
- Needs a high proportion of rich ore.
- The specific consumption of HCFeMn by steel-makers is falling due to substitution by MCFeMn, LCFeMn and SiMn.

Refined Ferromanganese

- Medium carbon ferromanganese
 (MCFeMn) contains 1.5% of carbon.
- Low carbon ferromanganese (**LCFeMn**) contains 0.5% of carbon.
- MCFeMn and LCFeMn are valueadded products with solid growth potential used mainly for flat and special steels.

Silicon is used in steel and pig iron production for:

- Deoxidation.
- As an alloying agent to enhance hardness, corrosion resistance, castability, etc.

Silicomanganese (SiMn)

- Contains 60-77% of manganese.
- Can only be produced by the electric furnace method.
- Poor Mn ore can be used as feedstock.
- FeMn and SiMn are partially fungible commodities.
- Specific consumption of SiMn is rising due to the conversion of steel-makers in developing countries to BOF and electric furnace processes.

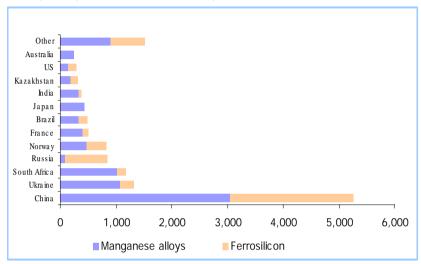
Nickel, molybdenum, tungsten and vanadium are used in steel production as:

 Alloying agents for the manufacture of construction, tool and other alloyed steels to enhance heat, corrosion and wear resistance.

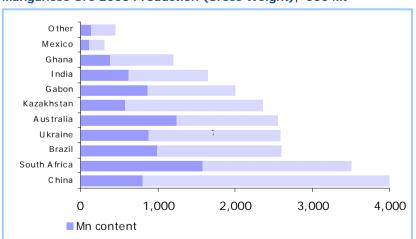


The World's Major Manganese Players

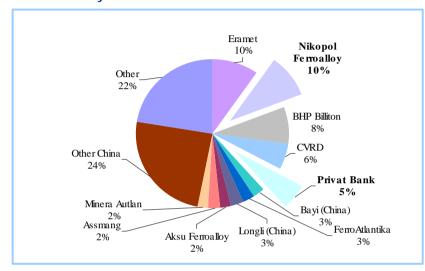
FeMn, SiMn, FeSi 2003 Production, '000 Mt



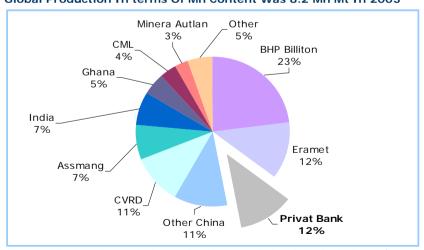
Manganese Ore 2003 Production (Gross Weight), '000 Mt



Global Mn Alloy Trade Totaled 9.1 mn mt in 2003*



Global Production In terms Of Mn Content Was 8.2 Mn Mt In 2003

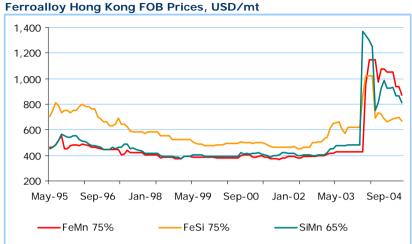


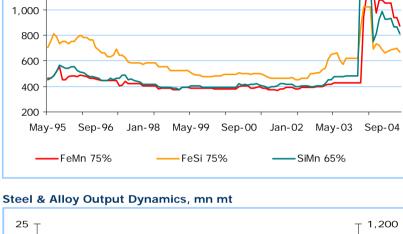
^{*}Privat Bank group controls four ferroalloy assets (Zaporizhzhya and Stakhanov Ferroalloy plants in Ukraine, Ferom in Romania, Alapayevsk Steel Works in Russia) and two Mn ore miners (Marganets and Ordzhonikidze GOKs in Ukraine)



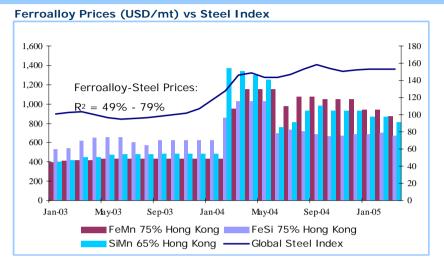


Market Dynamics

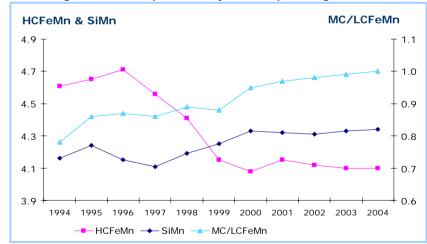








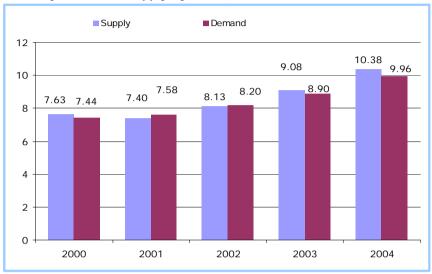




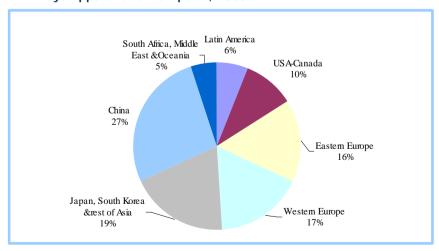
- > Ferroalloy prices seem to have passed their peak in 2004 and are in decline.
- > Mid-cycle prices going forward will be higher than in the past.

Supply & Demand Trends

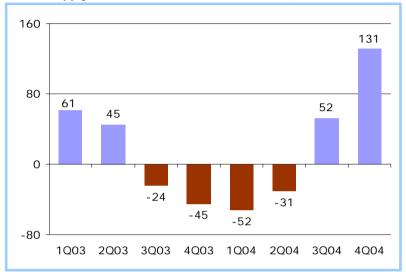
Mn Alloy Demand & Supply Dynamics, mn mt



Mn Alloys Apparent Consumption, 2003



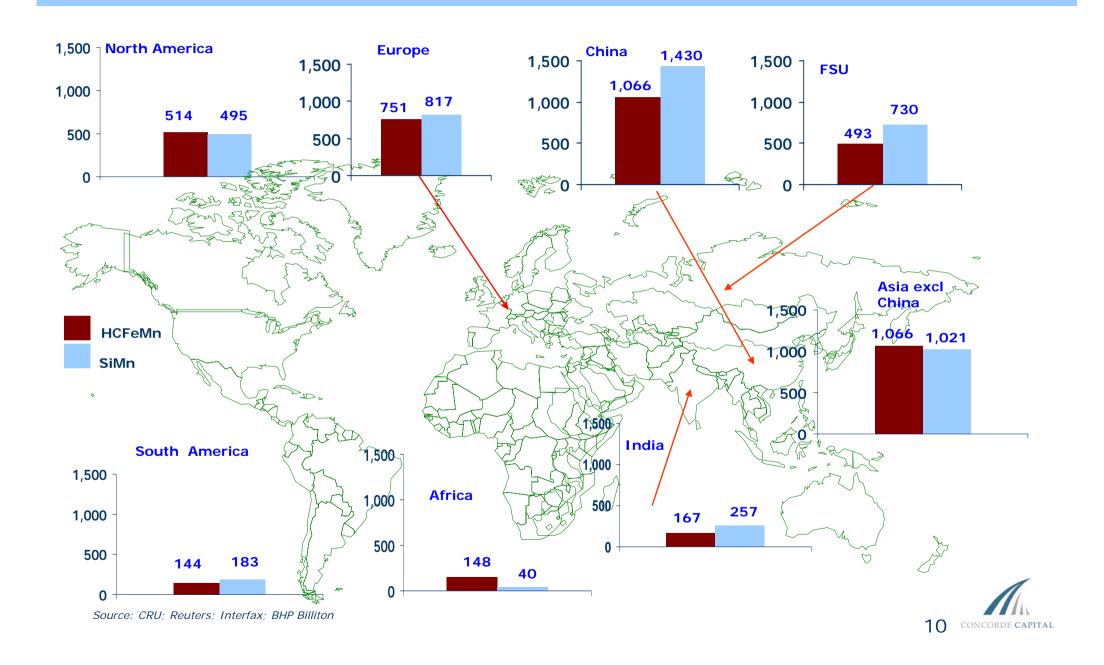
Global Supply & Demand Balance In 2003-2004, '000 mt



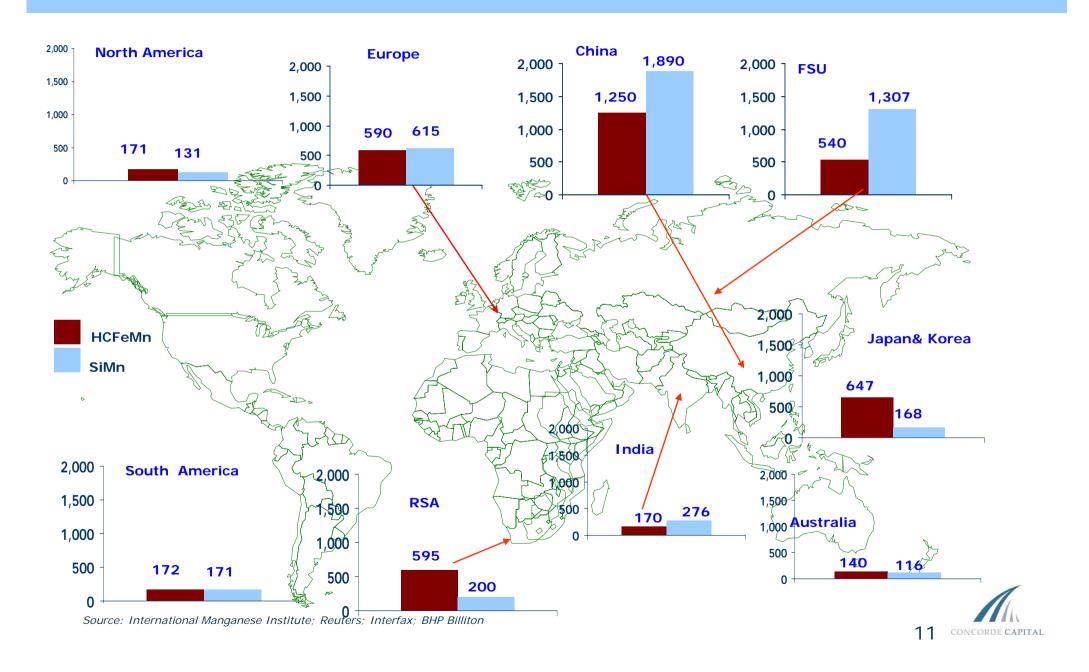
- The ferroalloy market is driven by the steel industry's needs.
- Manganese and silicon ferroalloys account for over 60% of total ferroalloy production due to significant raw material reserves worldwide.
- China is both the largest producer and the largest consumer of ferroalloys.
- An unprecedented price hike in 2004 resulted from an imbalance of supply and demand, as many Chinese producers suffered downtime due to electricity shortages.
- The demand for alloys has a positive outlook, despite declining prices and will grow in line with China's steel needs.



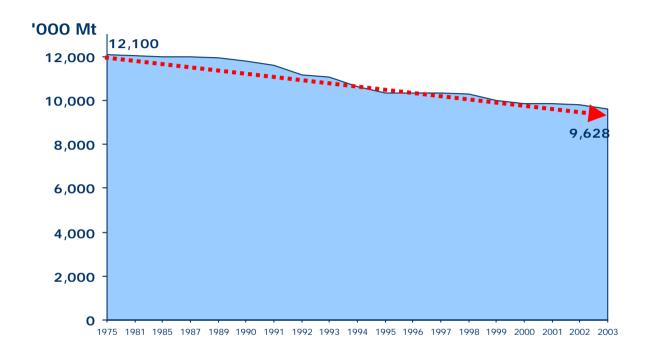
World Manganese Alloy Demand - 2003, '000 Mt



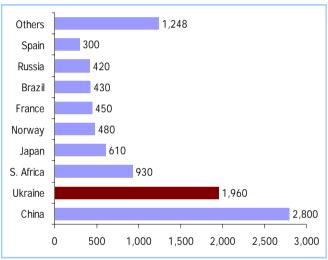
World Manganese Alloy Supply - 2003, '000 Mt



World Manganese Alloy Capacity

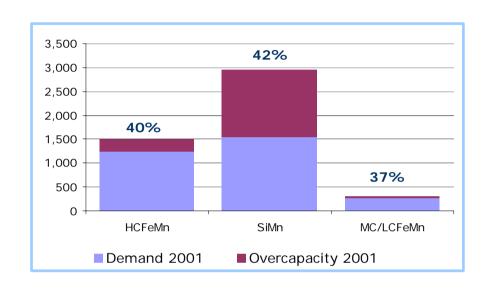


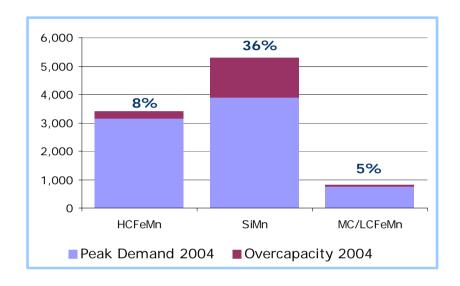




- > Capacity constraints cause an imbalance in demand and supply during times of peak demand, such as in 2004. Ukraine is among those countries well positioned to quickly adjust its Mn alloy output to meet excess demand.
- > In times of decline in the steel making industry, Ukraine's ferroalloy capacity becomes redundant and has to be idled.

Global Demand/Capacity Imbalance, '000 Mt





Risk of Structural Overcapacity For Manganese Alloy Producers

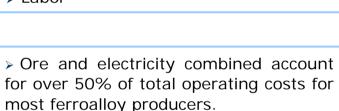
- > Many manganese smelters can increase production by resuming operations at idle furnaces.
- > High alloy prices may induce investors to build new capacities and/or restart operations that were previously unprofitable.
- > Chromium or silicon alloy production capacity can be converted to manganese.
- > Power shortages that hampered Chinese SiMn producers in 2003–2004 may not be a hindrance in the future.
- > Technology is not a barrier for new entrants.

Competitive Advantage

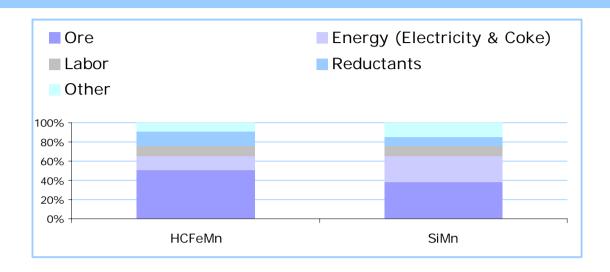
Cost Factors For Ferroalloy Production

There are four key cost factors:

- > Ore
- Electricity
- Reductants
- Labor



- > Beneficiation of fine ore to pellets and sintering are increasingly used to reduce energy and labor costs.
- >Cost efficiency is key to being competitive in the industry. The inability to achieve this will lead to business closure.



Competitive strategies used in the ferroalloy business:

- > The integration of ore miners and ferroalloy producers into a single holding (BHP Billiton, Eramet, CVRD and Privat group).
- > Integration with electricity producers (e.g., Ferroatlantica, Fesil, Elkem). This includes the construction of mini power plants by smaller ferroalloy producers, based near ore mines.
- > Tolling schemes by ore producers with feedstock-strapped ferroalloy plants, such as South Africa ore miners and ferroalloy plants in Eastern Europe and China.
- > JVs between steel makers and low cost ore & alloy producers, as with Japanese companies and South African ore and alloy producers.

Manganese Ore

Competitiveness in Mn ore depends on:

- Mining reserves: 47% of proven Mn reserves are located in South Africa and Ukraine, another 43% in Australia, China, India, Brazil, Kazakhstan, Gabon, Georgia and Bulgaria.
- > Content of available Mn ore.
- > Mining method: opencast is preferred over underground.
- > Labor costs associated with Mn ore mining.
- > Transportation advantages, if ore is exported.

There are two types of Mn ore by content:

- > Poor quality local ore, such as in China, Ukraine and India.
- Represents about 48% of world Mn supply.
- Mn content less than 44%.
- Cannot be transported economically.
- > Rich/global ore (Australia, S. Africa, Gabon. Brazil).
- Represents about 52% of world Mn supply.
- Mn content above 44%.
- Has a real export market (transportation is economical).

Ukraine's Mn reserves:

- > ABC1 reserves of 2.2 bn mt represent 75% of the FSU's Mn reserves, ~25% of global reserves world's second largest.
- > Located in the Nikopol basin.
- The Ordzhonikidze sector (west Nikopol) accounts for 310 mn mt of reserves (opencast mining).
- > The Marganets sector (east Nikopol) accounts for 280 mn mt of manganese reserves (predominantly underground mining).
- The Velykyi Tokmak deposit accounts for 1,582 mn mt of manganese reserves (undeveloped).
- > Mn content is poor at 22-29%
- > A high content of phosphor, which is undesirable and results in low quality alloys.
- > Overall, Ukrainian ore is low-grade and is used primarily on the domestic market.
- > Local ferroalloy makers have monopoly power over Mn ore producers.



Energy

Energy

- > There are two processes for alloy production:
- 1) Electric furnaces (for all kinds of ferroalloys).
- 2) Blast furnaces (are used mostly for high carbon FeMn, spiegeleisen, and rarely for low silicon FeSi).
- > Electric furnace production is the most widely used technology and extremely energy intensive.
- > Specific energy consumption is the highest for silicon-based alloys (7.5 – 11.5 MWh per tonne of FeSi) and somewhat lower for manganese alloys (up to 4.5 MWh per tonne of FeMn).
- > Cheap energy costs are enjoyed by Norway and Spain (cheap hydroelectric power), South Africa (inexpensive thermal electric power), France (relatively cheap nuclear electric power).
- > Ferroalloy producers in countries where electricity prices are not sufficiently cheap have two options:
- 1) Acquire/construct electricity generators.
- 2) Negotiate special pricing agreements with power producers. The pricing agreements are common and typically lack transparency.

El. Tariffs For Industrial Consumers, USD/MWh, 2003*



*El. Tariffs for Ukraine are as of April 2005

Ukraine's electricity costs for class I industrial consumers (class includes ferroalloy makers) is lower than for major European economies, giving the country a comparative advantage in ferroalloy production.

Reductants & Labor

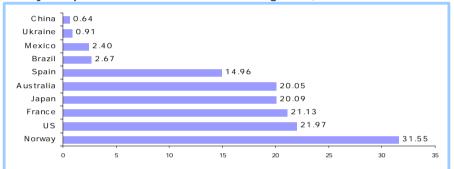
Reductants

- > Coke is a key reductant in ferroalloy production and also used as fuel in the blast furnace process.
- > Coke consumption depends largely on the process of ferroalloy production:
- 1,800 kg of coke is used in the production of 1 mt of FeMn produced by the blast furnace method.
- 500-550 kg of coke is required for production of 1 mt of FeMn by the electric furnace method.
- > China is by far the world's largest coke supplier (~50% of global exports). Other major coke exporters are Poland, Japan and the CIS.
- > A worldwide coke deficit made blast furnace ferroalloy production uncompetitive outside China, although marginal producers still exist in Japan and Eastern Europe.
- > Ukraine is a net exporter of coke

Labor

- > Ukrainian ferroalloy producers are **overmanned**, due to a low level of automation and social obligations.
- > Regardless, Ukrainian alloy makers have a **labor cost advantage** (e.g., payroll per 1 mt of alloy is nearly 10 times lower than that of Eramet's Mn division).

Hourly Compensation Costs In Manufacturing 2003, USD



	Sales 2004, USD mn	Headcount	Per Capita Sales, '000 USD
Eramet (Mn division)	1,460	5,417	269.4
US*	883	2,454	360.0
Nippon Denko	551	424	1,299.5
Elkem (FeSi alloy			
division)	238	592	402.0
Fesil	224	282	794.3
Nikopol Ferroalloy	415	8,342	49.7
Zaporizhzhya			
Ferroalloy	328	3,775	86.9
Stakhanov Ferroalloy	61	1,577	38.6
*US statistics is as of 2002			

How Competitive Is Ukraine?

The following chart ranks ferroalloy producing companies in terms of how competitive they are against one another.

					Transport/	
	Ore	Power	Reductants	Labor	Market Access	Total Score
Africa	3	3	2	3	1	12
Ukraine	3	2	2	3	2	12
CIS	2	2	2	3	2	11
Australia	3	2	2	1	2	10
Scandinavia	2	3	1	1	3	10
India	2	1	2	3	2	10
Latin America	2	2	2	2	2	10
China	1	1	3	3	2	10
Mainland Europe	1	2	1	1	3	8
USA	1	2	1	1	3	8
East Asia (Japan,						
Korea, Taiwan)	1	1	2	1	3	8

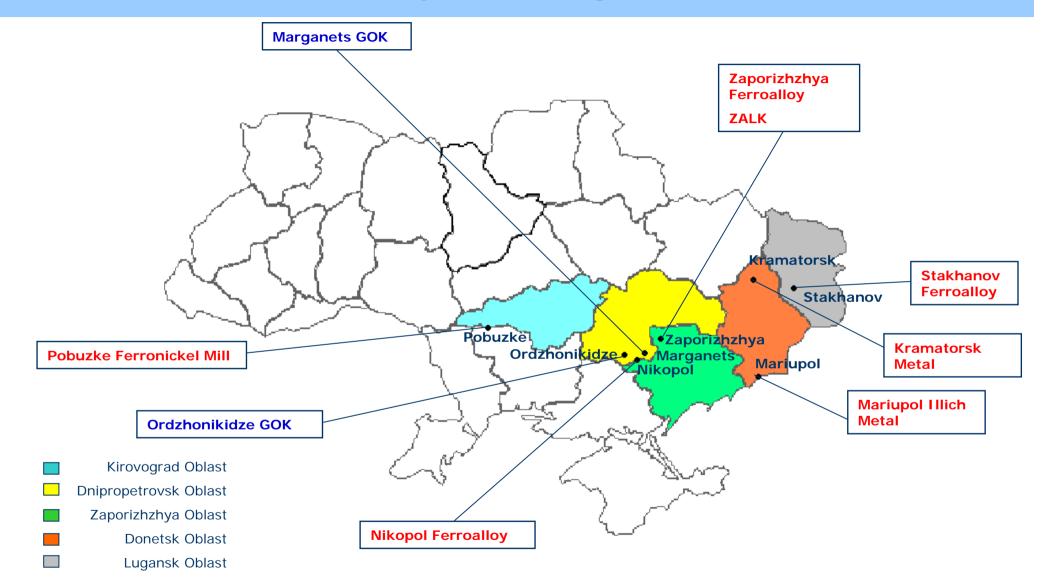
1 = Non-Advantageous Availability

2 = Moderate Availability

3 = Advantageous Availability

Ferroalloys In Ukraine

Ukrainian Ferroalloy & Manganese Ore Centers



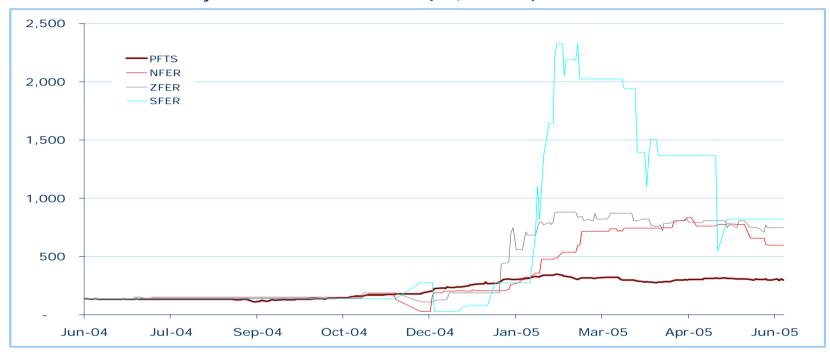
Ukraine's Ferroalloy Industry At A Glance

				Share in total	Capacity utilization	
	Output '00		VOV OF	output	(est)	Ownership/ Contro
Electric Furnace	2004	2003	YOY Chg			
Ukraine's Total Mn & Si Alloys	1,836.0	1,628.0	12.8%			
- Silicomanganese	1,079.8	960.0	12.8% 12.5%	58.8%		
- Ferromanganese	469.0	376.0	24.7%	25.5%		
- Ferrorilanganese - Ferrosilicon	287.2	289.6	-0.8%	25.5% 15.6%		
- Metal manganese	207.2	2.4	n/m	13.076		
Nilkopol Ferroalloy		2.4	11/111			Interpip
Total	1,026.3	869.7	18.0%	55.9%	78.9%	689
- Silicomanganese (Mn 82%)	728.4	650.2	12.0%	00.770	76.776	007
- Ferromanganese (Mn >76%)	297.9	219.5	35.7%			
Zaporizhzhya ferroalloy						Priva
Total	541.1	512.8	5.5%	29.5%	90.2%	55%
- Silicomanganese (Mn 60-65%)	345.7	309.8	11.6%			
- Ferrosilicon (45% Si equivalent)	103.5	114.5	-9.6%			
- Ferromanganese (Mn 75-95%)	91.9	86.1	6.7%			
Matal (Ma 07 050()		2.4	/			
- Metal manganese (Mn 87-95%) Stakhanov Ferroalloy	-	2.4	n/m			Priva
Total	165.6	173.9	-4.8%	9.0%	55.2%	98%
- Ferrosilicon (45% Si equivalent)	159.9	173.9	-8.1%			
- Silicomanganese	5.7					
ZALK*						SuAL/ Interpipe
Ferrosilicon	23.8	1.2		1.3%		98%
*Tolling agreement with Nikopol Ferroall	oy					
Blast Furnace						
Kramatorsk Iron & Steel						IUE
- Ferromanganese	79.2	70.4	12.4%	4.3%	30.5%	76%
Pobuzke Ferronickel Mill						SuAl
(Nickel content, '000 mt)	13.0	NA			NA	100%
Mariupol Illich Metal						Managemen
Total	~0.3	~0.3			NA	93%
Ferromolybdenum	NA	NA			IVA	737
Ferrotungsten	NA	NA				
Ferrovanadium	NA	NA				
Ordzhonikidze GOK	993.8	1,107.8	-10,3% Op	encast mining		Priva
Marganets GOK	1,272.2	1,415.1		encast (20%); underç	ground (80%)	50% Priva 76%

The Stock Market & Valuations

Trading

Performance Of Ferroalloy Stocks Relative to the PFTS (bid, re-based)



	Liquidity	Hist. Spre	ead Avg. Free Float		FF MCap	Avg. PFTS Trad	_	Annualiz ed FF Turnover
		12-mo	2005	rioat	O3D IIIII	shares mn	USD mn	USD mn
NFER	low	101%	59%	2.0%	9.4	0.14	0.095	12%
ZFER	low	122%	26%	10.0%	29.6	8.52	1.017	38%
SFER	low	n/m	410%	29.9%	3.7	4.17	0.084	27%

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Valuations

DCF Valuation

For the purposes of forecasting	ng local currency	is used (U	AH mn)							
NFER	2005E	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E
EBITDA	405	404	414	434	451	464	472	480	488	497
EBIT	371	369	376	392	404	412	418	423	429	435
Tax Rate	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Taxed EBIT	278	277	282	294	303	309	313	317	322	326
Plus D&A	34	35	38	42	47	52	54	57	59	62
Less CapEx	(44)	(58)	(119)	(156)	(162)	(167)	(102)	(104)	(106)	(107)
Less change in OWC	(153)	1	(11)	(23)	(18)	(15)	(9)	(9)	(9)	(9)
FCFF	115	255	190	157	170	179	257	262	267	272
WACC	20.6%	18.6%	17.2%	15.8%	15.2%	14.3%	14.0%	14.0%	14.0%	14.0%
WACC To Perpetuity										13.0%
Terminal Value										2,798
Firm value	1,698						Portion due	e to TV		41.5%
Less Net Debt	(38)						Perpetuity	Growth Ra	ate	3%
Equity Value	1,659						Implied exit	EBITDA Mul	Itiple	5.6 x
Fally Males Base Observe	*4.00						40 14- 5-5		OI	44.07

ZFER	2005E	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E
EBITDA	294	291	297	308	317	326	331	336	341	346
EBIT	269	267	269	276	281	287	290	292	295	298
Tax Rate	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Taxed EBIT	202	200	201	207	211	215	217	219	221	223
Plus D&A	25	25	28	32	36	39	41	43	46	48
Less CapEx	(16)	(31)	(127)	(132)	(136)	(87)	(88)	(90)	(91)	(92)
Less change in OWC	(247)	(44)	(24)	(17)	(14)	(31)	(8)	(8)	(8)	(8)
FCFF	(37)	150	79	90	98	136	162	165	168	171
WACC	20.8%	18.6%	17.4%	15.9%	15.1%	14.2%	13.9%	13.8%	13.9%	13.9%
WACC To Perpetuity										13.0%
Terminal Value										1,760
Firm value	935						Portion due	e to TV		47.4%
Less Net Debt	(12)		Perpetuity Growth Rate				3%			
Equity Value	923						mplied exit	EBITDA Mul	ltiple	5.1 x

12 Mo Fair Value Per Share

SFER	2005E	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E
EBITDA	164	164	167	168	168	172	173	173	174	175
EBIT	151	150	152	152	152	155	156	157	158	159
Tax Rate	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Taxed EBIT	113	112	114	114	114	117	117	118	119	120
Plus D&A	13	14	15	16	17	16	16	16	16	16
Less CapEx	(73)	(42)	(43)	(44)	(44)	(19)	(19)	(19)	(19)	(19)
Less change in OWC	(87)	(30)	(2)	(7)	(62)	(4)	(1)	(1)	(1)	(1)
FCFF	-	54	83	80	24	110	113	114	114	115
WACC	20.3%	18.3%	17.1%	15.8%	14.5%	13.8%	13.4%	13.5%	13.5%	13.6%
WACC To Perpetuity										13.0%
Terminal Value										967
Firm value	565					- 1	Portion due	e to TV		44.5%
Less Net Debt	(61)						Perpetuity	Growth Ra	ite	1%
Equity Value	505					1	mplied exit	EBITDA Mul	tiple	5.5 x
Fair Value Per Share	\$0.0070						12 Mo Fair	Value Per	Sharo	\$0.0096

Relative Valuation

				2005				2005	
	Count	ry Currency	Sales	EBITDA Ne	t Income	Mcap	P/S	P/EBITDA	P/E
Eramet	FR	EUR mn	2,605	754	247	1,906.4	0.73	2.53	7.72
Minera Autlan	MX	MXN mn	2,307	688	331	1,417.9	0.61	2.06	4.28
Elkem	NO	NOK mn	21,640	2,811	1,020	11,580.8	0.54	4.12	11.35
Average							0.63	2.90	7.79
NFER	UA	USD mn	571.9	79.4	52.9	470.5	0.82	5.92	8.89
ZFER	UA	USD mn	307.9	57.6	38.7	296.3	0.96	5.15	7.66
SFER	UA	USD mn	119.2	32.2	20.8	186.6	1.57	5.80	8.97
							Ir	mplied price	

Summary

NFER

SFER

	Current Price, USD	Traget Price, USD	Recommendation
NFER	1.55	1.26	SELL
ZFER	0.13	0.10	SELL
SFER	0.013	0.010	SELL

In our valuation, we have relied more on DCF-based estimates of ferroalloy stock values, as the peers chosen for comparison have a different business structure than Ukrainian ferroalloy makers.

We intended to arrive at a fair value for Ukrainian alloy producers by assessing them as legitimate businesses. Therefore, we assume that transfer pricing will be eliminated in the future and that all relevant cash flows will be accounted for. The government is ready to begin a crackdown on transfer pricing, as in March 2005 it already reprimanded Ukrainian ferroalloy makers for using tolling and tax evasion schemes.

Our sales projections are based on mid-cycle alloy prices. We have assumed that future global mid-cycle prices will rise to USD 550/mt for FeMn, USD 600/mt for SiMn and USD 650/mt for FeSi.



0.760 0.073

Company Profiles

Nikopol Ferroalloy (NFER)

HSD 1 26

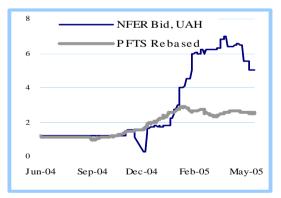
SELL

Target price

rarget price	03D 1.20
Market Information	
No of Shares, mn	303.5
Par Value, USD	0.05
Market price, USD	1.55
MCap, USD mn	470.5
Free Float, %	2%
FF MCap, USD mn	9.4

71%
27%
2%

of employees 8,342



	P/S	P/S Adj.	P/E	P/E Adj.	EV/EI	EV/ BITDA Adj.
2004	1.1	0.4	35.5	1.1	18.5	0.8
2005E	0.8	0.8	8.8	8.8	5.9	5.9
2006E	0.8	0.8	8.7	8.7	5.8	5.8

Profile: The world's largest producer of Mn alloys in 2004 in terms of output and second largest by capacity (after Eramet). In 2003, the state sold its 50%+1 share stake in NFER to the Prydniprovya Consortium, a pool of Interpipe-related companies, via a tender for only USD 77 mn. Nikopol Ferroalloy possesses the most modern equipment among Ukrainian ferroalloy makers with 16 electric furnaces put into operation in the late 60s. The plant has to rely on imported Mn ore supplies, as domestic reserves are controlled by rival Privat Group and thus, domestic supplies are intermittent.

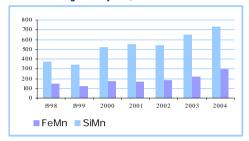
Products & Markets: The company enjoys an 11.5% share in the global Mn alloy market. Its market share in Ukraine surpasses 65% and exceeds 23% in other CIS countries. The plant supplies ferroalloys to 90% of Ukraine's steel mills. Nikopol Ferroalloy's equipment is designed for the production of FeMn and SiMn alloys. In 2003, NFER established a tolling agreement with Zaporizhzhya Aluminum mill (ZALK) for the production of FeSi using ZALK's facilities. In addition to alloys, NFER also produces sinter, fluxes and eletrode mass, which are used as inputs in alloy production.

Transfer pricing: NFER's 2004 top-line, while benefiting from high maganese alloy prices, was reduced by a transfer pricing. An offshore company, Steelex, allegedly associated with Interpipe's owners, operates with the plant under a tolling scheme. It supplies Mn ore imported from Gabon, Ghana and Australia to the plant, and sells finished ferroalloys. We have adjusted the company's financials to derive estimates of its real earnings. We estimate NFER's real average selling price in 2004 at USD 1,050 per tonne, as opposed to USD 404 as implied by its sales. We also forecast future sales under an assumption of arms-long transactions only.

Ownership issues: The state is now questioning how lawfully the company was privatized in 2003. In addition, Privat is pushing for privatization revision in the hope of gaining control over the plant. Uncertainty over a disputed 50%+1 stake raises corporate governance concerns over the company in the short run.

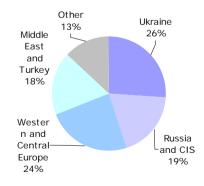
	Sales USD mn	Adj. Sales USD mn	EBITDA margin, %		Net margin	
	030 11111	ווווו שכט	Reported	Adj.	Reported	Adj.
2004	414.8	1,077.7	6.3%	55.7%	3.2%	41.4%
2005E	571.9	571.9	13.9%	13.9%	9.2%	9.2%
2006E	581.7	581.7	13.9%	13.9%	9.4%	9.4%

Ferroalloy Output, '000 mt



	Capacity, '000 mt	Utilization, %
FeMn	300	99%
SiMn	1,000	73%

Exports Share in 2003 74%



Nikopol Ferroalloy Fin. Statements

	2003	2004	2005E
Current Assets	74	92	149
Cash & Equivalents	0	2	9
Trade Receivables	25	49	76
Inventories	23	23	41
Other current assets	25	17	23
Fixed Assets	79	84	91
PP&E, net	76	77	83
Other Fixed Assets	2	7	9
Total Assets	153	175	240
Shareholders' Equity	104	117	179
Share Capital	14	14	15
Reserves and Other	89	103	163
Current Liabilities	41	50	60
ST Interest Bearing Debt	6	15	9
Trade Payables	25	29	41
Accrued Wages	0	1	1
Accrued Taxes	0	0	1
Other Current Liabilities	9	5	9
LT Liabilities	9	8	1
LT Interest Bearing Debt	0	0	0
Other LT	9	8	1

Net Revenues Change y-o-y	288	2004 415	2005E
Change v-o-v			572
onange y o y	-	44%	38%
Cost Of Sales	(238)	(364)	(473)
Gross Profit	50	51	99
Other Operating Income/Costs, net	(20)	(9)	0)
SG&A	(15)	(15)	(20)
EBITDA	15	26	79
EBITDA margin, %	5.1%	6.3%	13.9%
Depreciation	(5)	(5)	(7)
EBIT	10	21	73
EBIT margin, %	3.3%	5.0%	12.7%
Interest Expense	(1)	(1)	(2)
Financial income	0	0	0-
Other income/(expense)	0	0	0)
РВТ	8	20	71
Tax	(5)	(7)	(18)
Effective tax rate	54%	34%	25%
Extraordinary Income/(loss)	-	-	-
Net Income	4	13	53

1.4%

All results reported under Ukrainian Accounting Standards

153

175

240

Net Margin, %

Total Liabilities & Equity

9.2%

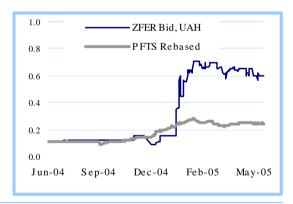
3.2%

Zaporizhzhya Ferroalloy (ZFER)

SELL

larget price	USD 0.10
Market Information	
No of Shares, mn	2,279.6
Par Value, USD	0.02
Market price, USD	0.13
MCap, USD mn	296.3
Free Float, %	10%
FF MCap, USD mn	29.6

Stock Ownership	
Privat group	50%
Kyiv group	40%
Minorities	10%
# of employees	3,775



	P/S	P/S Adj.	P/E	P/E Adj.	EV/EE	EV/ BITDA Adj.
2004	0.9	0.6	Neg	1.5	Neg	1.1
2005E	1.0	1.0	7.7	7.7	5.1	5.1
2006E	1.0	1.0	7.5	7.5	5.1	5.1

Profile: Ukraine's second and Europe's third largest ferroalloy manufacturer by capacity, located in a close proximity to both raw material suppliers and alloy consumers. Unlike Nikopol Ferroalloy, the plant is vertically integrated with Ukraine's manganese ore producers through a common shareholder, Privat group. ZFER's equipment was commissioned in the early 30s, but afterward underwent numerous reconstructions, the largest taking place in 1993–1999 and involving German Mannesmann Demag and Swiss ABB companies.

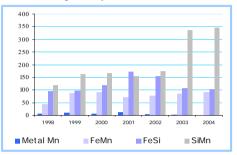
Products & Markets: The company's product range is the widest amongst its Ukrainian peers and includes SiMn, FeMn, FeSi and metal manganese. SiMn is the company's primary product, accounting for 63.5% of its output in 2004. The share of FeSi was 19.1%, with the balance made up mostly by FeMn. Exports account for the lion's share of the plant's sales (over 70%). Using domestic manganese ore results in a relatively high phosphorous content in ZFER's alloys, making them lower quality than NFER's alloys. Due to differences in quality, the company is geared more toward Russian and Asian markets, which are less technologically demanding than Europe.

Transfer pricing: The price per 1 mt of alloys implied by ZFER's 2004 sales is USD 606, while Hong Kong FOB prices for the period surged from USD 430 to USD 1,400 and were even higher in Europe and the U.S. We have concluded that ZFER engages in transfer pricing (most of its sales in fact are made to off-shore companies), and estimate its real average price per tonne of ferroalloy at USD 950 in 2004. In addition, the company tends to inflate its costs. It reported a negative gross profit in 2004, despite a 71% increase in sales and being profitable in 2003. The inflated COGS must have resulted from the purchase of Mn ore from related parties at above market prices. The company's balance sheet is plagued by dubious 'other' accounts. The assumption of arms-long transactions only is employed in our forecasts of ZFER's financials.

Share issue: In early 2005, ZFER increased its charter fund 2.15 times raising USD 23 mn. The proceeds will be used for reconstruction.

EBITDA Net Sales Adj. Sales margin, % margin, % USD mn USD mn Reported Adj. Reported Adj. 2004 328.2 514.0 -6.1% 53.2% -9.0% 38.5% 2005E 307.9 307.9 18.7% 18.7% 12.6% 12.6% 2006E 311.6 311.6 18.7% 18.7% 12.7% 12.7%

Ferroalloy Output, '000 mt



	Capacity, '000 mt	Utilization, %
Alloys & Mn	600	91%

Exports Share in 2004

>70%

Zaporizhzhya Ferroalloy Fin. Statements

Balance Sheet Summary, USD mn			
	2003	2004	2005E
Current Assets	210	137	192
Cash & Equivalents	3	3	6
Trade Receivables	23	8	22

Inventories Other current assets **Fixed Assets**

PP&E, net Other Fixed Assets **Total Assets**

Shareholders' Equity	62	37	103
Share Capital	40	20	46
Reserves and Other	42	17	58

Current Liabilities ST Interest Bearing Debt Trade Payables

Accrued Wages Accrued Taxes Ω Other Current Liabilities LT Liabilities

LT Interest Bearing Debt Other LT **Total Liabilities & Equity**

Income Statement Summary, USD mn

	2003	2004	2005E
Net Revenues	191	328	308
Change y-o-y	-	72%	-6%
Cost Of Sales	(170)	(339)	(241)
Gross Profit	21	(11)	67
Other Operating Income/Costs, net	1	(0)	(0)
SG&A	(8)	(9)	(9)
EBITDA	14	(20)	58
EBITDA margin, %	7.6%	Neg	18.7%
Depreciation	(4)	(4)	(5)
EBIT	11	(24)	53
EBIT margin, %	5.5%	Neg	17.1%
Interest Expense	(2)	(4)	(1)
Financial income	0	0	0
Other income/(expense)	(2)	(1)	0
РВТ	6	(30)	52
Tax	(6)	0	(13)
Effective tax rate	97%	-	25%
Extraordinary Income/(loss)	0	0	0
Net Income	0	(30)	39
Net Margin, %	0.1%	Neg	12.6%

All results reported under Ukrainian Accounting Standards

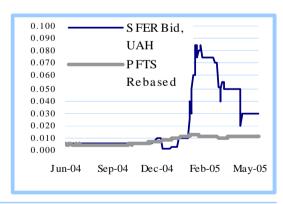
Stakhanov Ferroalloy (SFER)

LICE O COO

SELL

rarget price	030 0.0096
Market Information	
No of Shares, mn	14,356.9
Par Value, USD	0.01
Market price, USD	0.013
MCap, USD mn	186.6
Free Float, %	2%
FF MCap, USD mn	3.7

Stock Ownership	
Privat group (est.)	98%
Minorities	2%
# of employees	1,577



	P/S	P/S Adj.	P/E	P/E Adj.	EV/ EBITDA	EV/ EBITDA Adj.
2004	3.1	1.7	Neg	7.8	127.2	5.2
2005E	1.6	1.6	9.0	9.0	5.9	5.9
2006E	1.5	1.6	8.6	8.6	5.8	5.8

Profile: Ukraine's largest FeSi producer and third by total output. Located in the Lugansk oblast, close to Russia, as well as suppliers of coke and scrap. The key raw material, quartzite (containing silicon), is shipped to SFER's facilities from the Ovruch deposit in the Zhytomyr oblast, more than 430 km away. The plant was put into operation in the early 60s. Its 8 electric furnaces have a combined estimated annual capacity of 300K mt. SFER's operations depend on the availability of cheap electricity (up to 60% of COGS). In the late 2003 and early 2004, the plant had to idle its capacity due to a change in its electricity supplier, resulting in higher tariffs. Operations were resumed in March 2004 thanks to high alloy prices and negotiated preferential terms for electricity supply in 2004.

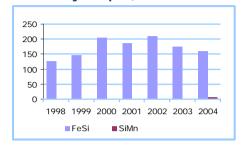
Products & Markets: The company specializes in smelting FeSi. In 2004, it converted two of its furnaces to SiMn. Manganese ore for SiMn production is supplied by Privat Group, the company's controlling shareholder. In 2005, SFER plans to convert two more furnaces to SiMn, as SiMn enjoyed higher prices in 2004 and is less energy-intensive than FeSi. The plant's products are inferior in quality to NFER's and ZFER's and are sold primarily to Russia.

Transfer pricing: We estimate SFER's average real ferroalloy price at USD 680 per tonne, as FeSi experienced a far smaller price rise than manganese alloys. This is still 85% higher than the price inferred from the company's reported sales. SFER's pricing policy is similar to those of NFER and ZFER and implies that some sales are hidden. Moreover, SFER apparently overstates costs, causing the company report losses in 2004. In our projections, we forecast true sales and earnings estimates.

CapEx plans: SFER will conduct a complete rejuvenation of its assets in 2005 with a focus on conversion to SiMn. The funds needed are USD 16 mn. In early 2004, SFER registered a 6.2 fold increase in its charter fund via a share issue, raising over USD 23 mn. In addition, the plant stated its intent to construct an in-house thermal power plant in 2005 – 2006 to become self-sufficient in electricity. The cost of this project is estimated at USD 187 mn. However, we doubt SFER's ability to raise the amount needed.

	Sales USD mn	Adj. Sales USD mn	EBITD margin,		Net margin	, %
	030 11111	030 11111	Reported	Adj.	Reported	Adj.
2004	61.0	599.0	2.6%	34.8%	-9.1%	21.3%
2005E	119.2	119.2	27.0%	27.0%	17.5%	17.5%
2006E	121.3	121.3	27.0%	27.0%	18.0%	18.0%

Ferroalloy Output, '000 mt



	Capacity, '000 mt	Utilization, %
FeSi & SiMn	300	55%

Exports Share >70%

Stakhanov Ferroalloy Fin. Statements

Balance	Sheet	Summary,	USD mn
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	2003	2004	2005E
Current Assets	13	26	54
Cash & Equivalents	0	0	1
Trade Receivables	2	5	10
Inventories	4	15	29
Other current assets	8	6	15
Fixed Assets	16	20	34
PP&E, net	11	16	27
Other Fixed Assets	4	5	7
Total Assets	29	47	89
Shareholders' Equity	8	2	48
Share Capital	4	4	29
Reserves and Other	3	(2)	19
Current Liabilities	9	37	41
ST Interest Bearing Debt	5	10	4
Trade Payables	2	1	6
Accrued Wages	0	0	0
Accrued Taxes	0	0	0
Other Current Liabilities	2	26	30
LT Liabilities	12	8	0
LT Interest Bearing Debt	12	8	0
Other LT	0	0	0
Total Liabilities & Equity	29	47	89

Income Statement Summary, USD mn

	2003	2004	2005E
Net Revenues	43	61	119
Change y-o-y	-	42%	96%
Cost Of Sales	(37)	(57)	(81)
Gross Profit	6	4	38
Other Operating Income/Costs, net	1	1	0
SG&A	(3)	(3)	(6)
EBITDA	4	2	32
EBITDA margin, %	8.5%	2.6%	27.0%
Depreciation	(2)	(2)	(3)
EBIT	2	(1)	30
EBIT margin, %	3.8%	Neg	24.8%
Interest Expense	(2)	(3)	(2)
Financial income	0	0	0
Other income/(expense)	(1)	(2)	0
РВТ	(1)	(6)	28
Tax	0	0	(7)
Effective tax rate	0%	0%	25%
Extraordinary Income/(loss)	0	0	0
Net Income	(1)	(6)	21
Net Margin, %	Neg	Neg	17.5%

All results reported under Ukrainian Accounting Standards

Concorde Capital

72 Chervonoarmiyska St, 2nd Entry, 6th Floor Kiev 03150, UKRAINE Tel: +380 44 206 8370

General	Director
---------	----------

Igor Mazepa

Managing Director

John Suggitt

Chief Investment Officer

Steven Cheshire, CFA

Corporate Finance

Maxim Bougriy

Equity Sales

Marina Martirosan Lucas Romriell

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Alexander Viktorov

Oil&Gas, Pipes, Non-Ferrous Metals

Andriy Gostik

Ferrous Metals

Viktor Koval

Machine Building, Chemicals

Olga Pankiv

im@con-cap.com

js@con-cap.com

steven.cheshire@con-cap.com

mb@con-cap.com

mm@con-cap.com lr@con-cap.com

kf@con-cap.com

ap@con-cap.com

av@con-cap.com

ag@con-cap.com

vk@con-cap.com

op@con-cap.com