# Fighting fit

Russia's steelmakers have had some good years, but they will have to work harder, and perhaps consolidate further, to keep their competitive edge. Magnitogorsk is fighting on all fronts, with new capacities, higher-quality products and cost-cutting, writes Sandra Buchanan.

The strategy at Magnitogorsk steel works has always been to make the largest number of steel products. Today, the works is still adding new products to its range, but now the constantly moving target is as much about quality as it is about diversity of products.

Like Russia's other large steel mills, Magnitogorsk Metallurgichesky Kombinat (MMK) has a rolling investment programme aimed at raising the efficiency of its operations and the quality of its products. In 2004 the company spent 10.5bn roubles ($375m) and in 2005, 15.6bn roubles.

Over the past two years, the last open-hearth furnace has been closed, the ratio of continuous casting has risen to 100%, hot-dip galvanized production has moved from sheet to coil, both the hot- and cold-rolling shops have been revamped, a colour coating line has been installed and many other improvements have been made. MMK ranks second on the scale of Russia's most technically efficient steel mills, according to industry research group Chermetinformatsia.

But as costs rise, steel prices fall from their peaks, the rouble appreciates and other emerging economies enter the world market, the priority for Russia's steelmakers is nurturing the country's comparative advantage – low production costs.

UBS Investment Research estimates that Russian steelmakers had the lowest overall costs worldwide for hot-rolled coil in 2005 (*see chart*). The study also looks at individual cash production costs for a tonne of billet or slab: they start at $180/tonne at NLMK, rising to around $220 and $230/tonne at Severstal and MMK, to $270/tonne at Chelyabinsk and Urals Steel, and close to $300/tonne at the smaller mills.

But can costs at these levels last? Alexei Morozov, author of the report, says it is arguable: "It depends which producer you take: some continue to pursue vertical integration, some build their own electricity generation to decrease production costs."

Chermetinfo thinks the Russian industry as a whole will be competitive for a long time yet, owing to its independence in raw materials, fuel and energy.


The new colour-coating line at MMK

Consolidation probably helps too. The six top companies control 85% of domestic production, of which three are stand-alone mills each accounting for 15-18% of production. But in world terms, even EvrazHolding – the largest producer with 13.85m tonnes of output last year – is a relatively modest-sized company. *Metal Bulletin* puts Evraz in thirteenth place in the world in 2005.

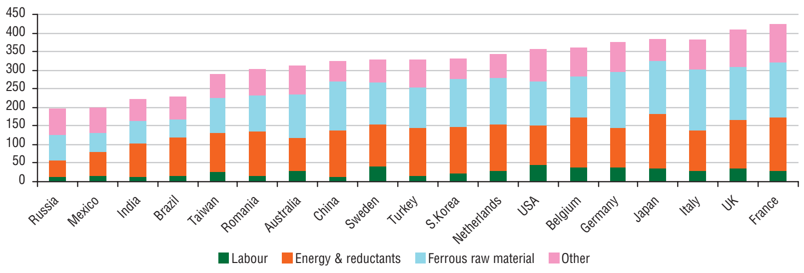
Alexander Ignatov, who heads Ignatov and Co, a Moscow-based consultancy, measures total Russian steel production against the biggest global players: "At the moment, Russia is not a single player in the global market and can't be compared with Mittal Steel or Arcelor." However, he points out that in combination, the country's steelmakers would have greater staying power (*see table*).

The globalised players, while big in steelmaking capacity, are at a comparative disadvantage in raw materials: Mittal Steel is only 50% self-sufficient in iron ore, Arcelor 40%, Baosteel 20% and Posco 10%, according to estimates by UBS.

## COMPARATIVE ADVANTAGE

Keeping costs under control is paramount. In 2005, MMK's income rose by over 10%, but its operating profit fell by 6.6% "owing to a worsening of market conditions," according to a spokeswoman.

## Global HRC cash costs 2005 estimate, $/tonne*




*Source: UBS, UBS estimates. *Based on production at larger mills*

"We are preparing for the time when costs will rise. Much depends on the production facilities," MMK's technical director, Yuri A. Bodyayev, says. He is presiding over a programme of reconstruction of the plant that processes raw materials, aiming to introduce cost-saving efficiencies from next year.

Two new units for the production of ore agglomerate are to replace two old ones, which will increase output and improve quality. Along with two new cooling lines from VAI, a better product will be produced – cold-stabilised agglomerate with better granulation – replacing some purchases of costlier pellets.

Three new units for feeding iron ore to the blast furnaces will be installed this year by Luxembourg plantmaker Paul Wurth. When they start up towards the end of the year, their speed and efficiency will optimise the steelmaking process to the point where MMK will be able to close one of its eight BOFs. Seven furnaces will produce the same volume of metal, but use less energy.

The mill invested 500m roubles in 2005 in energy-saving measures and saved 71m roubles on its electricity bill.

Raw materials account for 60-70% of steel input costs in Russia. Four of the six large steel companies have consolidated iron ore and coking coal supplies. NLMK – rated the most cost-effective and profitable mill in Russia and, by some, in the world – is 100% self-sufficient in both; EvrazHolding is about 87% self-sufficient in iron ore and 100% in coking coal; Mechel (Chelyabinsk Steel) provides 80% of its own iron ore and 100% of coking coal, and Metalloinvest (Urals Steel) consumes less than 50% of the iron ore from its Mikhailovsky mine but owns no source of coal.

MMK is at a relative disadvantage in that it has to buy its 14m tpy of iron ore at market prices. But a ten-year agreement struck last year with Kazakhstan's Sokolovsko-Saibarsky, secures 70-80% of the works' needs. Severstal has a secure supply for 100% of its iron ore, but also pays market prices as the assets that feed the mill are held by the Severstal Group.

"But across all the big mills, the balance is positive for both raw materials. Moreover, there are surpluses of both products, which can be exported or [held in] reserve for possible increases in steel production," Ignatov says.

While the prices of iron ore and coal in Russia tend to follow world prices, vertical integration and local consumption mean they remain lower. Nonetheless, they are rising, squeezing margins from one end. At the other end are steel prices that are falling – or at least levelling off. Figures for 2005 were only just being released as *MBM* went to press, but forecasts show substantial drops in operating profits, attributed to higher raw material prices.

"But we still have advantages on labour and energy," general director of Metalloinvest, Nazim Efendiev, says.

Energy costs are typically 5-10% of production costs and UBS says that although local electricity prices are rising, they will "remain materially below global levels in the medium-term." Moreover, an integrated mill can recycle BF gases to generate its own electricity and halve the price of an external supply. MMK claims that its internal electricity cost is actually 2.5 times less, and is investing more this year in its electricity station.

Relatively low wages also form part of the comparative Russian advantage. Morozov puts Russia's labour costs at about $12.50 per tonne of hot-rolled coil – less than those of India and Brazil, with only China's being lower.

While wages will no doubt rise, the number of employees will probably fall in the next few years.

And there is still room for more cost cuts: some mills are not yet using 100% continuous casting and, by all accounts, the enterprises can still make savings by streamlining their operations and management systems.

Vp for business development at Evraz, Andrey Teterkin says that Evraz's some capital expenditure is aimed at de-bottlenecking: "There is great potential to squeeze extra margins from internal efficiencies," he says.

## CONSOLIDATION

It seems that confidence in Russian vertical integration is undiminished and that opportunities for further consolidation may still arise. Metalloinvest's Efendiev, for one, is confident that consolidation is not over: "There will be more consolidation, internally and abroad. It's a matter of one or two years," he insists.

Metalloinvest itself will merge with Gazmetal – the two holding groups are part-owned by Alisher Usmanov and rationalising the iron ore assets of both has been in prospect for some time. Otherwise, NLMK's interest in taking over Izhstal, a producer of electrical steel, seems to be the only steel purchase in sight.

But there is plenty of speculation among Russian analysts that some present steelholding structures could change and offer new acquisition opportunities.

Since Alexander Abramov announced last November that he is stepping down as head of Evraz, rumours have been circulating that he may break up the group and sell it. "The company has a number of weak points," one analyst says.

He adds that if Chinese exports impact the market and bring down prices, this can also be expected to bring changes in terms of consolidation, shareholdings and ownership in Russia.

There were hopes last year that steel consolidation would embrace Ukrainian plants. But although Russian steelmakers were interested in the auction of the country's biggest mill, Krivorozhstal, and the synergies were good, the price was too high and no Russian company could

## Comparative output, sales and profits, 2005

| | Steel* full year | Sales 9 mo' | Net profit 9 mo' |
|---|---|---|---|
| EvrazHolding | 13.9m | $5.4bn | $0.8bn |
| Severstal | 10.8m | $4.2bn | $1.2bn |
| NLMK | 8.5m | $4.0bn | $1.4bn |
| Gazmetal-Metalloinvest | 6.2m | $1.8bn | $0.2bn |
| Mechel | 5.9m | $3.8bn | $0.4bn |
| MMK | 11.4m | $3.9bn | $1.0bn |
| **TOTAL RUSSIA** | **56.7m** | **$23.1bn** | **$5bn** |
| Arcelor | 47m | $29.7bn | $3.2bn |
| Mittal Steel | 60m | $21.0bn | $2.9bn |

*Source: Ignatov. *tonnes. Note: sales and profit figures for Russia's players are given in accordance with RFRS by the average official exchange rate per 9 months/2005.*

match the $4.8bn bid from Mittal Steel.

However, Ukraine presents one more likely opportunity in raw materials and the prospect of consolidation in the sector on a scale not seen since the collapse of the Soviet Union: the privatisation of a 10m tpy iron ore mine and pelletizing plant, Krivoy Rog GOK, owned by the governments of Ukraine, Romania and Slovakia, the construction of which was largely completed before 1991. Iron ore feed would come from Russian and Ukrainian mines.

Again, Mittal is a contender. But if Usmanov can secure the project, or part of it, his declared aim of building a huge iron ore company will take a big step forward.

Metalloinvest has proposed to the Ukrainian government that instead of holding an auction, it transfer its 56.4% stake to a joint venture company it would form with Ukraine's Smart Group – the owner of Inguletsky GOK and joint owner of Yuzhny GOK, both in Ukraine. Efendiev says that the Ukrainian mines already trade on the world market: "They understand the advantage of creating an international company."

Usmanov is also still interested in a merger with the Sokolovskovo-Sarbaisky iron ore mine in Kazakhstan. Together with Lebedinsky and Mikhailovsky, the five mines would produce 80m tpy of concentrate, making it the world's fourth largest iron ore company.

But it is Russia's raw material and energy resources plus its steelmaking capacity and growing internal demand that Ignatov thinks could be decisive: "Australia is good in coal and iron ore, but limits its steelmaking for ecological reasons; Brazil is good in iron ore, but has no coking coal in volumes and would need huge investments to match Russia in steelmaking."

If Russian Steel is in a good position now, it may be in an even better one a few years from now.

## Forecasts for Russian steel to 2008

| | 2005 | as % | Growth by 2008 |
|---|---|---|---|
| **Raw steel** | **66.2m** | 100% | 6.50% |
| by BOF | 39.2m | 59.20% | 17% approx |
| by EAF | 13.5m | 20.40% | 30% |
| by OHF | 13.5m | 20.40% | – 100% approx |
| **Rolled products** | **54.6m** | 100%* | 7.00% |
| long products | 30.4m | 55.70% | 6.50% |
| flat products | 23.6m | 43.20% | 8.00% |

*Source: Chermetinfomatsia, Moscow *1.1% is other long products such as rails.*