Aluminium market in Russia and the CIS

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September 2012
Annual per capita consumption of aluminium in Russia is estimated at 7.6 kg per person and is expected to grow at 4-6% per year, reaching 12.3% per person by 2020.
Overview of the Russian and CIS aluminium market

UC RUSAL’s production capacity can meet the entire demand for aluminium that exists in Russia and CIS.

The market is oriented towards added value products.

UC RUSAL’s Sales in Russia and CIS

- Added value products make up 74% of total sales.
- In 2012, sales in Russia and CIS are expected to reach 0.9 million tonnes.
There were no significant changes in the structure of sales between 2011 and 2012.
UC RUSAL’s Sales of Alloys in Russia and CIS in January through July in 2011 and 2012

In the first 7 months of 2012 sales of **foundry alloys and electric wire rod** grew fastest at 6% and 3% respectively.

There were no significant changes in the structure of sales between 2011 and 2012.
The long term market growth depends on a scenario to be chosen to develop the Russian economy: whether it will continue to grow primarily in the energy and mineral resources sectors or whether it will grow more through innovations and high tech. In any case oil prices will continue to play an important role in affecting domestic demand, stability of exchange rates, the behaviour of investors and the rate of economic growth.

It is assumed that aluminium consumption will be growing faster than GDP.

Key risks:
- Fast growth of production costs.
- Falling RUR to USD exchange rate
- High inflation
- Low purchasing power of the population
- High interest rates
- Fast growth of electricity rates as well as the prices of raw materials and alloying materials

Sources: *Brook Hunt, International Monetary Fund (IMF)  
**IMF, UIC RUSAL estimates
Growth Factors Contributing to Market Expansion in 2011-2012, Russia

- State support to the automotive sector
- Law on localisation of automotive production in Russia
- Growth in the construction sector
- Revitalisation of the aviation sector
- Fast growth of the packaging market
- Modernisation of power network infrastructure
- Development of new innovative products
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- Law on localisation of automotive production in Russia
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- Revitalisation of the aviation sector
- Fast growth of the packaging market

Rolling industry and other processing industries

Extrusion industry

Cable industry and ferrous metals

Automotive industry
Extrusion. Key trends in the construction industry

According to the Russian Statistics Bureau, in 2011 sales in construction were up 5% over same period of 2010. A total of 62.3 million square metres of residential real estate was commissioned (+6.6% y-o-y).

Residential housing construction may increase by as much as 6.4% in 2012.

Extrusion production is expected to increase by 8% in 2012.

Sources: Russian Statistics Bureau, 2012
Rolling mills. Key trends in the Russian market

The Russian can market is estimated to have a volume of 4.5 billion units per year, which is 8% of the European market. Every year the can market grows by 6-7%.
Beer cans make up 70% of the total number of cans sold. In the meantime the share of cans in the total number of containers used for beer in Russia is still less than in Europe and makes up only 17% (in Europe it is 20-25%). The Russian beer market grows by about 3-5% per year;
The second largest segment of the aluminium can market is cans for alcoholic beverages and sodas.

Sources: Rexam 2011
Automotive industry. Key factors and forecast growth of the automotive market in 2012

Long term factors contributing to sales growth | Short term factors holding sales growth back
--- | ---
Low automobile ownership translating into great growth potential | End of the scrappage programme
Large number of old cars that people are willing to buy replacements for | End of low interest rate loans
Relatively stable oil prices | Volatility of FOREX rates
International automakers investing in building manufacturing facilities in Russia | Eurozone instability
Joint loan programmes between OEM and banks plus captive banks

Car sales by market segment

<table>
<thead>
<tr>
<th>Market segments</th>
<th>2011, thousand units</th>
<th>2011, change, %</th>
<th>2012F, thousand units</th>
<th>2012F, change..,%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian brands</td>
<td>629</td>
<td>10%</td>
<td>560</td>
<td>-11%</td>
</tr>
<tr>
<td>Locally made foreign brands</td>
<td>1046</td>
<td>65%</td>
<td>1161</td>
<td>11%</td>
</tr>
<tr>
<td>Imported new foreign cars</td>
<td>848</td>
<td>40%</td>
<td>908</td>
<td>7%</td>
</tr>
<tr>
<td>Imported used foreign cars</td>
<td>7</td>
<td>-8%</td>
<td>7</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total market</strong></td>
<td><strong>2530</strong></td>
<td><strong>40%</strong></td>
<td><strong>2636</strong></td>
<td><strong>4%</strong></td>
</tr>
</tbody>
</table>

- In 2010-2011 the Russian brands were supported by a car scrappage programme, which enabled them each to sell 300 cars per year. Now the programme is over, the share of Russian brands in total cars sales is going to fall in 2012;
- AVTOVAZ may be able to increase its sales as it introduces new models in 2012 such as Lada Granta and Lada Largus;
- Sales of Russia-manufactured foreign brands may increase by as much as 11% in 2012.
Automotive industry.
Uses of aluminium in the automotive industry

Aluminium consumption by the automotive industry is expected to double between 2008 and 2025. At the moment aluminium is used primarily in the manufacture of wheel disks (up to 17% of total aluminium consumption in the automotive industry). In the medium term there will be an increase in the use of aluminium in body parts and bumpers (a growth of up to 50% is expected). It is expected that through 2020 aluminium consumption by the domestic automotive industry will be growing at an annual rate of 2%, however as new projects are implemented this growth may reach 8%.

Car sales in key markets in 2011, million units

Compared to other markets the Russian automotive market grew the most in percentage points (40% in total sales but 70% in percentage points on 2010) while many European markets contracted because of economic challenges. In 2012 global automotive production is expected to grow 7% on 2011. To a large extent this will result from the continued growth in demand in China and India as well as the recovery of the US market.
The trend towards a higher share of aluminium in the total amount of metals used by the cable industry continued in 2011 (from 35% in 2010 to 37% in 2011). Total growth in aluminium consumption of cable producers outpaced total growth in copper consumption by 8%.

Source: Electric cable Association
Cable industry.
Developing wire rod made from nano-structured aluminium alloys as well as from Al-Cu, Al-Mg, Al-Mg-Zr, Al-P3M, Al – Zr.

- **Wires made from nanostructured aluminium alloys**
  The goal is production of wire rod with low electric resistance (below 0.0270-0.0275 Ohm *mm²/m). The project is being implemented by the Technical Directorate of UC RUSAL in cooperation with Ufa State Aviation Technical University and the Chemistry Department of Moscow State University.

- **Wires made from Al-Cu, Al-Mg, Al-Mg-Zr, Al-P3M**
  The goal is production of wire rod at IRKAZ with mechanical strength comparable to that of copper: 260-350 Mpa and electrical resistance that is 10-15% less of the wires made today (below 0.0270-0.0275 Ohm *mm²/m). The project is being implemented by the Technical Directorate of UC RUSAL in cooperation with Ufa State Aviation Technical University and the Chemistry Department of Moscow State University.

Additional amount of wires and cables made from new aluminium alloys may reach up to **150,000 tonnes per year**.
Global steel production was up 7% in 2011. In Russia it was up 3% reaching 69 million tonnes. In Ukraine it was up 6% reaching 35 million tonnes.
Pros of Russia’s accession to WTO

On December 16th 2011 Russia was admitted to WTO

- Russian companies will be able to challenge protectionist measures previously introduced by other countries against their products
- The Russian industry will have long term incentives to improve its efficiency
- Russia will have to carry on reforming its economy and improving its image as a safe country to invest in and do business with
- The economy will diversify
- Development of the infrastructure

**GDP’s of BRIC nations**

Statistics show that when other BRIC countries joined the WTO their GDP initially fell but after that it started growing even faster than before as domestic companies were forced to improve efficiency in the face of tougher international competition.

Source: IMF, Bloomberg, Troika Dialog
Investments in Russia

New stage in the development of Russia’s automotive industry

- Practically all the major car makers have manufacturing facilities in Russia.
- There have emerged some major automotive industry clusters (Saint Petersburg, Central Russia, the Volga region).
- The most popular domestically produced foreign brand cars have very large percentages of locally sourced parts.
- Car part manufacturers have begun siting their production facilities in Russia, filling in the missing link in the supply chain.
- The country now has a solid industrial base for the production of car parts at a new level, using the experience of international car part manufacturers, often in cooperation with local companies, increasing the amount of local sourcing of raw materials.
- New high-tech manufacturing facilities are being set up to manufacture components and parts that previously had to be imported.
- Demand is growing for modern materials, identical to those used by international manufacturers: Russian manufactures have to not only increase their capacity but also to expand their product range.
- Practically for all key groups of car parts and components there are now enough orders to justify local production.
Market situation after Russia’s accession to WTO

In the long run Russia’s ascension to WTO will have a positive effect on the country’s economic growth, the revenues of local companies and their market valuation. However, not all sectors of the economy will benefit from Russia’s membership in the WTO, especially in the first several years after the ascension. It is possible that an improved investment climate will begin to bear fruit (allowing GDP growth to reach 11% and boosting return on investment to 13-19%).

- **Automotive industry**
  In the long term sales of aluminium alloys in Russia are not going to decline as foreign automotive brands start buying more aluminium for their local production facilities (on condition that the programme to stimulate localisation of production is to continue in its current form). In the period through **2020** it is expected that aluminium consumption by the automotive industry will be growing at 2% per year, but that if new projects are implemented it may even grow at 8% per year.

- **Rolling mills**
  Following Russia’s accession to WTO the competition in the can sheet and foil markets will intensify. However, a possible decline in demand from local manufacturers will be offset by increased use of aluminium packaging and growth in the rolling mills sector (KRAMZ, KUMZ etc.) Thus in the long term we expect consistent growth in this sector

- **Cable industry**
  Russia’s accession to WTO will have little effect on domestic sales of wire rod. The modernisation at KAZ will reduce the risk of a sudden increase in imports of cable made from aluminium wire rod.

  Another positive factor here is the first attempts to export wire rod to customers outside the CIS. However, more state support is needed to keep the momentum here (this can be in the form of further development of such institutes as ESKAR (*a specialised company for the development of financial instruments for the state support of exports*).

- **Ferrous metals**
  We do not expect sales in this sector to decline after Russia’s accession to WTO. There is very little probability that imports of oxidation wire rod will increase because the reduction in the import tariff is insignificant.

- **Extrusion**
  The reduction of the import tariff for extruded products, door and window frames to 12% and the cancelation of the minimal customs value of EUR 4 per kg will at first lead to increased imports of extruded products into Russia. However, it should be taken into account that the capacity already available in Russia will enable Russian companies to neutralise the competitive advantage of imported extrusions and eventually push them out of the Russian market entirely.
Measures to increase consumption of aluminium in Russia and the CIS

Taking into account UC RUSAL’s dominant position in the Russian market, further increase in UC RUSAL’s sales in Russia is only possible if UC RUSAL helps develop the domestic aluminium consuming industries.

There are four basic ways in which UC RUSAL can increase aluminium consumption in Russia and the CIS:

1. By continuous improvement of the system the company uses to deliver aluminium to domestic customers

2. UC RUSAL should create a number of innovative aluminium alloys that its customers can use in place of other materials such as steel, copper, plastic, etc.

3. Efforts should be made to improve applicable laws and regulations (GOSTs, SNIPs) that regulate uses of aluminium in various industries such as construction, the power industry etc.

4. Products utilising aluminium should be promoted in the Russian market and UC RUSAL’s customers should be protected

5. Assistance to foreign manufactures of aluminium utilizing products to set up production in Russia