

CIREC

MONTHLY NEWS

Chemical Industry News for Central Europe, South East Europe and Eurasia

Edited by **Andrew Sparshott** | Tel **+44 (0)20 8669 5126** | Email **enquiries@cirec.net** | Web **www.cirec.net**

Czech Republic | Slovakia | Hungary | Poland | Bulgaria | Romania | Croatia | Slovenia | Yugoslavia | Baltic States | Russia | Belarus | Ukraine | Transcaucasus | Central Asia | Kazakhstan

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CENTRAL & SOUTH EAST EUROPE

Petrochemicals

Central European Refining Volumes (unit-mil tons)

| Company | Q1 16 | Q1 15 |
|-----------------|-------|-------|
| INA | 0.5 | 0.5 |
| Lotos | 2.4 | 2.4 |
| Lukoil Bourgas | 1.5 | 1.5 |
| Lukoil Ploiesti | 0.6 | 0.5 |
| MOL Hungary | 2.0 | 2.0 |
| NIS | 0.8 | 0.7 |
| Orlen-Lietuva | 2.4 | 1.8 |
| Orlen-Plock | 3.5 | 3.5 |
| Petrom | 1.1 | 1.0 |
| Rompetrol | 1.7 | 1.3 |
| Slovnaft | 1.5 | 1.5 |
| Unipetrol | 1.4 | 1.2 |
| Total | 19.5 | 17.8 |

Central European refining & margins

Refining volumes in Central and South East Europe rose in the first quarter this year due largely to increases recorded by Unipetrol, Orlen Lietuva and Rompetrol. Orlen's Plock refinery and the Lotos refinery at Gdansk were mostly unchanged, although Lotos increased utilisation levels slightly from 92.6% in the first quarter in 2015 to 93.4% in 2016. Lotos recorded a net profit of zł 106 million in the first quarter against a net loss of zł 101.4 million in the same period last year. In 2015 the Lotos group significantly increased naphtha production, selling both to export and domestic markets, whilst xylene production (mostly exported to Germany) remained unchanged.

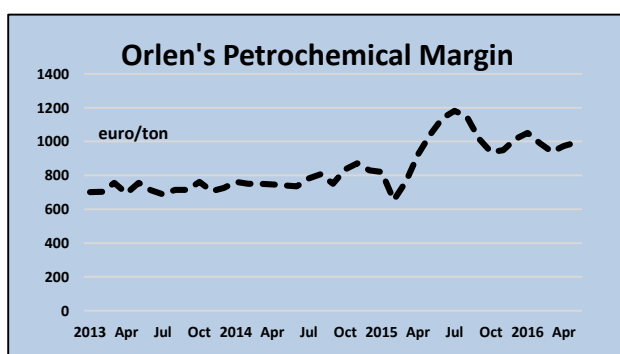
Serbian company Naftna Industrija Srbije (NIS), majority owned by Gazprom Neft extended profits in the first quarter as increased refining volume and cost cuts helped offset the low prices of crude. HIP Petrohemija is the main customer for NIS, purchasing naphtha for the cracker at Pancevo. In Romania, Chinese company CEFC is in the process of buying a 51% stake in Rompetrol from KazMunaiGaz. Depending on legal conditions, CEFC and KazMunaiGaz of Kazakhstan agreed in April on the sale of 51% of

KMG International (fully owned by KazMunaiGaz) for \$680 million.

Saudi Aramco and PKN Orlen signed a contract at the end of May from the supply of 50,000 barrels of crude oil per day to Poland. This agreement marks a strong first-step for Saudi Aramco's entry into the Baltic market, adding value in the key markets of Poland, Lithuania, and the Czech Republic. The contract agreed with Saudi Aramco in May is PKN's first long-term deal with a supplier from the Gulf region.

Kralupy refinery outage & propylene

Unipetrol's FCC unit at the Kralupy refinery was forced to close on 17 May 2016 due to technical reasons, affecting the supply balances of the group. Extra propylene imports were expected in June in order to



maintain polypropylene production at Litvinov, where the cracker is currently undergoing repairs. It is not clear yet when the Kralupy refinery is expected to restart. Due to the uncertainty over gasoline supply Unipetrol has rented an empty storage tank with a capacity of 80,000 tons of crude oil from the Czech Agency for Material Reserves.

PKN Orlen-petrochemical margins

The model refining margin for PKN Orlen dropped 6% in May, whilst the model

downstream margin dropped 2.5%. The petrochemical margin rose to €995 per ton in May against €973 per ton in April. In the first five months this year Orlen's petrochemical margin averaged €989 per ton, which is nearly 18% up on the same period in 2015. Throughout the whole of 2015 the margin averaged €965.75 per ton, whilst the most profitable months were recorded from about May onwards. As 2016 progresses the comparisons in margins are expected to narrow.

PKN Orlen-phenol restart

PKN Orlen resumed production of phenol and acetone at Plock in June following a maintenance shutdown which started on 6 May. In the first four months in 2016 PKN Orlen produced 14,400 tons of phenol against

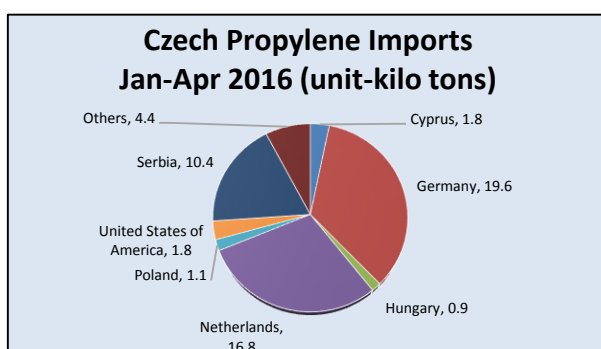
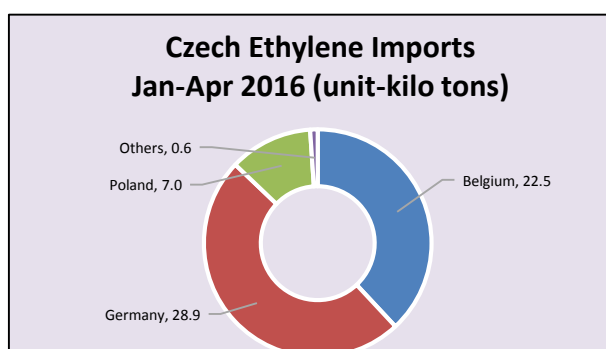
12,900 tons in the same period last year. The company is currently in the process of modernising the phenol and acetone facilities, and wants to expand phenol capacity from 50,000 tpa to 200,000 tpa.

| Czech Petrochemical Imports (unit-kilo tons) | | |
|-------------------------------------------------|------------|------------|
| Product | Jan-Apr 16 | Jan-Apr 15 |
| Ethylene | 59.0 | 4.0 |
| Propylene | 56.9 | 8.3 |
| Butadiene | 19.7 | 7.3 |
| Benzene | 34.5 | 31.2 |
| Ethylbenzene | 21.8 | 0.0 |

Czech ethylene & propylene imports

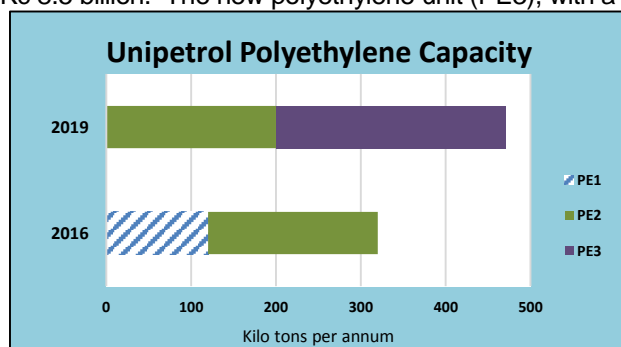
Czech ethylene imports totalled 59,000 tons in the first four months in 2016 against 4,000 tons in the same period last year. Propylene imports rose from 8,300 tons in January to April 2015 to 56,900 tons in 2016. Imports may start to slow when partial operation of the steam cracker at Litvinov is established in the near future whilst full operation is to be achieved later in the year. In the aromatics sector, imports of ethylbenzene totalled 21,000 tons in January to April 2016, supplied from Poland, Hungary and Slovakia. Poland was also the dominant

source of benzene imports providing more than 80% of the 34,500 tons shipped into the Czech Republic for the first four months in 2016.



Unipetrol-polyethylene unit construction

Unipetrol inaugurated construction of its new polyethylene unit at Litvinov in June, which is expected to cost Kc 8.5 billion. The new polyethylene unit (PE3), with a capacity of 270,000 tpa, will replace the older of the two units that operates at Litvinov. The main contractor of the project is Technip and licensor Ineos, involving a total investment cost of Kc 8.5 billion. The second of the polyethylene units (PE2) will remain in operation after 2018 when the new plant starts, giving Unipetrol a total capacity of 470,000 tpa. The polyethylene unit will take ethylene produced in the cracker which has been idle since being damaged last year.



Czech polymer and rubber trade, Jan-Apr 2016

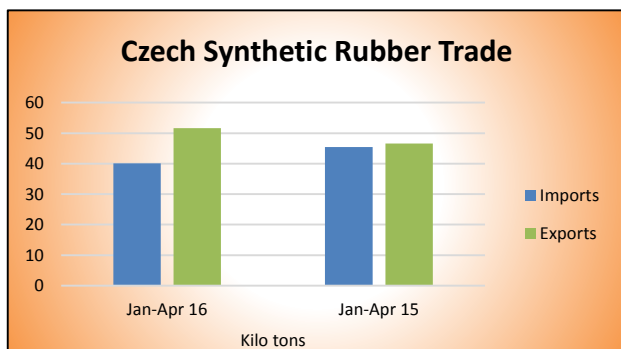
Czech exports of polyethylene dropped from 121,000 tons in January to April 2015 to 57,000 tons in the same period last year. The main markets for Czech polyethylene exports in 2016 included Germany and Slovakia. Germany was also the largest exporter of polyethylene to the Czech market so far this year, followed by Belgium.

| Czech Polymer Trade Balances (unit-kilo tons) | | |
|-----------------------------------------------|------------|------------|
| | Jan-Apr 16 | Jan-Apr 15 |
| Polyethylene | -60.0 | +31.9 |
| Polypropylene | -108.2 | -60.0 |
| PVC | -19.0 | +1.9 |
| Polystyrene | +4.3 | +11.4 |

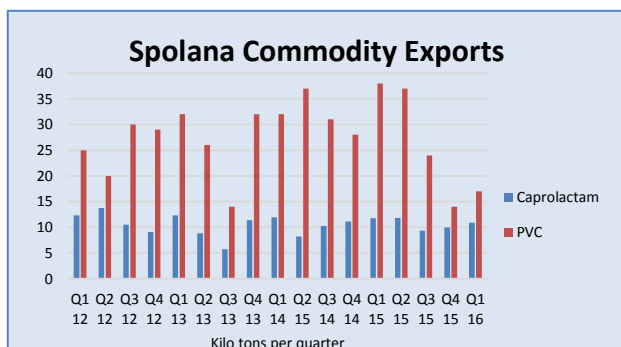
year.

The net effect of the rise in imports and decline in exports, mostly attributable to the Litvinov outage, meant that the trade balance for polyethylene shifted from a surplus in the first four months in 2015 of 31,900 tons to a deficit of 60,000 tons in the same period this

year. The deficit in polypropylene trade increased from 60,000 tons in January to April 2015 to 108,200 tons in the same period this year. Polypropylene imports rose to 174,000 tons in January-April 2016 against 144,000 tons in 2015, declined from 85,000 tons to 66,000 tons. The major destination for Czech polypropylene



Unipetrol has purchased Spolana from Anwil, after ten years under ownership by the Polish company. Both Unipetrol and Anwil belong to the Orlen group, and thus in principle at least the transaction has been undertaken on an internal basis. Unipetrol is acquiring 100% of the share capital of Spolana for €1 million euros (about Kc 27 million). The transaction should be completed within a week according to Unipetrol.



exports is Poland which accounted for 29,000 tons of the 66,000 tons to date this year followed by a range of West European markets.

Exports and imports of synthetic rubber showed little change in the first four months this year. Synthetic rubber production at Synthos Kralupy has to some extent been insulated from the shutdown at Litvinov and impact on feedstocks.

Unipetrol has bought Spolana from Anwil

The takeover will enable Unipetrol to improve its planning and control over Spolana in advance of the new polyethylene units. The transaction is in its part of the overall reorganisation, which relates to the acquisition of full control over refining and chemical assets in the country. This strategy has also included the consolidation of the company Benzina and the Polymer Institute Brno.

Spolana produces PVC, fertilisers, inorganic compounds and other chemicals. The company focuses primarily on the export of its products and currently employs approximately 700 people. Unipetrol sold Spolana to Anwil sold in October 2006 when strategy was then focused on moving away from chemical products in order to concentrate on refineries, petrochemical and retail sale of fuel.

Grupa Azoty-PDH project

Grupa Azoty has selected ILF Consulting Engineers as the Contract Engineer for the PDH project at subsidiary Grupa Azoty Police. Tecnimont and Technip are engaged in the construction of the propylene plant, the total cost of which was originally estimated at zł 1.7 billion. The purpose of the Contract Engineer is to ensure safety led the project, its organisation as well as the monitoring and evaluation of the work of engineering, purchasing and installation.

Construction of the plant for the production of propylene using PDH is a key investment for Grupa Azoty, not only in size but also as a new direction for the group. The capacity of propylene production is being designed to produce 400,000 tpa. At the peak of construction around 1000 employees will be engaged, and when operational will reduce to 200.

The first ton of propylene is expected to be produced in the second half of 2019. Poland imports around 150,000 tpa of propylene, and thus a surplus should be made available from the Police plant for exports.

| Czech Organic Chemical Imports (unit-kilo tons) | | |
|-------------------------------------------------|------------|------------|
| | Jan-Apr 16 | Jan-Apr 15 |
| Methanol | 30.970 | 32.722 |
| Isopropanol | 10.868 | 10.534 |
| Normal butanol | 4.354 | 4.011 |
| 2-EH | 9.409 | 11.008 |
| Acyclic alcohols | 10.639 | 8.051 |
| Ethylene glycol | 4.406 | 1.708 |
| Propylene glycol | 0.829 | 0.732 |
| Pentaerythritol | 0.246 | 0.41 |
| Glycerol | 9.927 | 7.913 |
| Dinonyl or didecyl orthophthalates | 4.084 | 3.423 |

Chemicals



First LNG deliveries to Poland

Polish gas company PGNiG expects to receive its first spot delivery of LNG from Statoil on 25 June. The shipment of around 140,000 tons of LNG will be delivered to Poland's first LNG terminal at Swinoujscie at the Baltic Sea, which is expected to start commercial operations imminently. PGNiG stated that it will receive the first shipment of LNG from Qatargas on 17 June as part of the long-term contract signed in 2009. The new terminal has given PGNiG the alternative source of supply to Gazprom. Thus it has no plans to renew its long-term contract for the supply of Russian gas which expires in 2022. PGNiG states that if the price of Russian gas is competitive, it will buy on that basis but not on a long-term contract as in the past.

Polish Chemical Production (unit-kilo tons)

| Product | Jan-Apr 16 | Jan-Apr 15 |
|---------------------|------------|------------|
| Caustic Soda Liquid | 109.7 | 101.0 |
| Caustic Soda Solid | 25.0 | 17.7 |
| Soda Ash | 413.7 | 344.3 |
| Ethylene | 184.5 | 182.9 |
| Propylene | 131.5 | 131.2 |
| Butadiene | 20.9 | 18.1 |
| Toluene | 4.7 | 3.2 |
| Phenol | 14.4 | 12.9 |
| Caprolactam | 56.0 | 57.8 |
| Acetic Acid | 2.6 | 2.8 |
| Polyethylene | 131.2 | 128.5 |
| Polystyrene | 19.7 | 14.8 |
| EPS | 31.7 | 20.6 |
| PVC | 94.0 | 110.4 |
| Polypropylene | 91.2 | 81.7 |
| Synthetic Rubber | 71.4 | 63.8 |
| Ammonia (Gaseous) | 977.0 | 492.0 |
| Ammonia (Liquid) | 32.3 | 497.0 |
| Pesticides | 8.3 | 11.6 |
| Nitric Acid | 847.0 | 825.0 |

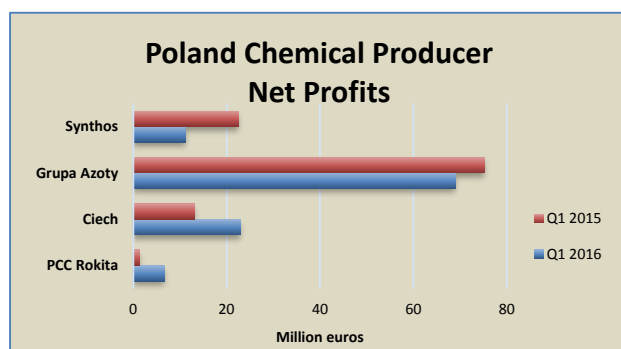
Grupa Azoty has already estimated savings of around zł 240 million in 2016 from lower gas prices. Although fertiliser prices are expected to fall this year, Azoty has forecast an increase in EBITDA of around 13%. The main factor that could affect this forecast is a slowdown in demand for fertilisers in China which accounts for around 30% of the global market.

Grupa Azoty Pulawy-new project for ammonium nitrate

Grupa Azoty Pulawy is spending zł 385 million on a new ammonium nitrate plant to be completed by 2020. The new plant will employ 130 people and will consist of two production lines, the first of which is to be ready in 2018. In 2020 the company will aim to complete the production, packaging and shipping of calcium ammonium nitrate at 1,400 tons per day or granulated ammonium nitrate at 1,200 tons per day. Grupa Azoty Pulawy is the second largest producer of nitrogen fertilisers in the European Union and Europe's third largest producer of melamine.

Oltchim-Chimcomplex

Chimcomplex Borzesti has filed for the purchase of the assets of Oltchim. Chimcomplex last year launched the idea of National Chemicals Company (NCC) including companies Chimcomplex and Oltchim. The aim of NCC would be to establish a company that would represent Romania in an effort to restore part of the chemical industry which collapsed in the 1990s.



PCC Rokita Q1 2016

PCC Rokita achieved an operating profit of zł 37.470 million in the first quarter against zł 10.9 million in the same period in 2015. PCC Rokita is the smallest of the four main chemical companies

in Poland, as shown in the graphic above, although business is expanding rapidly. The company's net profit rose in the first quarter to zł 29.71 million against zł 4.95 million in 2015, partly due to uninterrupted production in 2016 and also the conversion of chlorine production to the new membrane technology. The new membrane technology reduced the consumption of electricity required in the production process for chlorine. The gross margin for PCC Rokita increased from 17.4% in the three months of 2015 to 26.1% in 2016.

RUSSIA

Russian Chemical Trade & Production



Russian chemical trade, Jan-May 2016

Russian chemical product imports declined by value slightly in all categories in the first five months in 2016, the largest fall recorded for organic and inorganic chemicals. The falls in imports were partly influenced by lower product prices and partly due to the continuing weak fundamentals in the Russian economy. The term import substitution used in official circles to account for falling imports, but in reality the contracted economy is the most plausible explanation for lower volumes.

Russian Chemical Production (unit-kilo tons)

| Product | Jan-Apr 16 | Jan-Apr 15 |
|-----------------------|------------|------------|
| Caustic Soda | 366.2 | 385.2 |
| Soda Ash | 909.7 | 1,040.0 |
| Ethylene | 929.0 | 910.0 |
| Propylene | 730.1 | 680.3 |
| Benzene | 406.2 | 410.8 |
| Xylenes | 193.3 | 200.9 |
| Styrene | 245.4 | 238.5 |
| Phenol | 82.2 | 81.2 |
| Ammonia | 5,400.0 | 4,900.0 |
| Nitrogen Fertilisers | 3,381.0 | 2,800.0 |
| Phosphate Fertilisers | 1,224.0 | 1,100.0 |
| Potash Fertilisers | 2,474.0 | 2,500.0 |
| Plastics in Bulk | 2,613.0 | 2,367.0 |
| Polyethylene | 751.0 | 577.0 |
| Polystyrene | 183.2 | 179.1 |
| PVC | 270.9 | 285.4 |
| Polypropylene | 435.7 | 467.0 |
| Polyamide | 50.3 | 45.3 |
| Synthetic Rubber | 501.0 | 540.0 |
| Synthetic Fibres | 49.6 | 42.7 |

Russian chemical production, Jan-Apr 2016

Whilst generally performing well this year, Russian chemical production has been affected to an extent by the prolonged outages at Angarsk Polymer Plant and Sayanskimplast. Although both companies hope to restart in July after repairs have been completed at Angarsk.

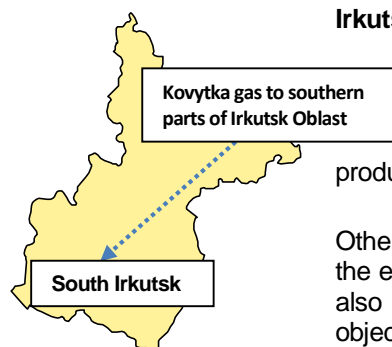
Despite the cracker not operating since February, Russian ethylene production rose in the first four months this year to 929,000 tons against 910,000 tons in the same period in 2015. The main products where declines were recorded in the first four months included PVC, which dropped to 270,900 tons against 285,400 tons, and caustic soda which dropped from 385,200 tons to 366,200 tons.

Most chemical companies have continued to show high profits in the first quarter, boosted by the advantages of the weak rouble, but there is a consensus that trends in profitability should start to slow down as the year progresses. Petrochemical producers were very profitable in the first quarter, whilst in other sectors such as fertilisers the picture was more mixed. Aside the persisting weakness of the domestic economy raw material and energy costs are starting rise which may start to erode profit margins.

Russian Petrochemical Projects

ZapSib-2 update

SIBUR has completed construction of the feedstock park for the ZapSib-2 petrochemical project at Tobolsk, allowing storage and reception of natural gas liquids. The project contractors have also completed the reinforced concrete structures for the cracker facility. The feedstock park will include 12 spherical tanks for the storage of raw materials, and seven pumps. Bypass roads have been created for the project which are temporary and will be used during the construction of ZapSib-2. Aside the metal structures for the cracker work has progressed on the polypropylene and polyethylene plants. Up to 14 main contractors are participating in the project, including both domestic and foreign companies. Most of the personnel are engaged in the construction and installation of the cracker and the supporting facilities.



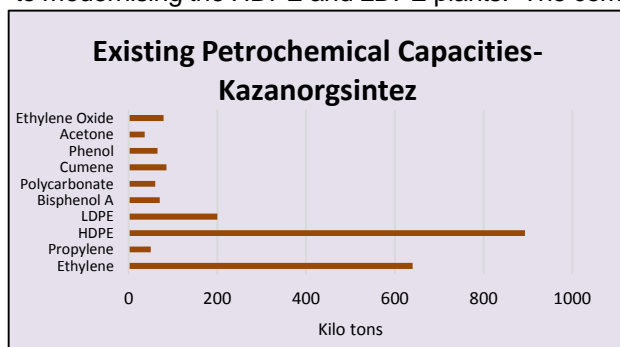
Irkutsk-Chinese interest in gas-chemical complex

The Irkutsk Oblast administration is in talks with China National Petroleum Corporation (CNPC) concerning the possible construction of the Kovytko-Sayansk gas pipeline, which could eventually allow Sayanskhimplast to use Kovytko gas as a raw material for ethylene production.

Other talks have been held by the Irkutsk Oblast with Chinese investors over the establishment of a gas-chemical complex at Usolye-Sibirsk. This would also depend on the construction of the gas pipeline, of which the main objective would be to provide gas for the Irkutsk region.

Kazanorgsintez expansion plans

Kazanorgsintez has reaffirmed plans to increase its cracker capacity up to 1 million tpa by 2020, in addition to modernising the HDPE and LDPE plants. The company also wants to create its own production facilities



for benzene, which it currently sources on the open market and uses for the production of cumene. Having its own production of benzene would help to increase the profitability of polycarbonates.

In 2015 Kazanorgsintez launched a two-chamber highly selective ethane pyrolysis furnace (technology Technip) which allowed the decommissioning of obsolete equipment. The furnace capacity is 36 tons per hour of ethane-propane feed and can produce 138,000 tpa of ethylene. It is planned to replace the propane-

butane stove on the first stage of the plant.

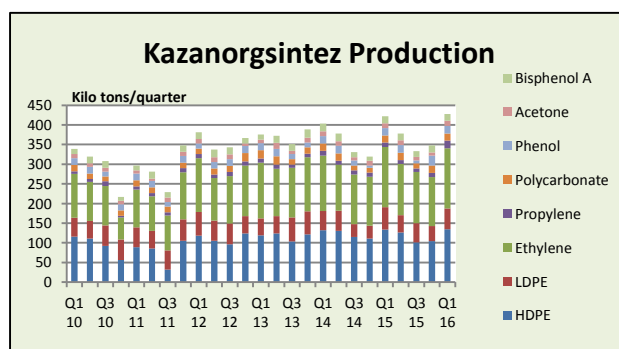
Russian petrochemical producers 2015

Kazanorgsintez Polymer Revenues (billion roubles)

| Polymer | Q1 16 | Q1 15 |
|---------------|-------|-------|
| HDPE | 10.7 | 9.2 |
| LDPE | 4.5 | 3.6 |
| Polycarbonate | 2.6 | 2.1 |
| Total | 17.7 | 14.8 |

Kazanorgsintez Q1 2016

Kazanorgsintez increased its net profits by 36.5% in the first quarter to 6.476 billion roubles. Revenues increased by 17.1% to 20.149 billion roubles. The key factor in the rise in profits in the first quarter that was sales prices for polymers rose much more than costs for raw materials. Costs rose no more than 5% allowing the company to record a gross profit of 9.52 billion roubles, 33% higher than in the first quarter of 2015.



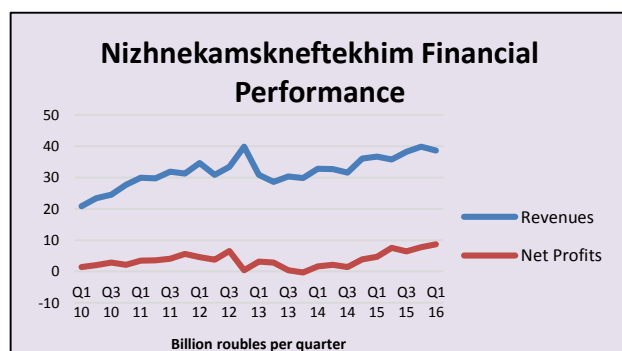
production. This helped reduce consumption of raw materials and energy. Kazanorgsintez increased exports of commodity products by 8.1% in 2015 in real terms.

The size of long-term loans for Kazanorgsintez declined by 46.2% in 2015 to 5.9 billion roubles, and short-term loans by 25.9% to 6.6 billion roubles. The company has set a target of increasing annual revenues to around 100 billion roubles by 2020, based on the current value of the rouble.

In 2015 Kazanorgsintez increased its capacity for PE100 pipe grade LDPE, whilst also replacing lead-titanium catalyst for polycarbonate

Nizhnekamskneftekhim Q1 2016

Nizhnekamskneftekhim achieved a net profit of 8.66 billion roubles in the first quarter this year, 1.8 times up on the same period in 2015. The company's revenue increased by 5.2% to 38.62 billion roubles, the rise



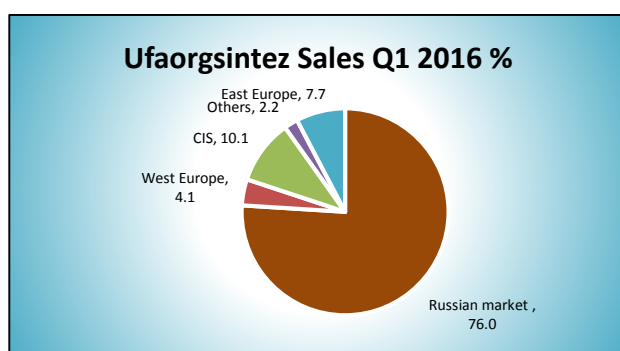
attributed to higher prices and an increase in volume of both production and sales. Production costs decreased by 5.8% in the first quarter to 26.75 billion roubles, whilst the gross profit increased by 42.5% to 11.86 billion roubles.

The operating profit increased by 1.6 times up to 8.51 billion roubles, whilst the short-term debt reduced in the first quarter from 1.65 billion roubles to 14.3 million roubles. Nizhnekamskneftekhim produced 182,000 tons of plastics in the first quarter, unchanged from

2015, and synthetic rubber 166,000 tons which was 4% higher than in 2015.

Ufaorgsintez Q1 2016

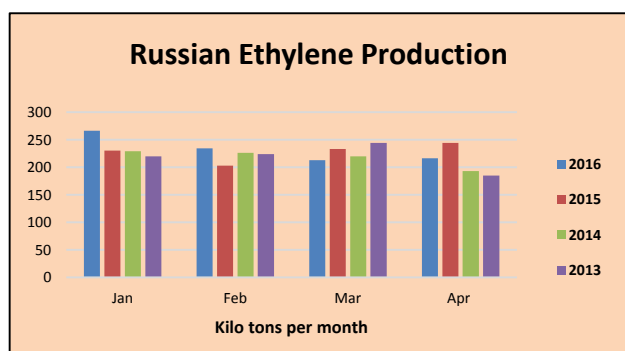
Ufaorgsintez increased its net profit in the first quarter by 67% to 1.91 billion roubles whilst revenues dropped slightly from 7.62 billion roubles to 7.58 billion roubles. The cost of sales for Ufaorgsintez decreased by 8.4% to 5.51 billion roubles, the result of which meant that gross profit increased by 29% to 2.07 billion roubles. Operating profit increased by 31% and amounted to 1.55 billion roubles. Profit before tax reached 2.44 billion roubles.



Sales revenues by product were divided into polypropylene 22% and LDPE 17%. About 76% of revenue was derived from sales in the domestic market. Export activity was carried out mainly in the CIS countries (accounting for 42%) and East and West Europe (32% and 17%, respectively).

Aside assessing options for expanding ethylene capacity, Ufaorgsintez is engaged in the reconstruction of the cumene plant and the expansion of production of special grades of epoxy resins.

Russian petrochemical markets



Russian petrochemical feedstocks

Russian ethylene production totalled 929,000 tons for the first four months this year, against 910,000 tons in the same period in 2015. The restart of the Stavrolen cracker was largely offset by the outage at Angarsk. The cracker at Angarsk was scheduled to have restarted on 1 June following extensive repairs since February. Most of the new equipment has been installed.

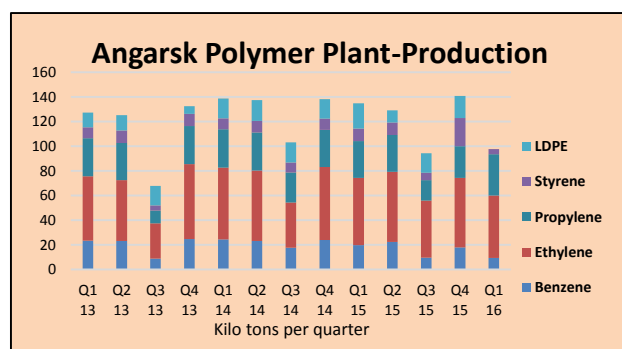
Angarsk Polymer Plant, restart July

Rosneft has stated that the supply of ethylene from Angarsk to Sayanskkhimplast will commence from 1 July. Angarsk Polymer Plant was unable to restart its petrochemical complex in early June as intended and is now expected to restart at the start of July. This directly affects Sayanskkhimplast, which is waiting to restart its PVC plant, whilst indirectly affecting the Russian market for propylene, C4s, styrene, LDPE and expandable polystyrene. The necessary repair equipment for the compressor was supposed to arrive from Brno in the Czech Republic in May, but was delayed until June affecting the renovation schedule. Siemens was also

SIBUR rail transport

SIBUR uses rail for transportation of refined products, intermediates and feedstock, including 100% of LPG, naphtha and MTBE, and specific volumes of crude NGL and a major part of the petrochemical product sales. The railway tariff is charged by Russian Railways, Russia's state-owned monopoly. The average railway tariff remained unchanged in 2014 for the majority of products, and then from 29 January 2015, Russian Railways increased tariffs by 13.4% for export deliveries for all types of products.

required to resolve an additional defect which meant adding more weeks on to the repairs.



Russian propylene market, Jan-May 2016

Russian propylene supply has tended to exceed demand this year due to a rise in production. Domestic plants increased propylene production by 10% in the first five months despite the outage at Angarsk Polymer Plant. Propylene supply tightened slightly in May due to outages at Lukoil-NNOS, which supplies Saratovorgsintez by rail, and the Ufimsky refinery which supplies Ufaorgsintez by pipeline. Despite the outages propylene sales on the domestic market rose 17% in May and amounted to

28,300 tons. Sales on the domestic market totalled 149,500 tons in the first five months in 2016, 9% less than in 2015.

The combined effect of outages, planned and unplanned, has had some short term effect on the market although this position may change quickly after the three plants (including Angarsk Polymer) are back in full operation. Imports continue to be sourced from Azerbaijan, despite the apparent surplus, due mainly down to price. The main buyer of imported propylene is Volzhskiy Orgsintez.

| Russian Styrene Domestic Sales (unit-kilo tons) | | |
|----------------------------------------------------|------------|------------|
| Producer | Jan-May 16 | Jan-May 15 |
| Angarsk Polymer Plant | 2.0 | 8.0 |
| Plastik | 0.3 | 1.8 |
| Gazprom n Salavat | 21.1 | 10.6 |
| SIBUR-Khimprom | 15.9 | 13.7 |
| Nizhnekamskneftekhim | 0.0 | 2.0 |
| Total | 39.2 | 36.1 |

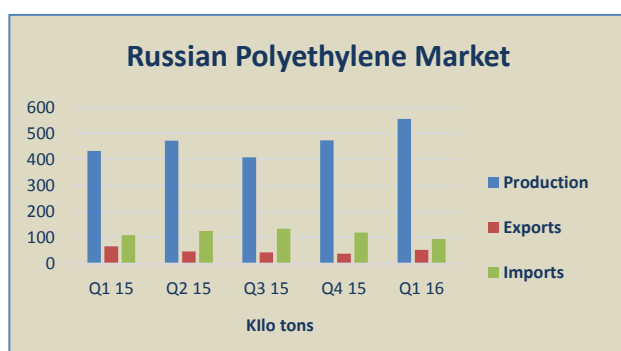
Source: Chem-Courier

Russian styrene, Jan-Apr 2016

Russian styrene production totalled 232,500 tons in the first four months in 2016, slightly down on last year due to the outage at Angarsk Polymer Plant. Styrene export shipments declined in April by 22% to 9,800 tons, of which 7,800 tons was supplied by Gazprom neftekhim Salavat. SIBUR-Khimprom reduced exports in April by 87% to 514 tons due to increased domestic sales. Finland accounted for 7,200 tons of exports in April, followed by China with 1,500 tons. For the first four months' Russian exports of styrene totalled 47,000 tons, 8% less than in 2015.

Styrene sales on the domestic market amounted to 9,100 tons in May, 17% up on April. Gazprom neftekhim Salavat shipped 5,800 tons and SIBUR-Khimprom 3,100 tons. Total sales on the domestic market totalled 39,200 tons in January to May 2016, slightly up on 2015.

Bulk Polymers



Russian polyethylene imports, Jan-Apr 2016

Russian polyethylene imports declined by 19% in the first four months in 2016 to 142,900 tons. HDPE and LLDPE imports both fell, whilst imports of LDPE and ethylene vinyl acetate (EVA) have grown. LLDPE imports totalled 50,300 tons in the first four months against 71,700 tons in the same period in 2015. HDPE imports totalled 39,900 tons in January to April 2016 against 57,000 tons in 2015. By contrast LDPE imports rose in 2016 to 34,800 tons against 30,100 tons in 2015. EVA imports rose to 7,300 tons against 6,200 tons

whilst other polyethylene grades were unchanged at 10,700 tons.

Russian polyethylene production, Jan-Apr 2016

Russian HDPE production totalled 330,700 tons in the first four months in 2016, 15% up on the same period in 2015. The rise was largely due to the restart of Stavrolen's plant at Budyennovsk, where the company produced 89,300 tons in January to April against 14,800 tons last year. The producers in Tatarstan both

reduced production in 2016, Nizhnekamskneftekhim due to the temporary conversion of the polyethylene plant from HDPE and Kazanorgsintez due to plant downtime. The fourth HDPE producer Gazprom neftekhim Salavat produced 36,200 tons in January to April 2016 against 32,700 tons in 2015.

| Russian Polyethylene Production (unit-kilo tons) | | |
|---------------------------------------------------------|-------------------|-------------------|
| Producer | Jan-Apr 16 | Jan-Apr 15 |
| Angarsk Polymer Plant | 6.4 | 252.9 |
| Kazanorgsintez | 210.2 | 32 |
| LUKoil-Neftekhim | 89.3 | 0 |
| Nizhnekamskneftekhim | 70.4 | 80.4 |
| Gazprom neftekhim Salavat | 47.2 | 48.4 |
| SIBUR-Holding | 95.6 | 73 |
| Ufaorgsintez | 25.7 | 33.7 |
| Total | 544.8 | 520.4 |

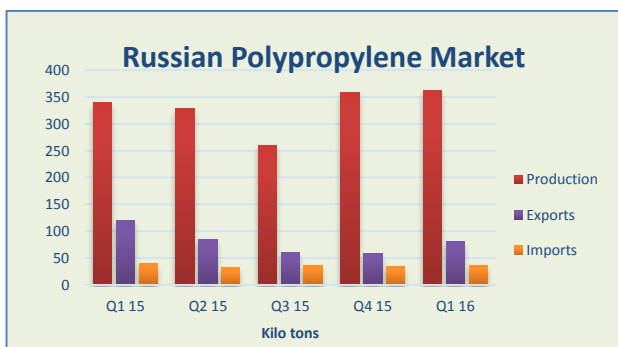
LLDPE production amounted to 22,600 tons in January to April, against zero in the same period last year. LDPE production totalled 203,300 tons in the first four months in 2016, against 230,800 tons in the same period in 2015.

The reduction was due to the extended outage at Angarsk Polyner Plant, which started in January and should be completed by the end of June. Ufaorgsintez stopped LDPE production on 2 June for maintenance for a period of around 12 days. Production of LDPE at Ufa totalled 33,700 tons in the first four months in 2016, based on the plant of 88,400 tpa in capacity.

| Russian Polypropylene Imports (unit-kilo tons) | | |
|-------------------------------------------------------|-------------------|-------------------|
| Category | Jan-Apr 16 | Jan-Apr 15 |
| Homopolymers | 22.9 | 21.5 |
| Block | 9.7 | 9.4 |
| Random | 8.6 | 10.4 |
| Other | 8.2 | 9.6 |
| Total | 49.4 | 50.9 |

Russian polypropylene, Jan-Apr 2016

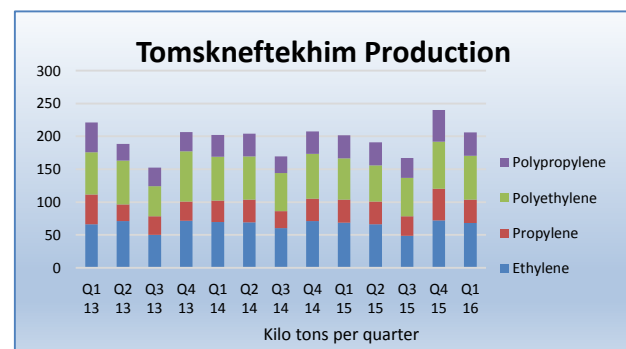
Russian polypropylene imports amounted to 49,400 tons in the first four months in 2016, 3% down on the same period in 2015. The main fall in imports was seen in PP-random grades due to a significant increase in domestic production, while imports of other propylene polymers mostly increased. Homopolymer imports totalled 22,900 tons in the first four months in 2016 against 21,500 tons in the same period last year.



Production of polypropylene totalled 479,600 tons in the first four months in 2016, 7% up against the same period in 2015. Production in April amounted to 118,300 tons in April against 122,200 tons in March. Tobolsk-Polymer produced 43,800 tons in April against 44,600 tons in the previous month, raising the plant total for the first four months to 173,300 tons versus 150,500 tons in the same period in 2015.

the first four months totalled 65,700 tons against 65,300 tons last year. Nizhnekamskneftekhim produced 72,500 tons in January to April 2016 against 71,800 tons in 2015 whilst Tomskneftekhim reduced production 5% to 45,300 tons.

Stavrolen produced 38,800 tons of polypropylene in January to April 2016 against 36,700 tons in the same period last year, whilst Neftekhimya at Kapotnya increased volumes by 20% to 43,200 tons. Ufaorgsintez



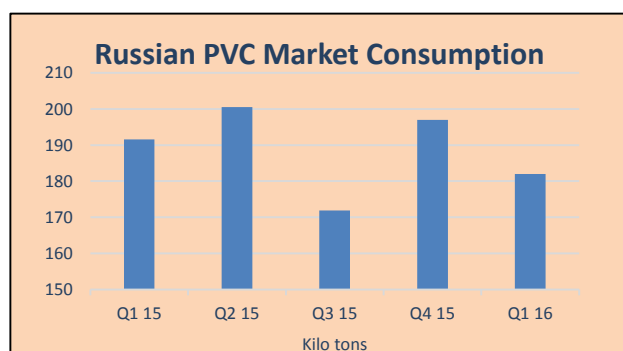
reduced production from 42,000 tons to 40,900 tons. Ufaorgsintez stopped polypropylene production in June for maintenance for a period of around 12 days. Production of polypropylene at Ufa totalled 40,900 tons in the first four months in 2016, from the 100,000 tpa plant.

Tomskneftekhim-polyolefin expansion

A new line is under construction at Tomskneftekhim, which is targeted for completion by August 2016 with the focus on new brands. This will increase LDPE capacity to 271,000 tpa

from 240,000 tpa and polypropylene to 140,000 tpa from 130,000 tpa. After the upgrade, the company will

expand the range of branded LDPE products whilst adapting the polypropylene plant to produce raw materials for the new BOPP film which opened in 2015. In 2015 Tomskneftekhim produced 244,920 tons of LDPE, 6% down on 2014.



Russian PVC market 2016

Russian PVC imports rose in the first five months this year to 26,300 tons against 7,300 tons in 2015 due mainly to the outage at Sayanskkhimplast. Imports amounted to 9,100 tons in April followed by 13,600 tons in May.

China supplied 7,300 tons in April against 900 tons in March and in total 19,200 tons for the first five months in 2016 against only 5,400 tons in 2015. The second largest source of imports into Russia is the US which shipped 4,100 tons in the first five

months against zero in the same period last year.

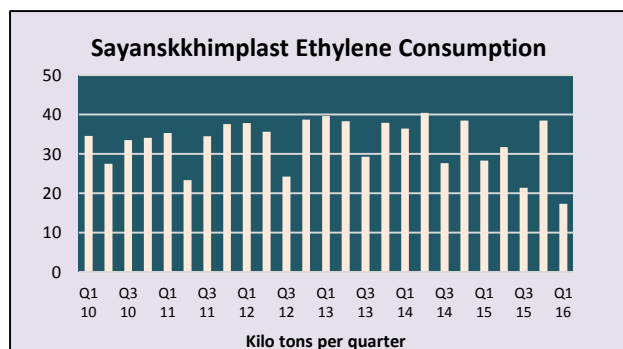
Aside the outage at Sayanskkhimplast, another factor helping imports is that Russian PVC exports have been higher this year, rising from 23,000 tons in the first five months in 2015 to 28,700 tons in 2016. Exports dropped in May to 2,200 tons against 4,500 tons in April due to the reduced availability caused by the Sayanskkhimplast.

Supply was affected in May from a planned maintenance shutdown undertaken by Kaustik at Volgograd for several weeks after stopping production 16 May. Production at Volgograd totalled 31,400 tons in the first four months, 1% down on the same period in 2015. The main factor though affecting the supply/demand balance has been Sayanskkhimplast which should be able to restart production in early July. This is as long as Rosneft maintains its pledge to restart ethylene deliveries from Angarsk.

Sayanskkhimplast-possible sale

Shareholders of Sayanskkhimplast are reported to be interested in selling their stakes, although the management of the company state that the company is not for sale. The main shareholder of Sayanskkhimplast is a Cyprian company Yanden Enterprise Ltd, of which no information is available. Sayanskkhimplast's PVC plant has a current capacity of 280,000 tpa in addition to caustic soda which it produces using membrane technology.

Probably the only plausible potential domestic buyer could be Rosneft which already owns Angarsk Polymer Plant and thus provides the ethylene for VCM production at Sayanskkhimplast. Chinese companies are discussing the possibility of investment into petrochemicals in the Irkutsk region and the connecting Sayansk

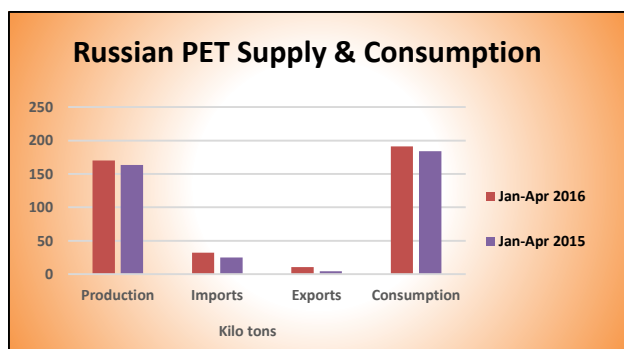


to the Kovytka gas deposits, and thus in theory at least could be interested in Sayanskkhimplast. However, there have been no previous cases of existing operating petrochemical plants in Russia being sold to a foreign investor and such a sale would be unprecedented.

The main challenge for a new owner is raw material supply, and in particular ethylene. At present ethylene is dependent exclusively on agreements with Angarsk Polymer Plant until an alternative source is provided, such as the

Kovytka-Sayansk-Irkutsk pipeline. This would allow Sayanskkhimplast to construct its own source of ethylene, although such prospects remain distant at this stage.

Another contentious issue for Sayanskkhimplast is the ethylene price and reaching agreement with Angarsk Polymer Plant, which has been in question for the past couple of years. The Federal Anti-Monopoly Service (FAS) has developed a price formula for the two companies, but it is not clear if this method will be used when ethylene production restarts in July.



Russian PET market, Jan-Apr 2016

Russian PET production rose 4.6% in the first four months in 2016 to 170,000 tons, whilst consumption rose by an estimated 10% to 191,400 tons. Russian PET imports totalled 32,200 tons in the first four months in 2016, 28% higher than in 2015. Injection moulding grades accounted for 82% of imports. Large volumes were supplied by Chinese suppliers, including Sinopec. Exports have also increased in 2015, most of the shipments being delivered to Belarus.

Aromatics

Russian benzene market, Jan-Apr 2016

Benzene production in Russia amounted to 85,100 tons in April, 13% down from March mainly due to maintenance shutdowns by Slavneft-Yanos and Uralorgsintez. According to Chem-Courier Slavneft reduced production by 3.3 times to 1,800 tons and Uralorgsintez by 2.5 times to 3,200 tons respectively.



In addition, Gazprom Neft at Omsk reduced output by 27% to 7,200 tons. SIBUR-Kstovo increased benzene production by 30% in April to 7,600 tons.

In the first four months this year Russian benzene production totalled 386,500 tons. Benzene production has been affected by the outage at the Angarsk cracker in the past few months, but production is about to restart after maintenance has been completed by the end of June.

Benzene sales for petrochemical consumption totalled 206,200 tons in the first four months in 2016, roughly the same as last year. Together with crude supplies benzene sales on the domestic market totalled 258,600 tons in the first four months in 2016 against 261,600 tons in the same period last year. The largest crude

| Leading Russian Benzene Consumers (unit-kilo tons) | | |
|----------------------------------------------------|------------|------------|
| Consumer | Jan-Apr 16 | Jan-Apr 15 |
| Kuibyshevazot | 36.1 | 50.4 |
| Azot Kemerovo | 34.1 | 35.7 |
| Kazanorgsintez | 23.7 | 23.9 |
| SIBUR-Khimprom | 36.3 | 29.8 |
| Uralorgsintez | 24.0 | 22.2 |
| SANORS | 19.766 | 22.17 |
| West Siberian MC | 13.53 | 13.048 |
| SIBUR-Khimprom | 36.271 | 29.808 |
| Promsintez | 6.573 | 6.088 |
| Uralorgsintez | 24.038 | 22.176 |
| Sverdlov | 4.274 | 6.23 |
| Total; | 258.6 | 261.6 |

suppliers consist mostly of Magnitogorsk Metallurgical Combine and Altai-Koks.

Russian benzene consumers, Jan-Apr 2016

Regarding benzene consumers, Kuibyshevazot reduced purchases from 50,427 tons in the first four months in 2015 against 36,060 tons in the same period in 2016. Nizhnekamskneftekhim also reduced merchant benzene purchases from 22,394 tons in January-April 2015 to 12,262 tons in 2016.

Increases for the first four months this year were noted for Shchekinoazot which purchased 19,750 tons against 13,889 tons, Uralorgsintez which increased from 22,176 tons to 24,038 tons, and SIBUR-Khimprom which increased from 29,808 tons to 36,271 tons. Smaller consumers include a wide range of companies including Promsintez which uses benzene for the production of nitrobenzene.

Kuibyshevazot remains one of the largest buyers of benzene despite the increase in phenol this year. The company accounted for 99% of Russian polyamide production in 2015, 39% of technical fibres and 44% of cord fabric. Kuibyshevazot recorded strong first quarter results, but is concerned over the rise in raw material costs. In the first quarter benzene prices were 11.25% higher than in the same period in 2015, whilst phenol was 11.72% higher. Other raw material price increases included oleum by 12.35%, trichloroethylene by 24.90% and urea-formaldehyde concentrate by 15.23%.

Russian Orthoxylene Domestic Sales (unit-kilo tons)

| Producer | Jan-May 16 | Jan-May 15 |
|-----------------------|------------|------------|
| Gazprom Neft | 25.0 | 22.7 |
| Ufaneftekhim | 17.2 | 13.0 |
| Kirishinefteorgsintez | 14.7 | 15.1 |
| Total | 56.8 | 50.8 |

Russian orthoxylene , Jan-May 2016

Sales of orthoxylene on the Russian domestic market amounted to 11,650 tons in May, 1% up on April. Ufaneftekhim supplied 4,950 tons, Gazprom Neft 4,070 tons and Kirishinefteorgsintez 2,630 tons. According to Chem-Courier, Kamteks-Khimprom purchased 5,370 tons in May, 20% up on April, whilst Gazprom neftekhim reduced purchases by 6% to 470 tons. Sales totalled 56,830 tons in the first five months in 2016, 12% up on 2015. Demand has been boosted from sectors such as paints and lubricants.

Omsk Kaucuk-phenol reconstruction

The holding company for Omsk Kaucuk, Titan is preparing the foundations for the reconstructed phenol-acetone plant at Omsk. Titan aims to complete re-equipment in the second half of 2017. Thus far Titan has completed the selection of the main suppliers of heat exchangers, pumping equipment, etc. By the end of 2016 Titan expects to have completed the reinforced concrete base and installed the equipment for the plant.

The project is scheduled for completion in the third quarter in 2017 and production to start in the fourth quarter. Production of phenol and acetone at Omsk Kaucuk was decommissioned in March 2014 after a major accident. Capacity for phenol and acetone is being almost doubled and production is based on new alkylation of benzene technology, thereby increasing production efficiency and reducing the impact on the environment. Titan intends to use a zeolite catalyst in the production process.

Russian toluene sales, Jan-May 2016

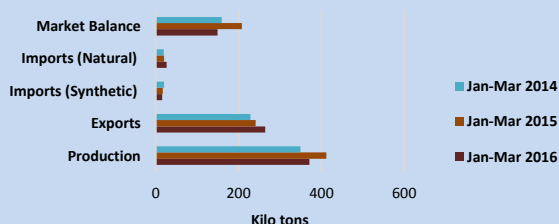
Toluene sales on the Russian domestic market amounted to 17,380 tons in May, 7% up on April. In the first five months in 2016 sales amounted to 74,150 tons, 33% up on the same period last year. The largest toluene producers in Russia comprise Gazprom Neft at Omsk, Slavneft at Yaroslavl and Ufaneftekhim at Ufa. According to Chem-Courier, around half of Russian toluene production is consumed internally and the other half sold on the domestic merchant market, with no export activity.

Russian phenol, Jan-May 2016

Phenol demand in the Russian domestic market remains slightly up on 2015 due mainly to the purchases made by Kuibyshevazot. Kuibyshevazot purchased 16,270 tons in the first five months in 2016 against no purchases in the same period last year. At the same time phenol-formaldehyde producers, such as MetaDynea, Shchekinoazot and Uralkhimplast,

remain the largest area for phenol sales in Russia, accounting for more than 60% of sales. The main supplier of phenol to the domestic market to date this year has been Ufaorgsintez followed by Novokuibyshevsk Petrochemical Company. Sales on the domestic market totalled 55,600 tons in the first five months in 2016 against 46,800 tons in the same period last year.

Russian Market for Rubber



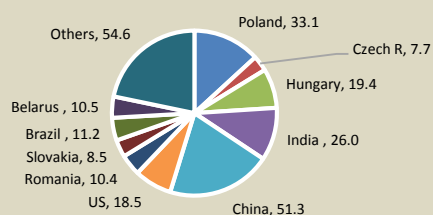
Synthetic Rubber

Russian rubber market

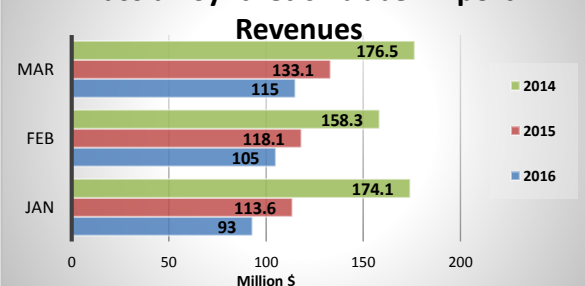
Russian consumption of synthetic rubber declined in the first quarter against 2015 and was slightly down on the same period in 2014. Demand from the tyre industry is expected to stabilise for the remaining three quarters in 2016.

In the first quarter this year synthetic rubber imports declined to 15,700 tons against 16,600 tons in the

Russian Synthetic Rubber Exports (Q1 2016, unit-kilo tons)



Russian Synthetic Rubber Export Revenues



same period in 2015. The main sources of imports include Belgium, Germany and South Korea. Tariffs on imports of rubber into Russia are predominantly 5% for most products. By contrast, imports of natural rubber increased from 19,700 tons in the first quarter in 2015 to 26,300 tons in 2016. The main sources of imports include Indonesia, Malaysia, Vietnam, and Thailand. Imports from Thailand are expected to rise in 2016 after Rostec reached agreement on supplies of around 80,000 tons for the whole year.

Efremov Synthetic Rubber Plant

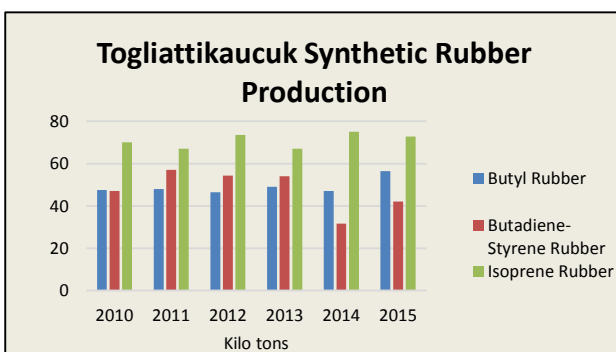
Efremov Synthetic Rubber Plant in the Tula region has laying off workers due to difficult financial circumstances facing the company. Raw material purchases, in particular butadiene, have become complicated by the lack of hard currency. The company imported 1,791 tons of butadiene in the first four months in 2016, and for the whole of 2015 5,046 tons. Of the 1600 employees of the plant about 200 people have already been laid off. Polybutadiene is the main product for Efremov Synthetic Rubber Plant in addition low molecular polyisobutylene.

Russian synthetic rubber exports, Q1 2016

Despite a rise in export volumes in the first quarter in 2016 Russian synthetic rubber export revenues have declined sharply in dollar terms, as product prices have largely followed feedstock prices. The main export destinations for Russian exports this year have included China with 51,300 tons in January to March, followed by Poland with 33,100 tons and India with 26,000 tons.

Togliattikaucuk renamed SIBUR Togliatti

SIBUR has renamed Togliattikaucuk as SIBUR Togliatti. The main purpose of the name change is to increase brand awareness in the regions of the company. However, the name change does not affect the performance or obligations to third parties, public authorities, as well as employees of the company under the collective agreement and the implementation of various social programmes. SIBUR Togliatti specialises in the production of synthetic rubber (butyl rubber, isoprene rubber and copolymer) monomers, fractions and high-octane gasoline components. The plant was taken over SIBUR.



SIBUR Togliatti 2015

SIBUR Togliatti (Togliattikaucuk) increased production of synthetic rubber by 9% in 2015 to 156,300 tons, on three types of products. Revenues from sales of synthetic rubber rose due to the weakening of the rouble which made have made exports more profitable.

Russian C4s

C4 purchases, including domestic and imported sources, was unchanged for the first five months this year totalling 161,300 tons. Prices have risen, not only due to the supply situation in Russia but also the higher prices for butadiene in Europe. The expected resumption of work at Angarsk Polymer Plant in July is expected to have an impact on availability and pricing. Omsk Kaucuk was forced to switch suppliers of C4s in March from Angarsk Polymer Plant to Tomskneftekhim, Kazanorgsintez and Ufaorgsintez. Kazanorgsintez undertook scheduled maintenance in April.

The main consumers include major manufacturers of tyre industry: Pirelli, Bridgestone, Nokian, Kordiant, and Voltyre-Prom. Maximum production was recorded by butyl rubber, and MTBE. Butyl rubber production increased by 3,300 tons to 56,400 tons, helped by the lack of a maintenance shutdown in addition to the use of anti-blocking agents, which allowed to reduce the time of regular cleansing equipment.

SIBUR Innovation-Voronezhsintezkaucuk

SIBUR Innovation has merged with the research centre at Voronezhsintezkaucuk into a single business unit. This is aimed at improving the interaction between the scientific centre with a production area and optimize the process of introduction of new grades of rubber. At the same time research scientist's direction will remain the same. Most of the research projects will be linked to the development of new brands.

Production of isoprene rubber at Togliatti totalled 57,800 tons in 2015, down by 1,100 tons against 2014, whilst the production of styrene butadiene rubber increased by 33% to 42,100 tons. Isoprene monomer production totalled 75,000 tons against 72,600 tons in 2014. The increase was due to less downtime in 2015, as well as increased usage of isobutane-isobutylene fractions as a source of feedstock for the production process.

SIBUR Togliatti increased the production of concentrated isobutylene in 2015 by 19% to 42,600 tons. A new catalyst, developed by a Bashkirian institute at Ishimbay, was attributed for facilitating the increase in production.

| Russian Chemical Commodity Exports | | | | |
|------------------------------------|------------|------------|------------|------------|
| | Jan-Apr 16 | Jan-Apr 16 | Jan-Apr 15 | Jan-Apr 15 |
| Product | Kilo tons | USD Mil | Kilo tons | USD Mil |
| Ammonia | 1,190 | 321 | 1,078 | 485 |
| Methanol | 467 | 82 | 418 | 113 |
| Nitrogen Fertilisers | 4,116 | 793 | 3,373 | 876 |
| Potash | 3,587 | 805 | 4,495 | 1,206 |
| Mixed Fertilisers | 3,141 | 994 | 3,067 | 1,145 |
| Synthetic Rubber | 351 | 420 | 318 | 473 |

Work is ongoing for the modernisation of the isoprene plant, replacing obsolete equipment and bringing existing facilities up to standards and requirements in the field of industrial safety rules. However, no plans exist for expansion of the capacity for isoprene. SIBUR Togliatti continues to replace obsolete equipment in the isoprene plant and to bring existing facilities up to standards and

requirements in industrial safety rules.

SIBUR-Sinopec rubber JV

The joint venture project between Sinopec and SIBUR for the construction of rubber production in Shanghai is under consideration by the government of China. The completion of the plant construction period may ultimately depend on the market situation. The agreement on the joint production of butadiene-nitrile rubber (NBR) in the Shanghai chemical park was signed in 2014. SIBUR's share in the joint venture is 25.1%, the Chinese state-owned companies 74.9%. The planned capacity of is 50,000 tpa based on SIBUR technology, which is currently used at Krasnoyarsk. A significant part of NBR produced at Krasnoyarsk Synthetic Rubber Plant is supplied to the Chinese market.

Methanol

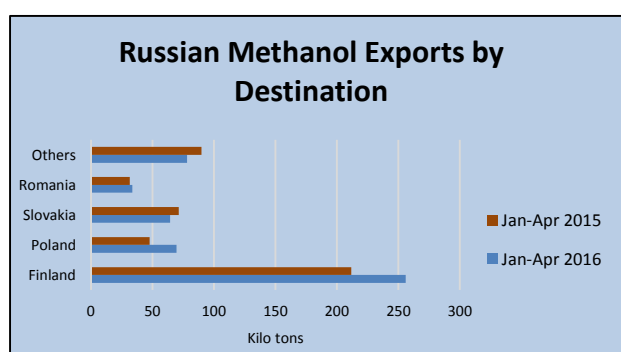
Russian methanol domestic sales, Jan-Apr 2016

Azot at Novomoskovsk suffered a fire and explosion at its methanol plant in late May, caused by a problem in the compressor. As a result of the accident Azot reduced domestic sales by 12% in May against April to 5,000 tons. Methanol sales on the Russian domestic market rose slightly in May to 109,500 tons. Other sellers reducing volumes included Shchekinoazot which sold 15% less at 8,500 tons, and Sibmetakhim which reduced shipments by 20% to 20,200 tons. Metafrax sold 29,200 tons on the domestic market in May, Ammoni at Mendeleevsk 8,400 tons and Tomet at Togliatti 32,700 tons.

| Russian Methanol Domestic Sales by Producer (unit-kilo tons) | | |
|--------------------------------------------------------------|------------|------------|
| Supplier | Jan-May 16 | Jan-May 15 |
| Azot Nevinnomyssk | 7.6 | 8.9 |
| Azot Novomoskovsk | 36.5 | 56.6 |
| Metafrax | 168.3 | 167.4 |
| Sibmetakhim | 144.1 | 217.8 |
| Tomet | 165.1 | 147.4 |
| Shchekinoazot | 41.0 | 12.1 |
| Ammoni | 36.7 | 0.0 |
| Others | 14.6 | 19.9 |
| Total | 613.8 | 630.0 |

Source: Chem-Courier

MTBE manufacturers accounted for 38% of domestic purchases in May, whilst gas and formaldehyde manufacturers purchased 12% and 19%, respectively. Regarding trade Russian producers are focusing on Finland, Slovakia, Romania and Poland. Sales totalled 394,500 tons for the period January to May 2016 against 630,800 tons for January to May 2015.

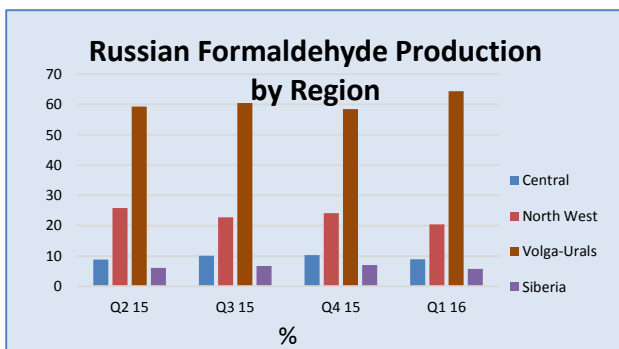


Methanol exports totalled 467,000 tons in the first four months in 2016 against 418,000 tons in 2015. At the same time revenues declined from \$113 million in January to April 2015 to \$82 million this year reflecting the drop in prices. Regarding recent monthly trends, methanol exports amounted to 140,000 tons in April, 25% up on March. Sibmetakhim increased exports of commercial methanol by 60% over March, whilst other increases were noted for Azot (35%), Tomet (25%) and Metafrax (15%). Finland accounted for 79,000 tons of Russian methanol exports in April, 36% up on March. Other destinations in April

included Slovakia with 17,000 tons, Poland with 13,200 tons and Romania with 7,000 tons. Export prices in April averaged \$155 per ton DAF against \$175 in March.

Shchekinoazot-methanol project

Shchekinoazot's contractors are reported to be meeting the construction schedule for the new complex for methanol and ammonia, which comprises capacities of 1350 tons and 415 tons per day respectively. The methanol plant will add to the existing unit of 450,000 tpa. The construction of warehouses for storage is expected by the end of 2016, whilst work is currently being carried out on the installation of spherical tank. The contractor and licensor of the technology was the company Haldor Topsoe, and the designer Orgkhim at Severodonetsk.



Russian formaldehyde market Q1 2016

Formaldehyde production dropped 11% in the first quarter this year to 156,000 tons against 175,000 tons in the same period in 2015. For the whole of 2015 production rose 7% over 2014 to 674,000 tons, but volumes started to decline in the second half of the year.

The largest producers of formaldehyde include Metafrax, Akron, Uralkhimplast and Pigment. The most dominant region for production is the

Volga-Urals which accounted for 64% or 100,677 tons in the first quarter this year, followed by the North West with 20% and Central with 9%. Among the main factors affecting the development of the production of formaldehyde include insufficient investment activity and the lack of provision of modern facilities.

Megastroy completes construction of formaldehyde plant for Metafrax

The contractor Megastroy for the new formaldehyde plant at Metafrax has completed construction. The equipment used for the plant is Johnson Matthey Formox and commissioning could start in several months. The plant has been designed to produce 90,000 tpa of formaldehyde and will help to provide the rising needs from the production of phenol-formaldehyde resins at Metadynea. It will also help in the production of pentaerythritol at Gubakha.

Togliattiazot considering pipeline for ammonia to bypass Ukraine

Togliattiazot, the largest producer of ammonia, is studying the possibility of building a pipeline to bypass Ukraine. The connection between Togliatti and Odessa was constructed in the Soviet era, but the emergence of two divergent countries Russia and Ukraine has complicated the commercial operations of exporting ammonia. The intention is to construct a pipeline to the Taman port in the Temryuk district of the Krasnodar Territory, but costs are yet to be outlined.



The costs of pumping ammonia through Ukraine have trebled in the past two years, following the deterioration of relations, but its remains questionable needs to be answered whether it is worth building a new pipeline. In 2014 the ammonia pipeline company Transammiak delivered 2.359 million tons of ammonia from Togliattiazot to the Odessa port plant.

Togliattiazot-new urea plant

Togliattiazot is investing 9.5 billion roubles into the construction of the third unit for the production of urea. Commissioning of the new plant with a capacity of 800,000 tpa is scheduled for 2019. The company is now operating two units for urea with a capacity of 480,000 tpa each. The new plant is being based on technology provided by Casale SA (Switzerland).

Fertiliser/methanol producers Q1 2016

Togliattiazot's net profit declined 2.3 times in the first quarter to 2.269 billion roubles due largely to the rising costs. Revenues totalled 14.499 billion roubles in the first quarter against 14.494 billion roubles in 2015, but

the main factor affecting profits was that costs rose by 18.7% to 6.4 billion roubles, and selling and distribution expenses by 1.6 times up to 3 billion roubles.

| Evrokhim Non-Fertiliser Product Sales (unit-kilo tons) | | |
|---------------------------------------------------------------|--------------|--------------|
| Product | Q1 16 | Q1 15 |
| Acetic Acid | 30 | 33 |
| Methanol | 77 | 88 |
| Melamine | 13 | 11 |

Evrokhim reduced net profit in the first quarter by 5% to \$321 million. The company's revenue increased by 2% to \$1.25 billion. The EBITDA decreased by 17% to \$384 million and the EBITDA margin attained 31%.

Akron increased the production of urea resins in 2015 following expansion. Ongoing work has led to an increase to the production of resins with a different content of melamine, which can incorporate eco-friendly and water-resistant wood-based panels. Production of melamine resins increased by 30% in 2015, whilst the production of 55% formaldehyde operated at full capacity. Sales of formaldehyde went mainly to Ikea at Novgorod.

| Akron Production (unit-kilo tons) | | |
|------------------------------------------|-------------------|-------------------|
| Product | Jan-Dec 15 | Jan-Dec 14 |
| Ammonia | 1765 | 1822 |
| Urea | 765 | 646 |
| Methanol | 90.8 | 83 |
| Formaldehyde | 168 | 144 |
| Urea-formaldehyde resins | 188 | 174 |
| Calcium Carbonate | 382 | 383 |
| Hydrochloric Acid | 107 | 136 |

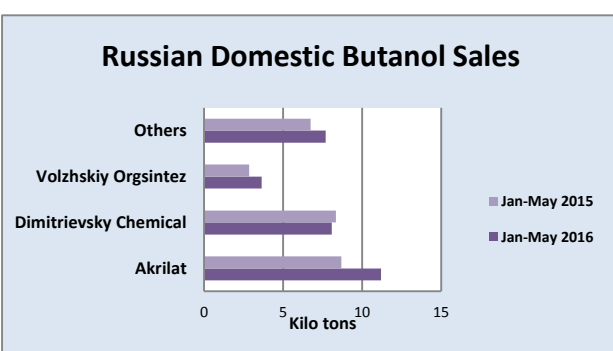
Akron produced 91,000 tons of methanol in 2015, 10% up on 2014. Last year the company commissioned a methanol synthesis unit, which provides stable methanol production and reduced operating costs.

Formaldehyde production rose by 17% or 24,000 tons in 2015 to 168,000 tons whilst the production of urea-formaldehyde resins rose from 174,000 tons to 188,000 tons. Akron became the second largest seller of urea-formaldehyde resins in the Russian market. In 2015 Akron increased deliveries of melamine resins from

9,500 tons in 2014 to 17,700 tons.

Akron's revenues in the first quarter were unchanged almost against the same period last year, totalling 27.597 billion roubles against 27.653 billion roubles in 2015. However, the EBITDA decreased by 11% to 11.056 billion roubles and the EBITDA margin fell to 40% against 45%. The net profit increased by 79% to 12.657 billion roubles against 7,067 million roubles in the same period in 2015.

Organic chemicals



Russian butanol sales, Jan-May 2016

Butanol sales on the domestic market dropped 6% in May against April to 5,480 tons. According to Chem-Courier, the proportion of n-butanol in gross sales in May 2016 was 96%, and the isobutanol 4%. SIBUR-Khimprom supplied 3,230 tons, Gazprom neftekhim Salavat 1,710 tons and Azot Nevinnomysk 540 tons. The Angarsk plant has been affected by the outage at Angarsk Polymer Plant, affecting propylene supply.

Akrilat purchased 2,210 tons in May, Dmitrievsky Chemical Plant 1,650 tons and Volzhskiy Orgsintez 880 tons. Dmitrievsky Chemical Plant, located in the Ivanovo region, produces butyl acetate, and a variety of solvents. The company also produces technical and food grade acetic acid. Sales of butanols to the domestic market totalled 30,600 tons in the first five months in 2016, 15% more than in 2015. Part of the increase is attributable to rise in the production of paints, increasing 4.8% over the same period last year, Consumption growth is carried out by increasing sales through retail chains.

Production of butanols in Russia amounted to 17,210 tons in April, 11% up against March. Gazprom neftekhim Salavat produced 11,060 tons in April, followed by 5,770 tons from SIBUR-Khimprom and 320 tons from Angarsk Petrochemical. The Angarsk plant has been limited by propylene availability in

| Russian N-butanol Exports (unit-kilo tons) | | |
|---------------------------------------------|------------|------------|
| Producer | Jan-Apr 16 | Jan-Apr 15 |
| Gazprom neftekhim Salavat | 12.2 | 5.0 |
| SIBUR-Khimprom | 2.5 | 1.8 |
| Angarsk Petrochemical | 0.0 | 1.3 |
| Azot Nevinomyssk | 0.2 | 1.9 |
| Dmitrievsky Chemical Plant | 0.7 | 0.0 |
| Total | 15.7 | 19.3 |
| Russian Isobutanol Exports (unit-kilo tons) | | |
| Producer | Jan-Apr 16 | Jan-Apr 15 |
| Gazprom n Salavat | 1.1 | 0.0 |
| SIBUR-Khimprom | 5.5 | 0.0 |
| Angarsk Petrochemical | 0.0 | 2.0 |
| Dmitrievsky Chemical Plant | 0.0 | 0.4 |
| Total | 6.6 | 2.5 |
| Source: Chem-Courier | | |

recent months. Azot at Nevinnomysk underwent maintenance in April and produced only 55 tons. Butanol production in Russia totalled 78,570 tons in the first four months in 2016, 11% down on 2015. Regarding trade exports of normal butanol declined from 19,300 tons to 15,700 tons in the first four months whilst isobutanol shipments increased from 2,500 tons in 2015 to 6,600 tons.

Acrylic Salavat concludes REACH registration

Acrylic Salavat, a subsidiary of Gazprom neftekhim Salavat, has conducted registration of butyl acrylate and acrylic acid with REACH. The company was granted the right to ship the product to the EU market in the amount of more than 1,000 tons. The complex will include capacities for acrylic acid 80,000 tpa, butyl acrylate 80,000 tpa and glacial acrylic acid 35,000 tpa.

Maleic anhydride project for Tatarstan updated

The government of Tatarstan is continuing to work on a maleic anhydride project involving a German partner. A planned capacity of 45,000 tpa is envisaged, possibly rising to 60,000 tpa at a later stage. In November last year the advisory council at the Ministry of Economic Development approved the project of placing the production of maleic anhydride in the special economic zone Alabuga. In October, the project LLC Kamatex was approved by the Supervisory Board of the SEZ Alabuga. Investments in the project are estimated by the organizers at 9.958 billion roubles.

The intention is to produce largely pellets, which are typically consumed by smaller users and also can be exported. Liquid maleic tends to be used by the larger manufacturers of unsaturated polyester resins, which are not present in Russia as yet. The main importers of maleic into Russia are based in China, Korea and Japan.

Russian unsaturated polyester resins (UPRs) at Perm

Perm Polyesters is the largest unsaturated polyester resin (UPR) producer in Russia, with 10,000 tpa of capacity. The plant was set up in 1994 on Kamteks-Khimprom site. Production for increased in 2015, helped by the weak rouble, but still remains well below full capacity. The main direction for UPR development by Perm Polyesters is the production of chemically resistant resins, as well as pipe grades of resins modified with isophthalic, PTA and

dicyclopentadiene.

| Kamteks-Polyether Raw Material Purchases 2015 | | |
|-----------------------------------------------|----------|--------------------------------|
| Product | Vol tons | Supplier |
| Styrene | 849.2 | Angarsk Polymer/SIBUR-Khimprom |
| DEG | 404.4 | Nizhnekamskneftekhim |
| Isophthalic Acid | 38 | SIBUR |
| Dipropylene Glycol | 31.7 | Khimprom, Kemerovo |
| Propylene Glycol | 174 | Khimprom, Kemerovo |
| Phthalic Anhydride | 337 | Uralkhimprom |
| Fumaric Acid | 347.5 | Rosplast |

Kamteks-Khimprom possesses its own plant for UPRs, entitled Kamteks-Polyester which started production in 2001. Production of UPRs amounted to 1,932 tons in 2015 against 2,098 tons in 2014. The reason for the fall last year was due to reduced purchases from one of its major customers Aktobe Non-Metallic Pipe Plant in Kazakhstan.

The company sold about 40% of its production on the domestic market in 2015, up from about 27% in 2014. Other major

customers include the Uzbek company Asia Pipeplast in Tashkent. Orders for Kamteks-Polyether in 2016

have already amounted to more than 3,700 tons, almost doubling from 2015. The company is engaged in the modernisation of its UPR plant and other production units.

Russian MEG, Jan-Apr 2016

MEG exports from Russia rose by 25% in April against March to 14,500 tons of which SIBUR-Neftekhim supplied 12,900 tons. Nizhnekamskneftekhim supplied 1,600 tons, 62% down on March. Belarus accounted for 6,000 tons of Russian exports in April whilst another 3,000 tons was shipped to the Netherlands and 2,500 tons to Turkey. The average cost of delivered abroad MEG was \$630 per ton DAF border Russia, which was 4% higher than in March. From January to April 2016 exports totalled 44,600 tons which was 27% up on the same period in 2015.

MEG sales on the domestic market amounted to 12,400 tons in May, 9% up on April. SIBUR-Neftekhim provided 79% of MEG sales in May, or 9,700 tons. Polief remains the main consumer of taking 63% in May or 7,900 tons. BaltTechProm was the second largest consumer, taking 3,100 tons which was 32% down against May. Domestic sales totalled 54,900 tons in the first five months in 2016, 11% down against 2015.

Siberian Chemical Combine-titanium dioxide project

Siberian Chemical Combine (SCC), which is part of Rosatom Fuel Company TVEL, plans to the end of 2017 to launch pilot production of silica in the Tomsk region. Initially a pilot plant of 5,000 tpa will be established with a view to produce 20,000 tpa in full production. Russian consumption of titanium dioxide is currently estimated in the range of 84,000 tpa.

Gazprom Neft-catalyst development

Gazprom Neft is constructing several pilot plants at the Omsk refinery for the production of catalysts for catalytic cracking, hydrocracking and hydrotreating. Installation work at the site is to start in June this year, and the first test is scheduled for the fourth quarter. Capacity of the catalyst plant has been designed to produce 3,000 tpa of catalytic cracking catalysts, which will later be expanded to 15,000 tpa. Another 6,000 tpa for catalysts will be produced for hydrotreating and hydrocracking.

Nikokhim to export magnesium hydroxide to China

Nikokhim has reached agreement with a Chinese company for the export of magnesium hydroxide from Volgograd through its subsidiary NikoMag. The first shipment of 300 tons will be transported via the port of Novorossiysk. Magnesium hydroxide production at Volgograd was started in 2015 and Nikokhim is conducting contract negotiations with companies from the US, India and Denmark. The capacity of the plant at Volgograd is 25,000 tpa and is combined with another plant of 30,000 tpa for the production of magnesium oxide.

Other products

Khimprom calcium hypochlorite project

Group Orgsintez is investing 700 million roubles in building a plant for calcium hypochlorite production at Novocheboksarsk. The first phase of production of calcium hypochlorite (with a high chlorine content of not less than 65%) is planned to be commissioned in late 2016.

The capacity of the plant is intended to be 15,000 tpa in the first phase before being expanded to 30,000 tpa in the second phase. Production will be adjusted on the basis of one of the shops using existing equipment and Khimprom's own raw materials (chlorine and caustic soda).

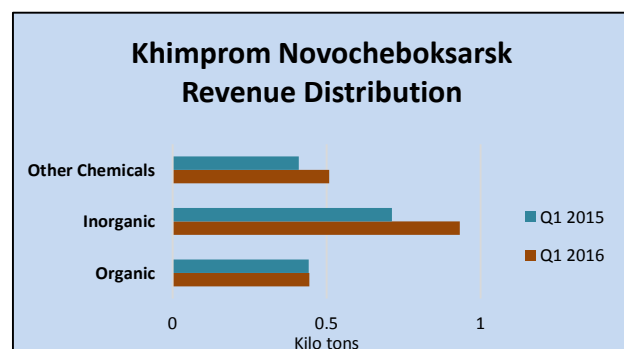
Calcium hypochlorite with high chlorine content is used in the gold mining industry in order to neutralize the cyanide used in gold leaching. The project will allow Khimprom to strengthen its position in the Russian market for bleaching and disinfectants. Calcium hypochlorite is not currently produced in Russia, with imports comprising around 20-25,000 tpa.

Khimprom Q1 2016 & hydrogen peroxide

Khimprom at Novocheboksarsk increased its net profit in the first quarter by 2.5 times against 2015, whilst revenues rose by 21.3%.

Khimprom recorded a net profit of 213.96 million roubles whilst revenues amounted to about 2 billion roubles. In the first quarter, 22% of revenue was derived from sales of organic basic chemicals, and 46% from inorganic chemistry.

Exports increased to 247.140 million roubles from 176.7 million roubles in the first quarter in 2015. This year the company has increased the export



of rubber chemicals. For 2015 the company achieved a net profit of 251.270 million roubles against 3.5 million roubles in 2014.

Khimprom has completed the modernisation stages for the hydrogen peroxide plant, increasing capacity from 78,000 tpa to 95,000 tpa based on 30% concentration. In December 2015 Khimprom completed the first phase of the project to expand capacity of hydrogen peroxide from 70,000 tpa to 78,000 tpa.

Belarus

Belarussian Exports of Organic Chemicals (unit-kilo tons)

| Product | Jan-Mar 16 | Jan-Mar 15 |
|--------------------|------------|------------|
| Acrylonitrile | 13.2 | 7.3 |
| Caprolactam | 3.6 | 11.7 |
| Phthalic anhydride | 6.8 | 6.7 |
| Methanol | 15.6 | 12.8 |

Belarussian export activity

Exports of caprolactam from Belarus declined in the first quarter, due partly to reduced production by Azot at Grodno. Caprolactam production declined from 31,800 tons in the first quarter in 2016 and dropped to 27,700 tons in the same period this year. China was the main destination, accounting for 2,594 tons in the first quarter in 2016, dropping from 12,269 tons in 2015.

Methanol exports increased from 12,800 tons in January to March 2015 to 15,561 tons in the same period in 2016 despite the drop in production at Grodno from 23,300 tons to 18,700 tons. The main destination for Belarussian methanol exports was Poland, accounting for 8,895 tons. Acrylonitrile exports from Polymir at Novopolotsk rose from 7,300 tons to 13,200 tons in the first quarter this year, including 6,030 tons delivered to Turkey and 4,190 tons delivered to Belgium.

Belarus reduced the export of potash fertilisers by 22.9% in the first quarter to 995,400 tons. The bulk of potash exports fell to CIS countries, where 974,800 tons were delivered which was 24% down against the

Azot Grodno Production (unit-kilo tons)

| Product | Jan-Mar 16 | Jan-Mar 15 |
|-------------------|------------|------------|
| Methanol | 18.7 | 23.3 |
| Caprolactam | 27.7 | 31.8 |
| Polyamide primary | 24.2 | 21.0 |
| Polyamide filled | 2.2 | 1.9 |
| Ammonia | 298.9 | 293.9 |
| Urea | 282.1 | 283.5 |
| Fertilisers | 209.6 | 210.6 |
| Fibres | 7.7 | 6.4 |

same period in 2015. Deliveries of nitrogen fertilisers fell 21.1% to 78,900 tons. Nitrogen fertilisers in Belarus are produced by Azot at Grodno, whilst Belaruskali is the only producer of potash and one of the largest suppliers of potash in the world market.

Azot Grodno

A serious accident took place at Azot on 6 June, resulting in two fatalities. A cloud of dust burst through windows and cracks in the walls of one of the shops. Local authorities are now investigating the incident as a criminal act. Azot undertook a maintenance shutdown at the methanol plant in April, thus reducing production to 550 tons against 5,500 tons in March. Production resumed in the second half of the month.

Petrochemical production-Belarus

LDPE production in Belarus totalled 54,900 tons in the period January to May 2016, 3.4% up on 2015. Polymir started planned maintenance on its first line of 65,000 tpa on 12 June for 14 days, whilst the second line of 65,000 tpa will be shut down in September for a period of 30 days. Naftan produced 30,400 tons of benzene in the first quarter against 34,700 tons in the same period in 2015. Naftan produced 128,100 tons of benzene in 2015, 5% more than in 2014.

Belarussian Polymer Imports (unit-kilo tons)

| Product | Jan-Mar 16 | Jan-Mar 15 |
|---------------|------------|------------|
| PVC | 4.5 | 8.1 |
| Polypropylene | 14.1 | 13.2 |
| LDPE | 15.6 | 15.3 |
| HDPE | 8.8 | 7.4 |
| Polystyrene | 13.8 | 13.9 |
| Total | 56.8 | 58.0 |

Belarussian polymer imports, Q1 2016

PVC imports into Belarus in the first quarter amounted to 4,500 tons, 21.8% down against the same period last year.

Polyethylene imports into Belarus totalled 24,400 tons in the first quarter this year, 7.1% higher than in 2015.

Polyethylene exports largely balance out imports into Belarus, but the country does not produce polypropylene or polystyrene and relies solely on imports most of which is sourced for both products from Russia.

Ukraine

Ukrainian polymer imports, Jan-Apr 2016

Ukrainian PVC imports rose by 69% in the first four months in 2016 to 40,300 tons. Imports were very strong in the first two months in 2016, and have slowed slightly but the overall volume is still much higher than in 2015 when they totalled 23,800 tons. Imports from the US in January to April 2016 amounted to 25,500 tons compared against 7,400 tons in the same period last year, whilst imports from Europe dropped slightly from 11,900 tons to 11,500 tons. Imports from Russia amounted to 3,100 tons in January-April 2016 against 4,300 tons.

| Ukrainian Polymer Imports (unit-kilo tons) | | |
|-----------------------------------------------|------------|------------|
| Product | Jan-Apr 16 | Jan-Apr 15 |
| PVC | 40.3 | 23.9 |
| LDPE | 22.8 | 19.3 |
| LLDPE | 18.4 | 13.2 |
| HDPE | 43.2 | 33.4 |
| PP | 39.3 | 29.3 |

Polypropylene imports into Ukraine rose 34% in the first four months to 39,300 tons. The greatest increase in supply came in the imports of stat propylene copolymers (PP-random). Polyethylene imports into Ukraine totalled 87,500 tons in the first four months in 2016, 41% up on the same period in 2015 (62,100 tons). HDPE imports comprised 43,200 tons in January to April 2016, against 26,800 tons. LDPE imports rose 17% more than in 2015 to 22,800 tons, whilst LLDPE imports rose from

13,200 tons to 18,400 tons. Imports of other types of polyethylene, including EVA, for January-April amounted to slightly more than 3,000 tons against 2,700 tons.

Ukrainian chemical plant-privatisation

The eventual winner of the purchase tender in Odessa Portside Plant will be required develop a programme of modernisation for the period up to 2021. The Odessa Portside Plant has a monopoly on the Ukrainian market for reception, cooling and transshipment of ammonia by sea. The design capacity of the ammonia production unit is 450,000 tpa, and the urea unit 330,000 tpa. The complex for transshipment of ammonia at Odessa comprises 4.3 million tpa, for urea 5 million tpa and methanol 1 million tpa.

The Ukrainian State Property Fund (SPF) has announced the imminent privatisation of Sumyhimprom. The company specialises in the production of titanium dioxide pigment, yellow and red iron oxide pigments. The company itself has announced a tender for the supply of 140,000 tons of ilmenite concentrate for the production of titanium dioxide.

Ukrainian DOP imports, Jan-Apr 2016

DOP imports into Ukraine amounted to 315 tons in April, versus 361 tons in March. Boryszew supplied 187 tons in April, followed by 87 tons from DEZA and 40 tons from the Korean company Aekyung Petrochemical. Imports totalled 956 tons for the first four months, almost double than in 2015. Phthalic anhydride imports dropped in April to 317 tons from 575 tons in March. Belarus supplied most of the phthalic anhydride in April. The main importer was Lizinvest (47%) followed by Polikem with 273 tons. For the first four months in 2016 Ukrainian imports totalled 1,390 tons which is 31% down on 2015.

Central Asia

SOCAR to seek Chinese support for OGPC

SOCAR is trying to attract China National Petroleum Corporation (CNPC) as an investor and partner in the project of construction of oil and gas processing and petrochemical complex (OGPC) in Azerbaijan. In early June the parties signed a memorandum of understanding on joint activities in the oil, gas and petrochemical fields. Also, the Chinese corporation has been offered share

participation in the project, the amount of which has not been decided.

Azerkhiymya propylene production, Jan-May 2016

Propylene production amounted to 4,500 tons in May, 10% down on April, whilst the production of isopropyl alcohol was resumed in May. Production of propylene totalled 23,200 tons in the first five months which was 13% down on 2015, whilst C4 production totalled 5,800 tons which was 2.3 times down on 2015.

The OGPC project involves essentially two stages, consisting of gas processing and petrochemical production units. In 2020 SOCAR has targeted commissioning of a gas processing plant with a capacity of 12 billion cubic metres per annum. Raw materials for processing will be sourced from the Azeri-Chirag-Guneshli field, Umid, Babek, and Shah-Deniz field.

The petrochemical complex is being planned for start-up in 2020 involving capacities of 860,000 tpa for polyolefins instead of the previously intended 1.1 million tpa. The total cost of the first phase of the project has been estimated at \$7 billion (including interest on the loan \$8.45 billion). About 70% of the investment is to be financed from borrowed funds, and 30% state investments.

SOCAR's modernisation of existing cracker

Modernisation on the existing cracker at Sumgait has already begun and should be fully completed in 2018-2019. Costs of reconstruction are estimated at about \$300 million. This project is separate from the OGPC and is being undertaken in order to provide ethylene and propylene for the new polyolefin plants at Sumgait being constructed for SOCAR-Polymer.

Since the current EP-300 plant is physically obsolete, SOCAR needs to upgrade and has selected Technip Italy to provide the detailed engineering and procurement support. SOCAR has recently signed an agreement with Uniper in Germany to construct a new turbogenerator plant for the olefin complex. The turbogenerator plant is designed to produce more energy. Loans from the Bavarian bank will ensure the project goes through.

The commissioning of plants for polypropylene with a capacity of 180,000 tpa and HDPE of 120,000 tpa is targeted for 2018. Azerkhiyma intends to sell 40-50% of production on the domestic market and the rest will be exported. Turkey is expected to become the main sales market.

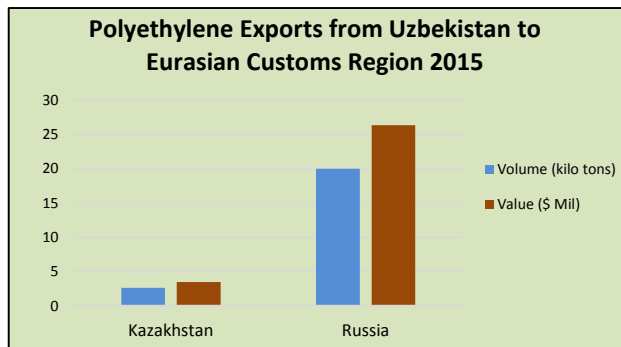
Ustyurt Gas Chemical Complex

The UzKorGasChemical gas chemical complex, sometimes called the Surgil or Ustyurt project was officially completed in May after ten years of project development and construction. The Lotte Group held a ceremony on 21 May marking the completion of the petrochemical complex at the Surgil gas field near the Aral Sea. Uz-Kor Gas Chemical was founded by Uzbek and Korean companies in May 2008 to develop, finance, construct and exploitation of integrated gas and oil processing project in Ustyurt region of Uzbekistan. The cost of the project is \$4 billion. The project participants allocated \$1.4 billion and attracted \$2.5 billion from financial institutions to implement the project.

Ustyurt Gas Chemical Complex includes five plants on gas separation, production of ethylene, polyethylene, polypropylene, power

generation and modern infrastructure facilities.

Samsung Engineering, GS Engineering и Hyundai Engineering also participated as general contractors of the project.



Ustyurt Gas Chemical Complex is the second olefin and polyolefin plant to be constructed in Uzbekistan, following the Shurtan Gas Chemical Complex which started in 2001. Last year, the gas-chemical complex began trial output by the end of 2015 had produced more than 54,900 tons of LPG, and 34,000 tons of gas condensate. The plant sent more than 1.8 billion cubic metres of marketable gas and ethane to the energy system

of Uzbekenergo, whilst the resulting pyrolysis distillate went to the Bukhara refinery for the production of gasoline. Aside hydrocarbons, the Ustyurt complex exported 186,000 tons of polyethylene and polypropylene at a total value of \$150 million. Exports were shipped to Central and East Asia, CIS and Europe. Further plans are being reviewed for the Ustyurt Gas-Chemical Complex, including a significant

expansion in polyethylene capacity by 2020.

Chlorine plants Kazakhstan and Azerbaijan

Azerbaijan Fund Export and Investment Promotion (Azpromo) has prepared a project for the construction of plant for caustic soda and caustic potash, to be located in the Sumgait Chemical Park (SKHPP). The project has been prepared and its implementation is possible on site SKHPP with the participation of foreign investors. The project cost is estimated at \$155 million. Sumgait chemical industrial park has been established in Azerbaijan for the formation of favourable conditions for the development of competitive industrial production based on innovation and high technology.

Kaustik at Pavlodar in north east Kazakhstan has almost replaced the country's imports of chlorine based products after five years of operation. Since start-up in 2011 the company has produced 100,000 tons of caustic soda, 100,000 tons of hydrochloric acid, and 90,000 tons of chlorine. Until 2011, the main source of chlorine products was imports from Russia, Uzbekistan and China. Kaustik is currently negotiating with Chinese investors regarding the expansion of capacity and product range. For 2016 Kaustik has concluded large contracts for the supply of chlorine and hydrochloric acid to Russian companies.

Atyrau benzene sales to increase

From July the Atyrau Aromatics Complex at Atyrau is to start the production of benzene in quantities of 600-650 tons per month. The controlling company KMG has tested product quality through its product testing centre at Atyrau. Kazakhstan plans to complete the modernisation of the Atyrau oil refinery before the end of 2016. Sinopec Engineering has been responsible for constructing the Atyrau aromatics complex and other Chinese investors are considering involvement in the reconstruction and modernisation of the Shymkent refinery in the south of

Kazakhstan. The third refinery in Kazakhstan is located at Pavlodar, bringing the country's total refining

capacity to 14.5 million tpa, which is roughly 2-3 million tpa lower than the country's current needs. After reconstruction has been completed of all three refineries the total capacity should rise to about 18 million tpa.

Kazakh PVC imports, Jan-Apr 2016

In the first four months of this year, PVC imports into Kazakhstan increased by 16% and amounted to more than 10,800 tons. Polyethylene imports amounted to 30,700 tons in the first four months, 21% down against 2015. HDPE imports declined 21% to 22,300 tons, LDPE dropped 23% to 6,700 tons and LLDPE dropped 7% to 1,700 tons.

| Russian Petrochemical Prices | | | | |
|-------------------------------------------|----------------|-------------|-------------|-------------|
| Product | Region/Terms | 20.05.2016 | 27.05.2016 | 03.06.2016 |
| <i>Roubles per ton (inclusive of VAT)</i> | | | | |
| Ethylene | Volga | 38940-45500 | 38940-45500 | 40500-46000 |
| Propylene | FCA Volga | 25000-30000 | 25000-30000 | 25000-30000 |
| | FCA Siberia | n/a | n/a | n/a |
| Benzene | FCA North West | 48100-48500 | 48100-48500 | 48500-49000 |
| | FCA Volga | 46000-50000 | 46000-50000 | 46000-50000 |
| | FCA Siberia | 46000-47500 | 46000-47500 | 46000-47500 |
| Styrene | FCA Volga | 83000-87000 | 83000-87000 | 83000-87000 |
| Methanol | FCA Volga | 13500-15500 | 13500-15500 | 13500-15500 |
| | FCA Siberia | 14000-16500 | 14000-16500 | 14000-16500 |
| | CPT Ural | 14200-18000 | 14200-18000 | 14200-18000 |
| N-Butanol | FCA Volga | 50000-50500 | 50000-50500 | 50000-50500 |
| | FCA Siberia | 50000-50500 | 50000-50500 | n/a. |
| | CPT Central | 50000-50500 | 50000-50500 | 50000-50500 |
| Isobutanol | FCA Volga | 39000-50370 | 39500-50370 | 39500-50370 |
| | FCA Siberia | 44000-45000 | 44000-45000 | n/a. |
| | CPT Central | 44000-50000 | 44000-50000 | 44000-50000 |
| Toluene | FCA North West | 40000-40400 | 40000-40400 | 40400-41000 |
| | FCA Central | 40000-40500 | 40000-40500 | 43400-44000 |
| | FCA Siberia | 36000-39000 | 37000-40000 | 38000-41000 |
| | FCA Volga | 39000-41000 | 39000-41000 | 39000-41000 |
| Orthoxylene | FCA Central | 47000-48000 | 47000-48000 | 47000-48000 |
| | FCA Volga | 39800-40000 | 38700-39800 | 38000-38400 |
| | FCA North West | 38000-38500 | 38000-38500 | 38000-38500 |
| | FCA Siberia | 38000-38500 | 39000-39500 | 39000-39500 |
| | CPT Central | 44000-44500 | 44000-44500 | 44000-44500 |
| | CPT Volga | 39800-40000 | 38700-39800 | 38000-38400 |
| Phthalic Anhydride | FCA Central | 77000-79000 | 77000-79000 | 77000-79000 |
| | FCA Volga | 72800-73400 | 71000-73400 | 71000-73400 |
| | CPT Central | 72800-73400 | 71000-73400 | 71000-73400 |
| | CPT Ural | 72800-73400 | 71000-73400 | 71000-73400 |
| Pentaerythritol | FCA Central | 93000-95000 | 93000-95000 | 93000-95000 |
| Phenol | EXW Volga | 78000-80000 | 78000-80000 | 80000-83000 |
| | FCA Volga | 78000-84000 | 78000-84000 | 80000-85000 |
| | FCA Siberia | 79000-85000 | 79000-85000 | 80000-85000 |
| | CPT Central | 79000-85000 | 79000-85000 | 80000-85000 |
| Acetone | FCA Volga | 29000-40000 | 29000-40000 | 39000-48000 |
| DOP | FCA Volga | 86000-88000 | 86000-88000 | 87000-88000 |
| MTBE | FCA Volga | 45900-51900 | 45900-50500 | 45900-50500 |
| | FCA Siberia | 47000-51900 | 47000-50500 | 47000-50500 |
| | CPT Central | 48000-53900 | 48000-53500 | 48000-53500 |
| MEG | FCA Volga | 51400-54000 | 50100—54000 | 49600-54000 |
| | CPT Central | 53500-56000 | 52500—56000 | 52100-56000 |



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Rus rouble, 16 May 2016-\$1 = 65.2 €1= 73.70

Relevant Currencies

Czech crown. Kc. \$1= 20.852. €1 = 27.444: Hungarian Forint. Ft. \$1 = 229.253. €1 = 310.141: Polish zloty. zł. \$1=3.016. €1 =4.14 Ukrainian hryvnia. \$1 = 15.89. €1 = 19.05: Rus rouble. \$1 = 64. €1= 68

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